Deriving “General Principles”:
The ubiquity of equilibrium and comparative statics analysis in the works of Adam Smith

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Abstract

This paper contributes to the debate over the unity in Smith's corpus by emphasizing his pervasive use of an analytic method. Specifically, Smith consistently relies on equilibrium arguments to explain why a given pattern of economic, political, or social interaction is stable; and comparative static arguments to explain how a stable pattern changes. Our paper focuses on several examples central to his work: the political economics of development in the Wealth of Nations and the Lectures on Jurisprudence; the learning and of and adherence to moral norms in the Theory of Moral Sentiments; and the development and evolution of language in Smith’s essay on the “First Formation of Languages.” We argue that Smith’s analysis of patterns of central tendencies and “general rules”—equilibria—and the conditions under which those rules change are defining features of his “science of man.” Not only do they anticipate analytic modes in modern social science, Smith’s use of equilibrium and comparative statics arguments demonstrates how his approach to social science was exportable and applicable to many realms of human behavior beyond economics.

1. Introduction

Since the widespread rejection of ‘Das Adam Smith Problem’ in the last quarter of the twentieth century, scholars have searched for unity in the wide-ranging corpus of Adam Smith. ²

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2 In brief, “Das Adam Smith Problem” was a conceptual debate amongst Adam Smith scholars that dates to late 19th-century German scholarship. These scholars argued that there exists a disconnect between Smith’s Theory of Moral Sentiments, in which the primary force of social analysis is sympathy, and The Wealth of Nations, in which the primary force is self-interest. Ultimately, the idea of a fundamental break in Smith’s thinking has been largely rejected, though the debate has evolved into one
Many scholars seek to understand his corpus by speculating about the so-called “missing second book” on jurisprudence that Smith promised at the end of *The Theory of Moral Sentiments (TMS)* but never completed. Seemingly, this missing book was to have bridged *TMS* and the *Wealth of Nations (WN)*, drawing on ideas developed in his lectures on jurisprudence.³

An alternative but less common approach has been to analyze Smith’s social scientific *methodology* rather than the substantive content of his work. Several scholars have observed that Smith sought to apply the scientific method, which he described at length in his essay on the “History of Astronomy” (Berry 2006, Montes 2003a,b,2006, and Skinner 1996b). Dow (2009) also illustrates how Smith’s reliance on the concrete, historical analysis owes “explicit debt to Newton’s [scientific] methodology;” as Dow and others have observed, such a method was intended to uncover the fundamental principles of the human order as Newton uncovered the fundamental principles of the natural order. Henderson (2006:117-18) shows that Smith carefully uses the logical “if/then” form of analysis to state many propositions. Otteson (2002 **, 2011: 130-131) describes an overall “Smithian” approach, arguing that Smith’s *TMS*, the “Essay on Language,” and his analysis of markets in *WN* share the same structure he calls a “market model.”⁴ Blaug (1992:52) also observes that “Books I and II of the *Wealth of Nations* make liberal use of the method of comparative statics later associated with the work of Ricardo.”⁵

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⁴ Otteson’s market model has four “central structural elements”: (1) an assumption about human motivation, such as the desire to communicate; (2) a set of rules, such as rules of grammar; (3) a currency, or what gets exchanged; and (4) an “unintended order” that results from the exchange, such as shared standards of morality.

Finally, Ryan Hanley has lucidly demonstrated how Smith’s was able to recognize patterns in one field and applied them in a way to make sense of patterns in another field. For example, Smith repurposes the key insight of the pin factory—that the division of labor and specialization yields gains in productivity—in the academy to argue that philosophers specializing in different topics (mechanical, moral, political, or natural) are more productive when they are “subdivided into various provinces,” (Hanley 2017:279-281; LJ(A) vi.43). Needless to say, the emphasis on Smith’s unifying scientific and rhetorical methods—as opposed to the substantive ideas contained in his works—has further enabled scholars to disprove “Das Adam Smith Problem” and draw attention to the breadth of Smith’s social science beyond economic analysis.

We take up a similar task in this paper by highlighting a pervasive form of analysis in Smith’s works, namely, his equilibrium and comparative statics arguments. Though Smith himself did not use these terms—as we explain below—he consistently employed this form of analysis to explain how and why a certain outcome is achieved in a strategic interaction (an equilibrium argument), and how and why that outcome changes under certain conditions (comparative statics). That Smith uses this form of analysis to explain cooperation and conflict across vastly different realms of the human order is an indispensable—albeit, not the only—feature of Smith’s oeuvre and one which reflects the multifaceted nature and capacious scope of the Enlightenment science of man.

Many of Smith’s most powerful insights rely on equilibrium and comparative statics arguments. Indeed, these form of argument are a major reason why modern economists are so inclined to think of Smith as the founder of the discipline. However, as we demonstrate, Smith employs the logic of equilibrium and comparative statics analysis beyond the realm of economic behavior. His analysis of political and institutional development—such as rise and fall of the
Roman Catholic Church, the stability of feudalism and its later decline—takes the form of equilibrium and comparative statics arguments. The central theme of his *Theory of Moral Sentiments*—how and why individuals come to follow the “general rules of morality” (*TMS* III.4.8., III.4.10-12, pp. 159-160) can also be ascertained through the same underlying form of analysis. Smith’s approach to uncovering general principles of order and the conditions under which that order changes is evident throughout his lesser-known works as well, from his essay on the formation of languages to his *Lectures on Rhetoric and Belles-Lettres* (*LRBL*). And, as is familiar for many scholars, the conclusion of the final edition of *TMS* (1790) alluded to another work that Smith never finished—a work which he would “give an account of the general principles of law and government, and of the different revolutions they have undergone in the different ages and periods of society…” (*TMS* VII.iv.37: 342).

The heart of our analysis in this paper focuses on two main examples. The first concerns Smith’s explanation of the rise and decline of feudalism in Europe: how was it possible that feudalism, a period marked by low-growth and violence, was sustained for so long? What enabled its decline and the subsequent rise of commercial towns with higher growth, greater security, and greater liberty? The second concerns Smith’s explanations for learning and sustaining moral behavior: how do individuals agree upon and follow the “general rules of morality?” What makes some people able to sustain moral behavior more than others?

Smith’s answers to these questions, both in their substance but more importantly in their method, underscore an important feature of his approach to social science: it contains elements of both normative and positive political theory. Traditionally, normative and positive concerns are seen to be two distinct endeavors: normative theory making statements about what ought to

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6 We discuss these examples in forthcoming sections. Smith covers them in *WN* Book III; *LJ* (A) iv.114-159:244-62, *LJ* (B) 285-309: 521-30; and *WN* V.i.g:788-814. See also the analysis in Weingast 2017a.
be and positive theory making statements about what is. Smith, however, frequently provides positive models to show how a set of normative principles—whether economic growth, political liberty, or moral behavior—can be sustained in practice. Though this is by no means a novel discovery or interpretation, few scholars have fully appreciated the centrality and indeed, innovativeness of this particular feature of Smith’s works. We argue that understanding the importance and pervasiveness of equilibrium and comparative statics analysis in Smith’s works leads to a fuller understanding of Smith’s contributions not just to economics, but to the scientific study of the whole of human order.

This paper proceeds as follows. In section 2, we define what we mean by equilibrium and comparative statics arguments. While we use examples from modern economics, we also acknowledge that Smith himself did not use these terms and show how one can identify the underlying logic of these arguments in his works. In sections 3, 4, and 5, we reconstruct three examples of how Smith applies this logic in political economic development (section 3), moral behavior (section 4), and language (section 5). In the final section, we discuss the implications our framework has for understanding Smith’s political theory and his contributions to social science more generally.

2. Equilibrium and Comparative Statics: A Brief Primer

The concept of equilibrium is one of the most important concepts in modern economics today. Although it has taken on many meanings and applications, at its core, an equilibrium is a “balance of forces” in a strategic interaction of individuals (or groups) with motivating behavior (Miltgate and Stimson 2009: 84). It is also commonly thought of in the following way: no

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7 For more on the various meanings of equilibrium, see Milgate (1987).
individual or group has an incentive to deviate from the behavior that leads to the equilibrium outcome.

