L8: Ethics and Economic Progress

These revolutions periodically reshape the existing structure of industry by introducing new methods of production—the mechanized factory, the electrified factory, chemical synthesis and the like; new commodities, such as railroad service, motorcars, electrical appliances; new forms of organization—the merger movement...

Every piece of business strategy acquires its true significance only against the background of that process and within the situation created by it. It must be seen in its role in the **perennial gale of creative destruction**; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull (Schumpeter, J. [1942/2012], *Capitalism, Socialism, and Democracy* [KL 1519–1521, KL 1844–1847]).

The previous three chapters provide a possible explanation the emergence of viable communities with markets in ancient times. Stable patterns of life tended to emerge as a long sequence of social dilemmas are overcome. They are "punctuated equilibria, which are changed by innovations in rules and rule systems the help to overcome social dilemmas and better characterized the opportunities and dilemmas that humankind confronts.

This chapter explores the possible effects of ethical dispositions on economic growth rates.

5 Sources of Economic Development

- We have already explored three of the main drivers of economic development: (1) solutions to social and economic dilemmas and (2) Specialization and (3) effective use of team production.

- **In this lecture block (based on Chapter 5 of the book) we explore two other drivers of economic growth—ones focused on by contemporary economics: (4) capital accumulation and (5) innovation.**
- (4) Both human and physical capital accumulation tend to increase both the average and marginal product of labor.
- (5) Innovation brings entirely new production methods and products to markets.
- Both can significantly increase rates if economic development—**but there are dilemmas associated with these sources of prosperity** just as there were for the first three.

Social Conservatism can be rational

- **That the "new" could be in some sense be "better" than the "old" was a radical idea that would not have been obvious or supported in earlier times.**
- The old ways, after all, had stood the tests of time and had been in place for ages, albeit with many small adjustments across the centuries. They were products of hundreds or thousands of years of puzzles solved, and lessons learned.
- **Chapters 2 and 3 demonstrate that such beliefs can be defended and were likely to be substantially true.** Stable, reasonably comfortable societies emerged because of systems of complex and subtle internalized rules of conduct that solved a wide variety of social dilemmas.
- **The old ways, after all, had stood the tests of time and had been in place for ages, albeit with many small adjustments across the centuries. They were products of hundreds or thousands of years of puzzles solved, and lessons learned**. Chapters 2 and 3 demonstrate that such beliefs can be defended and were likely to be substantially true.
- **Stable, reasonably comfortable societies emerged because of systems of complex and subtle internalized rules of conduct that solved a wide variety of social dilemmas.**
- **Changes that undermined that stability could well have undone human progress in a variety of ways—causing fraud to increase, commons problems to be unsolved, and excess conflict to reemerge.**

Progress as a Moral Conclusion

- **The term equilibrium** is sometimes used as an ideal and sometimes as a descriptor. It can be regarded as a reasonable description of life of contentment and also a variety of systems that are stable in the sense that repetitive patterns are evident as in the orbits of the planets, the pattern of life in a stable ecosystem, the process of lawmaking in a stable system of government, the pattern of production and exchange in a market with little innovation, and so forth.
- **The shift from the ideal of equilibrium to the ideal of progress most likely took place, not because of a few major innovations, but because each of the long sequence of gradual improvements through which Schumpeter's process of "creative destruction" normally operates tends to be far less disruptive than the sequence as a whole**.
- Indeed, the disruption may not be obvious to those who live through such transformative periods unless they take the time to look back at the changes that transpired. **One's conclusions about whether a sequence of changes constitutes progress or needlessly disrupts life ultimately depends on one's views concerning the nature of a good life and good society—and also one's experience with innovations.**

- **It may be surprising, but concluding that "progress" has occurred is largely a normative rather than a technological assessment.**
- **Whether a particular innovation is good or better than what preceded it requires judging whether one's life and society have been improved by a change or not.**
  - To argue that some changes constitute progress is to argue that some changes improve our character, our lives, our communities, or our society. The metrics by which "improvements" are assessed are thus largely ethical in nature.
  - Is deprivation good for the soul or should it be avoided? Are material comfort and longevity proper aims of a good life or evidence of decadence and a lack of character?

Capital Accumulation and Community Norms (1)

- Although the importance of capital equipment has long been recognized—a person can move more dirt with a shovel than one's hands, with a wheelbarrow than with a shovel alone, with a mule and cart than a wheelbarrow, and with a dump truck than a mule and cart, and so on—the first mathematical models of growth based on capital accumulation were worked out in the decade after the end of WWII.
- Similarly, human capital (knowledge, training, experience, and organization) was added to the second generation of neoclassical growth models. As human and physical capital accumulate, economic output increases, because both forms of capital increase the productivity of an individual's time spent producing goods and services. (Ethical dispositions, of course, can be regarded as a form of human capital.) ere worked out in the next decade.

