

# Chapter 1

## The Official Theory

"BLANK SLATE" is a loose translation of the medieval Latin term *tabula rasa* - literally, "scraped tablet." It is commonly attributed to the philosopher John Locke (1632-1704), though in fact he used a different metaphor. Here is the famous passage from *An Essay Concerning Human Understanding*:

Let us then suppose the mind to be, as we say, white paper void of all characters, without any ideas. How comes it to be furnished? Whence comes it by that vast store which the busy and boundless fancy of man has painted on it with an almost endless variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from EXPERIENCE.

Locke was taking aim at theories of innate ideas in which people were thought to be born with mathematical ideals, eternal truths, and a notion of God. His alternative theory, empiricism, was intended both as a theory of psychology- how the mind works- and as a theory of epistemology- how we come to know the truth. Both goals helped motivate his political philosophy, often honored as the foundation of liberal democracy. Locke opposed dogmatic justifications for the political status quo, such as the authority of the church and the divine right of kings, which had been touted as self-evident truths. He argued that social arrangements should be reasoned out from scratch and agreed upon by mutual consent, based on knowledge that any person could acquire. Since ideas are grounded in experience, which varies from person to person, differences of opinion arise not because one mind is equipped to grasp the truth and another is defective, but because the two minds have had different histories. Those differences therefore ought to be tolerated rather than suppressed. Locke's notion of a blank slate also undermined a hereditary royalty and aristocracy, whose members could claim no innate wisdom or merit if their minds had started out as blank as everyone else's. It also spoke against the institution of slavery, because slaves could no longer be thought of as innately inferior or subservient.

During the past century the doctrine of the Blank Slate has set the agenda for much of the social sciences and humanities. As we shall see, psychology has sought to explain all thought, feeling, and behavior with a few simple mechanisms of learning. The social sciences have sought to explain all customs and social arrangements as a product of the socialization of children by the surrounding culture: a system of words, images, stereotypes, role models, and contingencies of reward and punishment. A long and growing list of concepts that would seem natural to the human way of thinking (emotions, kinship, the sexes, illness, nature, the world) are now said to have been "invented" or "socially constructed."

The Blank Slate has also served as a sacred scripture for political and ethical beliefs. According to the doctrine, any differences we see among races, ethnic groups, sexes, and individuals come not from differences in their innate constitution but from differences in their experiences. Change the experiences- by reforming parenting, education, the media, and social rewards- and you can change the person. Underachievement, poverty, and antisocial behavior can be ameliorated; indeed, it is irresponsible not to do so. And discrimination on the basis of purportedly inborn traits of a sex or ethnic group is simply irrational.

THE BLANK SLATE is often accompanied by two other doctrines, which have also attained a sacred status in modern intellectual life. My label for the first of the two is commonly attributed to the philosopher Jean-Jacques Rousseau (1712-1778), though it really comes from John Dryden's *The Conquest of Granada*, published in 1670:

I am as free as Nature first made man,  
Ere the base laws of servitude began,  
When wild in woods the noble savage ran.

The concept of the noble savage was inspired by European colonists' discovery of indigenous peoples in the Americas, Africa, and (later) Oceania. It captures the belief that humans in their natural state are selfless, peaceable, and untroubled, and that blights such as greed, anxiety, and violence are the products of civilization. In 1755 Rousseau wrote:

So many authors have hastily concluded that man is naturally cruel, and requires a regular system of police to be reclaimed; whereas nothing can be more gentle than him in his primitive state, when placed by nature at an equal distance from the stupidity of brutes and the pernicious good sense of civilized man....

The more we reflect on this state, the more convinced we shall be that it was the least subject of any to revolutions, the best for man, and that nothing could have drawn him out of it but some fatal accident, which, for the public good, should never have happened. The example of the savages, most of whom have been found in this condition, seems to confirm that mankind was formed ever to remain in it, that this condition is the real youth of the world, and that all ulterior improvements have been so many steps, in appearance towards the perfection of individuals, but in fact towards the decrepitness of the species.

