

How a Few Simple Things Changed History

Class 3

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What We Cover Today

- The Impact of Spices, especially pepper
- The Impact of Tobacco
- The Impact of the Potato

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The Impact of Spices

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What is a Spice?

- Spice = a dried vegetable seed, fruit, root, bark, or substance used in nutritionally insignificant quantities as a food additive for flavor, color, or as a preservative that kills harmful bacteria or prevents their growth. Many spices are also used as medicines, in religious rituals, as cosmetics, or as perfumes

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What is a Herb?

- Herbs = leafy green plant parts used as a food additive for flavor, color, or scent. They are also used for medicinal purposes. Culinary herbs are distinguished from vegetables in that, like spices, they are used in small amounts and provide flavor rather than substance to food. Like spices, herbs were used in medicinal and religious rituals

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Notes About Spices - 1

- There is evidence that spices have been used for thousands of years. By 2000 BC, there was a spice trade throughout the Middle East for cinnamon, pepper, and various herbs
- By the 1st Century AD, there was a thriving trade in spices, with over half the imports to the Mediterranean from Asia and the east coast of Africa consisting of spices (mostly pepper)

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Notes About Spices - 2

- Spices were used to make foods taste better and increase consumption of nutritious but not necessarily appealing foods
- Spices were also used as natural preservatives since many of them contained anti-microbial chemicals that killed or suppressed bacteria and fungi that commonly contaminate and spoil foods

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Notes About Spices - 3

- Spices were generally added to meat after cooking to flavor it, not before to preserve it.
- Spices were generally not used to disguise tainted meat and fish
 - The wealthy elites that alone could afford spices generally had access to fresh food or to food that was preserved by salting, pickling, curing, or drying

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Notes About Spices - 4

- Spices and herbs were often used as medicines
 - Many spices fit into the prevailing system of Galenic medicine with its four humours
 - Pepper, for example, was used to treat 'cold diseases' accompanied by excess phlegm, such as rheumatism
 - Ginger was used to heat the stomach and aid digestion
 - Nutmeg was used to benefit the spleen and relieve any bad cold

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Notes About Spices - 5

- Spices were often used in religious and ceremonial rituals
 - Frankincense and myrrh were used in incense which was burned to produce a fragrant odor during the mass and benediction services
 - Incense was also burned at an incense altar in the Jewish Temple as part of the Temple ritual
 - In the Indian pre-wedding ceremony of Nulugu, married relatives spread a tumeric paste on the faces of the bride and groom

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Notes About Pepper - 1

- Pepper, from the tropical vine *Piper Nigrum* which originated in India, accounted for 70% of the world's spice trade
- Since India and the East Indies – where pepper was produced – was far from Western Europe, pepper was highly expensive
 - A kilo of pepper costing 1 or 2 grams of silver at the point of production cost 10-14 grams in Alexandria, 14-18 in Venice, and 20-30 in the consuming countries of Western Europe

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Notes About Pepper - 2

- About 75% of all pepper sold is black pepper
 - Black pepper is produced by a fungal fermentation of unripe pepper berries.
- Over 20% is white pepper
 - White pepper is obtained from the dried ripe fruit after removal of the berry skin and pulp
- A small percentage is sold as green pepper or peppercorns
 - Green pepper is obtained by picking the berries when they are beginning to ripen and then pickling them in brine

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Medieval Demand for Spices

- In the Middle Ages, European elites developed a taste for spices – mostly pepper, but also ginger, cinnamon, and cloves
 - In the 12th and 13th centuries, a growing urban middle class of merchants and craftsmen expanded the circle of consumers by imitating the luxury lifestyles of the nobility
 - Thus, demand for spices increased

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Why Spices Were a Luxury

- Spices were the most highly prized of all luxury goods because they were very expensive and came from very far away
 - Pepper was first transported from India and the Moluccas across the Indian Ocean to Egypt by Arab middlemen where Italian traders (mostly Venetians) shipped it from Alexandria to Italy from where it traveled by land over the Alps to Northern Europe

