Smith's Wedge:
The Invisible Mishandling of Context in Robert Frank's *The Darwin Economy*

By Stephen T. Ziliak and Samuel Barbour

Department of Economics
Roosevelt University
430 S. Michigan Ave
Chicago, IL 60605
sziliak@roosevelt.edu
sbarbour@mail.roosevelt.edu

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Abstract

In *The Darwin Economy* a distinguished behavioral economist, Robert Frank, promises to put Adam Smith's "invisible hand narrative" into "context". Neglecting history, empirical evidence, original sources, and a voluminous secondary literature, he fails to deliver. Frank predicts that one hundred years from now professional economists will name not Adam Smith but Charles Darwin as the intellectual founder of their discipline. The reason he gives is "Darwin's wedge"—a term he coins to emphasize a divergence between individual and group interests which in turn causes wasteful competition and collective loss. He credits Darwin for the insight. We find the very same "wedge" and insight in a book wholly neglected by Frank and most economists after Stigler, namely, Smith's *The Theory of Moral Sentiments.* Working with original sources we show that Frank's view of the invisible hand—and thus of modern economics—is not sustainable. Contextual economics after Schmoller is of course voluminous but the literature is hardly known by Frank, who is wedded to the axiomatic approach and "no cash on the table" conjecture favored by most neoclassicals. We highlight the problem with evidence on the economics of labor-managed firms and with a revival of a once-famous study by Carleton Parker on large scale farming, unregulated migrant labor, and the Wheatland Hop Field riot of 1913.

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Darwin is Not the Father of Economics

By page 20 of *The Darwin Economy* readers are plain exhausted asking when, if ever, Robert Frank—a distinguished elder of behavioral economics, eminent educator, and author of *The Darwin Economy*—is going to persuade us of his main claim. He's not. "I'll attempt to defend my prediction," Frank writes in the Preface, "that economists a hundred years from now will be more likely to name Charles Darwin than Adam Smith as the intellectual founder of their discipline" (Frank 2011, xii). That was for practice, to warm up the audience. "Without trepidation," he announces a few pages on, "I offer the following prediction. One century hence, if a roster of professional economists is asked to identify the intellectual father of their discipline, a majority will name Charles Darwin" (ibid, 16). But the evidence, the warrants, the persuasion never come. The author, who is probably best known for *The Winner Take All Society*, has treated Smith's work here—and Darwin's also—to the tune of college freshmen debate club. Actually, that's unfair to the debate club.

"I base my prediction on a subtle but extremely important distinction," Frank explains, "between Darwin's view of the competitive process and Smith's. Today Smith is best remembered for his invisible-hand theory, which, according to some of his modern disciples, holds that impersonal market forces channel the behavior of greedy individuals to produce the greatest good for all" (Frank 2011, 17). He continues: "it's fair to say that the invisible-hand theory's optimistic portrayal of unregulated market outcomes has become the bedrock of the antigovernment activists' worldview" (ibid, 17). Frank is making a conventional neoclassical reading of a single paragraph taken out of context from volume one of Smith's three-volume *The Wealth of Nations*. Although the book was marketed for a general audience, Frank directs his arguments towards economists. Logical positivism, and its modern political variant, libertarianism, are presumed to be the default position within the economics community—in fact, the original title proposed for his book was *The Libertarian Welfare State* (ibid, xv). "Many of the libertarians' most cherished beliefs, which are perfectly plausible within Smith's framework," he asserts without arguments or evidence, "don't survive at all in Darwin's" (ibid, 17).

A False Promise to Put Smith in Context

"Our task," Frank says, "will be to explore how explicit recognition of the importance of context alters our understanding of how markets function" (Frank 2011, 27). He devotes two sections to this task, "Context and Evaluation" (ibid, 26) and "Why are Traditional Economic

Models Context-Free?" (ibid, 28). "[N]o economic model can hope to capture how markets actually function unless it begins with the assumption that context shapes evaluation in significant ways" (ibid, 27).

"That context shapes evaluation is completely uncontroversial. Would any sane person really want to stand before an informed audience to defend the assertion that context doesn't matter?" (Frank 2011, 28) Doubtful. But would any such person claim that context matters, and then stand before an informed audience and argue out of context, as if context doesn't matter? Frank asserts it is Darwin's novelty in bringing individual and group conflicts to bear on competition that in Frank's estimation elevates Darwin and diminishes Smith, along with much of modern economic thinking. "The [other] alternative [title] I originally preferred was *Darwin's Wedge*, which eventually became the title of chapter 2. I liked the way it evokes the divergence between individual and group interests," he says, "which underlies my main thesis and whose importance Darwin understood so clearly" (ibid, xvi).

The evolution of the antlers of "North American bull elk" (Frank 2011, 21) are, he claims, "a case in point" (ibid, 21). "Outsized antlers" grow to "more than 4 feet across and weighing more than 40 pounds" which has, for some elk, "enhanced individual reproductive fitness" (ibid, 21). But "the cumulative effect of those mutations was to make life more miserable for bull elk as a group" (ibid, 21). Mobility, comfort, and security are compromised more than they might be, had the evolutionary "arms race" for larger antlers stopped at smaller width and weight. Frank argues that the same forces are at work in human economies—from the rise of enormous SUVs to the spread of middle class mini-mansions—and credits Darwin for the insight.

Economics, Biology, and *The Darwin Economy*

The Darwin Economy is not a breakthrough treatise of evolutionary economics—Frank beats a well-trodden path. Gustav Schmoller himself, for example, writing in 1881, did not necessarily see a harmonious relationship between the theories of economics and evolutionary biology. "Comparing superficially the phenomena of nature with the social processes, Darwin's theory of the struggle for existence, which permits the strong to oppress the weak and excludes all possibility of a just distribution of earthly possessions, is brought into play" (Schmoller 1894, 697-698). For Schmoller, and for Smith in the century before him, it is the desire for justice which distinguishes humanity from the animal kingdom. Frank's only use for Darwin is what Frank calls "Darwin's wedge", by which he means the oftentimes conflicting divergence between individual and group interests. As we will show, Smith got there first, long before Darwin, refuting Frank's main thesis.

Biological sciences have long held an allure for economists. In 1898 Thorstein Veblen wrote an essay, "Why Economics is not an Evolutionary Science," for *The Quarterly Journal of Economics*, not mentioned by Frank. Veblen, who was deeply influenced by Schmoller, and no fan of utilitarian economics, perceived necessary and irreconcilable differences between the conceptual foundations of economics and biology. And yet the idea of more closely merging the hedonistic calculus of British economics with Darwinian evolutionary theory persists today in publications such as the magazine *Evonomics*. Ironically—and this is one of many points the reader wishes Frank would have explored—Darwin took the idea of natural selection from a "traditional" economist, Thomas Robert Malthus, whose *Essay on the Principle of Population* was written as a response to Enlightenment theorizing on the perfectibility of human social institutions, providing Darwin with the insights that would lead him to develop the theory of evolution (Bowler 1976).