The simplest and most obvious illustrations of equilibrium conditions often come from market interactions, such as that between a buyer and seller in a market. The buyer and seller each have a specified goal, and their behavior is motivated by a desire to “better their condition,” to use Smith’s phrase: the buyer wants to buy at a lower price, while the seller hopes to make more profit by selling at a higher one. Both the buyer and seller are potentially better off with an exchange, at least within some range of possible prices. Each has a number of options or strategies from which to choose; such as announcing a price at which they are willing to exchange; each can walk away from the sale. If we hold constant a variety of environmental elements or what are now called “exogenous parameters”—say, the time of year, the price of related goods, the state of the economy—the equilibrium condition exists when neither the buyer nor seller can be better off by changing his strategy: the seller cannot make more money by raising or lowering his price; and the buyer cannot do better either by buying a different quantity or by going elsewhere to make her purchase.

Smith presents the canonical example of the equilibrium quantity and price of a good in Book I chapter VII of the *Wealth of Nations.* When sellers bring a quantity of a good that exceeds the demand for it, it “cannot be all sold to those who are willing to pay the whole value of the rent, wages, and profit which must be paid” in order to bring that good to the market in the first place; thus, “the market price will sink more or less below the natural price.” If, however, “the quantity brought to market is just sufficient to the effectual demand and no more,” then the market price of that good “comes to be either exactly, or as nearly as can be judged of, the same with the natural price.” The natural price—or the *equilibrium* price—is that which the seller
cannot sell for any more or less, and buyers do not buy for any more or less, or, as Smith writes, it is that price for which “the whole quantity [of the good] on hand can be disposed of for this price, and cannot be disposed of for more.”

To this well-worn example of natural price as equilibrium price, Smith adds a remark that is worth underscoring here: the natural—or equilibrium—price is “the central price, to which the prices of all commodities are continually gravitating.” There might be “different accidents” that keep the price of the good hovering just above or just below it temporarily, but “whatever may be the obstacles which hinder them from settling in this center of repose and continuance, they are constantly tending towards it.” This is the concept of equilibrium that we want to draw out in Smith’s works: it is a “central tendency” in a system that forces are constantly gravitating towards. As Milgate and Stimson (2009:85) have suggested before us, Smith’s (implicit, we should add) concept of equilibrium price ought not to be confused with the idea of a stable competitive equilibrium in modern economics. Simply put, equilibrium conditions are formal expressions—a type of analytic reasoning—of the notion that there are forces that produce patterns, regularity, and order in a system (Milgate and Stimson 2009:86).

The natural prices and quantity of goods is a classic example of equilibrium analysis in an economic system (a market), and it can hardly be doubted that it became a pillar of the science of political economy in the late-eighteenth century. But, as scholars today well know, there were many more “systems” of human cooperation and conflict in which Smith sought to unveil the central tendencies, general principles, and rules that governed them. By “representing the invisible chains” that bound together disjointed events and occurrences, Smith endeavored “to introduce order into this chaos of jarring and discordant appearances,” to make sense of the


9 *WN* I.vii.15, p. 75.
“discordant phaenomena of nature,” and to soothe our psychological need to make sense of the unexpected (*History of Astronomy* (HA), II.11-12; IV.76; Phillipson 2010: 283). Our goal in this paper, then, is to illuminate how these types of central tendencies and “general principles” are a defining feature of Smith’s works—not just in his economic theory, but importantly, in his theory of political development, institutional change, and morality as well.

While the idea of equilibrium in Smith’s economics has been explored by a handful of scholars, to our knowledge, no one has yet interpreted Smith as pervasively using this idea; and even fewer scholars observing Smith using some comparative static ideas, let alone pervasively so. There is, undoubtedly, some good reason for this. To start, it is a modern term that Smith did not use, and to read comparative statics back in time on to Smith’s works runs the risk of anachronism. To be sure, we are not claiming that Smith invented equilibrium and comparative statics analysis, nor are we arguing that Smith *intended* to and *did* do equilibrium and comparative statics analysis exactly along the lines of modern economics. We are simply marshaling modern terminology in service of gaining clarity about the underlying logic of Smith’s method of analysis. Our use of the terminology of comparative statics, is in the following way: it is an analytic device used to understand how an equilibrium outcome changes in response to a change in an exogenous factor.

To return to the market price example: suppose that at a given income, the buyer will purchase two units of the good at the natural, or equilibrium, price. However, if the buyer’s income falls significantly, she will purchase less of the good—perhaps just one unit at the

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10 See also Hanley 2017: 282, who writes, “Provisionally, then, Smith’s aim as a philosophical or scientific inquirer might be described as an effort to establish the connections that bind together seemingly unrelated and chaotic multiplicities and demonstrate how they might be shown to appear to the mind as stable systems governed by uniform processes.”
equilibrium price. Comparative statics analysis of this situation yields the following insight: as the buyer’s income falls, she purchases less of a particular good.

Smith’s Wealth of Nations is abundant with comparative statics examples—too many to list here, but some of which we supply in the table that constitutes Appendix 1. One of the clearest examples of Smith’s comparative statics arguments occurs in his discussion of wages in Book I, chapter X. Smith explains that, subject to the “advantages and disadvantages of different employments of labor and stock,” wages tend to an equilibrium level. Specifically, wages must, in the same neighbourhood, be either perfectly equal or continually tending to equality. If in the same neighbourhood, there was any employment evidently either more or less advantageous than the rest, so many people would crowd into it in the one case, and so many would desert it in the other, that its advantages would soon return to the level of other employments (WN I.x.a.1:116).

We can interpret what Smith is writing here as a number of key comparative statics. Smith is explaining what happens to a laborer’s equilibrium wage as key parameters change, such as the riskiness of the job, the amount of human capital required, or overall levels of employment and scarcity. Smith provides the logic: “The wages of labour vary with the ease or hardship, the cleanliness or dirtiness, the honourableness or dishonourableness of the employment,” and “the wages of labour in different occupations vary with the constancy or inconstancy of employment.” (WN I.x.b.2:117; I.x.b.11:120). Smith further argues that: “In years of scarcity, … [m]ore people want employment than can easily get it; many are willing to take it upon lower terms than ordinary, and wages of both servants and journeymen frequently sink.” The opposite occurs in years of plenty (WN I.viii.45-47:100-01). Additionally, wages will tend towards a higher equilibrium (that is, a higher level) in more difficult or risky jobs.

Smith’s discussion of wages has all the elements of an equilibrium and comparative statics argument. The central tendency or equilibrium wage in a neighborhood (read: a given
area) generally trend toward the same levels; otherwise, workers will alter their choices, deserting lower paying jobs for higher paying ones. For comparative statics, Smith’s theory has a variety of parameters – riskiness of the job, constancy of the employment, etc. – and he explains how wages are affected by changes in these parameters.

A final note about comparative statics in this primer. It is important to differentiate comparative static results from simple behavioral relationships, both of which often can take the form of an assertion that “an increase in X results in an increase in Y.” Behavioral relationships are not derived from assumptions, but asserted or inferred from observation or data analysis. For example, scholars of American elections report many behavioral relations: older voters are on average more conservative than younger ones; higher turnout in American elections benefits the Democrats; and turnout is affected in systematic ways by the weather. Smith himself makes many behavioral assertions along these lines. In the Lectures on Jurisprudence, for example, Smith observes a relationship between prosperity and military preparedness. In agricultural societies, Smith reports that one in four people can fight, whereas in commercial republics, only 1 in 100 can fight (LJ(A) iv.74-87: 228-33).