- For a given stock of capital, market prices operate in the usual manner and equate demand with supply in all markets and cause rates of return on alternative investments to equalize (adjusted own "retained earnings" or by borrowing the savings of others through sales of bonds or loans from banks and other financial organizations. **Thus, as argued byLa Court, Adam Smith, and Max Weber among many others, an increase in propensities to save and invest tend to increase capital accumulation and promote economic development.**

- Contrariwise, in the absence of moral and political support for saving and investments, less of each would take place and the beneficial effects of capital accumulation would be reduced. In a steady state, the existing stock of capital is essentially stable. It is replaced as it wears out (depreciates) rat her than being accumulated.

Technological Externalities among Capital Investments (1)

- Technological externalities imply that each enterprise or contractor can in a sense free ride on the other's capital accumulation, because the capital accumulation of the other(s) increases their productivity—which is to say, the extent to which their efforts contribute to final outputs and profits.

Note that the capital accumulation problem is analogous to the shirking problem developed in Chapter 3.

Underinvestment in capital equipment is in effect a form of shirking on the joint enterprise (providing inputs for final products sold to consumers).

As was true of that case, there are several possible solutions to the underinvestment dilemma, including mergers and complex contracts among relevant firms.

However, such solutions are not always, or perhaps even usually, easy.

Table 5.1: Technological Externalities and the Accumulation of Capital

		Robert's (Investments in Capital)			
		8 unit	6 units	4 units	2 units
Paul's Investments in Capital	8 units	(P, R) 6, 6	(P, R) 4, 7	(P, R) 2, 8	(P,R) 1, 7
	6 units	7, 4	5, 5	3, 6	2, 5
	4 units	8, 2	6, 3	4, 4	3, 3
	2 units	7, 1	5, 2	3, 3	2, 2

Technological Externalities among Capital Investments (2)

- When the number of interdependent firms producing intermediate goods is large, such solutions are difficult to implement. In such cases, generalized cultural support for capital accumulation may be the only plausible manner in which the problem can be ameliorated.
- **Cultural support for producing and accumulating capital goods is most likely in societies whose norms also support long-term material comfort, industriousness, and the accumulation of wealth.**
- Residents of such communities may regard an entrepreneur's purchase of new equipment for their labor force to be associated with praiseworthy traits such as generosity, foresight, prudence, and industriousness.

Table 5.2: Technological Externalities, Social Norms, and the Accumulation of Capital

		Robert (Investments in Capital)			
		8 units	6 units	4 units	2 units
Paul (Investments in Capital)	8 units	(P, R) 6+V, 6+V	(P, R) 4+V, 7+V	(P, R) 2+V, 8+V	(P,R) 1+V, 7
	6 units	7+V, 4+V	5+V, 5+V	3+V, 6+V	2+V, 5
	4 units	8+V, 2+V	6+V, 3+V	4+V, 4+V	3+V, 3
	2 units	7, 1+V	5, 2+V	3, 3+V	2, 2

Innovation and the Innovation Commons (1)

- **"The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates"** (Schumpeter, Joseph [1942/2012-12-19]. *Capitalism, Socialism, and Democracy* [Kindle Locations 1823–1825], Routledge, Kindle Edition).
- A recent book by Jason Potts (2019) reminds us that there are positive technological externalities in innovation. Transformative innovations very rarely occur in single revolutionary leaps of imagination; rather, innovations stimulate other new ideas, which stimulate still others and so forth. Some new combinations of ideas, materials, and machinery are more lucrative and transformative than others, and which is which is rarely initially obvious. Thus, the more innovation takes place, the more turns out to be useful and profitable.

- Normative opposition or support for innovation thus has effects similar to those analyzed above for capital accumulation in Table 5.2. Table 5.3 illustrates how conditional norms that favor stability tend to reduce innovation rates and thereby slow or block economic development by reducing investments in complementary research and innovation.

Innovation and the Innovation Commons (2)

The initial equilibrium in the slow-slow cell can be regarded as the rate that would have occurred without normative opposition to innovation, which may occur for reasons discussed in the next section of this chapter. Normative opposition to innovation (here G>1) would reduce the rate to the minimal level that typified most of the period after agricultural methods and supporting rules were worked out approximately 10,000 years ago. (The equilibrium would be minimal-minimal.)