Smith's Wedge: Rank, Fashion and the Corruption of Our Moral Sentiments

If Frank is seeking intellectual inspiration for the idea that traits and results do not always line up harmoniously between groups and individuals, and that competition can lead to "wasteful" (Frank 2011, xi) competition and "market failure" (ibid, 11, 30-31 *passim*) he might have found those ideas and the inspiration in a book by the very economist he aims to attack—Smith's *The Theory of Moral Sentiments (1759 [1790])*. In Part I, chapter III, "Of the Corruption of Our Moral Sentiments," Smith writes with great clarity about a competitive wedge between the haves and have-nots though Frank can only find the divergence in Darwin:

> This disposition to admire, and almost to worship, the rich and the powerful, and to despise, or, at least, to neglect persons of poor and mean condition, though necessary both to establish and to maintain the distinction of ranks and the order of society, is, at the same time, the great and most universal cause of the corruption of our moral sentiments. That wealth and greatness are often regarded with the respect and admiration which are due only to wisdom and virtue; and that the contempt, of which vice and folly are the only proper objects, is often most unjustly bestowed upon poverty and weakness, has been the complaint of moralists in all ages. (Smith 1790, 73-74)

Smith believed "the chief part of human happiness arises from the consciousness of being beloved" (ibid, 52). Greed is the result of a misperception of virtue as wealth and influence. And yet "those sudden changes of fortune," if in fact they arrive, seldom contribute much to happiness" (ibid, 52). Smith writes that, although ambition and emulation are natural to the human condition, the better part of mankind perceives greatness to be the condition of the proud and ostentatious, and they do not discern virtue in quiet humility. The distinction is made not between particular inborn characteristics but rather what qualities are thought worthy of emulation, and how the perception of the "great mob of mankind" (ibid, 74) tends toward the worship of the rich and powerful. The wise and the virtuous, while being the proper subjects of emulation, are perceived as such by only a small minority.

Smith's first concrete example of the wedge between individual and group traits stems not from limited competition, as Frank would have it, but from the hierarchies of fashion and polite society.

> There are hypocrites of wealth and greatness, as well as of religion and virtue; and a vain man is as apt to pretend to be what he is not, in the one way, as a cunning man is in the other. *He assumes the equipage and splendid way of living of his superiors, without considering that whatever may be praise-worthy in any of these,* derives its whole merit

> and propriety from its suitableness to that situation and fortune which both require and can easily support the expense (Smith 1790, 77).

Smith's portrayal of the cultural elites of his day has an astonishingly modern feel. But it also recalls the hard-nosed Calvinism of 18th century Scotland and its fierce rejection of a profligate aristocracy and their traditions. The "invisible hand" metaphor as a commonplace, for example, emerged from the exegetical discourse of 17th and 18th century Protestantism (Harrison 2011, 39).[1] And while Smith did not exhibit the religious fervor of older generations, he retained a stalwart egalitarianism typical of the austere, puritanical Scots Calvinist church of the early modern period. The order of ranks is really just a social contrivance, a way of organizing ourselves—we govern only ourselves and not the world, which is ruled by fortune. That Smith thought of the social order not as a reflection of the Almighty but rather the product of social forces, and therefore changeable, is one of the most compelling aspects of his thought, and perhaps a reason for his continuing relevance to economics and society generally. Unfortunately, most reviewers have parroted Frank's gross misreading of Smith.[2] A reviewer for *Scientific American* wrote that "Frank coined the term "Darwin's wedge" to describe how individual and collective incentives can diverge, driving added costs in competing for rank" (Bhalla 2013, 1).

Other examples of *Smith's wedge*—a term we use here to give credit where credit is due—abound in sections of *TMS* immediately following and importantly in Smith's discussion of private individuals' failure, however noble in intent, to deliver on the supply of public utility—from politics to roads and art museums—an essential element of Smith's public conception of "beauty". In Part I, Section I Smith (1790, 44) illustrates a collective breakdown—a market failure which begins with the "dissolution of manners"—caused by an aesthetic wedge frequently found between prison and palace:

> A prison…will always be a disagreeable object; and the fitter it is for the purpose for which it was intended, it will be the more so. *A palace, on the contrary, will always be agreeable; yet its remote effects may often be inconvenient to the public. It may serve to promote luxury, and set the example of the dissolution of manners* (emphasis added).

Smith is likewise famous for reversing in volumes two and three of *The Wealth of Nations* many of the ideas his harried readers have plucked out of context from volume one.[3]

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[1] For example, writing a full century before Smith, Thomas Burroughes (1662, 16) found a scientific and theological use for the invisible hand: "Though many things seem to come to pass by meer chance, it doth but seem so, for there is no such thing. There is a secret unseen hand of providence, that ordereth every motion and event. . . . For still in the most casual events, and greatest contingencies, there is an invisible hand of the infinitely-wise God, that linketh one thing to another, though in such a way, that we know not, nor that is fit we should know how".

[2] Important exceptions include Galbraith (2011) and Kennedy (2011).

[3] Frank's main policy prescription is to levy progressive taxes on harmful activities of the rich (on the driving of large SUVs, for example) raising revenue to redistribute benefits more widely across the society while reducing "wasteful arms races" (Frank 2011, xi). In this Frank sees an

For example, consider his discussion of the need for public education of youth (Smith 1776 II.IV.f) and advocacy of poor relief which so enraged the Austrian economist Murray Rothbard (2006, 465-466). The libertarian Rothbard would strongly reject the gist of Frank's reading. "Indeed," Rothbard rails, "the list of exceptions Smith makes to *laissez-faire* is surprisingly long. . . .Regulation of bank paper, public works—including highways, bridges and harbours, . . . Government coinage . . . Compulsory registration of mortgages [heaven forbid!] . . . There is also a . . . lengthy list of taxes advocated by Adam Smith, each of which interferes in the free market," including, in Rothbard's view, a "soak-the-rich policy of progressive income taxation" (Rothbard 2006, 466-467).