Although much wisdom may be embodied in a behavioral relationship between X and Y, these types of statements do not constitute a comparative static result because the association is not based on a demonstration of the underlying equilibrium logic to explain behavior. Comparative statics, on the other hand, necessarily derive from the logic of the underlying equilibrium tendency, which itself is determined by a set of assumptions about motivating behavior and controlled parameters. In the example from LJ(A) above, Smith merely posits a relationship, but does not provide any assumptions or intuition about the underlying equilibrium behavior. If he had provided an explanation of, say, a general rule for how much time people in
certain societies have to train as soldiers, this behavioral relationship might then be an equilibrium and comparative statics result.\textsuperscript{11}

Thus, our standard for identifying equilibrium and comparative statics in Smith is the following: first, an articulation of the articulation of an equilibrium condition, that is, a trend towards a central tendency in which no actor has an incentive to choose an alternative set of actions; second, for comparative statics, an articulation of how the equilibrium state changes in response to a change in a given parameter. We do not insist on a formal demonstration of an equilibrium condition in the manner of modern economics. Moreover, as will be clear, Smith's analysis of equilibrium and comparative statics is stronger in some settings than in others.

To reiterate: Smith does not use the terminology of equilibrium and comparative statics.\textsuperscript{12} Our purpose in leveraging familiar concepts from modern economics is \textit{not} to “economize” Smith, to speak, and force him into the framework of modern economic analysis. Rather, it is to show that Smith formalized and anticipated one of the most important methodological tools of social scientific analysis. Further, these techniques are a major feature of Smith's rhetoric – that he used this set of concepts as a means of organizing and conveying his theories. As Ryan Hanley has observed, Smith employed “techniques of pattern detection” in disparate, but interrelated, fields of inquiry (Hanley 2017:295). Our argument, then, is that the equilibrium and comparative statics logic are a defining feature of that method of pattern detection—or what

\textsuperscript{11} Smith does come close to presenting an analysis along these lines in Book V Chapter 1 (V.i.a.1-14).

\textsuperscript{12} In fact, the only instance in which Smith uses the term “equilibrium” is in a paragraph in which he dismisses the “balance of trade” as nonsensical. The word “equilibrium” is used synonymously with “balance:” “Nothing, however, can be more absurd than this whole doctrine of the balance of trade, upon which, not only these restraints, but almost all the other regulations of commerce are founded. When two places trade with one another, this doctrine supposes that, if the balance be even, neither of them either loses or gains; but if it leans in any degree to one side, that one of them loses, and the other gains in proportion to its declension from the exact equilibrium” (\textit{WN} IV.iii.c.2 : 489).
Smith might have called the deriving of “general principles”—across political, moral, and economic life.

3. Smith’s Analysis of the Feudal Equilibrium and The Political-Economic Development of Europe

One of the most interesting equilibrium and comparative analyses Smith provides is an extended explanation of why certain societies emerge from and continue to develop after the feudal order, while others remain at an earlier stage of development. His analysis takes up the whole of Book III of the Wealth of Nations, and elements also appear in the earlier Lectures on Jurisprudence. This section explains how Smith used equilibrium logic to explain why Europe endured such a long period of low-growth under feudalism, and how Smith explains the transition from feudalism to nascent commercial society as a comparative static.13

3.1. The feudal equilibrium following the fall of Rome.

Book III of Smith’s Wealth of Nations and his earlier Lectures on Jurisprudence are often viewed as paradigmatic, early theories of political economic development. Why some countries became rich and others became poor was a central question for Smith and his contemporaries. “When one considers the effects of the division of labour, what an immediate tendency it has to improve the arts, it appears somewhat surprizing that every nation should continue so long in a poor and indigent state as we find it does,” Smith commented in the Lectures (LJ(B) 281, p. 521). A careful analysis of his explanations in both the Lectures on Jurisprudence and Book III

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of *The Wealth of Nations* reveals how Smith used equilibrium and comparative statics arguments to illustrate the long and difficult process of political economic development in Europe.

As Smith explained, the violence associated with the fall of Rome caused a downward economic spiral; as a result, exchange—the necessary basis for the division of labor and hence of opulence in his theory—became riskier and vulnerable to plunder. No government could provide security except on a local basis. As Smith writes, “The king also found it absolutely necessary to grant the power of jurisdiction to these lords; for as he had no standing army there could be no other way of bringing the subjects to obey rules” (*LJ* (A) iv.119:246). No one could maintain peace; the great lords “were always at war with each other and often with the king, their whole power depended on the service of their retainers and tenants” (*LJ* (A) iv.126-27:249). In order to maintain some semblance of power and order, then, Europe adopted feudalism as the most natural and rational response to the political uncertainty and constant threat of violence (Moss 1979:85).

Yet feudal Europe continued to be characterized by violence, predation, and little economic growth. Investment, in Smith's view, was generally fruitless; indeed, to invest, improve, accumulate, and better one’s condition was to become a target of plunder. As Smith writes, “the occupiers of land in the country were exposed to every sort of violence…to acquire more might only tempt the injustice of their oppressors” (*WN* III.iii.12:405). Moreover, Smith argues, peasants, the vast bulk of the feudal population, had incentives to eat as much as possible and work as little as possible (*WN* III.ii.9:387-88). In sum, this constant threat of violence and predation inhibited economic development.

Smith sought an explanation for the following puzzle: if feudalism was characterized by low growth and high violence, how and why was it sustained for so long? In other words, why
was feudalism a central tendency—the equilibrium condition--in the course of political and economic development? Just as Smith outlined the parameters that influence the levels of wages, Smith’s answer to this question also outlines key parameters that sustained the feudal order.

In Smith’s analysis, violence is a key parameter. Because no one could impose order, the lords were constantly fighting each other. To survive in this environment, lords had to turn their surplus into military might in the form of vassals. Failing to do so left a lord vulnerable to the plunder of other lords. As Smith writes, the great lords “were always at war with each other and often with the king, their whole power depended on the service of their retainers and tenents” (

A second key parameter is the form of property rights as the basis of political bargaining power. Relying on a similar logic, Smith shows why the feudal lords adopted an extremely restrictive code of property rights. Land was the dominant economic asset during the Middle Ages. Because land represented not only economic, but also political and military power in this period, the feudal system’s form of property rights was central to its survival. As Smith writes, land was considered “as the means, not of subsistence merely, but power and protection,” and as such, the security of a landed estate constituted the very protection of political power. Thus, “to divide it was to ruin it, and to expose every part of it to be oppressed and swallowed up by the incursions of its neighbours” (WN III.i.; pp. 838-83). In short, because land was an asset that guaranteed not just material wealth but also political security, laws—such as primogeniture—emerged to severely restrict property rights in a manner that enhanced that security. While in commercial societies, such laws significantly hindered economic growth, in the feudal

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14 On violence and political power in this environment, see (Samuels 1973, Viner 1948; see also Hirschman 1945).
environment of Europe, they were indispensable guarantors of political security. In sum, the paramount nature of security forced feudal lords to adopt property rights that furthered this end, even at the expense of increasing growth.

Our brief summary here of Smith’s account of feudalism can be read as his answer to the question about why so many societies fail to become opulent and develop. Endemic violence meant that individuals had few incentives to invest in capital improvements or new productive techniques because it risked being plundered. The ever-present threat of violence determined the form of political exchange which was based on land-holding; a particular form of land rights emerged to facilitate the local lords’ ability to provide local security, even at the expense of long-term economic growth. In Smith’s view, the feudal world was violent and poor, but stable. In modern terms, we variously characterize this equilibrium of violence as a “vicious circle of poverty” (Macfarlane 2000:98) or a “violence trap” (Cox, North, and Weingast 2017). For a long period, feudalism was the “central tendency” that societies in Europe gravitated towards in terms of their political and economic development; due to the constant threat of violence and plunder, rulers and ruled had little incentive to deviate from a system that prioritized the protection of exclusive land rights at the cost of widespread economic growth.

3.2. Comparative statics: the towns escape the feudal equilibrium.

Just as the natural or equilibrium price of a commodity can change due to exogenous shocks to a system, so Smith also envisioned how the equilibrium state of political economic development might also change. His explanation of how European states escaped the low-growth order of feudalism and reached a new order of commercial society involves several steps. In this paper we discuss the first step in the development of the new commercial society, the
emergence of towns. Smith’s argument about this phenomenon takes the form of a comparative statics account of how a “central tendency” of a certain stage of political economic development changes.

