

The Civilizing Process and the Domestication of Fire*

JOHAN GOUDSBLOM
University of Amsterdam

IN the two volumes of *The Civilizing Process* (first published in German in 1939, and in English in 1982) Norbert Elias studied changes in manners, society, and personality in western Europe over the period roughly from 850 to 1850. The documentary evidence upon which he based his argument was mainly derived from the second half of this period, from 1350 to 1850. The purpose of the study was to arrive at a better understanding of the contemporary world, and of its social and psychological problems.¹

Now, by any conventional standards the period from 1350 to 1850, not to speak of the millennium from 850 to 1850, is a very long time. Yet, when we take into account the full history of human civilization, it is short: an episode, no more.

Consequently, since Elias's focus was upon the changes that have taken place in western Europe since 1350, certain underlying patterns in human history had to remain in the background.

Elias himself was aware of this, and in later writings he

*This is the slightly abridged text of the first Norbert Elias lecture, delivered at the University of Leicester on 6 March 1991.

¹ For further information on the book and its background, see Stephen Menel, *Norbert Elias: Civilization and the Human Self-Image* (Oxford: Basil Blackwell, 1989). See also Hermann Korte, *Über Norbert Elias: Das Werden eines Menschenwissenschaftlers* (Frankfurt: Suhrkamp, 1988); Johan Goudsblom, *Sociology in the Balance* (Oxford: Basil Blackwell, 1977), pp. 143–50; Goudsblom, "Responses to Norbert Elias's Work," in Peter R. Gleichmann et al., eds., *Human Figurations: Essays for / Aufsätze für Norbert Elias* (Amsterdam: Amsterdams Sociologisch Tijdschrift, 1977), pp. 37–98; and Goudsblom, *De sociologie van Norbert Elias* (Amsterdam: Meulenhof, 1987).

extended the chronological scope of his investigations. He did so first in his lengthy *Essay on Time*, which was originally written in English but unfortunately has as yet been published only in Dutch and German translations.² Later he widened his time perspective even further, especially in the very last studies that he published in his lifetime, the articles on symbol theory that appeared in *Theory, Culture and Society*.³

In my own research, which is strongly inspired by Elias's work, I have also gone back very far in time. One reason for so doing was a growing dissatisfaction with the way in which Elias's theory of the civilizing process tended to be discussed as it became fashionable in the 1970s and 1980s. I found that many of those discussions were focused too narrowly on current trends. Of course, those trends are of immediate concern to us, and they need to be investigated. But there is more to the civilizing process than what is happening today.

To broaden the perspective and to clarify the issue, I have found it useful, first of all, to make a rough systematic classification. It is convenient, I think, to distinguish between three levels at which we may speak of a civilizing process.

First of all, there is the level of the individual. Each person is born with the capacity and the need to learn. He has to learn to interpret the sense impressions that reach him from the outside world as well as the inner impulses that arise within. (I regret having to use the masculine form, which appears to ignore more than half of humankind, but I also find it slightly pedantic and inelegant always to utter the obligatory "he or she." So I hope I may be forgiven for occasionally committing this linguistic discourtesy. I should like to point out in passing that our increasing sensitivity in such matters typically represents a small step in the civilizing process, reflecting a change in the balance of power between men and women.)

When a child gradually acquires a certain measure of self-control, a way of regulating its own impressions and impulses, this may be regarded as a civilizing process at the individual level. In the course of it, the child learns to live according to the standards of conduct prevailing in the society and social groups in which it grows up.

² Norbert Elias, *Über die Zeit* (Frankfurt: Suhrkamp, 1984); *Een essay over tijd* (Amsterdam: Meulenhoff, 1985).

³ Norbert Elias, "The Symbol Theory," *Theory, Culture and Society* 6 (1989): 169–217, 339–83, 499–537.

Now, the standards of conduct prevailing in any society at any given time are not eternally unchanging. Even if some of them are given justification by religious texts that claim eternal validity, these texts themselves are never older than a few thousand years at most.

We may therefore conclude that the social norms that individuals acquire by learning are themselves the result of historical processes—or, to stick to Elias's terminology, of civilizing processes, extending over many generations. This would be the second level in my classification: sociocultural processes by means of which standards of conduct are handed down from one generation to the next, and in the course of which these standards may also change, rapidly or slowly, as the case may be. Elias's study of the civilizing process in western Europe in the early modern era is focused upon this second level.

