Global Civilization and Local Cultures

A Crude Look at the Whole

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abstract: This article distinguishes between civilization and culture in the tradition of Alfred Weber and Robert Merton. Civilization denotes the human control of nature and is used in the singular; culture indicates the social construction of meaning and is used in the plural. Civilization is also the term for the social-natural whole, and culture for the local parts of the whole. The renewed distinction between civilization and culture aims to correct the underattention in the social sciences and humanities to technoscientific developments. Furthermore, it is unsatisfactory to view contemporary history from the points of view of local cultures only. The author argues that a revised understanding of civilization is necessary to deal with the globalization of technoscience.

keywords: civilization ◆ conceptual history ◆ culture ◆ globalization ◆ technoscience

'It is vitally important', said physicist Murray Gell-Mann (1997: 20) recently, 'that we supplement our specialized studies with serious attempts to take a crude look at the whole.' Gell-Mann is concerned with the many unsustainable policies in trends of the present, and fears that intelligent life on earth is not taking good care of its future. He wants us to look at the whole because the combined effects of global history are threatening the whole.

Gell-Mann’s call to assess the global state of affairs is on target. Human welfare and that of the planet require sustainability of the whole, and sustainability requires a number of strategic transitions. Gell-Mann (1997: 22–5) suggests seven transitions: a demographic transition to ‘a roughly stable human population’; a technological transition to ‘methods of supplying human needs and satisfying human desires with much lower...
environmental impact per person'; an economic transition to a situation 'where growth in quality gradually replaces growth in quantity, while extreme poverty . . . is alleviated'; a social transition to 'a society with less inequality'; an institutional transition to 'more effective means of coping with conflict and with the management of the biosphere and human activities in it'; an informational transition toward converting 'for ordinary people as well as elite groups . . . so-called information into knowledge and understanding'; and an ideological transition to a 'world view that combines local, national, and regional loyalties with a “planetary consciousness”'.

Is the world gearing up for Gell-Mann’s formidable transitions? Maybe it is in small ways, but it is not doing so in a concerted fashion. The social and environmental costs of economic and industrial globalizations are continuing to rise, and herein lies counterfactual hope. Globalization is pushing the problems of the whole into everybody’s face – the global whole is homing in on us. So, how should we look at it?

Not too long ago the big picture of human history showed a small number of large local civilizations and a large number of small local cultures. The big picture today looks very different. A technoscientific civilization has begun to cover the globe. We are moving toward a global civilization with many local cultures. The local cultures are the flesh and bone of this world and the emerging technoscientific civilization is its nervous system. Call it the global hypothesis.

Observers of contemporary history usually see more of the old than the new; they are looking at the present with their knowledge of the past. For example, we know that the traditional ideas about civilization and culture are biased and flawed, but what do we know about technoscience? The balance of social power has been shifting in favor of the natural sciences for over a century and now technoscience is moving into the center of civilizational gravity. Sociologists, anthropologists and historians have learned to avoid civilization and, instead, analyze everything with culture. Culture is ‘in’ and civilization is ‘out’, because civilization must be ‘contrasted with savagery or barbarism’, as Raymond Williams (1985: 59) declared in *Keywords*.

Williams (1985: 87, 60) has taught the English-speaking world that culture is awesome – ‘one of the two or three most complicated words in the English language’ – and that civilization has a dangerous ‘normative quality’ because it indicates a higher stage of life, one that can be ‘lost as well as gained’. Fully aware of the unsavory usage made of this quality in western civilization, we have become wary of the word ‘civilization’. How can one speak of civilization today? Yet I wonder (after an evaluation of the conceptual history of civilization and culture later in this article): how can one not speak of civilization today? An analytical distinction
between culture, as social construction of meaning, and civilization, as technoscientific handling of first and second nature, is necessary to give us a better grip on the whole.

**One Civilization or Many?**

Who says that the world of the next millennium will be different? The future can look very much like the past. This is the message of a leading political scientist, Samuel Huntington, who has become a misleading world historian. Huntington (1993: 22) predicted in a *Foreign Affairs* article, ‘The Clash of Civilizations’, that war between civilizations will dominate global politics: ‘The fault lines between civilizations will be the battle lines of the future.’ This article, which had a question mark in its title, was followed in 1996 by a book on the clash of civilizations without a question mark.