First, the rise of towns outside of the dominion of the local lords and kings introduced a new mode of political bargaining. Initially, towns were small and lacked power. Traders, or burghers, were often subject to the violence and plunder of local lords. The wealth of the burghers “never failed to provoke [the] envy and indignation” of the local lords, who would plunder them “upon every occasion without mercy or remorse” (WN III.i iii.8: 402). As Smith writes, this “lawless and disorderly state of the country rendered communication dangerous” (LJ(A) iv.142-43: 255-56). Thus, as part of the feudal equilibrium, the constant threat of violence initially prevented inhabitants of towns from investing and expanding trade.

However, a critical political exchange amongst the traders in the town, the local lords, and the king took place. Because the king and the burghers had a “mutual interest” in defending each other against the local lords, the king found it “in his interest to render [the burghers] as secure and independent of those enemies [the lords] as he could,” (WN III.i iii.8: 402). Thus, the king granted the towns political independence in exchange for taxes and military support against the local lords, their common enemy. With newfound political independence, the cities of burghers were able to make their own laws, establish an administration of justice, build walls for defense, and expand their long-distance trade, their great source of wealth (WN III.iii.8-9:401-02).

Whereas in the feudal era, this increase in wealth and independence would have made the cities still more vulnerable to attack and plunder, now the cities had greater security: they were able to build walls, cultivate military discipline amongst their inhabitants, and formed leagues of
“mutual defence” against the lords. The strength of these cities would eventually rival that of the king. Smith describes that in Italy and Switzerland, “the sovereign came to lose the whole of his authority, the cities generally became independent republicks, and conquered all the nobility in their neighbourhood;” while in France and England, the authority of the cities became “so considerable that the sovereign could impose no tax upon them…without their own consent,” (WN III.iii.10-11: 403-404). Lest the king lose a great source of revenue and military support against the lords, or the cities lose their political independence, this balance of political and economic incentives fostered “order and good government, and along with them the liberty and security of individuals” in the cities (WN III.iii.12: 405).

At this point, Smith makes a crucial point that draws on the underlying equilibrium logic that explains this shift. He observes that, at the same time as the cities were gaining their power, other landowners in the countryside were in a “defenceless state,” “exposed to every sort of violence;” thus, productivity never exceeded that of subsistence “because to acquire more might only tempt the injustice of their oppressors,” (WN III.iii.12: 405, emphasis added). Under background conditions of violence and insecurity, there is no incentive to acquire more material possessions or produce more from the land—hence, the persistence of the feudal order. However, as Smith notes, once the cities obtained greater security through their agreement with the king, men were able to enjoy “the fruits of their industry,” and moreover, “naturally exert it to better their condition, and to acquire not only the necessaries, but the conveniencies and elegancies of life,” (Ibid.). In other words, security from external violence led to higher levels of productivity—something that the cities were able to achieve in their political exchange with the king.
As Smith explains in the following chapter, the growth of the cities of Europe also contributed to the growth of the countryside. Raw produce found markets in the city, which encouraged greater cultivation and improvement of the land (WN III.iv.2:411). The growth of foreign commerce and manufacturers eroded the authority of the nobility and “great proprietors” who sought to exchange their wealth “in the wantonness of plenty, for trinkets and baubles” and in doing so, “became as insignificant as any substantial burgher or tradesman in a city,” (WN III.iv.15: 421).

At this point Smith reiterates a key part of his overarching analytic framework by identifying the motivating behavior underlying the equilibrium outcome: for the great proprietors and nobles, it was the gratification of “the most childish vanity” by purchasing luxuries obtained through foreign commerce; for the merchants and artificers, merely to pursue their “pedlar principle of turning a penny wherever a penny was to be got,” (WN III.iv.17:422). The balance of these forces enabled the gradual introduction of “order and good government, and with them, the liberty and security of individuals, among inhabitants of the country,” to wit, the emergence of a new equilibrium of political economic development. Whereas under feudalism, the inhabitants of the country would have lived “almost in a continual state of war with their neighbors, and of servile dependency upon their superiors,” the shift in background conditions—most importantly, the security and independence afforded to the towns and new currencies of bargaining power—enabled the rise of a new equilibrium order: commercial society.

Interpreting Smith’s account of the “different Progress of Opulence in different Nations” not merely as an agglomeration of historical cases, but as a systematic analysis of the preconditions for behavioral and institutional change informs our understanding of his works in a number of ways. First, despite Smith’s lack of acquaintance with the modern terminology of
equilibrium and comparative statics, Smith clearly anticipated (some might say invented) the logic that underpins them. His account in Book III of *The Wealth of Nations* takes historical “data,” so to speak, in order to stipulate the “general rules” of political economic development. Equilibria of political and economic development are ways of organizing power and production that societies are constantly gravitating towards, whether it be feudalism or commercial society. Key factors, however—such as the prevalence of external violence, institutions of property rights and modes of exchange—can cause these outcomes to be different.

Second, Smith’s systematic treatment of the history of European development in this way demonstrates his dedication to conducting a scientific inquiry that could render coherent seemingly unintelligible, disconnected events. The course that Europe took, as Smith described it, was “in many respects, entirely inverted” compared to the “natural order of things,” and hence has been considered an “unnatural and retrograde order,” (*WN* III.i.9: 380). But this is not Smith passing a value judgment; rather, it is Smith presenting the puzzle to which he is about to answer: why did Europe develop commerce and manufacturing first, as opposed to agriculture? What was the effect of this “unnatural” trajectory of development? Our suggestion is that Smith’s answer to these questions often takes the form of an equilibrium and comparative statics argument, one that has become one of the most profound and axiomatic insights about political and economic development today. The prevalence of violence and exclusive institutions of property rights sustains an order of low-growth and constant conflict; however, the introduction of commerce yields new forms of political and economic exchange that can shift the equilibrium order to one of greater peace, prosperity, and liberty.
4. Equilibrium and Comparative Statics in *The Theory of Moral Sentiments*

*The Theory of Moral Sentiments* was Smith’s attempt to explain the process by which humans learn, understand, and follow the moral norms. Sympathy and the role of the impartial spectator play a crucial role in his account, and numerous scholars have discussed their importance at length.\(^{15}\) For our purposes, we simply aim to demonstrate how Smith’s ethics draw on an analytic framework that parallels his political economy. We can interpret some of the core ideas of *TMS* as equilibrium and comparative statics analysis of the following puzzles: how and why do individuals gravitate towards a shared set of moral norms? What causes some people to follow the “general rules of morality” (as Smith calls them) more than others?

4.1. Equilibrium argument: “It is thus that the general rules of morality are formed”

Sympathy allows us, to a degree, to understand the feelings of others and hence evaluate the basis for their judgments and motivation. It is, as scholars have noted, both a process (I can sympathize with you) as well as an outcome (I want someone’s sympathy) (Montes 2005, Broadie 2006:166; Schliesser 2016:37-38). The process of sympathizing with another person is fundamentally an imaginative process: through the imagination, we enter into the position of another and try to make sense of the agent’s sensations, feelings, experiences. It is through this imaginative process, then, that any feelings or passions of another person can “call forth our fellow-feeling,” (*TMS* I.i.1.4:10), and “nothing pleases us more than to observe in other men a fellow-feeling with all the emotions of our own breast,” (*TMS* I.i.2.1: 13).

For Smith, both the process and outcome of sympathy are grounded in man’s natural sociability. A person “could no more think of his own character, of the propriety or demerit of

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his own sentiments and conduct” if he were born and raised in solitude; but “Bring him into society, and he is immediately provided with the mirror which he wanted before,” (TMS III.1.3: 110). In other words, society provides the terrain on which we judge the propriety and merit of other peoples’ conduct, and society provides the “mirror” in which we reflect on our own. Because individuals are constantly engaged in some sympathetic exchange with the conduct of others, they begin to be anxious about whether their own conduct is worthy of blame or approbation, and they begin to cultivate the capacity for “[their] first moral criticisms,” (TMS III.1.4: 111-112). The sympathetic process is thus inseparable from spectatorship: individuals are spectators of their own behavior just as they are spectators of others, and they “endeavor to imagine what effect it [our self-spectatorship] would, in this light, produce upon us,” (TMS III.1.5: 112).

