

Western Industrialization: Why there first

Built on many factors already present in the West

① New technologies closely related to the Scientific Revolution
- applied science now comes to the forefront

e.g. James Watt, the steam engine

- chemistry research propels new developments in fertilizers, dyes, explosives
* creates an environment open to ongoing technological

② Pre-existence of commercial, entrepreneurial ^{innovation & change} culture, and surplus of capital

③ Availability of natural resources - coal & iron ore

④ massive population growth - doubles 1700-1800

- spurred by ① relatively peaceful conditions

② temporary decline in epidemic diseases

③ introduction of American foodstuffs, particularly the potato

⑤ maturation of consumer society

- creation of modern advertising occurs, designed to create demand

⑥ presence of strong, centralized state bureaucracy also important

Industrialization's Effects

Industrialization was not a simple development, even in the West, where it appeared first. Many people resisted the changes in habits and new materialistic values it promoted. These reactions were a response to the enormous changes created & fostered by the new industrial reality.

① Industrialization encouraged a rapid, & permanent increase in worker productivity; generally by a factor of 100.
Example: Textiles - by 1800, with available equipment, a single worker using a steam driven spindle could produce as much thread as 100 manual spinners. (NAIL EXAMPLE)
* This new productivity level generated enormous wealth, first for Britain, and later throughout the West. Although distribution of this new wealth was uneven, living standards began to improve by the second half of the nineteenth century - these improvements encouraged a desire for further improvement also, leading to the creation and expansion of a consumer marketplace. Advertising also developed, promoting both a new mass press, a new focus on shopping as a leisure activity, and even a new disorder, kleptomania or shoplifting.

② Industrialization had expanded in part due to the agricultural transformation of Britain during the 1700s. Now it would transform agricultural

② (cont.)

Industrialization - Effects (cont)

production and society dramatically. Growing commercial and urban centers required major increases in food production. As a result, market agriculture appeared, transforming farmers from subsistence producers limited to their own local areas into specialty ~~growers~~ producers who now focused on specific needs such as dairy farming or vegetable production. Aided by new technology such as the railway, farmers could now grow for a regional, national, or, after the appearance of canning and refrigeration, an international marketplace. As the West's population and transportation grew, market agriculture became an international system. Increasing amounts of the West's food supplies - grain, meat, coffee, sugar - came from the Americas, and from new settler societies such as Canada and Australia. Increased efficiency drastically reduced the need for agricultural labor in the West, and accelerated the transfer of population from rural into urban areas. This process, urbanization, is another crucial effect of industrialization.

③ Industrialization generated enormous population movements as people left the land in search of employment. They headed for the growing cities, particularly big cities located at transportation hubs, near resource centers such as coal fields, or banking and political centers. These people were overwhelmingly young, most under 25, and they transformed the West's demography.

Effects of Industrialization (cont.)

- ③ - By 1850, for the first time in history, over half of Britain's population lived in cities. By 1900, the same was true for France, Germany & the United States. Such rapid growth placed tremendous stress on existing city governments & institutions, and most urban environments in the first half of the nineteenth century were appalling in terms of housing conditions and sanitation. These developments encouraged
- ① development of modern municipal infrastructure and local government, responsible for water, power, sanitation management. leads to creation of modern urban planning
 - ② development of municipal police forces, fire departments for maintenance of security, law & order.
→ Metropolitan Constabulary of London appears in the 1820's in response to these pressures. (origins of "cop")
 - ③ leads to shift in residency patterns as wealthy, middle classes move out of city centers into surrounding areas. Origins of Suburbia
→ This environment, & the new economic & workplace demands of the industrial factory system, had significant human consequences.
- ④ (1) Transformation in duration, pace of work.
→ Agricultural labor in pre-industrial societies was seasonal, with short ~~to~~ periods of intense activity (planting, harvest) moderated by long periods

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of downtime. Even domestic production continued this tradition, with ~~for~~ textile labor concentrated on short bursts of intense labor. In this environment time was determined by the movement of the sun and seasons. All of this changes due to industrialization. → In its place the factory system appeared, with its ~~past~~ focus on maximizing productivity and efficiency. This was an extremely efficient way of producing high quality goods, but it contained many dangers and environmental factors that took a toll on those first generations of workers, particularly women and children. CONSIDER

① No health or disability insurance existed. In many factories workplace accidents were considered employee responsibilities. Due to the simple nature of early industrial tasks (pulling levers, etc.) no job security existed, and population pressures ensured that for every worker who quit, there were 3 or 4 more desperate to take his or her place. Fired workers were subject to blacklisting, a practice created by employers to prevent troublesome employees from re-entering the workforce.

