

Culture: a Recursive Process

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Abstract: *Cultural Studies are rampant in the Humanities these days, which holds true especially for the United States. One might be inclined to call this shift in interest a paradigm change through which the study of literature has become marginalized in view of what now has moved to center stage. However, what is it that now appears to be the prominent subject matter of teaching and research? Asking such a question may not actually create embarrassment, but the answers provided are more often than not highly confusing.*

As long as Cultural Studies are equated with Ethnic Studies, the objective of such an endeavor is clear enough. Yet Cultural Studies are more ambitious without being able to target what such an ambition seems to aims at. There is no doubt, however, that in spite of the widely scattered topics that are subsumed under the concept of Cultural Studies, the latter enjoys a tremendous collective support. But such an acclaim makes the otherwise amateurish Cultural Studies almost unassailable.

If Cultural Studies should really develop into a 'Kulturwissenschaft', as it is dubbed in Germany for instance, we are beholden to think about what we consider culture to be. There may not be a definition of culture, not least, as culture keeps changing; but an accumulation of special case studies does not automatically end up in an idea of culture. The bewilderment caused by these case studies makes it all the more pertinent to focus our scholastic interest on salient features of culture, because culture is the artificial habitat humans keep building. A study of culture thus assumes anthropological significance, since we learn something of the human being that produces it. The following essay is an attempt to spotlight salient features, which offer a glimpse at the infrastructure of culture, and it is meant to intervene into the cacophony of Cultural Studies.

Key-words: *anthropology, contingency, cybernetics, systems theory, game theory, recursive looping, feedback, pragmatization, worldmaking*

Preliminaries

It is only recently that culture has become a focus of study, and one might ask why this should have happened. Is it perhaps due to the waning influence of religion in the West and a growing distrust in metaphysics, which in the past had either determined or explained human life? Religious beliefs situate the human being in a world related to what is to come, making present reality into a kind of testing ground for future rewards

and punishments. Metaphysics speculate on the nature of being, the specificity of human nature, and how it is related to the existing world. However, culture as the latest target area in the study of humankind trains our gaze on both the need and the capacity of human beings to build their own world. In this sense, a study of culture becomes a mirror of the human condition.

It was towards the end of the 18th century that doubts were raised about what the Age of Enlightenment still considered the constants of human nature. This happened particularly in the Anglo-Saxon countries, where a more sophisticated empiricism regarded the assumed constants of human nature as at best a fiction, which may have served a purpose in the past, but which now had to be discarded because human nature could no longer be reduced to essentials, and so could not be described independently of time, location, and circumstances. Thus the environment of humans became of vital concern, not least because they had created it as their own world through which they had manifested themselves.

Clifford Geertz quite rightly claims that abandoning the idea of a constant human nature has led to the concept of culture – a man-made, artificial ‘habitat’ – as ‘human nature does not exist and men are purely and simply what their culture makes them.’ (36) The idea of culture as contextual to humankind began to attract attention at the historic moment when humankind could no longer be conceptualized other than in terms of responses to the challenges of the environment. Geertz further maintains that modern anthropology

‘is firm in the conviction that men unmodified by the customs of particular places do not in fact exist, have never existed, and most important, could not in the very nature of the case exist. [...] This circumstance makes the drawing of the line between what is natural, universal, and constant in man and what is conventional, local, and variable extraordinarily difficult. In fact it suggests that to draw such a line is to falsify the human situation, or at least to misrepresent it seriously.’ (35f.)

Thus humans are entangled in their environment, shaped and conditioned by what they have spun out of themselves, challenged by the habitat they have built for survival and self-preservation, which inevitably increases interest in culture in proportion to the decline of an uniformitarian view of human nature. Consequently, culture as a network of human activities tends to become the be-all and end-all of the present.