At this point, Smith presents one of his fundamental assumptions about behavioral motivations: that individuals desire not just the approval of others, but desire to be seen as worthy of approval. In Smith’s famous words,

Man naturally desires, not only to be loved, but to be lovely; or to be that thing which is the natural and proper object of love. He naturally dreads, not only to be hated...He desires, not only praise, but praise-worthiness...He dreads, not only blame, but blame-worthiness. (TMS III.2.1:114)

The desire for this type of moral approval, to be seen as “deserving and obtaining this credit and rank among our equals,” is, according to Smith, “perhaps, the strongest of all our desires,” (TMS VI.i.4: 212-13). As such, it is a key determinant in understanding how and why individuals can agree upon cooperative, pro-social, moral behavior.

Smith explains these incentives in another way. In our search for “love and admiration,” “[w]e must at least believe ourselves to be admirable for what [in others is] admirable.” With respect to our “character and conduct,” we draw “pleasure and contentment” when others see us
as we wish to be seen. Their reactions confirm our sympathetic evaluation of our own conduct. Moral encounters are thus “two-way affairs:” our attempt to understand and evaluate the conduct of others is reciprocated by others’ attempts to understand and evaluate our own (Phillipson 2010: 151). We raise or lower our passions “to that pitch, which the particular company we are in may be expected to go along with,” (TMS I.i.4.7,9: 22-23). Taking the standpoint of an impartial spectator allows us, to a degree, to see ourselves as others see us and hence to judge our thoughts and actions from the perspective of others. Although people are self-centered and largely concerned about themselves, they dare not act solely on this basis. Instead, people must strive to view themselves as others see them; they learn to “humble the arrogance of [their] self-love, and bring it down to something which other men can go along with” (TMS II.ii.2.1, 82-83).

None of this should be news to Smith scholars. However, it is important to underscore that the operation of the sympathetic mechanism through repeated interaction and sympathetic observation of our behavior that constitutes the emergence of the central equilibrium outcome in TMS: “our continual observation upon the conduct of others, insensibly lead us to form to ourselves certain general rules concerning what is fit and proper either to be done or to be avoided,” Smith writes (TMS III.4.7: 159). The “general rules” of morality reflect the equilibration of our actions vis-à-vis our sympathetic evaluation of our own conduct as well as that of others.

Smith’s repeated use of the phrase “general rules of morality” underscores its analytic status as an equilibrium in moral life. As in the case we outlined in Smith’s political economy, the “central tendency” here is an actually-existing feature of human order, and it is something that interactions are constantly trending towards. The general rules of morality are founded on experience—as opposed to divine right or reason alone—and repeated interactions with others,
discovering “that all actions of a certain kind, or circumstanced in a certain manner, are approved or disapproved of,” (TMS III.4.7:159); they can be determined “in no other way than by observing what actions actually and in fact excite them,” (TMS III.4.10, 160).

Finally, it is worth underscoring the stability of the equilibrium “general rules of morality.” Moral norms are sustained because, according to Smith, “when they are universally acknowledged and established, by the concurring sentiments of mankind, we frequently appeal to them as to the standards of judgment,” and invoke them as “the ultimate foundations what is just and unjust in human conduct.” (TMS III.4.911:160). To use modern language, once these “general rules” become entrenched, individuals have no incentive to deviate from them—to do so would be costly. Smith provides an illustration of this principle by imagining the thought process of a vengeful man:

The man of furious resentment, if he was to listen to the dictates of that passion, would perhaps regard the death of his enemy, as but a small compensation for the wrong, he imagines, he has received; which, however, may be no more than a very slight provocation. But his observations upon the conduct of others, have taught him how horrible all such sanguinary revenges appear. Unless his education has been very singular, he has laid it down to himself as an inviolable rule, to abstain from them upon all occasions. This rule preserves its authority with him, and renders him incapable of being guilty of such a violence. (TMS III.4.12: 160).

To sum up our discussion: the underlying equilibrium logic of Smith’s account of the “general rules of morality” relies on two key assumptions. First, individuals desire the approbation and mutual sympathy of others. Second, man’s capacity to sympathize with others through the imaginative process enables our moral evaluation of self and others. Finally, the general rules are formed—and stabilized—when it becomes apparent to all that deviating from them will result in disapproval. Our next task, then, is to show how Smith demonstrated the extent to which these “general rules of morality” adapt in predictable ways with respect to certain exogenous factors—that is, the comparative statics of moral norms.
4.2. Comparative Statics in \textit{TMS}: self-command and wealth

In this section, we highlight two cases that can be interpreted as comparative statics analyses of Smith’s “general rules of morality.” The first involves the factor of \textit{self-command}, the second involves the relative wealth and status of the agent being observed.

Smith discusses the virtue of self-command at length in Book VI of \textit{TMS}, alongside the virtues of justice, prudence, and beneficence. A complex virtue from which “all other virtues seem to derive their principle lustre,” (\textit{TMS} VI.iii.11:241), self-command plays a key role in Smith’s ethics.\footnote{Scholars have since debated the extent to which the primacy of self-command in Smith’s thought can be attributed to Stoic influence. See Montes (2016, 2008), Griswold (1999), Hanley (2009).} While self-command does, at times, seem to involve the control of the passions (hence, the interpretation of Stoic influence on Smith), Smith’s idea of self-command is probably closest to a modern notion of self-mastery or autonomy, with elements of temperance and prudence as well (Montes 2016).\footnote{For example, Smith describes “the great, awful, and respectable” set of virtues having their roots in the “virtues of self-denial, of self-government, of that command of the passions which subjects all the movements of our nature to what our own dignity and honour, and the propriety of our own conduct require,” (\textit{TMS} I.5.1:23).} Moreover, self-command comes in varying degrees; one does not simply have complete or no self-command, and it is learned over time. For the sake of our discussion, though, we are less interested in the precise nature of self-command than we are in Smith’s analysis of how different degrees of self-command influence the degree to which individuals are able to adopt the position of the impartial spectator, and in turn, follow the general rules of morality.

Smith unfolds his analysis in a series of passages comparing the behavior of a young child to that of a grown man. A young child “has no self-command,” Smith writes, and it does “whatever are its emotions, whether fear, or grief, or anger” dictates in order to attract (\textit{to...}
alarm”) the attention of its parents and caregivers. But, as soon as the child goes to school, it realizes it cannot simply act on its volatile emotions in this way—the child “soon finds that [the other children] have no such indulgent partiality.” So in seeking to gain their approval of his conduct, the child “enters into the great school of self-command,” and “studies to be more and more a master of itself,” (TMS III.3.22:145).

A man of weak self-command does slightly better than a child when it comes to evaluating his actions in light of how others and an impartial spectator would view him. He considers their perspective immediately—“their view calls off his attention from his own view”—but it is a fleeting, “mechanical” exercise and “not of long continuance.” His actions vacillate between being dictated by his own partial self-evaluation, and that of the impartial spectator (TMS III.3.23:145-146). A man of “a little more firmness” does better, according to Smith. He frequently endeavors to “fix his attention upon the view which the company are likely to take of his situation,” and is more capable of evaluating his own situation in light of how others view him. But he is easily tired of this “restraint” of the “hard discipline of self-command,” and as a result, is in danger of “abandoning himself to all the weakness of excessive sorrow,” (TMS III.3.24:146).

Someone who possesses strong self-command, “the man of real constancy and firmness” as Smith calls him, never forgets “for one moment the judgment which the impartial spectator would pass upon his sentiments and conduct.” This is Smith’s model of an individual whose moral conduct perfectly reflects the evaluation of the “awful and respectable judge” of the impartial spectator through constant practice. Thus, he abides by the general rules of morality because he consistently adopts the standpoint of the impartial spectator, “almost [becoming] himself that impartial spectator,” (TMS III.3.26:147).
Smith then provides the following insight: our ability to follow the general rules of morality and to see ourselves the way others see us—what Smith calls “self-approbation”—is directly proportional to our level of self-command. But, and this is crucial, “where little self-command is necessary, little self-approbation is due” (TMS III.3.26:147). It seems out of proportion to congratulate a man for his great self-command if all he did was merely forget that he had scratched his finger, for example; similarly, it would seem unnatural for a man who just lost his leg to a cannon to “[speak] and act with his usual coolness and tranquility” to display his high degree of self-command (TMS III.3.26:147).