Civilizations in the plural are the concern of this book, yet the distinction between singular and plural retains relevance, and the idea of civilization in the singular has reappeared in the argument that there is a universal world civilization. This argument cannot be sustained, but it is useful to explore as will be done in the final chapter of this book, whether or not civilizations are becoming more civilized. (Huntington, 1996: 41)

Huntington is right to be skeptical about dreams of moral progress, but wrong if he assumes that these dreams are still relevant. The global hypothesis does not assume that civilization is a process that makes better people. The ‘universal, scientific, technical, judicial, economic’ civilization, which Paul Ricoeur (1965: 281) began to describe in 1961, is not building a perfect world. A ‘single world civilization’ (Ricoeur, 1965: 271) is making instrumental progress in giving people virtual access to tools of global communication, but not to the good life; it is spreading images of wealth and misery around the world, but not the conditions of equality.

Civilizations in the plural are Huntington’s civilizations, world historical entities that we have had all along, clashes included. Civilization in the singular is the civilization of the present, a new species that we have never seen before. The mycelium of a global civilization has begun to spread throughout the world and around the globe in the last quarter of the 20th century. This civilization is not a thing of the future; it is now underway.

Huntington (1996: 41) defines civilization as ‘a culture writ large’. A crisp formulation that we should take note of. Huntington’s definition reflects the present meaning of culture and civilization: both words have become nearly synonymous in English in the 20th century. If a civilization
is a culture writ large, Huntington could have written about the clash of ‘large cultures’. The concepts attached to the two words are now so similar that it is up to individual taste which word to use. The remaining difference between civilization and culture is size. Cultures can be very small, whereas civilizations are always large conglomerates. This explains Huntington’s choice of the word ‘civilization’. He imagines big clashes among large cultural units, which he calls civilizations in accordance with traditional world history and current English usage.¹

Sarcastic remarks like ‘civilization is a cultural entity, outside Germany’ (Huntington, 1996: 41) pepper Huntington’s book and invite dissent. What does it mean? One part of the answer is conveyed by Huntington’s bon mot and implies that everybody in the world sees the unity of civilization and culture; only the Germans are still in the dark. The other part reads:

Nineteenth-century German thinkers drew a sharp distinction between civilization, which involved mechanics, technology, and material factors, and culture, which involved values, ideals, and the higher intellectual artistic, moral qualities of a society. This distinction has persisted in German thought but has not been accepted elsewhere.

What can I say? Huntington has a point here. I, too, distinguish between culture and civilization.

Huntington’s sarcasm is a good example of the shadows history can cast. German propaganda during the First World War invented the contrast between German Kultur, a good thing, profound and strong, and western civilization, a bad thing, a mere addiction to gadgetry and materialism. This war of words still lingers in Huntington’s mind. However, for a fuller account of the meanings of culture and civilization, we have to reach deeper and dig up the older sources of the 18th and 19th centuries.

**Culture and Civilization**

How did the different readings of culture and civilization emerge and what did they originally mean? I highlight three turning points. The first change occurred in Germany around 1750 and established culture as social and moral cultivation. The second change was German, as well, and turned culture into a weapon at the end of the 18th century, originally against the German aristocracy and then against the French nation. The third change was analytical. Several authors tried to find an objective meaning for culture and civilization. This analytical understanding was put on a firm footing between the two world wars by the clarifying interventions of Alfred Weber and Robert Merton.
The Application of Culture to Society

Alfred Kroeber and Clyde Kluckhohn (1952: 149) registered 164 different definitions of culture. They could have distinguished up to 300 definitions but decided to count conservatively. They were lucky to do their definition hunting in the 1950s, long before the advent of cultural studies. The wealth of opinions about culture and civilization is truly staggering and makes one think that one can think whatever one wants to think about these topics. Nevertheless, some interesting ideas about culture and civilization have emerged over time.

‘Culture’ is derived from Latin *cultura*, which stems from the verb *colere*, meaning ‘tending’. *Cultura* leads to cultivation. The word was applied to the working of the land in agriculture, to tilling and husbandry. The innovative application of culture to society and history occurs first in German texts after 1750. Originally, it was not spelled with a ‘K’ but a ‘C’ and meant social and moral cultivation. Before 1750, however, human cultivation was covered in French, English and German by ‘civilization’, which goes back to Latin *civis*, *civilis*, *civitas*, *civilitas*. This was not a word used in classical Latin. According to Kroeber and Kluckhohn, ‘civilization’ was a Renaissance formation in the Romance languages, ‘probably French and derived from the verb civiliser, meaning to achieve or impart refined manners, urbanization, and improvement’ (Kroeber and Kluckhohn, 1952: 145).