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Rising Prices

- The combination of rising demand, limited supply, expensive transportation (in part over land), and increasing customs duties by Islamic empires led to a 30-fold increase in price during the 15th Century
 - During the 15th century, the Turks took over Asia Minor and the Mamelukes seized power in Egypt. Both started imposing high tariffs on the spice caravans

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Effects of Rising Prices

- The escalating prices for pepper and other spices in Western Europe had the following effects:
 - The draining of gold and silver from Europe to both the Islamic empires of the Middle East and the producing areas of Asia
 - This had military implications.
 - A strong desire to find a route to India and the East Indies that bypassed the Ottoman, Persian, and Mameluke empires of Islam

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Two Routes to the East - 1

- Portuguese Approach – Sail around Africa into the Indian Ocean to India and the East Indies
 - In 1415, the Portuguese captured Ceuta – a port where the caravan trade from Black Africa and the seaborne trade of Mediterranean Islam met
 - From the 1420s onward, Portugal launched a series of voyages down the coast of Africa looking for access to Africa's gold supplies and a route around Africa to India and the East Indies
 - Led to Portuguese discovery of the Madeiras (1420), Azores (1430), Canaries (1432), and Cape Verde Islands (1455)

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The Coast of Africa

- As the Portuguese progressed down the coast of Africa
 - They began growing sugar in the Azores, Madieras, and Canaries
 - This led to the importation of slaves (approximately 1,000 per year by the mid-15th century)
 - Besides slaves, the Portuguese traded for ivory, gold (between 13,000-14,000 ounces per year), and malaquetta (a pepper substitute),

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Into the Indian Ocean

- When the Portuguese and later the Dutch, French, and English sailed the Indian Ocean and reached the areas where the spices were grown (India and the East Indies), they:
 - Shifted the spice trade from the Mediterranean via the Muslim world to the Atlantic and Indian Oceans and from Levantine middlemen to Western Europeans
 - This started the gradual economic decline of the Islamic world

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The Indian Ocean Trade

- European sailing ships were bigger and heavier than Muslim dhows and galleys (powered by rowers)
 - In peace, they were able to travel greater distances with larger cargoes at lower cost
 - In war, European ships were more maneuverable and could carry more guns
- Because the Europeans were able to defeat naval Islamic naval forces, the Europeans eventually captured the internal Indian Ocean carrying trade

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From Trading Posts to Colonies - 1

- As Europeans began establishing trading posts in India, Malaya, and Indonesia, they began intervening in local disputes in order to:
 - Prevent native officials and dealers from bullying and excessively taxing them
 - Create buffer zones around the trading posts
 - Protect local allies against their enemies (which often included rival European powers)
 - Force recalcitrant rulers and natives to grow specific crops in areas suited to those crops while preventing other areas from growing them
 - The Dutch East India Company created a monopoly in mace, nutmeg, cloves, and cinnamon by confining the production of each spice to a small island

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From Trading Post to Colonies - 2

- The logic of protecting trade and defending local allies eventually led to Europeans taking control of most of South and Southeast Asia.
 - I.e. trading posts lead to colonies, with political control coming into the hands of European nation states
 - Since the conquered were mostly darker-skinned than the Europeans, it was easy for Europeans to see Asian natives as racially different and inferior
 - Thus, colonialism led to racism

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Two Routes to the East - 2

- Spanish/English/French Approach – Sail to China, the East Indies, and India by heading west across the Atlantic Ocean
 - This led to the voyages of Christopher Columbus and the discovery of America
 - The discovery, conquest, and settlement of the Americas in turn led to:
 - The replacement of most of the American Indian population (decimated by disease) by Europeans and Africans
 - The Columbian Exchange

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The Columbian Exchange

- The Columbian Exchange
 - the transfer of European, African, and Asian food crops (wheat, rice, oats, barley) and animals (horses, cattle, pigs, sheep, chickens, and goats) to the Americas and
 - the transfer of American food crops (corn, potatoes, sweet potatoes, squash, cassava), chili peppers, tobacco, tomatoes, and turkeys to Europe, Asia, and Africa

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The Impact of Tobacco

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Tobacco Plant



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What Is Tobacco?

