

Humanomics Spans the Two Worlds of Adam Smith

Sociality and Economy

A persistent conflict in modern human life arises from living simultaneously in two worlds governed by distinct rule systems. Human beings are first governed by the caring other-regarding rules of our close-knit social groups, like our families, extended families, neighbors, and friends. We do good things for such people, and we refrain from doing bad things to such people because we personally know them. On an individual level, we specifically know how to be helpful, kind, and compassionate to them. They have names like Candace and Ryan, Stephanie and Steve, Caroline and Kyle, and we have firsthand knowledge about them. We know such mundane things as which friend can take which jokes (and which ones cannot take jokes at all) and such poignant things as what our neighbor needs right now is someone to sit with while she copes with some traumatizing news. With love and solidarity we treat those people personally known to us as the dear individuals they are.

Because we cannot possibly know the specific circumstances of everyone beyond our circle of kith and kin, the extended order of markets treats everyone we do not personally know precisely the same. We do not personally know which farmer or wholesaler or trucker or grocer will best serve us in delivering food from the farm to our kitchen table, so we open it up for competition to decide who will serve us well. Wisconsinites, Kansans, Canadians, Mexicans, Chileans, New Zealanders, Czechs, and even the French all vie to supply us with what we desire: cheese and wheat, pork and tomatoes, grapes and kiwis, beer and wine. The same rules apply to everyone whom we do not personally know – do not harm by stealing, deceiving, or breaching a promise – and we let freedom of choice among them, called competition, do the rest. Whoever supplies the tastiest cheese at the best prevailing prices gets our money. Today that might be Robert Wills from Cedar Grove Cheese in Plain, Wisconsin, but next week it

might be Will and Hilary Chester-Master from Abbey Home Farm in Cirencester, United Kingdom. If specifying the actual names of cheese-makers googled from the Internet feels a bit too particular, that is our point. We do not personally know the names of the multitudes of people who produce the far greater part of those daily goods and services we stand in need of.

If the solidarity and love for our fellow compatriots that we do not personally know led us to forbid the importation of goods from other producers that we also do not personally know – say, like those in Asia or Europe – we would destroy the ability of markets to support specialization and thereby create wealth and human betterment. Such conflict prominently takes the form of sharp controversies over inequality in the distribution of income and wealth, and whether or to what extent wealth creation generates inequality through innovation and the subsequent diffusion of its benefits.¹

Similarly, applying impersonalized rules of competition, like that of “today you win my patronage, tomorrow you lose” to our more intimate social groupings would crush the ability of friends, family, and neighbors to forge and strengthen the bonds of human sociality. Imagine how many friends we would have if we treated them like we treat the owners of restaurants that we patronize: *No, I’m sorry, your taste in wine is not a good fit for dinner this week; the Johnsons are coming over. Maybe next week, though?* “So,” says the economist and social philosopher F. A. Hayek, “we must learn to live in two sorts of world at once” (1988, p. 18).

Although Hayek articulated the idea of living in two different worlds, and the conflict it engenders, the origin, substance, and functioning of these two parallel worlds was made comprehensible originally in two books written over two centuries ago by Adam Smith, *The Theory of Moral Sentiments* in 1759 (hereafter *Sentiments* in the text, and TMS in citations) and *An Inquiry into the Nature and Causes of the Wealth of Nations* in 1776 (hereafter *Wealth* in the text, and WN in citations). We use the neologism “humanomics” to refer narrowly here to the study of the very *human* problem of simultaneously living in these two worlds, the personal social and the impersonal economic.

In the roots of their common origin in human life, Adam Smith’s work enables us to understand these two worlds as one. He modeled both worlds in a manner that we believe seamlessly connects the two in a unified social and ethical science of human beings. It is our aim to further develop,

¹ Thomas Piketty (2014) and Deirdre McCloskey (2016).