First among the authors that Rousseau had in mind was Thomas Hobbes (1588-1679), who had presented a very different picture:

Hereby it is manifest that during the time men live without a common power to keep them all in awe, they are in that condition which is called war; and such a war as is of every man against every man....

In such condition there is no place for industry, because the fruit thereof is uncertain: and consequently no culture of the earth; no navigation, nor use of the commodities that may be imported by sea; no commodious building; no instruments of moving and removing such things as require much force; no knowledge of the face of the earth; no account of time; no arts; no letters; no society; and which is worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short.

Hobbes believed that people could escape this hellish existence only by surrendering their autonomy to a sovereign person or assembly. He called it a leviathan, the Hebrew word for a monstrous sea creature subdued by Yahweh at the dawn of creation.

Much depends on which of these armchair anthropologists is correct. If people are noble savages, then a domineering leviathan is unnecessary. Indeed, by forcing people to delineate private property for the state to recognize - property they might otherwise have shared - the leviathan creates the very greed and belligerence it is designed to control. A happy society would be our birthright; all we would need to do is eliminate the institutional barriers that keep it from us. If, in contrast, people are naturally nasty, the best we can hope for is an uneasy truce enforced by police and the army. The two theories have implications for private life as well. Every child is born a savage (that is, uncivilized), so if savages are naturally gentle, childrearing is a matter of providing children with opportunities to develop their potential, and evil people are products of a society that has corrupted them. If savages are naturally nasty, then childrearing is an arena of discipline and conflict, and evil people are showing a dark side that was insufficiently tamed.

The actual writings of philosophers are always more complex than the theories they come to symbolize in the textbooks. In reality, the views of Hobbes and Rousseau are not that far apart. Rousseau, like Hobbes, believed

(incorrectly) that savages were solitary, without ties of love or loyalty, and without any industry or art (and he may have out-Hobbes'd Hobbes in claiming they did not even have language). Hobbes envisioned - indeed, literally drew - his Leviathan as an embodiment of the collective will, which was vested in it by a kind of social contract; Rousseau's most famous work is called *The Social Contract*, and in it he calls on people to subordinate their interests to a "general will".

Nonetheless, Hobbes and Rousseau limned contrasting pictures of the state of nature that have inspired thinkers in the centuries since. No one can fail to recognize the influence of the doctrine of the Noble Savage in contemporary consciousness. We see it in the current respect for all things natural (natural foods, natural medicines, natural childbirth) and the distrust of the man-made, the unfashionability of authoritarian styles of childrearing and education, and the understanding of social problems as repairable defects in our institutions rather than as tragedies inherent to the human condition.

THE OTHER SACRED doctrine that often accompanies the Blank Slate is usually attributed to the scientist, mathematician, and philosopher Rene Descartes (1596- 1650):

There is a great difference between mind and body, inasmuch as body is by nature always divisible, and the mind is entirely indivisible. . . . When I consider the mind, that is to say, myself inasmuch as I am only a thinking being, I cannot distinguish in myself any parts, but apprehend myself to be clearly one and entire; and though the whole mind seems to be united to the whole body, yet if a foot, or an arm, or some other part, is separated from the body, I am aware that nothing has been taken from my mind. And the faculties of willing, feeling, conceiving, etc. cannot be properly speaking said to be its parts, for it is one and the same mind which employs itself in willing and in feeling and understanding. But it is quite otherwise with corporeal or extended objects, for there is not one of them imaginable by me which my mind cannot easily divide into parts... This would be sufficient to teach me that the mind or soul of man is entirely different from the body, if I had not already been apprised of it on other grounds.

A memorable name for this doctrine was given three centuries later by a detractor, the philosopher Gilbert Ryle (1900-1976):

There is a doctrine about the nature and place of minds which is so prevalent among theorists and even among laymen that it deserves to be described as the official theory. . . . The official doctrine, which hails chiefly from Descartes, is something like this. With the doubtful exception of idiots and infants in arms every human being has both a body and a mind. Some would prefer to say that every human being is both a body and a mind. His body and his mind are ordinarily harnessed together, but after the death of the body his mind may continue to exist and function. Human bodies are in space and are subject to mechanical laws which govern all other bodies in space....But minds are not in space, nor are their operations subject to mechanical laws. . . .