When asking why culture exists, we have to remind ourselves of something that ethnographers and anthropologists appear to agree on: *i.e.* that the human being is either an ‘unfinished animal’ (Geertz) or a ‘creature of deficiency’ (Gehlen) whose instinctual system, unlike that of animals, is inadequate and thus has no natural habitat to which it is geared. Such statements are corroborated by zoologists like Ernst Mayr, who maintains:

‘The difference between an animal, which acts instinctively, and a human being, who has the capacity for making choices, is the line of demarcation for ethics. [...] *The shift*

from an instinctive altruism based on inclusive fitness to an ethics based on decision making was perhaps the most important step in humanization.' (77)

If there is no natural environment for the ‘unfinished animal’, it is exposed to entropy, into which it has to make inputs for the purpose of establishing control. Any such attempt to control entropy will split the latter into order and contingency, thus forming the blueprint of the artificial habitat we call culture. As both entropy and contingency elude knowledge, they can only be coped with by means of a continual looping from the known to the unknown in order to make the unknown hark back to what is familiar. Recursive looping organizes such a transfer by processing the information received and feeding corrections into the subsequent input. These inroads bounce back as a heightened complexity of information, thereby increasing the rapidity of self-correction and leading in turn to a fine-tuning of further inputs. Such a relationship transforms the environment of the ‘unfinished animal’ into a process, and as contingency – an offshoot of splitting entropy – has to be mastered, it turns into a driving force for building the artificial habitat.

Instinctual imperfection may be an advantage: ‘the Human,’ Leroi-Gourhan writes, ‘appears as the inheritor of creatures that escaped anatomical specification. Neither human teeth nor hand, neither human foot nor, when all is said and done, brain has attained the perfection of the mammoth’s teeth, the horse’s hand and foot, or the brain of certain birds – with the result that humans have remained capable of just about every possible action.’ (Leroi-Gourhan 118) The absence of organic specialization permits the manifold activities through which humans compensate for this lack, as they are driven to build a habitat for their survival. Norbert Wiener, the inventor of cybernetics, once described this process as follows: ‘Man like all other organisms lives in a contingent universe, but man’s advantage over the rest of nature is that he has the physiological and hence intellectual equipment to adapt himself to radical changes in his environment. [...] We have already indicated that effective behavior must be informed by some sort of feedback process, telling it whether it has equaled its goal or fallen short of it. The simplest feedbacks deal with gross success or failure of performance.’ (Wiener 58)

Controlling an entropic universe exposes human beings to their own successes, which has repercussions on their dispositions. As there are no constants in the makeup of humans, we can describe it as ‘plasticity’ which is continually patterned by what humans have achieved. Whatever forms the feedback may take in each of its individual instances, a basic principle is operative in all of them, namely, as Wiener writes; ‘feedback is a method of controlling a system by reinserting into it the results of its past performance.’ (Wiener 61) Thus a learning process gets under way, and from it emerges culture, which is not something added on to the ‘unfinished animal’ but is a central ingredient of human self-production in the endless quest of coping what they are exposed to. Therefore Geertz maintains: ‘Without men, no culture, certainly, but equally, and more significantly, without culture, no men.’ (Geertz 49)

How to describe Culture?

If culture arises out of coping with contingency, which in turn exposes human beings to their successes, then it is not to be derived from nature. On the contrary, Leroi-Gourhan writes: 'The emergence of tools as a species characteristic marks the frontier between animal and human, initiating a long transitional period during which sociology slowly takes over from zoology.' (90)

Eric Gans conceives of this 'transition' in a much more radical way, when stating 'man's origin was revolutionary, not evolutionary.' (38) In order to illustrate this thesis, he constructs a hypothetical 'originary scene [...] in which a band of hunters, armed with primitive weapons, face each other around the body of their victim. [...] At best such a scenario can be of heuristic value [...] but there is always the danger that such a persuasive model is nothing more than a myth of origin in modern guise. The minimal hypothesis does not suffer from this weakness because it is constructed by working backward from its necessary result – that is, the act of representation – rather than forward from a conjectured prehuman state.' The details of the scene are less relevant than the act of representation, which makes 'the hands reaching out toward the object hesitate in mid-course through the fear of each that he will fall victim to the reprisals of the others. This hesitation turns the gesture of appropriation into a gesture of designation, and the locus of the body into the original scene of representation.' (14) The sacrifice of satisfaction effected by the 'ostensive gesture' towards what is in the center converts the originary scene into an originary event, which leads Gans to his conclusion that 'Man's origin was revolutionary, not evolutionary.' This means no less than that humankind sprang into existence by an act of representation, which, as deferral of conflict, explains the difference between humankind and the animal kingdom.