- Tobacco = 1 : any of a genus (*Nicotiana*) of chiefly American plants of the nightshade family with viscid foliage and tubular flowers; especially : a tall erect annual tropical American herb (*N. tabacum*) cultivated for its leaves; 2 : the leaves of cultivated tobacco prepared for use in smoking or chewing or as snuff; 3 : manufactured products of tobacco (such as cigarettes and cigars)

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Some Notes About Tobacco - 1

- Human tobacco use is focused on two of tobacco's 64 species – *Nicotiana tabacum* and *Nicotiana rustica*
- Both of the above species are native only to the Americas
 - First cultivated in the Peruvian/ Ecuadorian Andes c5000 BC-3000 BC
 - By 1492, it had spread over much of North & South America and the Caribbean

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Some Notes About Tobacco - 2

- Tobacco smoking arose from snuffing – inhaling it through the nose
- Tobacco is a biphasic drug
 - A small quantity has a mild effect
 - Large doses produce hallucinations, trances & sometimes death
- Tobacco was used by American Indians as a medicine, an insecticide, and as a part of ceremonial rites
 - It was also used for pleasure

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Some Notes About Tobacco - 3

- Tobacco was used in the training of shamans
- Tobacco was chewed, snuffed, drunk as a tea, and smoked as cigars
 - Indian cigars consisted of rolls of cured tobacco wrapped around a stick or banana leaf rib
 - In North America, it was also smoked in pipes
- Tobacco pipes had an important role in and of themselves
 - Used to seal oaths, provide safe conduct, declare war, and make peace

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Some Notes About Tobacco - 4

- Initially, Europeans were condemnatory of smoking due to
 - Its link to shaman rituals which Europeans saw as paganism and Devil worship
 - Its addictive nature
- But curiosity and its medicinal & social lubrication use among the Indians tempted many Europeans to try it

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Some Notes About Tobacco - 5

- Two factors helped popularize tobacco use in Europe
 - By describing the medicinal qualities of tobacco, French diplomat Jean Nicot enabled European medicine to fit tobacco within the system of medicine it had inherited from Galen
 - Spanish monks saw that acceptance of Indian tobacco habits facilitated Indian acceptance of Christianity

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Some Notes About Tobacco - 6

- Cigarettes have both a relaxant and stimulative effect
- As a narcotic
 - They provide a degree of relaxation, especially under conditions of high stress (such as combat) – a relaxation reinforced by the sociability of sharing smokes with friends and co-workers and the daily ritual of smoking during meals and coffee breaks

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Some Notes About Tobacco - 7

- As a stimulant
 - They release adrenaline (a stimulating hormone) and glucose into the bloodstream, enhancing alertness and concentration
 - Thus the stereotype of chain-smoking newspaperman, writer, and detective
- The effect produced depends on how the smoker smokes the cigarette and is within his control

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Some Notes About Tobacco - 8

- Smoking spread to England as a result of contact with Indians in North America
 - Since North American Indians smoked cigars, the English took their tobacco in the form of cigars
- Sir Walter Raleigh popularized smoking at the English court
- European sailors brought smoking to Asia and Africa
 - The Mexico-Philippines trade brought smoking to much of Asia

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Consequences of Tobacco - 1

- Initially, it seemed that the Jamestown, like earlier English colonization attempts, would fail due to disease, cold, starvation, and conflicts with Indians who had quickly tired of having to feed them
- In 1612, John Rolfe began planting tobacco and eventually learned how to grow and cure it
 - By 1616, he was commercially exporting it to England where his blend of tobacco won wide favor