articulate, and demonstrate that model for contemporary social science theory and experiment. *Sentiments* did not fare well in the academy; *Wealth* fared far better. The two works were once even seen as contradictory. Jacob Viner, for example, a leading scholar in the intellectual history of economics, could write, “But it can be convincingly demonstrated, I believe, that on the points at which they come into contact there is a substantial measure of irreconcilable divergence between the *Theory of Moral Sentiments* and the *Wealth of Nations* with respect to the character of the natural order” (Viner 1991, p. 93). And again, “Many writers, including the present author at an early stage of his study of Smith, have found these two works in some measure inconsistent” (Viner 1991, p. 250). This so-called Adam Smith problem was corrected in a revisionist literature that greatly elevated the status of Smith’s first book.² These corrections in the intellectual understanding of Smith, coming two centuries after *Wealth* was published, and a century after the neoclassical marginal revolution do not close the immense gap between how Smith and modern scholars think about human action.³ Our own experience is that of having stumbled into a gradually deepening appreciation of the unifying principles of social science in Smith’s two great works. That path began and received illumination from unanticipated and unpredicted results in experimental studies. First in markets, where the standard self-interest model of action under strict private information predicted outcomes far more accurately than was thought possible by contemporary professional economists; and second, the same utility maximizing model of action in simple ultimatum and trust games failed decisively to predict

² Leonidas Montes (2003, 2004) examines this literature and other aspects of Smith’s thought.

³ In the last edition of *Sentiments*, Smith stated that in the first edition he had indicated his intention “to give an account of the general principles of law and government, and of the different revolutions which they had undergone in the different ages and periods of society; not only in what concerns justice, but in what concerns police, revenue, and arms, and whatever else is the object of law. In . . . [*Wealth*] . . . I have partly executed this promise. . . . What remains, the theory of jurisprudence, which I have long projected, I have hitherto been hindered from executing, by the same occupations which had till now prevented me from revising the present work. Though my very advanced age leaves me, I acknowledge, very little expectation of ever being able to execute this great work to my own satisfaction; yet, as I have not altogether abandoned the design, and as I wish still to continue under the obligation of doing what I can, I have allowed the paragraph to remain as it was published more than thirty years ago, when I entertained no doubt of being able to execute every thing which it announced” (Adam Smith 1790). We do not know whether that plan, if followed, would have brought a fuller integration of Smith’s remarkable two books, and a less ambitious attempt by neoclassical economists to reduce all human action to an exercise in utility maximization.

systematically replicable results.⁴ This book is largely a consequence of our attempt to give meaning to this disjunction, where none of the attempts to do so have been satisfactory. *Sentiments* gave us an unexpectedly fresh framework.

SOCIAL ORDER

Contrary to popular belief, Adam Smith does not argue, famously or infamously, that humans are primarily motivated by self-interest. Even in *Wealth*, he speaks not of self-interest but of one's "own interest," which includes prudence but is always mediated by what "other men can go along with."⁵ Smith renownedly says that "it is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their *self-love*, and never talk to them of our own necessities but of their advantages" (WN, pp. 26–7, our italics).⁶ But acting in one's "own interest" need not entail putting one's own interest above another's interest in commerce, which is what acting with self-interest quite fundamentally means then and now. In *Sentiments* Smith often uses "selfish" to clearly demark the narrower meaning of self-interest.

A deeper reading of *Wealth* reveals Smith's qualification of the meaning of "own interest." Appealing to the self-love of the butcher, the brewer, and the baker means "allowing every man to pursue his own interest his own way, *upon the liberal plan of equality, liberty and justice*" (WN, p. 664, our italics). If that qualification is unpersuasive, he elaborates later when discussing competition: "Every man, *as long as he does not violate the laws of justice*, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man, or order of men" (WN, p. 687, our italics). As part of acting in one's own interest, we, like the political theorist Ryan Hanley, read Adam Smith as having a commitment to the equality and dignity of all

⁴ F. A. Hayek (1945) is an exception; the results from market experiments demonstrate Hayek's interpretation of the role of prices in coordinating economic activity. See Vernon Smith (1982).

⁵ Tellingly, book 5 in volume 2 of *Wealth* is the first and last time Smith uses the word "self-interest," and then it is to describe "the industry and zeal of the inferior clergy [in Rome]" (p. 789).

⁶ In the same paragraph, preparing us for this quotation, we find an echo from *Sentiments*: "In civilized society he (man) stands at all times in need of the cooperation and assistance of great multitudes, while his whole life is scarce sufficient to gain the friendship of a few persons . . . and it is in vain for him to expect it from their benevolence only" (WN, p. 26).

people.⁷ Thus, if the modern economist espouses naked self-interest as the foundation for economic decision-making, she does so incompatibly with the founder of the discipline and more generally with the genius of the Scottish Enlightenment. There are moral rules, just rules, that govern our conduct in impersonal markets.