Interpreting Smith’s argument here reveals the following insight: individuals learn and follow moral norms via the sympathetic mechanism of the impartial spectator; however, the degree to which they do so consistently varies with their degree of self-command. Furthermore, the necessity of high self-command in determining one’s moral conduct is highly contingent. The underlying logic of Smith’s argument still appeals to the fundamental assumptions of the equilibrium condition. Our desire to be seen as worthy of approbation incentivizes us to accept and follow the “general rules of morality.” Exogenous factors—our age, our amount of socialization, for example—influence our ability to overcome our partial self-evaluation, consistently adopt the standpoint of the impartial spectator, and internalize the general rules.

Another powerful example of Smith’s comparative statics analysis can be drawn from Book I Chapter 3 from TMS—a chapter that has received considerable scholarly attention. As is well known, Smith added this chapter to the last and final edition of TMS in 1790, along with the whole of Book VI. Seen in this light, Smith’s substantial revisions respond to some of the

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18 “The degree of self-approbation with which every man, upon such occasions, surveys his own conduct, is higher or lower, exactly in proportion to the degree of self-command which is necessary in order to obtain that self-approbation,” (TMS III.3.26:147).
anxieties brought on by the features of commercial society he detailed in *The Wealth of Nations* (Hanley 2009). For the purposes of our discussion, however, we set aside these debates about *why* Smith included his discussion in *TMS* I.iii and instead show how *what* he included employs the same equilibrium and comparative statics logic that underlines the work. Smith’s explanation of the “corruption of our moral sentiments” can be interpreted as an analysis of how moral behavior changes in response to changes in the relative material standing of agents.

Smith’s claim is the following: that our “disposition to admire, and almost worship, the rich and powerful, and to despise, or, at least to neglect the persons of poor and mean condition,” is “the great and most universal cause of the corruption of our moral sentiments,” (*TMS* I.iii.3.1). Again, what may at first appear to be a simple behavioral observation—we admire the rich more than we do the poor—is in fact a deeper analysis based on the logic that sustains the equilibrium of moral behavior. Smith bases his argument that we admire and worship the rich and neglect the poor on two critical assumptions. First, sympathy and fellow-feeling are the primary objects of our behavior. In addition, because there is a tendency to sympathize more with joy than with sorrow, we “make parade of our riches and conceal our poverty.” We pursue material wealth in the hope “To be observed, to be attended to, to be taken notice of with sympathy, complacency, and approbation,” by others (*TMS* I.iii.1:510).

The second key assumption is the following: material possessions are a more visible and socially-recognized signal of desert—in terms of moral approval—than immaterial virtues. Smith observes that “we frequently see the respectful attentions of the world more strongly directed towards the rich and the great, than towards the wise and virtuous,” (*TMS* I.iii.3.2:62). Why? In a famous analogy, Smith describes how two roads lead to same destination, namely, the moral approval and fellow-feeling of others. One road is that of wealth, the other, wisdom and
virtue. Our sentiments of approval are very similar in both cases, and we have trouble
distinguishing them. The one paved by wealth and greatness, however, appears more “gaudy
and glittering in its colouring” and its social rewards are more immediately recognizable and
tangible; hence, Smith concedes that only a “small party” of men really admire wisdom and
virtue, while the “great mob of mankind are the admirers and worshippers…of wealth and
greatness,” (TMS I.iii.3.2-3:62).20

With these assumptions in place, we can now more clearly see the comparative statics
analysis at work. The tendency “to go along with all the passions of the rich and the powerful”
and corruption of our moral sentiments is, at its core, an account of how our capacity to
sympathize with others and obtain sympathy from others changes in response to changes in our
relative material condition. The rich man “glories in his riches, because he feels they naturally
draw upon him the attention of the world,” while the poor man is ashamed of his condition and
“feels it either places him out of the sight of mankind, or if they take any notice of him, they
have, however, scarce any-feeling with the misery and distress which he suffers,” (TMS
I.iii.2.1:51). Wealth provides more than a material advantage but, more importantly, a social
and moral advantage: being seen a more worthy of sympathy than others. Thus, we might
interpret Smith’s analysis in the following way: the greater the wealth disparity between two
people, the greater the sympathetic gap between them.21

20 Smith reiterates this view again at the end of the section: “Of such mighty importance does it appear
to be, in the imagination of men to stand in that situation which sets them most in the view of general
sympathy and attention…But rank, distinction pre-eminence, no man despises, unless he is either raised
very much above, or sunk very much below, the ordinary standard of human nature; unless he is either so
confirmed in wisdom and real philosophy, as to be satisfied that, while the propriety of his conduct
renders him the just object of approbation, it is of little consequence though he be neither attended to, nor
approved of or so habituated to the idea of his own meanness, so sunk in slothful and sottish indifference,
as entirely to have forgot the desire, and almost the very wish, for superiority” (I.iii.2.8:57).
21 See Rasmussen (2016) for an interpretation of this insight as a normative critique of inequality.
The social consequences of this peculiar tendency are troubling for Smith, and it is worth emphasizing the way in which he draws out this normative criticism with the same analytic form as he used to explain the political economics of development and the development of self-command. Smith compares how people accord each one another with sympathy and approval in different “stations” of life—that is, different tiers of social and material status. In what he calls “middling and inferior stations of life,” the opportunity acquire greater wealth or virtue are “very nearly the same.” This greater level of equality—we might call it an equality of opportunity—reinforces mutual sympathy and good conduct. Nobody is seen as being “great enough to be above the law,” or worthy of a respect that enables them to transcend moral norms because their success and their social approval “almost always depends on upon the favour and good opinion of their neighbours and equals; and without a tolerably regular conduct these can very seldom be obtained,” (TMS I.iii.3.5). In short, Smith has here posed another comparative static idea: when wealth disparities are minimal, the ability to sympathize with one another and follow the “general rules of morality” is much more consistent, and “we may generally expect a considerable degree of virtue,” (TMS I.iii.3.5).

However, in what Smith calls “the superior stations of life,” things look different. In situations where the wealth is so great, or the wealth disparity is so great, the disposition to admire and worship the rich takes hold in a way that undermines the general rules of morality. Under conditions of extreme concentrations of wealth, obtaining the social and moral approval of others depends more on the “fanciful and foolish favour of ignorant, presumptuous, and proud superiors” rather than the “esteem of intelligent and well-informed individuals,” (TMS i.iii.3.5). Even more worrying, though, is that this desire for social approval distorts our ability to uphold the general rules of morality. In societies where wealth is rewarded much more than virtue, “all
the great and awful virtues…are, by the insolent and insignificant flatterers…held in the utmost contempt and derision.” Wealth in these conditions becomes a source of power, a license to deviate from the accepted moral norms. Smith describes a man who, in pursuit of wealth and power, imagines “commanding the respect and admiration of mankind” and how if he reaches his goal, “the lustre of his future conduct will entirely cover, or efface, the foulness of the steps by which he arrived at that elevation,” (TMS I.iii.3.8:64). Thus, in circumstances where some people have disproportionate amounts of wealth and power, the equilibrium moral rules are eroded. Those with the means to achieve wealth and power are rewarded not only in terms of their material goods, but in their ability to evade social sanctioning for immoral behavior, and “they have no fear of being called to account for the means by which they acquired [their position]” (TMS I.iii.3.8:64).

In short, as Dennis Rasmussen (2016) has argued before us, Smith’s comparative statics of wealth and moral norms reveals the following insight: as the relative standing between the haves- and have-nots widens, our sympathies are corrupted or “distorted.” We see the wealthy as more deserving of our sympathy than others. Furthermore, at the social level, this distortion of our sympathetic capacity has the tendency to undermine the equilibrium moral norms of society writ large (Rasmussen 2016).