But, as Elias himself notes at several places in his book, the civilizing process in western Europe did not start from scratch. No matter how far back we go into the early Middle Ages, nowhere do we meet a pristine stage of people living entirely without standards of conduct learned by children from their elders and subsequently passed on to their own offspring.

There is, in other words, no "zero point" in the European civilizing process. It formed the continuation, in its own way, of earlier civilizing processes—among the Greeks, the Romans, the Celts, the Germanic peoples, and so on. Nor had these earlier societies started from scratch. They all carried on (again, each in its own unique way) more ancient traditions, formed at earlier stages. Human history offers no example of an entirely normless group, or of a completely "uncivilized" society.

Following this line of thought we arrive at the inevitable conclusion that there is a third level at which a civilizing process may be discerned: the level of human history at large. It is worth examining whether Elias's theory may be applied to this third level, which encompasses both the second (the societal) and the first (the individual).

Here is where fire comes in. For the control of fire is an integral aspect of human life, undeniably involving foresight and renunciation of primary impulses, which has been in existence not just for one or two generations, and not even for ten to twenty generations, but for many thousands of generations.

As I delved into the subject, I became increasingly more convinced that the control of fire indeed presents an excellent oppor-

tunity to test the validity of the theory of the civilizing process and to extend its scope by applying it to new areas of research.⁴

It is obviously an element of culture—something learned, shared, and transmitted. Its history goes back very far into the human past. The experts are not yet certain about the exact timing of the earliest traces of human or hominid use of fire. But there is general agreement that human societies have possessed the culturally shaped capacity to control fire for at least 400,000 years (that is, more than 10,000 generations), and maybe even for as many as 1,400,000 years.

It is a commonly held opinion among contemporary scholars that the overall effects of the domestication of fire did not amount to much in the history of human society and culture. They locate the “dawn of civilization” only some 10,000 years back, with the emergence of agriculture, followed by the rise of cities and the invention of writing. The preceding period is loosely described as “before civilization,” on the tacit assumption that humanity must have been “uncivilized” during by far the greater part of its existence.⁵

I take a different view. The domestication of fire has had far-reaching consequences, and it deserves to be ranked as the first great ecological transformation brought about by humans, followed very much later by two transformations of the same order: the emergence of agriculture and animal husbandry (agrarianization) some 10,000 years ago, and the rise of large-scale industrial production (industrialization) some two centuries ago.

* * *

Fire—the first nonhuman force that was made part of human society—is, according to the simplest definition in modern encyclopedias, a process of combustion, manifested in heat and light. I shall not dwell upon its chemistry, but merely point to four char-

⁴ The main results of my study of the control of fire in human history will be published in Johan Goudsblom, *Fire and Civilization* (London: Allan Lane, 1992). See also “The Human Monopoly on the Use of Fire: Its Origins and Conditions,” *Human Evolution* 1 (1986): 517–23; “The Domestication of Fire as a Civilizing Process,” *Theory, Culture and Society* 4 (1987): 457–76; “The Impact of the Domestication of Fire upon the Balance of Power Between Human Groups and Other Animals,” *Focaal* 13 (1990): 55–65.

⁵ This is implied in the use of the term *civilization* in, for example, the otherwise excellent books by Colin Renfrew, *The Emergence of Civilization* (London: Melhuem, 1972), and *Before Civilization*, 2nd ed. (Harmondsworth: Penguin, 1976).

acteristics that are relevant to our theme. First, fire is destructive. It disintegrates highly organized matter, and reduces it to ashes and smoke. Second, it is irreversible. You cannot make the ashes return to their original shapes and colors. The phoenix is a bird of fantasy. Third, fire has no purpose. The combustion process is blind and purposeless. No matter what it touches, if the material is flammable, it will be consumed. Of course, the absence of purpose is not peculiar to fire. The same can be said about other natural forces, such as rain or wind. But—and this is a fourth characteristic—fire is self-generating. Fire causes heat, and heat in turn causes fire.

Destructive, irreversible, purposeless, self-generating—this does not sound like a very attractive list of properties. Why should humans have bothered to incorporate such a natural force into their societies?

For us, in retrospect, the answer is not difficult. Humans could turn the destructive force of fire into productive use, and thus give it a purpose. The fact that fire is self-generating enabled them to preserve and reactivate it, something they could not possibly have done with either rain or wind.