The post-1750 addition of culture to civilization was a local German affair until the mid-19th century. Kant and numerous other German thinkers used *Cultur* and its derivatives to speak about human cultivation. Authors writing in English and the Romance languages kept using civilization. So far, there is no problem; just a regional variation. Instead of one word there were now two words in German for human cultivation: *Cultur* with an organic and *Zivilisation* with an urban and political connotation. But note the irony that the cultural understanding of civilization that Huntington is so proud of, is rooted in a semantic innovation of German origin.

The spread of the new meaning of culture from Germany to other countries was slow and took the long 19th century from 1850 to 1950. The first major application of the new term outside Germany came in 1871 with the publication of *Primitive Culture* by the English anthropologist Edward Burnett Tylor (1832–1917). Tylor had vacillated between using culture and civilization, but eventually chose culture for the title of his book. His opening sentence (Tylor, 1958a: 1) made no distinction between the two words: ‘Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a
member of society.’ Kroeber and Kluckhohn (1952: 147) called this formulation ‘the first, formal, explicit definition of culture’ and ‘birth of the scientific concept’.

However, Tylor’s title is not only remarkable for the use of the word ‘culture,’ but also the word ‘primitive.’ The combination of the two words was stark and strange. What did it mean? According to Paul Radin ‘primitive’ meant to indicate the beginning of culture. More to the point is that Tylor thought of culture and civilization in terms of social evolution. He worked with the idea of advancement from ‘civilization of the lower tribes’ to ‘civilization of the higher nations.’ Tylor chose culture because his concept of civilization would not have allowed him to construct a progressive historical narrative from simple beginnings up to higher forms of development. Civilization would have implied too high a stage of human society in the beginning. Therefore, the less demanding term became the object of ethnography, and ethnography the ‘science of culture’. This ‘science’ was not designed to contemplate merely the origins of culture; it was supposed to ‘continue the progressive work of past ages’ and weed out ‘primitive’ traditions. Tylorian ethnography was a ‘reformer’s science’, which went after ‘the remains of crude old culture which have passed into harmful superstition’ and marked them for ‘destruction’ (Tylor, 1958b: 539).

Tylor’s innovative use of the word ‘culture’ was quickly accepted by anthropologists, but resisted by humanists and lexicographers in England and France. New definitions of culture and civilization were slow in coming. Kroeber and Kluckhohn (1952: 149) noted with surprise that nothing happened after Tylor for 32 years: ‘The long wait after Tylor is particularly striking. The word culture was by then being bandied about by all kinds of German thinkers; and one has only to turn the leaves of the 1888–98 Old Series of the American Anthropologist to find the term penetrating even to titles of articles.’ The authors found that almost all new definitions (96 percent) were developed in the last two-fifths of the 80 years spanned by their investigation.

The Origin of the German Antagonism between Kultur and Zivilisation

Now, how did the (in)famous German antithesis of culture and civilization come about? How could the Germans add culture to civilization on the one hand and oppose civilization and culture on the other hand? Norbert Elias’s Über den Prozeß der Zivilisation provides the answer. The reason that led to the difference between the French term civilisation and the German term Kultur was not nationalism, the contagious political
disease of the 19th century, but the struggle of enlightened German citizens with the old regime.

French was the language of the ruling upper class in all German states and throughout Europe in the 18th century. Frederick the Great wrote in 1780 about German language and literature in French (De la littérature allemande). He ridiculed the German ‘patois’ as a ‘half-barbarous’ language (‘each local group is convinced that its patois is the best’) and deplored the bad taste of the German-speaking lower classes who got excited by German translations of Shakespeare (‘the abominable works of Schakespear [sic] . . . worthy of the savages of Canada’). He dismissed Goethe’s Götz von Berlichingen as a ‘detestable imitation of these bad English pieces’ and could not understand why the public – le parterre – demanded the repetition of these ‘stupidities’ (ces dégoûtantes platitudes). Frederick went on to speak ‘with the same frankness’, or rather contempt, about the quality of the German universities (Elias, 1994: 10–12). The king’s diatribe and the classical works of German philosophy and literature produced by Kant, Goethe and Schiller were contemporaneous, yet worlds apart. Frederick’s opinions reflected the ‘aristocratic tradition of prenational court society’, while Kant and his fellow thinkers articulated the values of civil society. The German antagonism between culture and civilization developed in this context.

In 1784, four years after Frederick’s book, Kant (1977: 49) wrote in the Idea for a Universal History with a Cosmopolitan Purpose: ‘We are cultivated to a high degree by art and science. We are civilized to the point of excess in all kinds of social courtesies and proprieties. But we are still a long way from the point where we could consider ourselves morally mature.’ And he added: ‘For while the idea of morality is indeed present in culture, an application of this idea which only extends to the semblances of morality, as in love of honor and outward propriety, amounts merely to civilization’. Kant’s critique of ‘outward propriety’ and high cultivation for the sake of ‘social courtesies’ was a barely veiled attack on the etiquette of the old regime.