Smith's friend David Hume likewise circumscribes market behavior within rules when he distinguishes interested commerce (what the economic historian Douglass North calls impersonal or market exchange) from disinterested commerce (what North calls personal or social exchange).⁸ Samuel Johnson's *A Dictionary of the English Language*, published in 1755, offers four meanings for *interest* in eighteenth-century usage; while the first meaning of *interest* is "concern, advantage, good," the fourth meaning, which applies here, is "regard to private profit."⁹ Hume recognizes that promises were invented for interested commerce to "bind ourselves to the performance of any action" (1740, p. 335). While with disinterested commerce we "may still do services to such person as I love, and am more particularly acquainted with, without any prospect of advantage; and they may make me a return in the same manner, without any view but that of recompensing my past services," the same is not true of our impersonal intercourses. We precisely engage in mutually benefiting and impersonal exchange for the distinct prospect of a private profit, and we voluntarily do so only with promises, "the sanction of interested commerce of mankind" (p. 335).

Smith's first and lesser known work *Sentiments* is a deep and insightful study in disinterested commerce that creates human social betterment and also explains the origin of justice. In *Wealth* we learn that the pursuit of private benefit, under the governing rules of justice, is what enables specialization and wealth creation for human economic betterment. Smith sees these two forms of human betterment as the result of gradual socioeconomic development. In this our project dovetails with Deirdre McCloskey's grander narrative in *Bourgeois Equality* (2016, pp. 203–4):

Smith had two invisible hands, two outcomes of (in his uncharacteristically clumsy phrase) "the obvious and simple system of natural liberty." One was the invisible hand of the marketplace, whose effects are occasionally noted in [*Wealth*]. For example, to mention Smith's most original economic contribution, the marketplace in labor equalizes the wage-plus-conditions in Scotland with those in England, within social and legal limits, because people move from one place to

⁷ See Ryan Hanley (2009) and also Samuel Fleischacker (2004).

⁸ Douglass North (1990, 2005). ⁹ Samuel Johnson (1755).

the other until it is so, as though directed by an invisible hand. Likewise the invisible hand gently pushes people out of their solipsistic cocoons to consider what is valued in trade by other people. “Every individual . . . neither intends to promote the public interest, nor knows how much he is promoting it.” . . .

[The other was the invisible hand of the impartial spectator,] the social one as against the economic. We become polite members of our society by interacting on the social stage – note the word, “inter-acting.” Smith in [*Sentiments*] did not believe, as his teacher Hutcheson did, that in achieving social peace and prosperity we can depend on natural benevolence. . . . Nor did he believe, as many economists still understand him to do, in a fuzzy version of Mandeville’s hardwired opposite of cooperation, a macho competitiveness, greed is good.

Against inherited niceness or nastiness, as I have noted, Smith repeatedly emphasized in [*Sentiments*], as he did also in [*Wealth*], that during their lives people change, shaped by society and, it may be, by their own impartial spectator. In the phrase appropriate to a time of apprenticeships, people were “brought up to a trade.”

Smith’s aim in *Sentiments* is to understand how and why personal forms of other-regarding or moral action emerge and are sustained in our more intimate groupings and constitute the substance of human sociality. It is a work in psychology and economics applied to social interaction well before either had been established as independent fields of inquiry. Smith was yet to write *Wealth*, often identified with the founding of economics, but it would take another 125 years for psychology to be founded as separate and distinct from philosophy. To understand *Sentiments* we must learn the meaning conveyed in the eighteenth-century words and concepts Smith used, thereby enabling us to learn to think in his language, important in engaging the substance of his thought, the topic of Chapter 2.

SENTIMENTS PREDICTS WHERE THE NEOCLASSICAL MODEL FAILS

Neoclassical economics, with its firm methodological foundations in utility maximization (“Max-U”), received unexpectedly strong evidential support from the study of experimental markets beginning in the 1960s.¹⁰ In these experiments participants are identified as either buyers or sellers in a series of trading periods. Buyers are assigned private values for units of the item they could buy or attempt to buy in each trading period. Multiple units have declining values reflecting diminishing marginal utility – the key

¹⁰ So abbreviated and further discussed by Deirdre McCloskey (2006). The original experiments are reported in Vernon Smith (1962); see Douglas Davis and Charles Holt (1993) for a summary of the many subsequent such experiments; for a discussion of why the results were “surprising,” see Vernon Smith (2008a, pp. 193–197).

contribution of the neoclassical marginal revolution.¹¹ A buyer earns a profit on each unit purchased from a seller equal to the difference between the value to the buyer and the price paid for the item. Sellers are assigned units with values representing their cost of supplying units to the market. Sellers' profits are the difference between selling price and personal cost. Hence, buyers are motivated to buy at low prices, and sellers to sell at high prices. Max-U is achieved simultaneously for all buyers and sellers at the competitive market clearing price where the quantity sellers could profitably sell equaled the quantity buyers could profitably buy.