And there is no need to invoke Darwin's name when describing these wedges and social breakdowns discussed by Smith. In a discussion of how a man ought to distinguish himself he emphasizes that the virtues of the private man, those of modesty and kind respect, are of no small importance to him and his society. Smith gives the example of the loud and gaudy "coxcomb" who "affects to be eminent by the superior propriety of his ordinary behaviour, [and] is rewarded with a double share of contempt for his folly and presumption" (Smith 1790, 68). Smith emphasizes the wastefulness of such competition:

> Many a poor man places his glory in being thought rich, without considering that the duties (if one may call such follies by so very venerable a name) which that reputation imposes upon him, *must soon reduce him to beggary, and render his situation still more unlike that of those whom he admires and imitates, than it had been originally* (ibid, 77; emphasis added)

Neglecting most of Smith's relevant work, Frank asserts: "As Darwin saw clearly, much of life is graded on the curve"—what Frank calls "relative position"—true enough (Frank 2011, 23). "Rewards that depend on relative performance spawn collective action problems that can cause markets to fail. For instance, the same wedge that separates individual and group interests in Darwinian arms races also helps explain why the invisible hand might not automatically lead to the best possible level of safety in the workplace" (Frank 2011, 9). Taking nothing away from Darwin's insight, it's clear that Smith got there first.

The Invisible Hand Before Smith

The historian of science and religion Peter Harrison (2011, 30-31), working with original sources, finds an almost orthogonal meaning of the invisible hand in context and history. Surveying literature of the seventeenth and early eighteenth centuries,

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antidote to Smithian economics. Ironically, Adam Smith proposed the very same taxes, and for similar reasons, in *The Wealth of Nations*: "When the toll upon carriages of luxury, upon coaches, post-chaises, &c. is made somewhat higher in proportion to their weight, than upon carriages of necessary use, such as carts, waggons, &c. the indolence and vanity of the rich is made to contribute in a very easy manner to the relief of the poor, by rendering cheaper the transportation of heavy goods to all the different parts of the country" (Smith 1776 [1981] V.i.d., 725).

What clearly emerges from this survey is that the concept was relatively common by the time Smith came to use it. Moreover, while "invisible hand" was used in a variety of contexts, by far the most common involved reference to God's oversight of human history and to his control of the operations of nature. Almost certainly, then, when readers encountered the phrase in Smith, they would have understood it as referring to God's unseen agency in political economy. Whether Smith was himself committed to such a view is more difficult to determine, but the history of the expression and the contexts in which it appears in Smith's writings offer some support for providentialist readings.

> Most commonly the invisible hand was used to refer to the manner in which God exercised providential control over the course of history by subtly influencing human actions in order to bring about his ends. . . The second pattern of usage also refers to God's providential action, but in the context of his superintendence of the natural world. Thus God's invisible hand was glimpsed in the contrivances of the creatures and in the wisdom and foresight evidenced by the laws of nature, which again promote his ends. These two conceptions between them represent the most predominant uses of the expression in the seventeenth and eighteenth centuries and hence the most relevant background for Smith's uses of the expression.

"In short," Harrison (2011, 36) concludes from his exhaustive survey published in the same year as Frank's book, "the idea that God could accomplish his purposes, in spite of the intentions of human agents, was a standard way of deploying the notion of the invisible hand throughout the seventeenth and eighteenth centuries." In *TMS* Smith, himself a faithful Deist, but also a humanist and educator, generously offers more than 17 different names for God, including: "Author of Nature", "Great Judge of the Heart", "Higher Tribunal," "Great Director of the World", "Supposed Equitable Judge", "Awful (that is Strong) and Respectable Judge", "Impartial Spectator", "Great Judge and Arbiter," "Providence," "This Great Inmate", "All Seeing Judge of the World," "Supervisor of Nature", "God", "Lord", "Deity," "He", and "She" (Smith 1790, 145).

The Invisible Hand in Smith

Smith mentions the invisible hand just three times in his career, hardly suggestive of the outsized "narrative" described by Frank. The first mention appears in his posthumously published *History of Astronomy* wherein he speaks of the "invisible hand of Jupiter". Recall that Jupiter (aka Jove) is the Latin Zeus, not the Christian Deity. Says Smith in Section III, "Origins of Philosophy" (quoted in Macfie 1971, 595):

> Fire burns, and water refreshes; heavy bodies descend, and lighter substances fly upwards, by the necessity of their own natures; nor was *the invisible hand* of Jupiter ever apprehended to be employed in those matters. But thunder and lightning, storms and sunshine, those more irregular events, were ascribed to his favour, or his anger.

Thus in Smith's first usage of the invisible hand—which was written, historians believe, prior to 1758—"greed"—that is, human greed—and "the greatest good for all" play no role at all (Macfie 1971, 595). In this context "storms and sunshine" and other "irregular events" (such as economic booms and busts) might be better ascribed to ancient belief in Jupiter's "anger". In truth, few economists have noticed, Smith ascribes the "designing" function primarily to humans. "Man, the only designing power with which they [the ancients] were acquainted never acts but either to stop or to alter the course which natural events would take, if left to themselves" (quoted in Macfie 1971, 595). Harrison (2011, 31) observes similarly that in the astronomy of Smith's day it was common to speak of the "hand of Jupiter" and that Smith's addition of "invisible" is possibly a modification of Horace in an Ode, speaking of the "thundering hand of Jupiter" (See also Rothschild (1994)).

A second mention of the invisible hand appears in Smith's *The Theory of Moral Sentiments*—a book which Frank, working only with the one overused "invisible hand" paragraph found in volume one of *The Wealth of Nations* (Smith 1776 IV.2.9), neglects at his peril. In *The Theory of Moral Sentiments* Smith uses the metaphor of the invisible hand within the context of a description of a just distribution. The passage is worth quoting in full:

> It is to no purpose, that the proud and unfeeling landlord views his extensive fields, and without a thought for the wants of his brethren, in imagination consumes himself the whole harvest that grows upon them.
>
> The homely and vulgar proverb, that the eye is larger than the belly, never was more fully verified than with regard to him. The capacity of his stomach bears no proportion to the immensity of his desires, and will receive no more than that of the meanest peasant.
>
> The rest he is obliged to distribute among those, who prepare, in the nicest manner, that little which he himself makes use of, among those who fit up the palace in which this little is to be consumed, among those who provide and keep in order all the different baubles and trinkets, which are employed in the economy of greatness; all of whom thus derive from his luxury and caprice, that share of the necessaries of life, which they would in vain have expected from his humanity or his justice.
>
> The produce of the soil maintains at all times nearly that number of inhabitants which it is capable of maintaining. The rich only select from the heap what is most precious and agreeable. They consume little more than the poor, and in spite of their natural selfishness and rapacity, though they mean only their own conveniency, though the sole end which they propose from the labours of all the thousands whom they employ, be the gratification of their own vain and insatiable desires, they divide with the poor the produce of all their improvements.
>
> *They are led by an invisible hand* to make nearly the same distribution of the necessaries of life, which would have been made, had the earth been divided into equal portions among all its inhabitants, and thus without intending it, without