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Consequences of Tobacco - 2

- The discovery that tobacco could be successfully grown and profitably sold was the most momentous fact in the first century of settlement
 - The commercial success of Virginia tobacco guaranteed that the settlement of Virginia would not fail
 - The fact that growing tobacco is very labor-intensive had major implications

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Consequences of Tobacco - 3

- One implication of labor shortages was resort to slavery
 - African-origin slaves largely replaced English-origin indentured servants since
 - Africans had a lower mortality rate than Whites in Virginia and the South
 - Africans could be enslaved for life while the servitude of White indentured servants was limited to a term of years

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Consequences of Tobacco - 4

- Tobacco as an imported commodity could be taxed
 - Thus need for the tax revenues that tobacco could generate led the English government to attempt to repress smuggling and to subsequently enact the Navigation Acts of 1651 and 1660
 - 1651 – All imports into England had to be in either English ships or those of the country of origin
 - 1660 - All English colonial tobacco could be sold only in England

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Consequences of Tobacco - 5

- The Navigation Acts led to:
 - War with Holland – one consequence of which was the English acquisition of New York City
 - Alienation of the colonies
 - This led to large-scale colonial smuggling and violation of the laws, planting the seeds of eventual rebellion
 - Led Scottish merchants to press for political union with England
 - Great Britain created in 1707 with the Act of Union

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Consequences of Tobacco - 6

- Tobacco quickly depleted the soil so that after 3 years without fertilizer, no more tobacco could be grown on that plot of land
 - This led to the eventual disappearance of the virgin forests of southeastern North America
 - It also led to the displacement of, and wars with, the native American Indians
 - In the 1750s, it was to lead settlers into conflict with the French, triggering the Seven Years (or French & Indian) War

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Consequences of Tobacco - 7

- As a commodity, tobacco had a largely inelastic demand
 - Thus, as tobacco production increased, prices fell
- The tobacco producers, however
 - Bought the luxury goods they desired from a limited number of British producers who could keep prices high
 - Had an aristocratic ethos that validated conspicuous consumption, display of wealth, entertaining, and liberal gift-giving

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Consequences of Tobacco - 8

- The result of both the tobacco economy and the aristocratic lifestyle of the Virginia planters was
 - Many planters were deeply in debt
- Indebtedness had the following implications
 - A resistance to higher taxes and more regulations
 - A majority of the signers of the Declaration of Independence were either tobacco growers or otherwise involved in the tobacco trade
 - A desire to acquire Western lands beyond the Appalachians
 - When the British forbade settlement beyond the peak of the Appalachians, this led the planters to see continued British rule as potentially devastating

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Consequences of Tobacco - 9

- Tobacco as collateral helped the Americans gain vital French loans
 - A major loan from the French was secured by 5 million pounds of tobacco
- One reason Cornwallis led his army to Virginia was to destroy the tobacco plantations of the rebel Virginia elite
 - This helped pave the way for his encirclement and surrender at Yorktown

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Consequences of Tobacco - 10

- The American Revolution led to:
 - Major tax burdens on the French peasantry
 - One of the major taxes was on tobacco
 - Like other sales taxes, it was regressive
 - Combined with other taxes plus the tithe to the Church and often rent to the landlord, life for the peasants were burdensome in good harvests and devastating in poor ones
 - French peasants were regular smokers who relied on tobacco's appetite suppressant properties to get them through famines

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Consequences of Tobacco - 11

- The American Revolution led to:
 - A fiscal crisis for the French government that was aggravated by:
 - Dependency on largely regressive sales taxes
 - Internal tariffs which prevented creation of a unified national market
 - Collection of taxes by private collectors ("tax farmers") who had every incentive to gouge taxpayers
 - Exemptions of the nobility and clergy from taxation
 - By 1787, the loans amounted to 1.64 billion *livres*, and the annual deficit was 140 millions.
 - Bankers were no longer willing to lend to the French government