Trading in the experimental market is organized using the two-sided "double auction" procedure common in early commodity and securities market trading. Buyers announce bids to buy, sellers announce asks to sell, with contracts effected either by a buyer accepting the lowest ask price, or a seller accepting the highest bid price. From the first experiments down to the present day, these markets converge quite rapidly and robustly to the competitive equilibrium price under repetitions across time. This victory for the application of Max-U theory to markets is somewhat marred, however, in that Jevons believed that such results only obtain if all participants in the market have complete and perfect information on supply and demand and therefore the clearing price. But in the experiments, each buyer and seller possess only private decentralized information on the small fragment of the total supply and demand that defined their part of the overall market. Consequently, the experimental results not only confirm the efficacy of Max-U to markets but under far weaker conditions than Jevons, and the generations of economists that followed him, thought necessary.

Jevons and neoclassical economists erred in thinking that the participants in markets needed the same information that Max-U theorists needed to compute an equilibrium. In effect they impose their mental model of market outcomes on the behavior of the market participants. Adam Smith did not make this error in either *Sentiments* or *Wealth*. His modeling perspective is first that of the actor, her feelings, reactions and

¹¹ William Stanley Jevons (1862, 1871) was particularly influential in the English-speaking world in propagating the Max-U calculus of supply and demand theory. From Richard Howey (1989), we learn that in 1862 Jevons sent his paper "Notice of a General Mathematical Theory of Political Economy" to the British Association for the Advancement of Science; though the paper was read, only a short abstract was published in the proceedings. But the event clearly established Jevons's priority for the first articulation of the marginal utility and general equilibrium theories that became part of the 1870s neoclassical revolution. Serendipitously, Smith (1962) published experimental tests of supply-and-demand theory on the centenary year of Jevons's contribution.

interactions, and second the consequences for society or economy of that perspective.

Max-U in the neoclassical vision is proffered not only as a theory of markets but as the modeling foundation for all human decision-making. The model fails decisively to predict the extent of cooperation in the study of two-person interactive games, including ultimatum and trust games, beginning in the 1980s and popular in laboratory experiments ever since the 1990s.¹² *Sentiments* reconciles the discordant results between market and two-person interactive experiments, and provides fresh insight into the observed personal social conduct in the two-person games. Smith was not a utilitarian in the neoclassical sense of Max-U. (In what follows we use “utilitarian” in the sense of pertaining to utility, not in the sense of pertaining to the philosophical doctrine of utilitarianism.) For Smith “self-love” is necessarily at the core of our being, but in the responsible individual’s prudent maturation, conduct is shaped by learnt other-regarding rules of social order originating in our capacity for mutual sympathetic fellow-feeling.

Behavioral and experimental economists offered other ways of reconciling the predictive failures of Max-U in the form of “social preference” and “reciprocity” theories.¹³ Since neither of these ex post resolutions are appropriate for characterizing Smith’s model, *Sentiments* deserves our careful attention if we are to understand why and how modern thinking turned away from the classical tradition, ill-preparing us for the disruptive discoveries in two-person interactive games. It is an error common to the modern mind to suppose that any insightful earlier conceptual breakthrough in understanding must surely have been integrated into the subsequent literature. Indeed many of the insights in *Sentiments* were subsequently discovered, and the psychology of sentiment has been independently reevaluated.¹⁴ But we will show that the model in *Sentiments* – the thought framework – is distinctive and relevant for a twenty-first-century social science of human beings.

MODELING HUMAN ACTION

A good place to start in getting a grasp on Smith’s model and manner of thinking is to examine his opening sentence: “How selfish soever man may

¹² For summaries, see Colin Camerer (2003, chapters 1, 2) and Smith (2008b, chapters 10, 11, 12).

¹³ See, e.g., Armin Falk, Ernst Fehr, and Urs Fischbacher (2008) and Kevin McCabe, Mary Rigdon, and Vernon Smith (2003).

¹⁴ See, e.g., Daniel Kahneman and Cass Sunstein (2005).