The German perception of an important difference between Kultur and Zivilisation crystallized in Kant’s seminal articulation. Culture became associated with the higher goals of moral cultivation and civilization with mere good behavior (the Höflichkeit of the courtier). On the bottom of this was a severe social conflict, the class struggle between bourgeoisie and aristocracy. This changed after the French Revolution, and certainly after Napoleon (‘Soldiers, you are undertaking a conquest with incalculable consequences for civilization’). As a result of which, the German understanding of the culture/civilization dichotomy was transformed from primarily ethical and social to primarily national.
Analyses of ‘Culture’ and ‘Civilization’

The availability of two related terms was intriguing. Many academic authors felt compelled to go beyond the belligerent use of ‘culture’ and ‘civilization’ and identify each word with a distinctive aspect of human history. Oswald Spengler’s Der Untergang des Abendlandes, published in 1918, however, is the exception to a peaceful and analytical interpretation in that it concocted a unique mixture of analysis and polemics.

Spengler combined the popular German dislike of civilization around the First World War with his theory of an unavoidable progression from culture to civilization. The Decline of the West should have been titled the decline of all civilizations. Culture and civilization are crucial phases in the life of all Hochkulturen, the German term for world civilizations, and Spengler counted eight. He distinguished a ‘problem of civilization’ by saying that every Hochkultur would eventually lose its soul in the course of urbanization and must die after having completed the phase of civilization. Civilization is the last stage of a Hochkultur; and the inherent (urban) suicide of civilization is like a law of nature. Thus, Spenglerian ‘decline’ is the fate of all world civilizations. Cyclical theories of history tend to be predictive and Spengler’s theory of world history was no exception to this rule. The doom of the West was predetermined by Spengler’s (1965: 6) ‘logic of time’.

How far advanced was ‘western culture’ at the beginning of the 20th century? Was it still budding in the youthful phase of culture or already aging in the phase of civilization, the highest works of which were presumed to be feats of administration and the application of science to industry? Spengler left no doubt. Western culture had made the transition from ‘culture-man’ to ‘civilization-man’ at the beginning of the 19th century. Spengler’s dark perspective added to the misguided heroic nihilism of the 1920s. The combined thrust of his eloquent memento mori of culture and Nietzschean critique of civilization had considerable influence in Weimar Germany, but hardly outside of it.

The search for an objective reality behind culture and civilization concentrated on the human intercourse with nature. Paul Barth (1922: 597–613) reviewed the ideas of Herder, Humboldt, Guizot, E. du Bois-Reymond, Morgan, Ferguson, Tylor and Buckle in a sprawling Philosophy of History as Sociology. He identified Wilhelm von Humboldt’s über die Kawisprache (1836) as the first scholarly work to constrain the excessive breadth of the term culture. Humboldt restricted culture to the control of nature by science and technology (Kunst), and civilization to the humanization of peoples (Vermenschlichung der Völker). This equation of culture with the human sway over the physical environment (outer nature) and civilization with the progressive improvement of basic human impulses.
inner nature) was carried on in Germany by various other 19th-century authors and eventually Barth himself. Lester Ward and Albion Small introduced the Humboldtian distinction into American sociology around 1900 (Kroeber and Kluckhohn, 1952: 15ff., 147).

Alfred Weber, who had begun to reflect upon culture and civilization before the First World War, returned to the topic after the interruption of the war years and the splash made by Spengler’s *Untergang*. His reaction to Spengler was mostly unsympathetic. Weber reversed the initial 19th-century interpretation and attributed to civilization what Humboldt had attributed to culture by linking culture to the free-floating creativity of inner nature and civilization to the domestication of outer nature. Weber conceptualized the civilizational process as a cumulative endeavor that is bound to increase human control over the physical environment, whereas culture pertained to a non-cumulative sphere of life under the influence of shifting ends and subjective feelings (Weber, 1920). Weber’s approach influenced a number of German scholars and the American sociologists Robert Morrison MacIver, Howard Odum and Robert Merton.

Merton (1936: 103) rejected the flourishing sociological and anthropological distinction between material and non-material culture and acknowledged the ‘greater sociological value’ of Weber’s and MacIver’s categories in one of his first articles. He restated Weber’s position: ‘Civilization is simply a body of practical and intellectual knowledge and a collection of technical means for controlling nature. Culture comprises configurations of values, of normative principles and ideals, which are historically unique’ (Merton, 1936: 110). Merton emphasized that culture and civilization are ‘analytical abstractions’, that concrete phenomena ‘may posses both aspects’, and that ‘substantial interaction’ can occur between the ‘elements in the concrete whole’. He criticized Weber’s implicit ‘theory of progress’ and underlined that the rate of civilizational development should not be construed as an independent variable because the ‘interdependence’ between the realms of civilization and culture can have counterproductive effects.