> knowing it, advance the interest of the society, and afford means to the multiplication of the species. When Providence divided the earth among a few lordly masters [recall from above Thomas Burroughs's sermon on "Providence" and "the invisible hand"], it neither forgot nor abandoned those who seemed to have been left out in the partition. These last too enjoy their share of all that it produces. In what constitutes the real happiness of human life, they are in no respect inferior to those who would seem so much above them. In ease of body and peace of mind, all the different ranks of life are nearly upon a level, and the beggar, who suns himself by the side of the highway, possesses that security which kings are fighting for (Smith 1790, 214-215)

This is not a narrative celebrating greed. The very thought is antithetical. True, despite the "vain" landlord, Smith imagines here a harmonious distribution—emphasis on imagines—that looks nearer to feudalism than to modern commercial society. That is because Smith lived and wrote in a time very different from our own—a different context, a different theory of justice, Schmoller would say, and Smith would agree. The contrast between the rural economy which Smith describes and, for example, the land, product, and labor market conditions prevailing in California agriculture a century and a half later could not be much larger. That Smith would judge for example the tragic events of the Wheatland Hop Field incident—which we discuss below—to be the result of a just distribution by the invisible hand of the market is difficult, if not impossible, to believe.

Closing the debate by calling the invisible hand a "rhetorical device", as some observers have, sheds no light whatsoever on Smith's intentions. Emma Rothschild, in a 1994 article, writes that Smith regarded the invisible hand as a kind of "ironic but useful joke" (Rothschild 1994, 319; irony is one of the "four master tropes" of rhetoric [Burke 1945]). Like Frank, Rothschild considers her view a response to, and perhaps argument against, the Chicago school; but it ultimately legitimizes her opponents' view by presenting her counterargument as Smith's original. Her mistake is that *all* devices of communication are rhetorical—a point that is lost on Rothschild and Harrison and Frank too. For example, "ironic joke" is a metonymy, a reduction of Smith's whole intention down to the partial one of having a humorous or entertainment motive only, which is unsustainable in light of the evidence. Harrison and Macfie are illuminating on the context of the invisible hand, proving it to be a rhetorical commonplace of the Scottish Enlightenment and earlier times, thus skewering Frank's cliché assertion that the invisible hand "was a genuinely revolutionary insight" (Frank 2011, 17).

Economics Out of Context

The basic move in Frank's rhetoric is, however, a commonplace of neoclassical authors after World War II. It seeks to describe Smith as a stick-figure Stigler or Friedman—a caricature of Adam Smith as Mr. Stigler J. Friedman, vintage *Capitalism and Freedom*, and then argues for minor modifications to libertarian calls for complete free markets. In the pages of *The American Economic Review* George Stigler (1965, 119) set the stage for Frank and others:

> The main burden of Smith's advice, as you know, was that the conduct of economic affairs is best left to private citizens—that the state will be doing remarkably well if it succeeds in its unavoidable tasks of winning wars, preserving justice, and maintaining the various highways of commerce.

Frank never seriously questions the underlying logic and philosophy of Smith because he agrees with the Chicago School on the "greed" interpretation being correct. Amartya Sen and Rothschild both make the same basic move in their writings on Smith, except to claim that Smith would disagree with the interpretation. They never question the legitimacy of positivist economics or libertarian political theory. They never question the idea of the free market or move beyond the status quo.

The original title of *The Darwin Economy* was, we have mentioned, *The Libertarian Welfare State*, and was written as a critique of Adam Smith's idea of the "invisible hand" of free market economies. Frank writes that Smith is an advocate of "selfishness," despite the fact that Smith himself, in perhaps the most famous quote from his most famous book, *The Wealth of Nations*, describes individuals not as selfish but as being motivated by self-interest, which is not really the same thing. Consider sentence number one, page number one, of *TMS*: "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it" (Smith 1790, 13).

Could Frank's book be viewed in a more charitable light? Certainly he is responding to real contemporary issues—tax policy is always the subject of heated debate, and Frank is suggesting that taxes could be better applied to harmful activities (especially those harmful activities produced by the wealthy, such as drivers of gas-guzzling Land Rovers) which would raise revenue, reduce bad incentives, and benefit all. And he is arguing for the development of economic theory beyond the usual kindergarten-level assumptions of rationality. But even the relatively upbeat review of *The Darwin Economy* in *The Journal of Economic Literature* notes that although the work reads like the company of "a charming and articulate colleague who is eager to offer an abundance of strongly held and occasionally unorthodox opinions," the reader may not "always find his logic or evidence compelling" (Bergstrom 2012, 792). Frank is, we have noted, well respected for his pioneering contributions to behavioral economics, a field responding to the falsified (he argues) theory of rational choice theory that dominated American economics in his days as a graduate student. And there has been no shortage of theoretical tumult since the financial crisis of 2008. Yet the substance of Frank's arguments ring hollow. In admonishing advocates of the free market he simultaneously reinforces their legitimacy.

Contextual Economics, Old and New

The axioms, principles, and deductive logical proofs typical of the neoclassical school may not fit into economics in the long run because of developments in economics, the environment, psychology, rights, and ethics—a fundamental point of economic context that is ironically lost on the author of *The Darwin Economy*. The methodology of contextual economics won't be written in stone because methodology is, as economists from Gustav

Schmoller to Carleton Parker and Neva Goodwin have discovered, itself an evolutionary process. Goodwin (2014, 1) quotes a conversation she had with Nobel laureate Robert Solow, a mostly conventional neoclassical economist from MIT, explaining how the idea of Smith's invisible hand came to be identified with greed and selfishness and the axiomatic approach:

> When I was beginning my studies in this field economist Robert Solow commented to me that the great strength of economics is that it is fully axiomatized; the entire edifice can be deduced from the basic rationality axiom, which says that rational economic man maximizes his utility.

Between the desire to conceive the entire system of the economy from logical principles, and the ideological bias against government action, neoclassical economic methodology is forced into the narrow rationalist frame in which it is presently situated. Economic methods are thus trapped in a suboptimal Pareto corner of the Edgeworth Knowledge Box, a sociology of scientific behavior geared towards reinforcing the status quo—and itself.

It is well known that market economies are evolving, dynamic phenomena. It is not always understood, however, that compounding the difficulty of studying capitalism is the dialectic of economic methodology and actual change of human norms and behaviors, correlated—perhaps produced by—that methodology. The *Methodenstreit*, or "battle of methods" (Ekelund and Hebert 2007, 237), was a long, bitter debate between Schmoller and Menger during the 1880s over principle and technique and need not be rehashed here. Menger would have an enduring influence on economics through Schumpeter, von Mises, Hayek and others. Schmoller influenced American institutionalists through Veblen, who, in discussing Schmoller's *Grundriss*, describes the work as a "Darwinian account of the evolution of economic institutions [that] might be called historical" (Veblen 1901, 265).