① (cont.) Effects of Industrialization (cont.)

→ In the interests of maximizing profits, early factories were often poorly constructed and ventilated, exposing workers to environmental hazards. For workers in the early years of the nineteenth century, work was a dangerous and uncertain business.

② Demand for plentiful and cheap labor led to the widespread employment of women and children.

→ Women generally received 50% of men's pay, children often as little as 10% → W & C tended to complain less as well

→ ^{Boys & Girls} Girls as young as 6 years old were used to haul carts underground in coal mines. They were known as "hurriers"; their small bodies allowed coal shafts to stay small. Terrible environmental factors (particularly coal dust, which soon coated the lungs) meant the average life expectancy in the mines was 16-18 -

→ Children as young as 4 worked in textile mills, where their stature and small fingers were prized for machinery maintenance. Generally work shifts lasted between 12 & 16 hours per day.

→ For women, especially, the new industrial environment proved devastating. Forced to work in order to add to family income, women now faced enormous burdens of time and responsibility. Consider an average day.

3 A.M. - rise for work, prepare other family members

4 A.M. - 6 P.M. work

6 - 7 P.M. - Gather food for family

7 - 9 P.M. - Cook, mend garments

Effects (cont.)

10-11 P.M. - Manage needs of husband (usually drunk)
→ repeat cycle 7 days/week

→ All these demands merged in a depressing living environment. Workers lived 10-15 people per room, with no water, sanitation, medical care, or privacy.

→ Not surprisingly, bad diets, alcoholism, and disease ravaged the population; life expectancy in the early phase of industrialization was around 28 for men, 26 for women.

→ Not surprisingly, this era saw an upsurge in all areas of crime, from prostitution and public drunkenness, to murder.* Family members were separated from each other for long periods. For the middle classes, this encouraged idealization of the nuclear family unit, as well as a redefinition of gender roles and responsibilities. Women were now confined to the Domestic Sphere within the home while men engaged in the brutal, masculine' public world of business and politics. This ideology, known as Victorianism, encouraged the growth of gender stereotypes that still persist today.

→ Slowly, conditions began to improve.
Stearns pp. 388-389,

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Industrialization's Effects (Cont.)

- The many social and environmental problems generated by industrialization were at their worst in the first half of the nineteenth century
- After 1850, circumstances steadily improved, as more efficient municipal governments steadily improved living conditions through better treatment of sewage and water purification.
- * Closely related to these improvements were gains in medical knowledge. Acceptance of the germ theory of disease by the 1880s saw a rapid improvement in hygiene and sanitation conditions, particularly in urban areas.
- Child mortality rates in particular began to drop rapidly. Child mortality in 1820 remained around 50%; by 1870 30%; by 1910 10% and falling. * This was a typical example of the effective application of wealth, technical knowledge, and organizational skills that characterized the Industrial Age.
- * Industrialization had permanent and far-reaching effects on where people lived, how healthy they were, and wealthy they

were, and what jobs they had. By 1900, most workers in the West were not working at the same jobs their ancestors had in 1780. They were not living at the same place; they did not engage in the same leisure activities. In 1780, most had worked in or near the home; by 1900, most work was separate from home. In 1780, most had used herbal remedies when ill, viewing hospitals as the places where ^{poor} people went to die; by 1900, reliance on hospitals and doctors for medical care had become the norm; most now believed that medical science held the answers to cure many age-old health problems. These brief factors illustrate just how drastically industrialization had affected the human condition in the West.

The Transformation of Political Thought

- In the wake of the ^{French Revolution, the} Napoleonic Era and the impact of industrialization, political thinkers began to construct new political ideologies as a way of understanding the new world. Most agreed that a fundamentally new era had arrived, but few agreed on how to organize society in response to this change. As a result, a host of new political ideologies appeared to contest the new landscape. We will consider 4 main ones: conservatism, liberalism, ^{nationalism} & socialism.