The rich semantic history of culture and civilization shows three significant changes. The first change launched culture as social and moral cultivation and created a successful conceptual innovation, so successful, in fact, that culture has now become the royal term for all things human. The polemical second change remained a German specialty; it turned culture into a weapon, originally against the internal opponent of the German bourgeoisie and then against the external enemy on the left side of the river Rhine. The third change was less idiosyncratic and more analytical; it sidestepped the combative use of culture and civilization and found an ‘objective’ meaning for each of the two terms. The analytical
understanding flip-flopped once at the beginning of the 20th century, but has been stable since. Weber and Merton gave us civilization with a technological and culture with a symbological edge.

One Civilization/Many Cultures

Can one talk about civilization and culture without assuming an essentialist link between the words and the world? I think so. Can one climb on the shoulders of Weber and Merton and observe the current whole more clearly than Huntington? Let me see. Our giants use culture and civilization. Standing on their shoulders gives us a binocular view of the whole. We are bound to spot a world populated by two kinds of interdependent things: multiple cultures with alternative ways of symbolizing and a global civilization with lengthening networks of technoscience.

Yet what about Huntington? He has climbed on the shoulders of Spengler and Toynbee. His giants have an overriding concept of culture, which gives Huntington a monocular worldview. Peering down from his perch, Huntington sees a world full of cultures, small and large ones. The largest ones are so-called civilizations, cultures ‘writ large’. Having culture as the one and only category, Huntington has no option with regard to technoscience: it has to be tied to culture, preferably ‘western culture’, and there to its most powerful country, the United States of America.

The Spenglerian belief that ‘all civilizations go through similar processes of emergence, rise, and decline’ (Huntington, 1996: 311) and that ours is ‘a mature civilization on the brink of decay’ (Huntington, 1996: 304) creates a problem for Huntington. If western technoscience would spread to competing cultures or civilizations – and it obviously does – it would give them a very powerful tool and could speed up the decline of the West. Huntington has no other choice than to proactively defend the technoscientific advantage of western civilization with real weapons: ‘To preserve Western civilization in the face of declining Western power, it is in the interest of the United States and European countries . . . to maintain Western technological and military superiority over other civilizations’ (Huntington, 1996: 311ff.).

We have a better option and a worldview without Weltschmerz. We can distinguish between civilization and culture, and define the social construction of meaning as the work of culture and the technoscientific handling of nature (including ‘second nature’) as the work of civilization. The fact that technoscience is on a global romp means that civilization is progressing from a local to a planetary scale. We can situate the emerging global civilization in the pluriverse of local cultures, and all local cultures in the universe of a global civilization. We do not have to give preference to either one, global civilization or local cultures; we can investigate both
and discriminate between civilization and culture analytically and with respect to function. Thus, we can level the normative elevation of civilization over culture, but retain a meaningful distinction, and study how the interdependence between the global system and the local flesh works in different places.

To catch today’s big picture of culture and civilization requires the exploration of technoscience. Technoscience is a hybrid of scientized technology and technologized science. Computer science would be an example because it fuses the technological investigation of nature with the scientific design of machines. Technoscience became the driving force of civilization in the 20th century; and it is bound to play an ever-increasing role for some time to come. However, we should neither over-nor understate its case. The overstatement is known as technological determinism (Smith and Marx, 1994). The deterministic view is quite popular among journalists and some postmodernists, less so professional students of science and technology. The understatement has no particular name. Many historians and social scientists leave science and technology simply to the specialists, who, in turn, are content with being left alone at the margins of their professions.

The binocular view allows us to distinguish between the global whole and its local parts. We can realize, for instance, that globalization is not necessarily Americanization. How do we account for the fact that a country like the USA, which is exporting its culture globally, oscillates between intense popularity and intense unpopularity in other cultures, whereas the growing ensemble of civilizational practices enjoys an almost unhampered global reach? If we throw everything in the bag of culture we cannot understand why most local cultures leave their doors wide open to technoscience, but try to negotiate a ‘cultural exception’ to curb the entry of foreign cultural products. Sadam Hussein has prevented the Internet from entering his country – is Iraq therefore a counterexample to the virtually unrestricted global reach of technoscience? Not at all. Mr Hussein is not concerned about the technology of this packet-switching network but the ‘hostile’ cultural and political content it would carry into his realm.