W.E.B DuBois was also among the many American social thinkers who studied with Schmoller as a student in Germany. Axel Schafer (2001, 933-4), in a paper discussing the influence of German historicists on DuBois, describes the intellectual gestalt in Germany at the time:

> In seminar rooms and lecture halls in Heidelberg, Berlin, and Leipzig, American students listened with rapt attention to indictments of the teachings of classical liberalism that had been propounded in their economics textbooks at colleges and universities in the United States. Instead of being given mantras about absolute economic laws, they were told that the concept of the market was an idea that had developed historically as an expression of a peculiar utilitarian spirit of entrepreneurial individuals.

Most importantly,

> The individual…could neither be reduced to rational, self-interested economic man nor simply be seen as a mere pawn of the environment; instead, [Schmoller and the German historicists] saw individuals as agents of their own and society's ethical self-realization (Schafer 2001, 934).

Contextual Economics and The Wheatland Hop Field Riot

Carleton Parker is an example of a contextual economist after Schmoller, Veblen, DuBois and others who described from first-hand experience the shortcomings he found in axiomatic economics and "the invisible hand narrative". The economist Parker, who was a rising star of social science prior to his premature death in 1918, is hardly known today. [4] But he found himself smack in the middle of the second largest landlord-labor clash in American history, and was hired to do something about it:

> In 1914 I was asked to investigate a riot among 2800 migratory hop pickers in California which had resulted in five deaths, many fold more wounded, hysteria, fear and a strange orgy of irresponsible persecution by the county authorities—and on the side of the laborers, conspiracy, barn burning, sabotage, and open revolutionary propaganda. I had been teaching labor problems for three years and had studied it in two American universities [including Harvard], under Sidney Webb in London, and in four universities in Germany. I found that I had no fundamentals which could be called good tools with which to begin my analysis of this riot. And I felt myself merely a conventional if astonished onlooker before the theoretically abnormal but manifestly natural emotional activity which swept over California. After what must have been a most usual intellectual cycle of first, helplessness, then conventional cataloging, some rationalizing, some moralizing and an extensive feeling of shallowness and inferiority, I called the job done (Parker 1920, 27-8)

Parker set to work developing a method for better understanding the economy both by using his experiences, as well as by exploring psychological and social theories of Freud and Dewey, among others. Not a perfect set of tools—for example, he was quantitative- oriented but lacked econometrics—but at least he tried to learn something about the people, politics, culture and economy far beyond a hope and a prayer that the market will correct itself. The events which compelled Parker's (1920, 53) break with orthodoxy were in any case a curious mix of old and

[4] Irving Fisher (1919, 85) said "A human being whose instincts are balked becomes an enemy of society. This is the real reason for the I. W. W., as was emphasized by Prof. Carleton H. Parker . . . who, by personal contact and deep insight, probably knew more about [them] than anyone else. The . . . I. W. W. were, he saw, not innately anti-social, but became so because they had individual initiative and a will of their own, and refused to conform." Carter Goodrich—a mentor of Robert Fogel—wrote in the *Journal of Political Economy*: "[S]trikes and unions are symptoms of more ills than they alone can cure, and it is the vigor and clarity with which this point is presented that makes [Parker's (1920) book] "The Casual Laborer" one of the most significant introductions to the wider questions of social science" (Goodrich 1925, 358). Frederick C. Mills (1921, 153-4), who had assisted Parker in Wheatland, completed agreed: "Carleton Parker has contributed a method, a point of view and a spirit which, it may be hoped, will endure long after the details of his psychology are antiquated. If the present volume serve[s] to perpetuate the example of his method and to keep alive the memory of his rare freedom from intolerance and his clear sanity in the study of social phenomena, it will have performed a rich service."

new phenomena, and the formation of an altogether different sort of equilibrium from the sort found in Smith's time.

> Conventional thinking, conventional economics and its standards of value, are ruled out because they assisted in the promotion of evolutionary inefficiency. For instance, most economists glory in cheap and much food, cheap and much timber, cheap and good land, though it seems that these easy and unearned gifts have given the American part of the human race a psychic bias towards uncritical waste, an undisturbed liking for rapid and spectacular consumption, and a listlessness over questions of the ultimate problems of human survival, which make our intellectual processes curiously like those of primitive man.

For the economist who wishes to put free and unregulated markets into context, a most remarkable event occurred in 1913 on a hops ranch in Yuba County, California, near Sacramento, just outside of the town of Wheatland. It was here that, for the first time, migrant farm labor was organized with the intent of negotiating directly with the grower, in the manner of a trade union. Strikes had occurred before among the farm laborers of the Central Valley but at Wheatland the strikers were organized by members of the syndicalist Industrial Workers of the World (IWW). The Wobblies, as they were known, were activists seeking to organize all workers into one great union.

Never more than a few thousand members throughout the country, Wobblies are remembered for "their energy, their persistence, their inspiration to others, their ability to mobilize thousands at one place, one time, made them an influence on the country far beyond their numbers" (Zinn 2003, 331). The IWW originated in Chicago in 1905 (the headquarters is still there: a Roosevelt University economist, the late Fred Lee, was once Chairman of the Board) but Wobblies were already active in California in the decade before the War, albeit largely in industry (McWilliams 1935). In 1910, a full third of the working population in the US was in agriculture (Wyatt and Hecker 2006), either as a farmer or farm laborer. Farm labor was largely unregulated and certainly unorganized, due to the political influence of Southern planters—a policy formalized in the exclusion of farm labor from the National Labor Relations Act of 1935 (Sakala 1987), as well as the Social Security Act of 1935. Among the California growers it was standard practice not to directly engage with the migrant workers, but to maintain a certain distance. Growers did not, as a rule, negotiate with labor, and they were encouraged to treat them as other, a policy reinforced by the tacit approval from the white residents of rural California. But in the unusual year of 1913, a group of maligned hops pickers organized peacefully for the purpose of negotiating for better working conditions and a fair wage.

Ralph Durst, proprietor of the Durst Hops Ranch on the Bear River in Yuba County, was the improbable largest single employer in the State of California, at least for three weeks out of the year (Parker, 1915). And he was the largest supplier of hops—and thus a major contributor to beer brewing—in the United States. Durst was the son of Dr. Daniel Durst, a physician from Philadelphia who had arrived in California in 1853, and helped found the city of Wheatland in 1867. Dr. Durst had planted the first hops in the area in 1883, and was sometimes known as the "Hops King," for the especially high quality of his produce. He was known to be entrepreneurial and innovative, and was also a friend to Emil Clemens Horst, another Yuba County hops grower who pioneered the mechanization of hops growing, and holding patents on his many inventions. The elder Durst passed in 1911, as the family business boomed. 1913 would mark the height of pre-war hops production, and the Durst Ranch had a forward contract for its entire crop to a buyer in England.