Such opposition is not uncommon. Even in England as the great acceleration was beginning to takeoff, there were several instances of organized opposition to the production of familiar things by new more capital-intensive methods. New machines had created new, more capital-intensive methods of production that required fewer skilled workers than in the past. The so-called Luddites of the late 18th century opposed the new more capital-intensive methods of producing textiles. A few decades later, the Swing Riots in England of 1830 protested the mechanization of agriculture

Table 5.3: Technological Externalities With Social Opposition to the Innovation Commons

		Robert (Rate of Innovation)			
		Rapid	Moderate	Slow	Minimal
Joseph (Rate of Innovation)	Rapid	(J, R) 6–G, 6–G	(J, R) 4–G, 7–G	(J, R) 2–G, 8–G	(J,R) 1–G, 7
	Moderate	7–G, 4–G	5–G, 5–G	3–G, 6–G	2–G, 5
	Slow	8–G, 2–G	6–G, 3–G	4–G, 4–G	3–G, 3
	Minimal	7, 1–G	5, 2–G	3, 3–G	2, 2

Innovation and the Innovation Commons (3)

Table 5.4 **illustrates the opposite case in which normative support for innovation accelerates growth rates by encouraging creative individuals and teams to refine old rules, old production methods, and old products or to replace them with new ones** that are facilitated by a better understanding of the possibilities for opportunities for improvement.

If the virtue/praise supplement is sufficient (here V>1), rapid innovation equilibrium emerges and, insofar as the innovations prove profitable for producers and beneficial for consumers, economic development accelerates.

Moral support for innovation increases rates of innovation by increasing both the efforts of individual innovators and the size of the innovation commons. As knowledge accumulates, the creative leaps required to imagine the next steps become smaller. In this manner, an expanding innovation commons tends to increase rates of innovation

Table 5.4: Technological Externalities: With Social Support for the Innovation Commons

		Robert (Rate of Innovation)			
		Rapid	Moderate	Slow	Minimal
Joseph (Rate of Innovation)	Rapid	(P, R) 6+V, 6+V	(P, R) 4+V, 7+V	(P, R) 2+V, 8+V	(P,R) 1+V, 7
	Moderate	7+V, 4+V	5+V, 5+V	3+V, 6+V	2+V, 5
	Slow	8+V, 2+V	6+V, 3+V	4+V, 4+V	3+V, 3
	Minimal	7, 1+V	5, 2+V	3, 3+V	2, 2