There were many ways of making fire productive for human purposes. The two most elementary, prototypical forms were cooking and clearing land. By cooking, that is, by exposing organic substances to fire without burning them, people could destroy tough fibers and toxic compounds and thus make substances edible and palatable that otherwise would not have been fit for human consumption. Cooking, in other words, extended the range of food.

Clearing land by burning the vegetation may at first sight seem purely destructive. It had many advantages, however. It drove animals out of their shelters, and thus facilitated hunting them. It also made the land more easily accessible for some purposes, for example, gathering nuts and fruits that lay hidden in the undergrowth. And it created a fertile and unshaded soil in which, after a while, there would spring up grasses and shrubs, which in turn would attract game.

There were, of course, other advantages as well. As a source of heat and light, fire gave protection against cold and darkness. It helped to keep predators and other animals at bay. Because of the comfort and security it offered, it could be a focus of group life and enhance communication and solidarity. It was also useful for such practical purposes as sharpening wooden tools or curbing

bones and antlers. And it could always serve as a source of other fires when they were needed.

All these positive effects of the use of fire combined to make human groups stronger as “survival units,” to use a concept coined by Elias.⁶ Adding the force of fire to their own strength, these groups could make their societies more productive and more formidable. The increases in productivity, achieved by more effective hunting as well as by cooking, may initially not have been great. Yet, in the long run, they could not fail to bring about a rise in the standard of material comfort and an increase in human numbers, or what modern economic historians would call, respectively, intensive and extensive growth.⁷

Intensive growth implied a rise in the standard of living (to use another concept from contemporary economics). Just to be able to produce warmth and comfort at will, throughout the year, must indeed have meant a great improvement in living conditions. Even if the possession of a fire was not absolutely necessary to endure the cold and damp winters of northern Eurasia, it certainly made these winters more bearable. In this way the control of fire also facilitated territorial expansion and, along with it, population increase or extensive growth.

In reading the success story of the increased human control of fire, we today are perhaps better prepared than previous generations were to see the reverse side as well, and to acknowledge that each increase in control entailed an increase in dependency. The increases in control were likely to be intended, while the increases in dependency probably were unintended, but they were nonetheless real. And they were inevitable. They formed the costs of domestication.

As fire was incorporated into human societies, so was the need for fuel. The availability of fuel was not just a purely material condition in the sense that humans could only thrive in a setting where plenty of dry firewood happened to be lying around. Such settings were rare, it only because almost every habitat fit for humans would have wet seasons. A natural abundance of wood was not enough for any human group to have fire available throughout the year. Particular social arrangements were needed as well—arrangements providing the group with a “fire regime.”

⁶ Norbert Elias, *What is Sociology?* (London: Hutchinson, 1978), p. 138.

⁷ See E. L. Jones, “Extensive Growth in the Pre-Modern World,” and “Recurrent Transitions to Intensive Growth,” both in Johan Goudsblom, E. L. Jones, and Stephen Mennell, *Human History and Social Process* (Exeter: Exeter University Press, 1989), pp. 27–45, 46–62.

Needless to say, the control of fire was always social: it could only be sustained by a group. And while groups might differ in many respects, if only because of variations in habitat, they tended to be remarkably similar in their fire regimes. The basic peculiarities of fire apparently left little room for differences in controlling it, leading to more or less the same adaptations all over the world, regardless of climate and geography.⁸ It was simply impossible to keep a fire burning for long without at least some social cooperation and division of labor in order to guard and fuel it. The effort of collecting fuel, keeping it dry, and putting it at the proper time onto the communal fire always involved some self-restraint, some discipline. There was no instinct specifically directing people to care for fire; it was a cultural mutation, requiring a civilizing process.

As they came to rely increasingly on their fires, people also came to rely more on their fire regimes. They had to subject themselves to the social and psychological constraints the fire regimes imposed upon them. Their living standard and their very survival depended on this. Thus, the need for continued use of fire gave rise to certain “civilizing” constraints, and these then became part of human culture everywhere.

In other words, learning to control fire was, and is, a form of civilization. Because humans tamed fire and incorporated it into their own societies, the societies became more complex (for they now included fire as well as humans), and the people themselves became more civilized.

By modifying their behavior in accordance with a fire regime, humans increased the difference in behavior and power between themselves and all related animals. The differences in behavior became greater as their own behavior was molded increasingly by cultural standards, and the differences in power grew concomitantly.