Hops picking is hard work, and the wages for farm laborers are consistently low. The hops growers of Yuba County had for many years advertised for farm labor in the surrounding areas, promising (as Steinbeck would later describe in *The Grapes of Wrath*) idyllic conditions and good wages to attract more workers, and then using the excess supply of workers to suppress wages. Durst had done precisely that, and in the first week of August, 1913, 2,800 laborers arrived to find that just 1,500 jobs were available, and that wages had been cut accordingly, to just 85 cents per hundred pounds of picked hops—or nearly 35% below their opportunity cost picking at other farms (Parker 1915). Among the pickers was Richard "Blackie" Ford, a Wobbly from San Francisco who organized the laborers and led the strike.

The Wheatland affair was the outcome of years of work by IWW activists. (McWilliams 1935). The conditions prevailing on the Durst Ranch were of unspeakable squalor; a mob of workers camped on a treeless hill without proper provision or sanitation, and the heat at mid-day reached 105 degrees Fahrenheit. For 2,800 workers Durst had made available only "eight small toilets . . . and four day's use had made them revoltingly filthy. No toilets had been allotted to women. There was no organization for sanitation, no garbage disposal" (Parker 1915, 111). Those who could not secure work for the day numbered over a thousand who simply lay destitute and starving in the camps all day. Wobblies present among the workers facilitated the organization of the strike, and Blackie Ford was put forward to negotiate with Durst. (Parker discovered later that the pickers at Wheatland represented some 27 different spoken languages, all of them included—thanks to a half dozen translators—in discussions about conditions and the possible strike.) Two hundred workers stood behind Ford, peacefully assembled and carrying no weapons, Parker also discovered. Durst agreed to install more outhouses and to provide more potable water but refused to raise wages. Ford told Durst that the workers were thus forced to strike. Hops, when ripe, must be picked immediately and dried else the whole crop could be lost, thus, Durst was anxious. He allegedly slapped Ford in the face before calling in a local posse to confront the striking workers that Sunday, the workers being led in song by Ford. One of the posse fired his shotgun into the air, in an attempt to establish authority. Instead, he inspired a riot. When the smoke cleared, four lay dead, including a local sheriff and a young hops picker, their drummer boy (Parker 1915).

Of the myriad responses to the event of the riot at Wheatland, the four most important were 1) the brutal manhunt conducted by Yuba County authorities that resulted in the arrest and imprisonment of Blackie Ford, Hermann Suhr, and eventually hundreds of other "suspects"; 2) the calling in of the National Guard by the Governor, and the start of a reign of terror against migrant workers; 3) the investigation conducted by a state commission headed by Professor Carleton Parker; and 4) establishment of the first California State Commission on Immigration and Housing. Parker, a Harvard trained economist and admirer of Thorstein Veblen, was a keen analyst of the situation, and delivered one year later to the legislature a report from the field—imagine DuBois's *Philadelphia Negro* plus a Clarence Darrow-type-mind-and-passion plus Freud and Dewey and Steinbeck—assessing the social, economic, psychological, and political conditions of migrant farm workers. Parker, who was forced out of the State's employ by the political influence of growers who were unhappy at Parker's criticism, wrote in *The Quarterly Journal of Economics* that the "most important result of the riot was the study of economics of the labor field thus disclosed" (Parker 1915, 115).

Adam Smith would be equally appalled. Wheatland brought the opposite of his country manor economy. "Providence" may not have forever forgotten or "abandoned those who seemed to have been left out in the partition". But "These last" did not "enjoy their share of all that it produces". Far from "the real happiness of human life," they are treated as "inferior to those who would seem so much above them." They had no or little "body and peace of mind," and could no longer "sun himself by the side of the highway". And still today the millions of migrant workers (not to mention refugees) do not "possess that security which kings are fighting for" (Smith 1790, 215).

Dramatic and important as they were, the events of Wheatland were soon overshadowed by the advent of World War I. As the demands of the war brought crop prices up, California growers saw windfall profits, and with them the influence to effectively stifle any serious attempts at reform (McWilliams 1935). Today, although the proportion of farmers and farm laborers in the work force has shrunk by over 96% since 1910 (Wyatt and Hecker 2006), many workers still face hazardous conditions and unfair compensation. They are, to appropriate the familiar Smithian metonymy, "invisible hands," in the sense that migrant workers are treated as being outside of society. It is common nowadays for farm laborers to be undocumented immigrants, and for middle class Americans to perceive farm labor jobs as beneath their dignity (and therefore by implication justifiably underpaid) (Sakala 1987). The events at Wheatland foreshadowed the labor struggles of the 1930s with the migration of dispossessed Midwestern farmers and the famous struggles of the 1960s led by Cesar Chavez.

In this light, Parker's contextual economics appears more relevant than ever.

Labor-Managed Firms and the "No Cash on the Table" Conjecture

Context matters. But Frank doesn't deliver in the rest of his book either. In stark contrast to Parker's *The Casual Laborer* stands *The Darwin Economy* and Frank's out of context conjecture claiming "no cash on the table" and the "failure of labor managed firms to proliferate". Says Frank at the beginning of chapter 3, "An important feature of Darwin's narrative is that market failure can occur even when all individuals have taken advantage of all available opportunities for potential gain . . . In the familiar economist's metaphor, some individuals must be leaving cash on the table. And that, I'll argue, is a fatal flaw in conventional accounts of market failure" (Frank 2011, 30-31).

In a sudden reversal of theme—or is it?—Frank goes on at some length trying to convince the reader that markets are perfectly efficient, meaning there is no cash on the table, there are no arbitrage opportunities—or "not for long," he asserts. His evidence for efficient markets is a single straw man example based on a conversation he had at the office. "No cash on the table" is his explanation for the low "proliferation of labor-managed firms"—worker-owned and consumer cooperatives, he means.

"My first exposure to this particular flaw [that is, the flaw of believing that there might be some cash on the table] came during discussions with a group of economists in my department during my early years at Cornell" (Frank 2011, 31; note again: Frank's "evidence" is a conversation he remembers having, oh, it must have been 50 years ago!)

"Members of this group had developed a research program focused on worker-managed firms. They were deeply committed to ideals of social justice and extremely skeptical about conventional hierarchical capitalist firms" (Frank 2011, 31). The Cornell researchers predicted productivity gains, lowering costs of production by as much at 10 percent (ibid, 32). "Yet these organizations occupy an extremely circumscribed niche in the economy," Frank chortles. "There is absolutely no evidence that they're poised to sweep the marketplace. That observation raises a basic question: if labor-managed firms are so great, why don't we see more of them?" (ibid, 32).