In the light of this 'origin', how is the unfolding of culture to be conceived? The question is important insofar as a possible answer may reveal something of the infrastructure of culture, which is still active in the present day. If this artificial habitat was produced by humans for their survival, it must still be structured by the very drive that brought it forth. There are two concepts underlying this process: exteriorization and recursion. Exteriorization means that humans keep extrapolating parts of the body as models to make inroads into entropy, and recursion means that human plasticity is shaped by the feedbacks of these inroads. We shall have a separate look at each of them before we deal with their interrelationship.

Exteriorization, as Leroi-Gourhan has described it, is marked by continual acts in which humans free themselves from the constraints of their zoological nature. He writes: 'The whole of our evolution has been oriented toward placing outside ourselves what in the rest of the animal world is achieved *inside* by species adaptation.' (235) The human hand is a central paradigm for such a process.

'The hand's mode of action became gradually enriched during the operational process of human evolution. The *manipulative action* of the primates, in which gesture and tool form a single whole, was followed in the first anthropoids by *directly motive action of*

the hand with the tool separable from the motive gesture. [...] In historic times motive force itself was transferred from the human arm, and *the hand intervened only to start the motor process* in animal-operated machines or mechanical machines such as mills. Finally, in the last stage, *the hand is used to set off a programmed process* in automatic machines that not only exteriorize tools, gestures, and mobility but whose effect also spills over into memory and mechanical behavior.' (242)

These exteriorizations of the hand, the muscles, and eventually the brain are marked by a dual aspect. The body and the mind provide the patterns, whose exteriorization turns them into models for invading and organizing the environment.

'We perceive the surrounding world in two ways, a dynamic one whereby we travel through space to take cognizance of it and a static one that enables us, while remaining immobile, to reconstitute circles around ourselves extending to the limits of the unknown. The first offers an image of the world linked to an itinerary; the second integrates the image within the two opposing surfaces of sky and earth meeting at the horizon.' (525f.)

Out of such an exteriorization of space perception arise two different social groups: the hunters and the gatherers. The latter rally around the location at which they store what they have brought together. Such a set-up lends itself to further extrapolations; the township and eventually the macro-microcosmos relation are offshoots of the mastering of space.

We could continue enumerating many more examples of this ongoing exteriorization; however, what all of them reveal is that culture, in the words of Geertz, consists of 'extra-genetic, outside-the-skin control mechanisms' (44), designed to cope with the environment. If culture arises out of a continual exteriorization of human equipment, then all etiological myths of culture are nothing but fictions. We do not have any authentic knowledge of the origin of culture, but only learn through the various forms of myth how origins have been conceived.

The manifold exteriorizations are marked by a duality: they abstract from what is available in order to map what is to be mastered. As abstractions they are 'a model of 'reality'', as maps they are 'a model for 'reality' [...] Unlike genes, and other non-symbolic information sources, which are only models *for*, not models *of*, culture patterns have an intrinsic double aspect: they give meaning, that is, objective conceptual form, to social and psychological reality both by shaping themselves to it and by shaping it to themselves.' (Geertz 93) This shaping appears to be an unending process, not least as any order achieved leaves a certain amount of disorder in its wake, which in turn has to be mastered. This disorder manifests itself in various ways: it appears as contingency when inroads are made into entropic environments, and it turns into noise when existing systems perturb one another. Contingency then has to be coped with, and noise has to be processed. Without going into further detail, we can say that exteriorization is always an act of liberation from what has been achieved; the outcome of this, however, is bound to have its own limitations, which in turn energize the drive towards more sophisticated

exteriorization. This tendency structures the rise and the development of culture from the anthropoids up to the present.

A striking example of this development is modern audiovisual media, which, according to Leroi-Gourhan, are an extrapolation of human perception that now allows us a hitherto unforeseeable

‘spatiotemporal integration’ [...] ‘seated in their armchairs dozens of miles from the nearest scrap of real nature, millions of human beings will at the same moment experience the same passive escape into the depths of tropical forests on a screen in its true colors, sounds, relief, and odors. The point may be reached when superhumanized space will contain only such examples of nature as are necessary in order to maintain within the human mass, by audiovisual techniques, outside of any kind of lived reality, a perception of a human connection with the universe from which remote human ancestors drew their reason for being and doing.’ (347)

Such a description has a pessimistic ring, and is meant to be critical of our current state. However, the ‘superhumanized space’ is basically an exteriorization of human perception, which functions as a template for mastering the environment. It may well be that we have reached the limits of perception from which models for charting space and time are abstracted. But does that already signify the end of model building as a means of integrating what appears to be beyond reach? Leroi-Gourhan at least gives a tentative answer by saying that ‘we may wonder whether yet another process of exteriorization – this time the exteriorization of social symbolism – might not be taking place.’ (358)