In sum, we call these equilibrium and comparative statics arguments because Smith builds each case from a set of fundamental assumptions about human behavior to show (1) how the “general rules of morality” (the equilibrium moral norms) are formed, and (2) how those general rules change in response to changes in the underlying conditions. The incentives to act according to the general principles of morality arise from our desire for social approval, to be seen as worthy of the fellow-feeling of others, to seek peace of mind and our own self-
approbation. Smith assumes that, all else constant, this is the mechanism at work that determines how the general rules of morality arise—not necessarily what the general rules are. The comparative statics in his analysis can be read when he introduces certain exogenous factors—the degree of self-command, the relative material standing of individuals or groups of individuals—and explains how changes in those factors affect the equilibrium outcome. Once attuned to this analytic method, we can read Smith as doing something much more than merely providing a descriptive account of moral sentiments. He is, in fact, engaging in a systematic analysis of morality as a “central tendency” in human behavior. In doing so, he was not simply writing the rules of moral behavior, but more importantly, setting an example for how to study moral behavior in a systematic—some might say scientific—way.

5. Smith's “Considerations Concerning the First Formations of Languages”

In his essay entitled “Consideration Concerning the First Formations of Languages” (1761), Smith advanced a model of the language stability and presented hypotheses about the evolution of language. His arguments are readily understood using the logic of equilibrium and comparative statics. Communication is, at its heart, a coordination problem (as Laitin’s 1994 classic work demonstrates): what sounds should correspond to what objects, actions, modifiers, and ideas? In order to be understood, people “endeavour to make their mutual wants intelligible to each other, by uttering certain sounds, whenever they meant to denote certain objects” ("Languages" 1:203). Thus, a unified, agreed-upon language solves the coordination problem by

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assigning a shared sense of meaning in the form of a connection between sounds and meaning amongst a given community.\footnote{Smith has a simple narrative of how a set of people arrive at a language equilibrium, but it questionable and fails to explain how a language equilibrium qua complete language emerges from this process. We therefore focus on Smith's argument about how a given language solves the coordination problem and produces an equilibrium.}

As in most complex coordination games, multiple equilibria exist; that is, no unique means exist to solve the complex language-coordination game. Even the simplest coordination games, such as which side of the road to drive on, has two (reasonable) equilibria: all people drive on the right; all drive on the left. The existence of so many different languages underscores this point. Because so many different languages exist that solve this same problem, no natural solution to the coordination problem exists.

How, then, is any one language an equilibrium? Smith shows that members of a community face both positive and negative incentives to adhere to a single, common language. On the positive side, an individual who uses the community’s language benefits from the ease of communication with others. On the negative side, Smith explains, individuals pay a price for deviation from standard usage. Many of Smith's illustrations involve parents correcting children, but adults naturally correct one another as well. Smith explains that people are embarrassed when they make improper uses of the language, so they pay a modest penalty for an improper or non-standard use in the form of social embarrassment (“Languages,” 33:220). Individuals who make substantial deviations by failing to use the community’s language pay a larger price – they cannot be understood. Otteson (2011: 19-20) explains the equilibrium logic: “though rules are a human construction, they are neither arbitrary nor unenforced” [19]:

For, first, there are rules of language. Language is not an anarchy with each person making things up for himself. Second, at any given time, most of the rules are commonly accepted; no debate is expected or even allowed. And third, infractions of the rules are usually noticed and frequently punished. Smith tells, for example, of the child learning to
speak correctly: “A child that is just learning to speak, calls every person who comes to
the house its papa or its mama” (“Languages” 1:204); and “A child speaking of itself,
says, Billy walks, Bill sits, instead of I walk, I sit” (“Languages” 32:219). These are
mistakes, Smith says, that soon get corrected – not by language police or the Board of
Language Enforcement, but by the child’s parents, the child’s playmates, or other users of
language.” [20-21emphasise in original]

We thus see the reasons why adherence to their community’s language is an equilibrium; for the
same reason that an individual has incentives to drive on the same side of the road that everyone
else drives on: a member of a community who deviates from the community’s common language
pays a price for that deviation.

Taken together, the positive and negative incentives just described imply that each
individual in a community has incentives to use the community’s language. As in all
coordination games, if everyone else uses a particular language, an individual has strong
incentives to use that language as well, thus sustaining the coordination equilibrium. If, as Smith
says, the value of language is to communicate, to make ourselves understood, then significant
deviations from a community’s language make the deviator worse off.24 Although Smith never
put it this way, his logic establishes the idea that language is an equilibrium.

Languages are dynamic, not static, features of human life, though, and Smith recognizes
this fact in his use of comparative static-like arguments about language. For example, Smith
argues that languages evolve in everyday life as circumstances and needs of the community
change, typically in incremental ways that most people never notice. In describing the growth of
language, Smith explains that “their necessary occasions obliged” that people add or make minor

24 To many, the idea that language is a choice is ludicrous. Few who speak a language consider
deviating. True we argue, but this reflects the compelling nature of the equilibrium forces. As Laitin
(1994) observes, a surprisingly large number of situations exist where people must choose among
different languages. A Dutch person living in New York City must speak English; because the Dutch
community in New York is so small, no person can get by speaking Dutch alone. In contrast, the
immigrant Mexican communities in some areas of the United States are so large that many individuals
can survive without learning English.
alterations to the language (“Languages,” 1:204). The third lecture in LRBL illustrates this idea. This lecture focuses on language and is in the form of a conjecture about the evolution of language. Smith devotes most of the lecture to suggesting how, as new circumstances arise that necessitate expression of new ideas, new words and new figures of speech emerge (LRBL, i.17-34:9-13; see also “Languages,” 32:218-20). Smith also describes the evolution of grammar. In the beginning, Smith conjectures, “every case of every noun, and every tense of every verb, was originally expressed by a particular distinct word, which served for this purpose and for no other. But succeeding observation discovered, that one set of words was capable of supplying the place of all that infinite number, and that four or five prepositions, and half a dozen auxiliary verbs, were capable of answering the end of all the declensions, and of all the conjugations in the ancient languages” (“Languages” 41:223-24). In other words, the coordination equilibrium evolves as circumstances arise that require changes in word usage.

As another illustration, Smith presents an extended example in “Languages” about what happens when two “nations” with different languages mix, say through conquest or through extensive commercial interaction (“Languages” 33:220-21). He begins with two different communities or nations, each with a unique and different “original” language, and where each language possesses complex forms of declensions and conjugations. Smith asserts that people who learn such a language from infancy can master it. Therefore, “as long as a particular language was spoken only by those who learned it in their infancy, the intricacy of its declensions and conjugations could occasion no great embarrassment” (“Languages” 33: 220). But most adults who attempt to learn this sort of complex language find it too difficult to master. For this reason Smith argues that when two nations intermix, language evolves into a simpler form with fewer declensions and conjugations so that the new language is easier for adult
members of both nations to master. As an example, Smith mentions Italian, a mix of ancient Lombard and Latin:

[A] Lombard, who was attempting to speak Latin, and wanted to express that such a person was a citizen of Rome, or a benefactor to Rome, if he happened not to be acquainted with the genitive and dative cases of the word Roma, would naturally express himself by prefixing the prepositions ad and de to the nominative; and, instead of Roma, would say, ad Roma, and de Roma. Al Roma and di Roma, accordingly, is the manner in which the present Italians, the descendants of the ancient Lombards and Romans, express this and all other similar relations (“Languages,” 33:220).

As in the earlier cases of political economic development, and moral behavior, Smith’s account of languages begins with a set of assumptions about human motivation, and builds an argument about how and why certain outcomes are sustained—in this case, how and why people coordinate around the use of a particular language. Furthermore, his examples illustrate conditions under which logical deviations from this equilibrium arise, reflecting comparative statics arguments. Taken together, Smith’s equilibrium and comparative statics arguments illuminate our understanding of a key feature of human society, namely, the organization and evolution of languages.