Now, rather than turn to the vast historical and empirical literature documenting the economic efficiency, democracy, and sense of ownership and well-being that has been produced since 13th century Jura dwelling milk and cheese makers down to research by the likes of Ben Craig, John Pencavel, Alan Krueger, Katerina Berman, Louis Putterman, David Ellerman, and other distinguished economists (see Ziliak 2014 for references), Frank turns instead to "evidence" he collected in conversation with colleagues decades ago somewhere near the water-cooler. (What would Schmoller or Parker say?)

"I once put this question to several of my colleagues in the Cornell labor-managed systems group—a collection of very smart people who appeared to take it seriously. After much discussion, their considered response was that labor-managed firms had failed to proliferate because financial markets refused to make capital available to them on fair terms" (Frank 2011, 32).

Says Frank (2011, 33), "My response was that this handicap couldn't possibly explain why labor-managed firms had failed to proliferate. If these firms enjoy more than a 10 percent cost advantage over conventional firms, they can certainly afford to . . . fill out the longer application forms . . . More important, the very idea that a capitalist banking system might persistently deny funds to creditworthy borrowers strains credulity".

But it doesn't strain the fact of the matter: co-ops need a financial sector they can count on without sacrificing internal ownership and democratic control (the founders of Mondragon, Spain perceived this more than 60 years ago). So start by injecting capital back into the National Cooperative Bank, the small but still promising cooperative bank of the United States that the Reagan administration all but killed in 1981, less than two years after the necessary bank was first established by Congress, with bi-partisan support (Gunn 1984). The Cooperative Bank—and other banks like it—can help to fulfill the promise of economic democracy, by supplying loanable funds and grants to build and to grow cooperative enterprise. Regardless, Frank is trucking in fiction with his made up example of no cash on the table.

What is the scientific evidence? In their 1992 *American Economic Review* econometric study of veneer and plywood producers, for example, Craig and Pencavel (both, at the time, of

Stanford University) found that co-op share prices are highly undervalued. Craig and Pencavel (1992) demonstrated empirically that there is a lot of cash on the table: there are $1 million dollar bills (in the form of missed opportunities for investments in co-ops) waiting to be picked up. Holding equal the net discounted present value of joining and working in a co-op versus working in a conventional unionized firm, the share prices on offer for each firm type should be roughly equal. They're not, the economists found. Co-op share price could rise by a factor of 3 in some firms and still make a profit for the worker-owner whose opportunity cost is a job at a unionized plant.

Employment stability and fairness in pay are better too, Craig and Pencavel are not the only ones to find. Much, much better. In many cooperatives, when product demand falls, nominal wages are voluntarily reduced to enable full employment of all worker-owners—a practical and humane solution to costly unemployment and turnover (Gunn 1984). In the cooperative firm, economic democratic virtues are used to guide its policy for distributing rewards and punishments, unlike in the conventional firm, where vast inequality of income, autonomy, and surplus prevails.

Worker owned co-ops are found to be more productive, holding input levels constant, economists such as Alan Krueger and Henry Farber (in Craig and Pencavel 1995) agree. Co-op workers have more job satisfaction; they have lots more say about the process and mission, and equality of status too; employment levels are, we have mentioned, far more stable (Gunn 1984 finds with Craig and Pencavel that virtually no one gets laid off); and income differentials are 2-or-3-or-4-to-1 at maximum versus the 550-or 600-to-one ratios of today's neoclassical firm.

Thus Frank and the Chicago school are wrong: there is cash on the table, a lot of it. Workers and investors do not have all the information. Most Americans have no idea what a co-op is or does. Or they are being told (incorrectly) that co-ops are for commies and hippies. Or they are being encouraged by bad theories to believe there is no cash on the table, and they therefore resolve to fail to evolve as ethical and social beings. Heedless of the facts, Frank holds on tight to the invisible hand-as-greed-and-rationality fiction: "So even if we grant the implausible assumption that loans to labor-managed firms would eventually undermine the capitalist system, a rational banker would still have no motive to refrain from making them" (Frank 2011, 33). Frank concludes: "My exchanges with the evangelists for labor-managed firms were an object lesson in the power of ideology to disable the capacity for critical thinking" (ibid, 35). "In short, theories that imply that vast sums of cash are being left on the table for extended periods are bad theories" (ibid, 35). Unfortunately, it is the charming Robert Frank who is deluded by bad theory and the power of ideology.

Including Context is Right and Just

The Darwin Economy.is itself an example of wasteful competition, that is, Smith's wedge. No surprise. The fallacy of the no cash on the table conjecture, together with simple abstract assumptions and deductive logical proofs typical of the neoclassical school, cannot do much to advance economics in the long run because of complications and developments in economic organization, the environment, psychology, social norms, political rights, justice, and ethics. This is a fundamental point about context that is, we have shown, completely lost on the author of *The Darwin Economy*.

The point of contextual economics is to unite economic analysis with real people and markets and things as they are, not as they should be. The contextual economist needs like Parker did at Wheatland and Irving Fisher did at Yale and that is to begin with a social, historical, and psychological assessment of real economic agents, not with a fixed-in-stone mathematics of convex indifference curves. We need to know the relevant historical, social, economic, political, and environmental facts, and by how much they deviate or not from the null hypothesis of free market equilibrium, efficiency, and rationality. Passions and habits, political rights and institutions, ecological and social environment, history, ethical norms and the rich and wide tapestry of the economic conversation itself should add to and, in some cases, replace what are merely convenient yet ultimately (politically speaking) reactionary ahistorical assumptions about free choice and tidy preference mappings, of linear budget constraints, no Ponzi games and complete asset markets. Today ironically it is the positivist economists themselves who model economic agents as they (the economists) believe economic agents *should* behave, that is, normatively speaking, "rationally" according to precepts of rational choice theory. We have shown here global evidence that worker owned cooperatives are, like Smith's *TMS* and the Wheatland Hop Field Riot, among the many economic and social phenomena impossible to understand using the typical box of tools and methods.

Contextual economics is relevant to most areas of social thought. Context ought to exert a larger influence than it presently does on those schools of law, economics, and political science modeled primarily on the calculus of *homo economicus*. *The Darwin Economy* could have been a valuable, context-based antidote to neoclassical fictions about competition, Adam Smith, and the invisible hand. Unfortunately the author of *The Darwin Economy* tried like Smith's coxcomb to imitate fashionable if outworn methodologies of powerful neoclassicals, in contexts where they just don't fit, and instead of rising fell victim himself to Smith's wedge. Frank is right about one big thing: wasteful competition can and should be penalized and reduced. Close study of Smith's *TMS* and Parker's *The Casual Laborer* confirms again the importance of Schmoller (1894, 733) the economist who wrote long ago that the "great messages of salvation to humanity were all aimed at the injustice of outworn institutions". The eminent economist justly concluded, "by higher justice and better institutions humanity is educated up to higher forms of life." No economic context, no higher justice. No higher justice, no higher life.