How can one disentangle the current mix-up between American culture and globalization? We must distinguish between a powerful local culture and a global civilization. Take, for instance, Hollywood and Microsoft, both are American, hated and loved throughout the world. American culture exposes other local cultures to its lifestyle with Hollywood films; Microsoft offers a ‘localized’ version of Windows 98 in France. Here is the difference: people get upset about the imposing cultural and economic outreach of a local power and not the ‘windowing’ of several concurrently running programs on their monitors, especially if the interface between
the user and the software tool is adapted to the local language. The USA
may be the avant-garde of globalization today, but Americanization
happens to a cultural ‘other’, whereas globalization happens to all cul-
tural others and to America itself.

Not too many people care about global civilization at this moment, in
fact, most people are prepared by their local culture to dismiss a singu-
lar civilization or consider it a dangerous thing. Yet, world music, global
email, human rights, green politics and other global pursuits and holis-
tic interests are sowing the seeds for more intense global identifications
(Mazlish, 1997). Collective symbolizing has begun to shore up support
for the global environment of the human species. People could embrace
the civilization of this planet with as much loyalty as they now embrace
their local cultures. If the shared language game of collective symboliz-
ing can share a local world invested with intersubjective meaning, it can
share a global world as well. The loyal feeling for the common globe is
achieved, maintained and changed by shared symbolizing, and such sym-
bolizing can create an emotional group identity. What happened before
with the social construction of nationalism can happen again. An ‘imag-
ined community’ of the whole planet is feasible: more and more people
around the globe are coming into ‘a position to think of themselves as
living lives parallel to those of other substantial groups of people’ (Ander-

World history has charted the expanse of previous civilizations on
instructive maps. From the early urban settlements between the Tigris and
Euphrates rivers in Mesopotamia, along the Nile in Egypt, the Indus and
Ganges rivers in India and the Yellow River in China to later conglomer-
ates like the Islamic civilization, world civilizations have always occupied
discrete areas (with fuzzy borders). This obvious spatial limitation of all
pre-global civilizations (obvious to us, but not to pre-global observers
with scant knowledge of the planet’s geography) has informed the
received definition of civilization as a ‘culture characteristic of a particu-
lar time or place’.19

The special place of global civilization is the entire planet, known, but
‘not yet fully explored’ (NASA, 1977: V), monitored by satellites and
environmental movements, and probed by scientists, reporters and
private companies. Since the Soviet Union launched the first artificial
earth satellite in 1957, generations of earth-orbiting satellites have global-
ized warfare, civilian and commercial communications, meteorology and
oceanography, entertainment and land management. Global civilization
has no fixed territory; to find its backbone, one has to look for the world-
wide matrix of technoscientific networks. This essential constituent
defines the civilization of our time as a deterritorialized ensemble of networked
technoscientific practices with global reach.
Implications

World civilizations cease to exist, once they are wired into the global matrix of the Internet. The global hypothesis predicts that they become local cultures in a global civilization. This opens new frontiers of research: one can follow the World Wide Web into the cultural territories, previously known as world civilizations, and study the ‘glocalizing’ effects of global history in the overlapping networks of local cultures.

The study of global history can become a new branch of history and historical sociology. The global-age hypothesis (Albrow, 1997) assumes that historians and social scientists agree upon the leading tendency of the present time. To validate this proposition we can ask: what is the most important pattern of contemporary history? My working assumption is: the massive clustering of the processes of globalization at the end of the 20th century and the emergence of a global technoscientific civilization.

The Internet provides crucial pieces of evidence for the proposition of a global civilization. It has a growing user base worldwide but remains ‘local at all points’ (Latour, 1993). The user terminals around the world are the places where global technoscience and local cultures interact. The fact that even a globally distributed network is local at all points supplies cultural studies of technoscience with rich food.

The Internet is potentially everywhere, yet its technoscientific matrix is full of holes (a universal feature of all nets); one needs money and machines to get connected as well as education and competence to handle its technologies. This globally inclusive and locally exclusive topology of the Net presents critical theory of technoscience with ample fare.

A technoscientific civilization claims no particular territory and has no center, but penetrates and connects all capitals and territories. It transcends the nation-state as the unit of historical, political and sociological analysis, undermines the scary idea of a centralized world government (which flourished in the 1950s) and provides numerous pathways for world governance. This gives new social movements a global chance.