The control of fire was not the sole *cause* of this grand process, but it was an integral *part* of the process and contributed to its momentum.

* * *

For many thousands of generations, the processes of intensive and extensive growth were almost imperceptibly slow. We can

⁸ See Walter Hough, *Fire as an Agent in Human Culture* (Washington: Smithsonian Institution, 1926).

now see that growth began to accelerate toward the end of the last glacial period, some 20,000–30,000 years (i.e., no more than 1,000 generations) ago. I mention just two indications: one, pointing to intensive growth in particular, was the appearance of rock paintings in the interiors of caves; the other, pointing to extensive growth, was the spread of the human population over every continent, including the new worlds of America and Australia.

Both intensive and extensive growth were speeded up even more with the emergence of agriculture and animal husbandry, some 10,000 years (or 300–400 generations) ago. We can truly say that this was the second great ecological transformation brought about by humans, and that once again humanity entered a new stage of its history. Yet there were also remarkable continuities.

The domestication of plants and animals was in several significant ways similar to the domestication of fire. It also involved the transition to a more active and regular use of natural resources. Groups of people “tamed” originally “wild” forces of nature and learned to tend, guard, and further exploit these forces within their own human domain. After incorporating fire, they now incorporated certain selected plants and animals into their own societies. They extended their care and control over these species. Just as for ages they had supplied their fire with fuel and protected it against wind and rain, they now began to feed and cultivate their domesticates, and to protect them against competing species and parasites.

In this way, human communities created high concentrations of plants and animals that could provide them with useful products—most important, food. In the long run, this increase in productivity per unit of land led to considerable growth in human numbers, which made their societies still more formidable.

At the same time, as with fire, the incorporation of nonhuman resources into human societies also had the effect of increasing their capacity for destruction and of rendering them more vulnerable to catastrophes.⁹

* * *

If the strides I am making through human history seem impermissibly large, I may perhaps refer to another, well-established

⁹ See William H. McNeill, “Control and Catastrophe in Human Affairs,” *Daedalus* 118/1 (1989): 1–12.

scientific field—cosmology. Cosmologists study the entire universe, from its earliest beginnings. In the history of the universe, the history of our solar system and planet is but a tiny fragment. And in the history of our planet, the history of humankind is, again, only a brief episode. I think that, in the human sciences, we have to adapt our way of thinking to a larger scope and longer time spans than we are accustomed to.

It is in such a broad framework that we can recognize the trend, dominant throughout the first stages of human history, toward differentiation in behavior and power between human groups and all related animals. This trend is still continuing, but it is no longer the *major* trend.

The emergence of agriculture ushered in a new era—which we are now in a position to perceive as having been a long transitional stage—marked by increasing differentiation in behavior and power *among* and *within* human societies. First of all, there were increasing differences between societies with and societies without agriculture. But in addition, as some agrarian societies developed into large empires and others remained organized in tribes and clans, differences *among* agrarian societies increased. No less important, *within* agrarian societies differences in conduct and power became greater as well.

Considering 10,000 years of agrarianization, I would conclude that this stage was marked by great divergences in the civilizing process. The civilizing process proceeded in distinctly different ways—first of all, in societies in various parts of the world, and, second but no less important, among different social strata in each of these societies.

It is no word play to say that the very process of divergence was a common structural feature of agrarian societies.¹⁰ This explains why such different cultures evolved in China, India, Persia, Egypt, Mexico, and Peru.

But the divergences should not blind us to the convergences that were also noticeable. We need only recall that all these agrarian societies were highly stratified, with enormous differences in wealth and power among members.

A clear example of convergence may be found in the increasing danger posed by fire in these societies and in the way people tried

¹⁰ See A. L. Kroeber, *Style and Civilizations* (Ithaca: Cornell University Press, 1957); and Mircea Eliade, *The Forge and the Crucible* (London: Rider and Company, 1962), p. 144 n. 1.

to cope with this danger. In the process of continuing and accelerating extensive and intensive growth, cities emerged. Each city housed a concentration of people, with their material possessions and their fires. Given this potentially dangerous combination of people, property, and fire, conflagrations were a serious risk.

It was therefore a concern of city authorities not only to try to prevent blazes, but also, in the event of a blaze, to keep the situation under control: to stop the fire from spreading, and to prevent people from looting and fighting. For a long time, the means for suppressing a conflagration once it had started were very limited; they consisted, in the words of a modern commentator, of water, sand, and prayer—each of which was about equally effective.¹¹ Understandably, therefore, city authorities were especially alert at counteracting the disorder, thefts, and fights that might break out at the scene of a blaze.