. . . Such in outline is the official theory. I shall often speak of it, with deliberate abusiveness, as "the dogma of the Ghost in the Machine."

The Ghost in the Machine, like the Noble Savage, arose in part as a reaction to Hobbes. Hobbes had argued that life and mind could be explained in mechanical terms. Light sets our nerves and brain in motion, and that is what it means to see. The motions may persist like the wake of a ship or the vibration of a plucked string, and that is what it means to imagine. "Quantities" get added or subtracted in the brain, and that is what it means to think.

Descartes rejected the idea that the mind could operate by physical principles. He thought that behavior, especially speech, was not caused by anything, but freely chosen. He observed that our consciousness, unlike our bodies and other physical objects, does not feel as if it is divisible into parts or laid out in space. He noted that we cannot doubt the existence of our minds - indeed, we cannot doubt that we are our minds - because the very act of thinking presupposes that our minds exist. But we can doubt the existence of our bodies, because we can imagine ourselves to be immaterial spirits who merely dream or hallucinate that we are incarnate.

Descartes also found a moral bonus in his dualism (the belief that the mind is a different kind of thing from the body): "There is none which is more effectual in leading feeble spirits from the straight path of virtue, than to imagine that the soul of the brute is of the same nature as our own, and that in consequence, after this life we have nothing to fear or to hope for, any more than the flies and the ants." Ryle explains Descartes's dilemma:

When Galileo showed that his methods of scientific discovery were competent to provide a mechanical theory which should cover every occupant of space, Descartes found in himself two conflicting motives. As a man of scientific genius he could not but endorse the claims of mechanics, yet as a religious and moral man he could not accept, as Hobbes accepted, the discouraging rider to those claims, namely that human nature differs only in degree of complexity from clockwork.

It can indeed be upsetting to think of ourselves as glorified gears and springs. Machines are insensate, built to be used, and disposable; humans are sentient, possessing of dignity and rights, and infinitely precious. A machine has some workaday purpose, such as grinding grain or sharpening pencils; a human being has higher purposes, such as love, worship, good works, and the creation of knowledge and beauty. The behavior of machines is determined by the ineluctable laws of physics and chemistry; the behavior of people is freely chosen. With choice comes freedom, and therefore optimism about our possibilities for the future. With choice also comes responsibility, which allows us to hold people accountable for their actions. And of course if the mind is separate from the body, it can continue to exist when the body breaks down, and our thoughts and pleasures will not someday be snuffed out forever.

As I mentioned, most Americans continue to believe in an immortal soul, made of some nonphysical substance, which can part company with the body. But even those who do not avow that belief in so many words still imagine that somehow there must be more to us than electrical and chemical activity in the brain. Choice, dignity, and responsibility are gifts that set off human beings from everything else in the universe, and seem incompatible with the idea that we are mere collections of molecules. Attempts to explain behavior in mechanistic terms are commonly denounced as "reductionist" or "determinist." The denouncers rarely know exactly what they mean by those words, but everyone knows they refer to something bad. The dichotomy between mind and body also pervades everyday speech, as when we say "Use your head;" when we refer to "out-of-body experiences;" and when we speak of "John's body;" or for that matter "John's brain;" which presupposes an owner, John, that is somehow separate from the brain it owns. Journalists sometimes speculate about "brain transplants" when they really should be calling them "body transplants;" because, as the philosopher Dan Dennett has noted, this is the one transplant operation in which it is better to be the donor than the recipient.

The doctrines of the Blank Slate, the Noble Savage, and the Ghost in the Machine-or, as philosophers call them, empiricism, romanticism, and dualism-are logically independent, but in practice they are often found together. If the slate is blank, then strictly speaking it has neither injunctions to do good nor injunctions to do evil. But good and evil are asymmetrical: there are more ways to harm people than to help them, and harmful

acts can hurt them to a greater degree than virtuous acts can make them better off. So a blank slate, compared with one filled with motives, is bound to impress us more by its inability to do harm than by its inability to do good. Rousseau did not literally believe in a blank slate, but he did believe that bad behavior is a product of learning and socialization. "Men are wicked;" he wrote; "a sad and constant experience makes proof unnecessary." But this wickedness comes from society: "There is no original perversity in the human heart. There is not a single vice to be found in it of which it cannot be said how and whence it entered." If the metaphors in everyday speech are a clue, then all of us, like Rousseau, associate blankness with virtue rather than with nothingness. Think of the moral connotations of the adjectives clean, fair, immaculate, lily-white, pure, spotless, unmarred, and unsullied, and of the nouns blemish, blot, mark, stain, and taint.