References

Bergstrom, T. 2012. “Review of Robert Frank’s *The Darwin Economy*,” *Journal of Economic Literature* 50 (3, Sept.): 792-795.

Bhalla, J. 2013. “Evolutionary Economics and Darwin’s Wedge,” *Scientific American* (August 1) http://blogs.scientificamerican.com/guest-blog/evolutionary-economics-and-darwine28099s-wedge/

Bowler, P. 1976. “Malthus, Darwin, and the Concept of Struggle,” *Journal of the History of Ideas* 37 (4): 631–50.

Burke, K. 1945. *A Grammar of Motives.* Los Angeles: University of California Press.

Burroughes, T. 1662. *A Soverain Remedy For All Kinds Of Grief* (London, 1662): 6-7.

Craig, B., J. Pencavel. 1992. ““The Behavior of Worker Cooperatives: The Plywood Companies of the Pacific Northwest,” *The American Economic Review* 82 (5, Dec.): 1083-1105.

Craig, B., J. Pencavel [Comments by H. Farber and A. Krueger]. 1995. "Participation and Productivity: A Comparison of Worker Cooperatives and Conventional Firms in the Plywood Industry," *Brookings Papers on Economic Activity*. Washington DC: Brookings. http://www.brookings.edu/about/projects/bpea/papers/1995/worker-cooperatives-craig

Ekelund, R. and R. Hebert. 2007. *A History of Economic Theory and Method.* Prospect Heights, IL: Waveland Press.

Ellerman, D. 1992. *Property and Contract in Economics: The Case for Economic Democracy*. Cambridge, MA: Blackwell Publishers.

Fisher, I. “Humanizing Industry,” *The Annals of the American Academy of Political and Social Science* 82 (March): 83-90.

Frank, R. 2011. *The Darwin Economy: Liberty, Competition, and the Common Good*. Princeton: Princeton University Press.

Galbraith, J. K. 2011. “Dumbing Down Darwin: Robert Frank’s Effort to Explain the Lessons of Evolution Without Offending Libertarian Sensibilities,” *Washington Monthly* (Nov.) http://www.washingtonmonthly.com/magazine/november_december_2011/on_political_books/dumbing_down_darwin032997.php?page=all

Goodrich, C. 1925. “Symptoms or Agencies?” *Journal of Political Economy* 33 (3, June): 354-358.

Goodwin, N. 2014. “The Pscyhological ‘Foundations’ for Neoclassical Economics,” *Real-World Economics Review* (September 27) https://rwer.wordpress.com/2014/09/27/the-psychological-foundations-for-neoclassical-economics/

Gunn, C. 1984. *Workers’ Self-Management in the United States*. Ithaca: Cornell University Press.

Harrison, P. 2011. “Adam Smith and the History of the Invisible Hand.” *Journal of the History of Ideas* 72 (1, Jan.): 29-49.

Kennedy, G. 2011. "Book Review of Robert Frank's The Darwin Economy," *Adam Smith's Lost Legacy* (Sept.) http://adamsmithslostlegacy.blogspot.com/2011/09/book-review-of-robert-h-franks-darwin.html

Lazonick, W., M. O'Sullivan. 2000. "Maximizing Shareholder Value: A New Ideology for Corporate Governance," *Economy and Society* 29 (1, Feb.): 13-35

Macfie, A. 1971. "The Invisible Hand of Jupiter," *Journal of the History of Ideas*32 (4, Oct): 595-599.

McElwee, S. 2014. "When Workers Own Their Companies, Everyone Wins: How a Very Old Economic Model Could Help the New Economy," *The New Republic* (August 1). http://www.newrepublic.com/article/118933/economic-benefits-coop

McWilliams, C. 1935. *Factories in the Field: The Story of Migratory Farm Labor in California*. Santa Barbara: Peregrine Smith.

Mills, F.C. 1921. Review of Carleton H. Parker's *The Casual Laborer and Other Essays, Political Science Quarterly* XXXVI (March): 151-153.

National Cooperative Bank. 2016. http://www.ncb.coop/

Olmstead, A. and P. Rhode. 2003. "The Evolution of California Agriculture 1850-2000." In *California Agriculture: Dimensions and Issues*, ed. J. Seibert. Berkeley, CA: Giannini Foundation of Agricultural Economics.

Parker, C. 1915. "The California Casual and His Revolt," *The Quarterly Journal of Economics* 30 (1): 110-26.

Parker, C. 1920. *The Casual Laborer and Other Essays*. New York: Harcourt, Brace and Howe.

Rothbard, M. 1995 [2006]. *Economic Thought Before Adam Smith: An Austrian Perspective on the History of Economic Thought, Volume 1*. Cheltenham: Edward Elgar Publishing, Ltd. Reprinted by The Ludwig von Mises Institute.

Rothschild, E. 1994. "Adam Smith and the Invisible Hand," *The American Economic Review* 84 (2, May): 319-322.

Sakala, C. 1987. "Migrant and Seasonal Farmworkers in the United States: A Review of Health Hazards, Status, and Policy." *International Migration Review* 21 (3): 659-87.

Schafer, A. 2001. "W.E.B. DuBois, German Social Thought, and the Racial Divide in American Progressivism, 1892-1909," *The Journal of American History* 88 (3, Dec.): 925-949.

Schmoller, G. 1894. "The Idea of Justice in Political Economy." *The Annals of the American Academy of Political and Social Science* 4 (Mar.): 1-41. Translated by E.L. von Halle and C.L Shutz.

Smith, A. 179O [2009]. *The Theory of Moral Sentiments*. Sixth revised edition, with an introduction by A. Sen. New York: Penguin.

Smith, A. 1776. *An Inquiry Into the Nature and Causes of the Wealth of Nations, Volume I and II*. Indianapolis: Liberty Fund. Eds. R. H. Campbell and A. S. Skinner.

Stigler, G. 1965. "The Economist and the State," *The American Economic Review* 55 (1/2): 1-18.

Veblen, T. 1898. "Why is Economics Not an Evolutionary Science?" *The Quarterly Journal of Economics* 12 (4, July): 373-397.

Veblen, T. 1901. "Gustav Schmoller's Economics," *The Quarterly Journal of Economics* 16 (1, Nov.): 69-93.

Wolff, R. 2012. *Democracy at Work: A Cure for Capitalism*. Haymarket Books.

Wyatt, I. and D. Hecker. 2006. "Occupational Changes During the Twentieth Century," *Monthly Labor Review* (March): 35-57.

Ziliak, S. 2014. "Honest Abe Was a Co-op Dude: How the GOP Can Save America from Despotism," Social Science Research Network, November 9. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2521197

Zinn, H. 2003. *A People's History of the United States*. New York: HarperCollins Publishers.