The boundless energy of technoscience enmeshes the whole planet. The culture of technoscience is becoming the shared context of all cultures. Therefore, the question arises: where is the ‘culture’ of technoscience, if there is one? Indeed, technoscience is energized by a local culture too: the shared context of knowledge workers using and producing technoscience. Their particular ‘culture’ grafts human interests onto the physical rules of the universe; it brings the pair ‘human-nonhuman’ into focus and makes post-humanity studies a must (Hayles, 1999).

Finally, another consequence of our binocular understanding of culture and civilization is the discovery that humankind and civilization go
together on this planet and have existed always in the singular. For most of the time, people were unconscious of the fact that civilization was distributed over many continents and cultures. To read civilization as human control of first and second nature (irrespective of how haphazard and pathetic that control might have been in the beginning) goes beyond the common understanding that civilization emerged only after the Neolithic revolution had paved the way for cities and writing. The nature-controlling activity of human civilization began instead with the first stone tools (ca. 2.5 million years ago), the construction of mental maps in the minds of hunter-gatherers, and, last but not least, the human use of fire (Goudsblom, 1992).

Conclusion

The global networks of technoscience have created a common world allowing humankind technically to review the big picture. Today, every conceivable global problem has its complex constituencies, scattered all over the world, with a number of associated discussions, research institutes and publications listed on the Net. More people can look at the whole than ever before and review the current information from different viewpoints; we can see what knowledge is there and what is missing. However, we are not only globally enabled by the cosmopolitanism of technoscience but also globally disabled by poverty traps around the world and academic localism after the postmodern turn.

Too many of the disciplines that deal with history and culture have become islands unto themselves in a high-tech environment, savvy about the particular, critical about the global, and ignorant about the humanity of technoscience. This is unfortunate because equal and democratic access to the proliferating goods of the emerging technoscientific civilization is not readily available everywhere, and that poses a problem of global proportions. The world might improve a bit if the contemporary humanistic intellectual would take a leave of absence from academic politics and join the natural and social scientists in national governments, multinational firms, development institutions and international agencies.

The goods of technoscience are, in theory, universal public goods. But the public-good aspect of technoscientific knowledge is severely limited in practice. Almost all technoscientific innovations are produced by a small number of rich countries (about 15 percent of the earth’s population). Comparatively lucky are the nations that are able to adopt these goods (about 50 percent of the earth’s population) since the poor regions of the world, with more than a third of the world’s population, are currently excluded. Such a crude look at the whole is certainly not enchanting. Yet what more does it need to find out that equal participation in the
potential cosmopolitanism of technoscience is one of the four or five most appropriate utopian goals for our time?

This article has used the terminological resources of civilization and culture to reintroduce civilization as a useful category for global historical analysis and to open the shutters of history and global studies to the exigencies of the present human conditions of technoscience.

Notes

1. Current English allows us to address the culture of Microsoft, for example, but not the civilization of Microsoft. Microsoft civilization, however, would be possible, if the whole world came under the influence of one company. James Gleick (The New York Times Magazine, 5 November 1995) could have used the term ‘Microsoft civilization’ when he denounced an impending ‘Microsoft world’ after the adoption of Windows 95 by the Chinese Communist Party as the official Chinese operating system.

2. See Introduction to Tylor (1958a). Radin writes: ‘the term “primitive culture” appears for the first time so far as is now known, in English or in any language, with something resembling its current meaning in the title of the present book’ (Tylor, 1958a; XIV.). But the title of ‘the present book’ is no longer Primitive Culture. The title given in 1958 to the volume with the first ten chapters of Tylor’s Primitive Culture is The Origins of Culture. To change the title of a landmark book ‘with something resembling its current meaning’ is rather unusual, to say the least.

3. Webster refers to Tylor’s term in 1929; the Oxford Dictionary not until the 1933 Supplement, and the ‘earliest adequate recognition . . . in any general English dictionary is of 1947’ (Kroeber and Kluckhohn, 1952: 147). American scientists were less resistive to the use of culture than British, and British less than French, who still preferred the French noun of civilisation for culture in 1952. As of that time, culture was an accepted term in Russia and other Slavic lands, Scandinavia, Holland, Latin America, Germany and the USA.

4. Kroeber and Kluckhohn found not more than six new definitions between 1903 and 1920, but a whopping 157 between 1920 and 1950.

5. Especially relevant is the first chapter of Part 1, titled ‘Sociogenesis of the Difference between Kultur and Zivilisation in German Usage’ (Elias, 1994: 3–28).

6. The critics of the German upper class requested individual accomplishments, in particular the creation of intellectual, scientific and artistic works. The German middle class was very good in that respect. The upper class was good at speaking French, but bad in philosophy, science and art.