In the oldest known text relating to these problems, the Code of Hammurabi, dating from around 1800 B.C.E., we read, in the standard translation: "If a fire broke out in a seignior's house and a seignior who went to extinguish (it), cast his eye on the goods of the owner of the house and has appropriated the goods of the owner of the house, that seignior shall be thrown into that fire."¹² The punishment was direct and harsh, reflecting the seriousness of the offense.

It would be most interesting to give a running account showing how city governments in the ancient world and later, in medieval China, India, and Europe, tried to prevent fire and what they did to minimize the risk of disorders in the event that a blaze did break out. Even if space permitted it, I would not be able to give a complete survey, for the subject of fire and conflagrations has been strangely neglected in urban history and sociology. There is some evidence available about individual cities, most notably Rome. But, to mention just two other ancient cities—Athens and Jerusalem—this is, as far as I know, a blank page in their history. Nor do we find any information on the subject of fire (nor, for that matter, about fuel) in otherwise excellent general works on "the preindustrial city" or on the process of "urban growth" in Europe.¹³

¹¹ E. Ebeling, "Feuerbekämpfung," *Reallexikon der Assyriologie* 3(1957): 56.

¹² James B. Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament*, 3rd ed. (Princeton: Princeton University Press, 1969), p. 167.

¹³ See Gideon Sjoberg, *The Preindustrial City* (New York: Free Press, 1960); and Paul M. Hohenberg and Lynn Hollen Lees, *The Making of Urban Europe 1000–1950* (Cambridge, Mass.: Harvard University Press, 1985).

Yet I think it is possible to draw a general picture. Some interesting regularities may be discerned, relating to all the parties concerned: the regulations that city governments tried to impose upon their citizens (often without a great deal of success); the way the citizens behaved, in building houses and living in them; the organization of fire brigades; the behavior of the general public and those commissioned with fighting fires when they occurred. For more than a hundred generations, basically similar conditions of helplessness prevailed.

It was only in the modern era that cities became better equipped to deal with the problem of conflagrations. This was due to various developments, one of which was a new "spurt" in the civilizing process, resulting in what we might call a new phase in the "civilizing of the firemen." In all the industrializing nations of western Europe, the nineteenth century brought strong "civilizing campaigns" celebrating the self-effacing heroism of the fireman. It was, so to speak, the time of "the fireman's burden."

* * *

We are now living in the age of the third great ecological transformation brought about by humans, industrialization—a stage that is also likely to turn out to be transitional. At the beginning of this stage, the divergences between and within societies seemed to widen more than they ever had before.

Obviously we are still very much affected by these divergences. But there are also signs that, in the long run, convergences will gain the upper hand. The "industrial regime" is affecting people all over the world, in all walks of life. If the complaints we hear about the standardization and leveling of modern life have any empirical basis at all, this is what they refer to.

Looking back on *The Civilizing Process* two generations after its first publication, I think we can say that Elias's book dealt with a stage when in western Europe divergences and convergences were already simultaneously occurring. And, again, it is no mere word play to say that the divergences were partly speeded up by the rising tide of convergences.

Just as, in the first stage, the control of fire exerted uniform pressures in all human societies, now industrialization and the concomitant global interdependencies are exerting similarly uniform constraints.

But we are also saddled with the heritage of enormous differences in power associated with differences in behavior. In at-

tempts to cope with the tensions arising from these differences, human groups continue to avail themselves of the same means by which they have tried to solve their conflicts when other means appeared to fail: organized murder and arson.

When Elias published his book, he adopted as an epigraph a quotation from Holbach: "the process of civilization . . . has not yet ended." I think it is clear that, as long as human society continues, the process of civilization will never end. It does not start from scratch in each new generation; but every new generation has to start from scratch in catching up with it and joining what Elias used to call the relay race of the generations.

In his last publications, Elias pointed to the enormously long future that may lie ahead of humanity.¹⁴ Given the extent of the past behind us, and the possible future before us, we may well conclude that the civilizing process, even if it extends back over thousands of generations, may indeed still be in its initial stages. We owe to Elias a sense of both the possibility and the urgency of investigating it.

¹⁴ Elias, "The Symbol Theory," pp. 535-37.