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Consequences of Tobacco - 12

- The inability of Louis XIV's ministers to solve the fiscal crisis led to
 - Convening of the Assembly of the Notables (1787)
 - Which was shocked at both the deficit and the national debt
 - But, except for a new stamp tax, did nothing about the fiscal crisis
 - Convening of the Estates-General (1789)
 - This precipitated the French Revolution

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Consequences of Tobacco - 13

- One of the consequences of the Napoleonic wars was
 - Napoleon's invasion of Spain which led a British army under Wellington to eventually evict the French from Spain – the Peninsular Campaign
 - In the course of the campaign, both French and British troops were exposed to Spanish cigars and *papelotes* (Spanish roll-your-own cigarettes)
 - This popularized cigar smoking in both England and France

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Consequences of Tobacco - 14

- During the Peninsular Campaign, French troops had occupied Seville and saw its factories of cigar-making, *papelote*-smoking women
 - After the wars, French intellectuals began visiting Seville .
 - One of these was Prosper Merimée who was inspired to turn an apparently true tale of a 15-year old cigar-making teenager into *Carmen*.
 - Later, Georges Bizet turned Merimées' tale into the opera *Carmen*

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Consequences of Tobacco - 15

- When the French intellectuals returned to Paris with their *papelotes*, they referred to these items as *cigarettes* – *French cigarette*, a diminutive of *cigare* (cigar), from the Spanish *cigarro*.
- Despite the presence of the cigarette, the Victorians preferred cigar- and pipe-smoking
 - The invention of the meerschaum and briar pipes helped make pipe-smoking a mark of the intellectual and well-to-do.

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The Industrialization of Smoking

- Cigarette smoking did not take off until the creation of brand-name advertising and the invention of the Bonsack cigarette-manufacturing machine
- Prior to the Bonsack machine, cigarettes were made by hand
 - This made them very expensive since a skilled cigarette roller could make no more than 5 cigarettes per minute
- Motivated by a \$75,000 prize, James Bonsack patented a cigarette-manufacturing machine that could roll 212 cigarettes a minute

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Growth of Cigarette Smoking

- The Bonsack Machine greatly reduced the cost of manufacturing cigarettes and hence the cost of smoking them
- In the Industrial world, cigarettes were the most convenient means of smoking
 - Pipes took time to fill and longer to smoke
 - Chewing tobacco was seen as a health hazard
 - Cigarettes were portable and sociable

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Tobacco & World War I - 1

- Smoking proved very popular in the trenches of World War I due to
 - Its relaxing properties
 - Its ability to suppress hunger
 - It constituted the one bit of civilian normality in the trenches
 - Its sociability aspects
- The militaries of all nations involved approved of smoking and issued cigarette rations
 - U.S. tobacco rations consisted predominantly of cigarettes

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Tobacco & World War I - 2

- The combination of need-fulfilling popularity and official rations turned many a doughboy into a cigarette smoker
- On the home front, many woman war plant workers became smokers
- Both of the above facts paved the way for the cigarette smoking boom of the 1920s

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The "It" Girls

- After World War I, the "It" Girls, daughters of the well-to-do, began both to frequent public places after dark without chaperones and to smoke in public
 - The media, especially the movies, popularized the "It Girl" and her lifestyle, which included the smoking of cigarettes and fashionably slender figures

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Cigarettes & Advertising

- In the 1920s, advertising began to develop new approaches
 - Focusing on the consumers' alleged or feared failings and anxieties and then demonstrating how the advertiser's product could eliminate the failings and relieve the anxieties
 - The tobacco companies exploited women's fear of being fat with their "Reach for a Lucky instead of a sweet"

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Cigarette Branding

- While branding dates back to the 18th century (Cadbury & Wedgwood), large scale use of branding began just before the end of the 19th century. By the 1930s, brand names were firmly established
- Tobacco companies were big into branding their cigarettes.
 - The three leading brands of the 1920s – Camel, Chesterfield, and Lucky Strike – had distinct brands and images