7. ‘The German courtly aristocracy unmistakably recedes, and the idea of France and the western powers in general moves toward the foreground in the concept of ‘civilization’ and related ideas’ (Elias, 1994: 25).

8. Classical (Greek and Roman) culture, western culture, the cultures of India, Babylon, China, Egypt, Mexico and the Arabs, each one lasting about 1000 years according to Spengler.
9. Spengler (1965: 24) was clear about that:

What is Civilization, understood as the organico-logical sequel, fulfillment and finale of a culture? For every Culture has its own Civilization. In this work, for the first time the two words, hitherto used to express an indefinite, more or less ethical, distinction, are used in a periodic sense, to express a strict and necessary organic succession. The Civilization is the inevitable destiny of the Culture. Civilizations are the most external and artificial states of which a species of developed humanity is capable. They are a conclusion . . . death following life, rigidity following expansion, intellectual age and the stone-built, petrifying world-city following mother-earth. . . . They are an end, irrevocable, yet by inward necessity reached again and again.

10. Spengler (1965: 182) described the historical situation of his time as follows:

Culture and Civilization – the living body of a soul and the mummy of it. For Western existence the distinction lies at about the year 1800 – on the one side of that frontier life in fullness and sureness of itself, formed by growth from within, in one uninterrupted evolution from Gothic childhood to Goethe and Napoleon, and on the other the autumnal, artificial, rootless life of our great cities, under forms fashioned by the intellect.

11. Though there were a number of favorable commentaries from, for example, Evelyn Waugh, Henry and Brooks Adams, F. Scott Fitzgerald, Ezra Pound, Henry Kissinger (‘startlingly accurate predictions’) and Raymond Aron, they did not create a scholarly tradition. Arnold Toynbee, Pitirim Sorokin and Alfred Kroeber developed their own basic concepts and followed Spengler mainly in emphasizing the comparative study of civilizations (Hughes, 1962; Felken, 1988).


Die Teilung des alten, allumfassenden Kulturbegriffes durch Humboldt ist zwar nicht durchaus, doch im großen und ganzen durchgedrungen. Man versteht heutzutage unter Kultur meistens etwa die Herrschaft des Menschen über die Naturstoffe und Naturkräfte, unter Zivilisation die Herrschaft des Menschen über sich selbst, d.h. über seine niederen, elementaren Triebe. Zivilisation bedeutet mehr einen inneren, Kultur mehr einen äußeren Prozeß.

13. Norbert Elias, Erich Fromm, Karl Mannheim, Alexander Rüstow, Eric Voegelin, Edgar Salin, Jürgen Kuczynski, to name just a few, were his students in Heidelberg. Weber’s long life (1868–1958) and refusal to cooperate with the Nazi regime allowed him to play an important role in the American sector of Germany after the Second World War.


The rate of accumulation is influenced by social and cultural elements so that in societies where cultural values are inimical to the cultivation of civilization, the rate of development may be negligible. Other concrete ('historically accidental') factors of a catastrophic nature may of course destroy accumulated civilization.
15. Technoscience monitors, manages and maintains the health of first and second nature (‘second nature’ refers to the ensemble of machines, structures and systems created by technoscience). Thus, technoscience makes second nature, and second nature requires technoscience to thrive.


17. A ‘soft’ version of technological determinism is still being argued by the economic historian Robert Heilbroner (1994b). Heilbroner’s earlier position, which appeared 1967 in Technology and Culture, commenced with an affirmative discussion of classic hard-core determinism exemplified by the Marx dictum from The Poverty of Philosophy: ‘The hand-mill gives you society with the feudal lord; the steam-mill, society with the industrial capitalist’ (Heilbroner, 1994a: 54). Heilbroner’s later position mellowed that stance considerably. A promising way out and around determinism has been suggested by Thomas Hughes (1994: 112), who introduced and refined the term ‘technological momentum’ in 1969 and 1994 for large technological systems, which can be ‘both a cause and an effect’.

18. Jack Lang, France’s Minister of Culture in the early 1990s, fought for the exclusion of the audiovisual sector in the Uruguay round of GATT negotiations. The French insisted on this ‘cultural exception’ to protect their identity – and movie industry – against Americanization (van Elteren, 1996; Kuisel, 2000).


20. See Jeffrey Sachs (The Economist, 24 June 2000: 99–101). Sachs’s map of the world is divided ‘not by ideology but by technology’; it distinguishes between technological innovators, technological adopters and technologically excluded – I want to thank Wolf Heydebrand, New York University, for his suggestion to emphasize the ‘lagging conditions’ of technoscientific equality at this point.

References


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