The Blank Slate naturally coexists with the Ghost in the Machine, too, since a slate that is blank is a hospitable place for a ghost to haunt. If a ghost is to be at the controls, the factory can ship the device with a minimum of parts. The ghost can read the body's display panels and pull its levers, with no need for a high-tech executive program, guidance system, or CPU. The more not-clockwork there is controlling behavior, the less clockwork we need to posit. For similar reasons, the Ghost in the Machine happily accompanies the Noble Savage. If the machine behaves ignobly, we can blame the ghost, which freely chose to carry out the iniquitous acts; we need not probe for a defect in the machine's design.

PHILOSOPHY TODAY GETS no respect. Many scientists use the term as a synonym for effete speculation. When my colleague Ned Block told his father that he would major in the subject, his father's reply was "Luft!" - Yiddish for "air." And then there's the joke in which a young man told his mother he would become a Doctor of Philosophy and she said, "Wonderful! But what kind of disease is philosophy?"

But far from being idle or airy, the ideas of philosophers can have repercussions for centuries. The Blank Slate and its companion doctrines have infiltrated the conventional wisdom of our civilization and have repeatedly surfaced in unexpected places. William Godwin (1756-1835), one of the founders of liberal political philosophy, wrote that "children are a sort of raw material put into our hands; their minds 'like a sheet of white paper.'" More sinisterly, we find Mao Zedong justifying his radical social engineering by saying, "It is on a blank page that the most beautiful poems are written." Even Walt Disney was inspired by the metaphor. "I think of a child's mind as a blank book;" he wrote. "During the first years of his life, much will be written on the pages. The quality of that writing will affect his life profoundly."

Locke could not have imagined that his words would someday lead to Bambi (intended by Disney to teach self-reliance); nor could Rousseau have anticipated Pocahontas, the ultimate noble savage. Indeed, the soul of Rousseau seems to have been channeled by the writer of a recent Thanksgiving op-ed piece in the Boston Globe:

I would submit that the world native Americans knew was more stable, happier, and less barbaric than our society today. . . . there were no employment problems, community harmony was strong, substance abuse unknown, crime nearly nonexistent. What warfare there was between tribes was largely ritualistic and seldom resulted in indiscriminate or wholesale slaughter. While there were hard times, life was, for the most part, stable and predictable. . . . Because the native people respected what was around them, there was no loss of water or food resources because of pollution or extinction, no lack of materials for the daily essentials, such as baskets, canoes, shelter, or firewood.

Not that there haven't been skeptics:



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The third doctrine, too, continues to me its presence felt in modern times. In 2001 George W. Bush announced that the American government will not fund research on human embryonic stem cells if scientists have to destroy new embryos to extract them (the policy permits research on stem-cell lines that were previously extracted from embryos). He derived the policy after consulting not just with scientists but with philosophers and religious thinkers. Many of them framed the moral problem in terms of "ensoulment;" the moment at which the cluster of cells that will grow into a child is endowed with a soul. Some argued that ensoulment occurs at conception, which implies that the blastocyst (the five-day-old ball of cells from which stem cells are taken) is morally equivalent to a person and that destroying it is a form of murder. That argument proved decisive, which means that the American policy on perhaps the most promising medical technology of the twenty-first century was decided by pondering the moral issue as it might have been framed centuries before: When does the ghost first enter the machine?

These are just a few of the fingerprints of the Blank Slate, the Noble Savage, and the Ghost in the Machine on modern intellectual life. In the following chapters we will see how the seemingly airy ideas of Enlightenment philosophers entrenched themselves in modern consciousness, and how recent discoveries are casting those ideas in doubt.