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Movies & Smoking

- Movies popularized smoking by showing movie stars smoking and by portraying everyday people as smoking
- Tobacco companies in turn paid actors to publicize the fact that they smoked their brand of cigarettes
- Cigarettes served as a prop to illustrate a person's character or suggest an erotic act (that in itself could not be shown)

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Movies & Smoking - 2

- Thanks to the impact of World War I, clever advertising, and movies a majority of adults now smoked
 - In 1930, Count Curti, a tobacco historian, observed that 'non-smokers are a feeble and ever dwindling minority' and that governments of all stripes encouraged smoking for the taxes it brings

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The Nazis & Smoking

- Hitler was a non-smoker who conducted a tax and propaganda war against smoking
 - Raised taxes on cigarettes
 - Banned smoking by pregnant women and Luftwaffe pilots
 - Forbade smoking in public places and on public transport
 - Fostered research into the effects of smoking
 - First studies linking cigarette smoking and lung cancer

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The Nazis & Smoking

- Hitler's efforts, however, were generally unsuccessful
 - Between 1932 and 1939, smoking per capita rose from 570 cigarettes per annum to 900
- During World War II, smoking decreased as a result of an inability to import tobacco
 - The cigarette ration for German soldiers was 6 per person per day – less than what it had been in World War I

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World War II & Cigarettes

- Roosevelt declared tobacco an essential wartime material and granted draft exemptions to those who grew it
 - US troops had a tobacco allowance of 5 to 7 packs a week
 - From 1944 on, cigarettes were included in combat rations
- World War II turned GIs into smokers

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World War II & Cigarettes - 2

- GIs who smoked were intensely brand loyal
 - Transit camps for GIs heading home from Europe were named after brands of cigarettes – Camp Chesterfield
- Cigarettes served as an unofficial currency in the POW camps of World War II
- Cigarettes also served as an unofficial currency in Allied-occupied Germany

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Cigarettes & Cancer

- The May 1950 issue of the JAMA published two studies strongly linking smoking to lung cancer
 - Lung cancer rates were 10 times greater than for non-smokers
 - 96.4% of hospitalized lung cancer patients were heavy-to-chain smokers
- In 1957, US Surgeon General Leroy Burney issued a *Joint Report of Study Group on Smoking and Health*, which stated that, 'prolonged cigarette smoking was a causative factor in the etiology of lung cancer'.
- In 1964, the surgeon general report, 1964 surgeon general's report, *Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service*, strongly stated that there was a link between cigarette smoking and cancer (especially lung cancer)

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Tobacco Company Reaction - 1

- In 1954, the U.S. tobacco companies placed an advertisement in 448 newspapers.
 - Entitled "Frank Statement to Cigarette Smokers," the ad stated that the medical studies "are not regarded as conclusive in the field of cancer research" and that there is no proof that cigarette smoking is a cause of lung cancer
- In the 1950s, the tobacco companies introduced filter and menthol cigarettes

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Tobacco Company Reaction- 2

- After the 1964 Surgeon General's report, the tobacco companies reacted by
 - Attacking the credibility of the research, stating that it was purely statistical in nature and that correlation was not causation
 - Hiking their advertising budgets and promoting cigarettes in ever novel ways
 - One outcome was the "Marlboro Man" & another later one was Joe Camel
 - Using political clout to forestall significant regulation

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Cigarette Culture Wars

- One consequence of studies linking smoking to lung and other cancers and the tobacco companies' reactions was
 - The cigarette culture wars – pitting groups who wanted to restrict smoking by means of government regulation vs groups who argued for 'smokers' rights'

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Passive Smoking

- The one factor that tipped the balance of the culture war over tobacco have been studies that suggested that cigarette smoke in the environment could cause lung cancer in non-smokers
 - This had led to bans on smoking in public (including public modes of transportation) and other restrictions

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