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” (TMS, First.I.I., p. 3).¹⁵ For economists trained in the neoclassical utilitarian tradition and the psychologists influenced by it, “pleasure” automatically implies utility, while a concern for the fortune (and happiness) of others is about altruism. Smith is neither a utilitarian in the modern sense, nor is he writing here about altruism. The word *altruism* did not enter the English language for another century.¹⁶ Smith’s conception of “pleasure” refers to the feeling of something good, not the mere ordinal ranking of alternatives meant by modern utility maximization. In Smith’s model, we feel good about “mutual sympathy,” which is being in a harmonious or resonant relationship with others. Smith’s relationship involves what the modern reader would call “mutual empathy” although the word *empathy* would not enter English for another 150 years. Empathy involves a capacity to comprehend by your imagination what you would feel if you were in another person’s situation. But Smith’s use of “fellow feeling” is especially self-evident in conveying the meaning we want to capture, and we will use his phrase. Here is a modern translation of the opening sentence that draws on explanations as we see them subsequently developed in *Sentiments*: However selfish we assume people to be, our capacity for mutual fellow feeling guides us in learning context-dependent rules of conduct that enable us to live in harmony with others.

Smith’s most basic axiom in *Sentiments* is the Stoic principle of self-love, that each person is best qualified to be concerned with, and to manage, his own care (TMS, Second.II.II, p. 119; Seventh.II.II, p. 402; Seventh.II.III, p. 445). This axiom, known as non-satiated preferences in modern choice theory, did not lead Smith to base individual actions on some version of utility maximization. How did Smith avoid the seemingly obvious neoclassical implication of non-satiation à la Jeremy Bentham, William Stanley Jevons, Paul Samuelson, and modern game theory? Why did he not model human decisions as choosing actions to maximize utility? From our study of *Sentiments* we infer that in Smith’s vision, common knowledge of self-love is what enables each person to judge from the context whether, and for

¹⁵ Our notation for citing TMS is “Part.Section.Chapter, p. page(s),” for the Part, Section, and Chapters explicitly numbered in the text. Sections or chapters that are implied but not explicitly numbered as such in TMS are denoted in parentheses, e.g. Third.(I).VI, p. 250.

¹⁶ To be precise, *altruism* entered the English language in 1852. Thomas Dixon (2008) offers a brilliant detailed study of how the word entered the English lexicon and how the concept has been evolving ever since.

whom, an action is beneficial or hurtful. An action is beneficial if it awards more of a resource (money, goods, or services) to another, and an action is hurtful if it provides less of a resource for another. The context of an action is essential because the resulting outcomes can only acquire meaning relative to the available decision alternatives defined by the context. For a person who is concerned only with maximizing her own reward, information concerning what benefits or hurts others is entirely irrelevant, and the context of an action has no significance as a signal sent by the decision-maker or to be read by other persons like themselves. In contrast, Smith's idea is that each of us, tacitly knowing that everyone strictly prefers more, and strictly dis-prefers less, is in a position thereby to judge the beneficial or hurtful intent of a person's action relative to alternatives that might be chosen. Consequently, actions are messages, part of a conversation, to be read as signals, responded to as signals, and in Smith such exchanges constitute the foundations of human sociability.

In this model, context or circumstances is a core feature of interactive decisions. Retrospectively, this is highly significant because in the 1980s and 1990s when experimental economists and cognitive psychologists observed widespread and replicable deviations from self-interested choices in two-person games like the ultimatum game, their explorations designed to find out why these had occurred soon established that context mattered greatly.¹⁷ Indeed, varying context seems to have a far bigger and more diverse impact on observed decisions than varying payoff levels. These results were consistent with the model in *Sentiments*, but Smith's framework was not part of our mode of thinking. The mechanism in *Sentiments* that causes context to matter, that tempers and modifies the decision not to blindly follow one's own utility maximization, is social. Each person adaptively learns to respond in ways that "humble the arrogance of his self-love, and bring it down to something which other men can go along with" (TMS, Second.II.II, p. 120). Social maturation involves learning to follow rules that satisfy fitness norms or conventions that control the inconsiderate pursuit of one's self-interest. Conducting one's self in an other-regarding manner is the result of exerting the "self-command" necessary to build, service, and maintain social capital. Such learning is internalized as ethical, self-governing action.

Smith's socializing uses the common knowledge that everyone is self-loving to judge the propriety of conduct that is socially fit, and thereby

¹⁷ For example, Smith's (2008b) chapter 10 is entitled "The Effect of Context on Behavior," but the theme derives from experimental findings not from theory and not from *Sentiments*.