The Risk and Uncertainty Associated with Innovative Societies

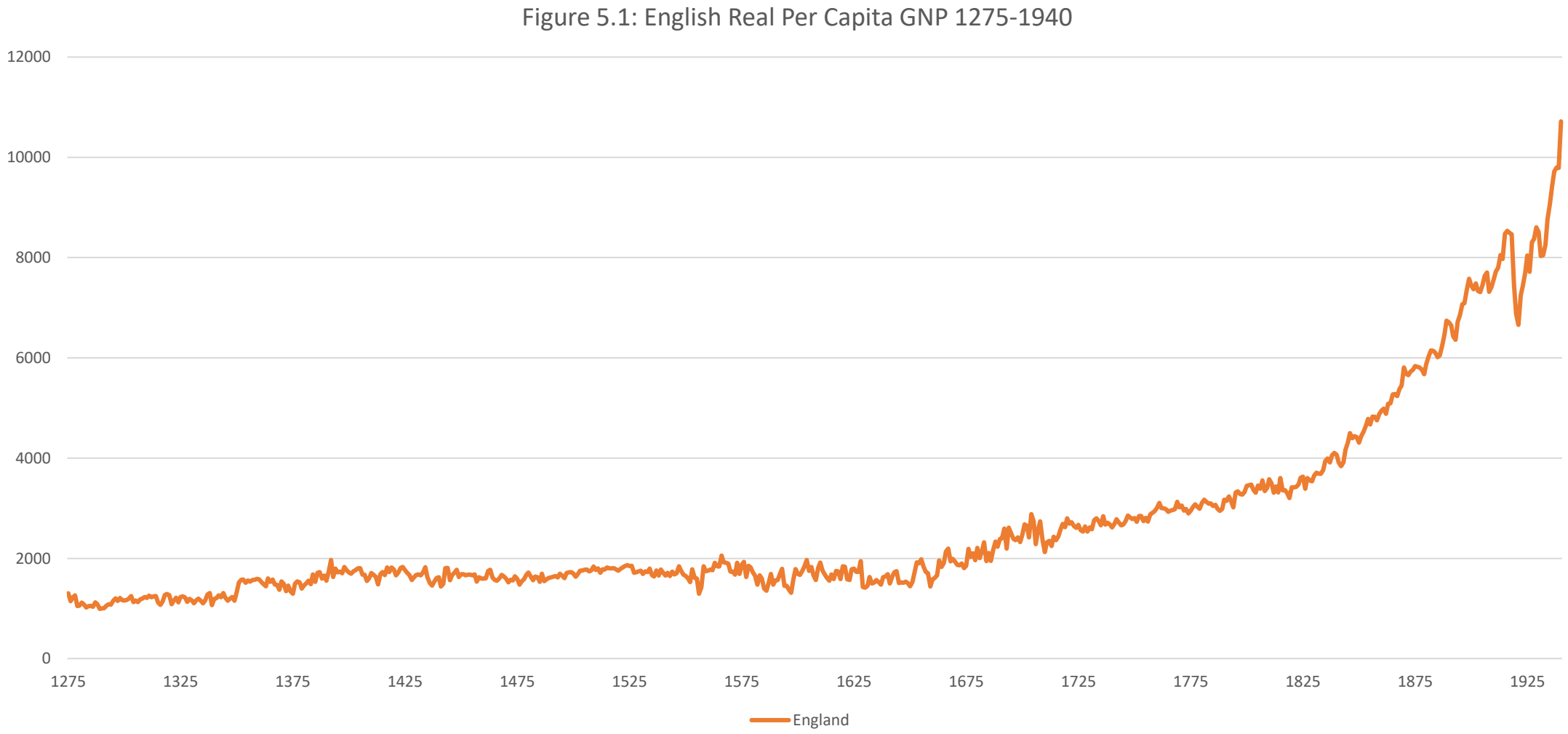
- **Innovation necessarily increases uncertainty**, because one never knows what new idea or product will emerge next or their consequences for one's own specialities and lifestyle. Rather than the evenly rotating society that typified pre-commercial societies, commercial societies are constantly being altered by innovations of various kinds. The evenly rotating society is replaced with an ever-changing spiral as a few aspects of life are changed every decade.

- **Uncertainty has economic consequences** that were recognized at about the same time that Schumpeter began incorporating innovation into economic models.
- Among the most important and earliest analysis of the effects of uncertainty on economic development was that penned by Frank Knight (1921/2009).
- **Knight argued that markets can adapt to shocks that have a statistical pattern (risks) and that, in those cases, markets tend to shift risks to those individuals and organizations that are most risk tolerant and away from individuals who are most risk averse**.
- **The latter, for example, may purchase insurance products of one kind or another from the former. Such innovations tend to reduce risk for most persons rather than increase it.**

Ethical Innovation and Moral Support for the Great Acceleration

- New circumstances often induce philosophical innovation. They do so by disrupting the reflective equilibria of thoughtful men and women with sufficient time and interest in grappling with ethical ideas to work out principle-based explanations for the moral sentiments of the persons they are familiar with. For example, changes in the nature of lives judged to be "good" or societies widely regarded to be "good" may induce those with scientific or philosophical interests to devise principles that better account for the good lives and attractive societies of their time. Such principles, insofar as they are persuasive, may also induce changes in ideas about the good life among their readers.
- Adam Smith's (1776, Ch. 1) favorable analysis of pin factories provides one such instance. He realized that that specialization in combination with innovative equipment and organization increased the productivity of labor used to produce pins by a factor of approximately 400. (A productive team of pin makers could make 48,000 pins in contrast to the 200 produced by ten artisan pin makers.)
- Similarly, Jeremy Bentham's assessment of the process of technological innovation a few decades later (cited above)—acknowledges both its failures and successes—but reaches a favorable conclusion about the consequences of innovation—at least for ones that are filtered by markets. His analysis was intended to both counter criticism of disruptive innovations that were common at the time of his writing and to explain and encourage moral support for innovation.
- **As more supportive normative dispositions emerge, the rate of innovation tends to increase for reasons discussed in this chapter. Innovations do not "just happen," they are consequences of long series of action by individuals and teams of men and women.**

The Great Acceleration



Class Discussion

- (1) What are examples of commonplace norms today that seem to support capital accumulation and innovation?
  - What are examples of norms that seem to oppose capital accumulation and innovation?
  - Is the overall balance pro or anti growth?

- (2) Not all innovations are supported by markets. What are examples of recent innovations that have been supported by markets?
  - What are examples that have not been supported by markets?
- (3) To what extent does public policy encourage or discourage innovation?

- (4) To what extent do you think that a commercial society has ethical foundations?