6. Conclusion

We have argued that Adam Smith appealed to what we now recognize as equilibrium and comparative statics arguments throughout his works. Equilibrium arguments explain how and why certain political, economic, and social outcomes are stable; they are “central tendencies” in a system toward which forces are continually gravitating. Equilibrium analysis involves explicit theorizing: who are the relevant parties, what are their interests, and why do they choose certain

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25 This behavior is known in the modern literature as the creation of a pidgin, a new language with only modest grammar, by the first generation speaking the new language that mixes the two prior languages; and then as a creole by the next generation which supplies the grammar.
strategies instead of others? Comparative statics arguments explore the conditions under which the equilibrium outcomes change in a predictable manner in response to changing circumstances. The logic of equilibrium and comparative statics together afforded a method that allowed Smith to go beyond narrative and the reporting behavioral relations. He used this method to explain why some patterns of behavior are stable in some periods or under some circumstances; why patterns change in other circumstances; and why behavior varies in different contexts. Whether explaining the political economics of development, moral behavior, or even the evolution of languages, Smith’s analytic method offers a way to discover and explain aspects of the human order that are regular, predictable, and even certain. This is one of the hallmarks of modern social science.

Our approach in this paper lends greater credence to the notion of an integrated Smithian project that extends beyond the realm of economics—despite our use of contemporary economic terminology. By this, we do not simply mean that the world of self-interest in the Wealth of Nations is subsumed under the sympathy-guided oversight of the Theory of Moral Sentiments (or vice versa). Rather, we argue that Smith integrated the same form of analysis across different realms of human behavior, namely, political, moral, and economic life. Highlighting Smith’s integrated, synthetic approach enables us to appreciate how Smith connected disparate fields into a holistic science of man.

In addition, our effort to highlight the analytic power of Smith’s method speaks not just to unity across his works, but also to the ambitious scope of his whole project. As Smith scholars well know, Smith planned to write—and nearly completed—a work on the principles of law and government, which he advertised in the last edition of the Theory of Moral Sentiments and
mentioned in private correspondence. Smith ordered that the manuscript he had prepared burned just before his death in 1790. It is not our aim to speculate about the precise content of this missing book here. However, our discussion does point to one plausible interpretation of Smith’s approach to the “general principles of law and government.” Consistent with his analytic method in The Wealth of Nations and the Theory of Moral Sentiments, Smith would have presented many cases—most of them drawn from history—of how laws and principles of rule arise and change, and his explanations would have had two key components: an equilibrium argument to illustrate how a balance of motivating forces reaches some central tendency, and comparative statics arguments to illustrate how that equilibrium changes in different circumstances. As we alluded to in our introduction, this analytic form combines aspects of positive and normative analysis. This form of Smith’s “general rules” of law and government would not have been a set of normative prescriptions of how governments ought to function across all space and time. Rather, as with his explanation of the “general rules of morality” in the Theory of Moral Sentiments, Smith would most likely have provided an explanatory account of how and why the norms and institutions that govern political society arise in general, while still granting the differences in specific laws, customs, and

26 “In the last paragraph of the first Edition of the present work, I said, that I should in another discourse endeavor 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 Enquiry concerning the Nature and Causes of the Wealth of Nations, I have partly executed this promise; at least so far as concerns police, revenue, and arm. 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.” TMS VII.iv.37: 341-342. Smith mentions this work again in a letter to the Duc de la Rouchefoucault in 1785, saying that he had “two other great works upon the anvil; the one is a sort of Philosophical History of all the different branches of Literature, of Philosophy, Poetry and Eloquence; the other is a sort of theory and History of Law and Government.” Letter from Adam Smith to the Duc de la Rouchefoucault, Nov. 1, 1785. Corr, no. 248.
political norms from society to society. Thus, taking on board our framework suggests that Smith’s project in the “missing second book” was not only possible, but entirely compatible with his methods and models in his surviving works.\textsuperscript{27}

Finally, reading Smith’s analyses as equilibrium and comparative statics arguments illuminates several powerful insights relevant for scholars today. From his political economy, we learn that insecurity—both in terms of the prevalence of external violence and an absence of guarantees of property rights—is a significant barrier to economic growth. In other words, in order for markets to flourish, certain institutional preconditions have to obtain (see North, Wallis, and Weingast 2009). Without security, the great benefits of Smith’s commercial society—freedom from relations of dependence, greater prosperity, predation, and increased welfare of the poorest members—cannot be achieved. From his moral philosophy, Smith points us in a direction to “take the social seriously,” (Herzog 2016). Social contexts are critical for developing our individual moral agency. Our self-command is not developed in a vacuum, but at school and in our interactions with other people; our capacity for sympathizing with others of different social and material standing is tried and tested only when we confront those who have more or less than we do in our society. Taken as a whole, then, Smith’s works prove that a systematized approach to the study of human nature and human history was more than possible—it was profoundly enlightening.

\textsuperscript{27} We thus disagree with Fleischacker 2004, Griswold 1999, and Sagar 2018 who argue that general normative principles across space and time would be impossible. On their view, Smith failed to compete his second book because it was not possible to do so.
Appendix 1: A Short List of Equilibrium and Comparative Statics Ideas in the Wealth of Nations.

- A “publick mourning raises the price of black cloth,” not to mention the wages of journeymen tailors. [WN I.vii.19:76]
- The discovery and mining of new world silver lowered the price of silver. [WN I.xi.e.32:207]
- Regulatory restrictions on employment, such as apprenticeship statutes, lower wages. [WN I.vii.28:79]
- Granting a firm a monopoly raises prices above free competition. [WN I.vii.26-27:78-79]
- An improvement in the skill of labor lowers the cost of production. [WN I.i.6:17-18]
- The “price of necessaries of life” become “exorbitant” “during the blockade of a town or in a famine.” [WN I.vii.9:74]
- “It is not the actual greatness of national wealth, but its continual increase, which occasions a rise in the wages of labor… England is certainly, in the present times, a much richer country than any part of North America. The wages of labour, however, are much higher in North America than in any part of England.” [WN I.vii.22:87]
- The relative bargaining power of masters relative to laborers lowers wages relative to what would occur if labor possessed equal bargaining power. [WN I.viii.12-13:83-84]
- The high price of overland transportation relative to water transportation means that far more goods are transported between two towns with access to waterways than if no reasonable water route exists between them. [WN I.iii.3:32-33]
- Countries with “tolerable security” lead to much more accumulation of stock and investments than “in those unfortunate countries, indeed, where men are continually afraid of the violence of their superiors, they frequently bury or conceal a great part of their stock.” [WN II.i.30-31:284-85]
- As agriculture develops, “rent, though it increases in proportion to the extent, diminishes in proportion to the produce of the land.” [WN II.iii.9:334]
- Remuneration for effort affects how hard people work: “Our ancestors were idle for want of a sufficient encouragement to industry. It is better, says the proverb, to play for nothing, than to work for nothing. In mercantile and manufacturing towns, where the inferior ranks of people are chiefly maintained by the employment of capital, they are in general industrious, sober, and thriving; as in many English, and in most Dutch towns.” [WN II.iii.12:335]
- War lowers economic growth. [WN II.iii.5:345]
- Mercantile restrictions that require a country’s trade to be carried in ships from that country increase the supply of sailors and hence lower the costs of war. [WN II.v.30:371]
- The medieval Church’s monopoly was stable for several centuries, yet it lost this monopoly due in part to the clergy’s demand for luxury. [WN V.1.g.788-814]
- A wide variety of restrictions on trade raise the price of goods and lower the quantity available:
  - Restrictions on the export of gold. [WN IV.i.9:433]
  - The monopolization of trade lowers the public benefits of trade. [WN IV.i.33:448-49]
  - “Restraints upon the importation from foreign countries of such good as can be produced at home.” [WN IV.i.1:452]
  - Attempts to manipulate the balance of trade. [WN IV.iii.c.1ff.488ff]
  - Various forms of subsidies to exporters, such as bounties [WN IV.v.2ff.505ff] and drawbacks [WN IV.iv.1-2ff.499ff].
- The discovery of America improved the “real revenue and wealth” of Europe. [WN IV.i.32:448]
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All references to Adam Smith’s works are to the Glasgow edition, as reprinted by Liberty Fund.

The text uses the following abbreviations.


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