Assuming that the whole process of model building is launched by the human imagination, which is the mainspring of all abstractions, why should not this abstracting capability itself become the template for exteriorization? We have to bear in mind the duality of exteriorization as an act of abstracting from something with the intention of mapping something. Whatever may happen in each individual instance, they all have in common the fact that they are processes of operation. Why should operation itself not become a template for abstraction in order to meet new challenges? This is precisely what is happening at present – albeit in different ways – in contemporary model building, which is basically an exteriorization of operability. General systems theory, game theory, cybernetics, and fractal geometry are the most prominent examples. All of them are modes of charting that achieve a much more comprehensive integration than those derived from perception, because nowadays it is more than just a spatial integration that has to be achieved. Extrapolating operability allows a reduction in complexity as practiced by general systems theory, control of unforeseeability through servomechanism as devised by cybernetics, resolution of double bind as demonstrated by game theory, and measurement of indeterminacy as undertaken by fractal geometry.

Exteriorization, however, is only one descriptive strategy for conceiving the rise and infrastructure of culture. The other one, which is intimately connected with it, is the feedback loop. The former realizes itself in continual acts of liberation for which the

latter provides the energizing drive. Geertz has given a very plausible reason why culture appears to be structured as a recursive process.

'We live [...] in an 'information gap.' Between what our body tells us and what we have to know in order to function, there is a vacuum we must fill ourselves, and we will fill it with information (or misinformation) provided by our culture. The boundary between what is innately controlled and what is culturally controlled is an ill-defined and wavering one. Some things are, for all intents and purposes, entirely controlled intrinsically: we need no more cultural guidance to learn how to breathe than a fish needs to learn how to swim. [...] Our ideas, our values, our acts, even our emotions, are, like our nervous system itself, cultural products – products manufactured, indeed, out of tendencies, capacities, and dispositions with which we were born, but manufactured nonetheless.' (50)

What is even more important, however, than marking these distinctions is the 'information gap' itself, which not only triggers recursive looping but also reveals why recursion is the operation best suited to deal with it. The information gap has a dual reference: it applies both to humans and to their environment. There is a vacuum in the 'unfinished animal' itself, highlighted by the plasticity that needs to be patterned for the sake of self-preservation, and there is a vacuum in the entropic universe to which humans are exposed. Consequently, the 'unfinished animal' is provoked to make an input into the entropic universe, which returns as an altered feedback loop, indicating success or failure that in turn feeds into a revised input. This applies to the whole range of learning, from machines to human behavior, all of which are regulated according to Wiener's basic formula, whereby recursive looping 'adjusts future conduct to past performance' (Wiener 33). Effective behavior must be informed by some kind of feedback process, telling it whether it has met requirements or fallen short of them. If dwelling in the information gap originally means that the 'unfinished animal' is exposed to entropy, the filling of the gap is achieved by human culture, which still reflects the dual reference of the vacuum. Entropy is transformed into order, and order in turn shapes human plasticity, through which all human beings are transformed into 'cultural artifacts' (Geertz 51).

It is due to this vacuum that we have culture, which, of course, implies that the latter has no origin outside the human skin. If the information gap were ever done away with, human self-production through culture would come to an end. Its continued presence can be gauged by the repercussions of contingent reality on culture, which is constantly exposed to change. Consequently, we can never identify specific features with culture itself, as all its features seem destined to issue into their own otherness.

At this point the two strategies for describing culture link up with one another, allowing us to explain its rise as well as its process of self-transformation. Exteriorization focuses on multiple liberations from restrictions as a means of responding to the pressure of the environment. It converts the human body into a storehouse of templates, not only to relieve this pressure but also to map the environment. Thus the body – furnishing templates – becomes the model for something that could be conceived as a sort of input

into an entropic universe, which is bound to return as an altered feedback loop, thereby calibrating further procedures. The built-in fine-tuning between input and output through failure and success guides the recursion. Increased versatility distinguishes the recursive loop insofar as the forward feed and the backward feed develop through reciprocal correction, whose continuation is determined by the extent to which the objective has been achieved.

Such a process can already be observed in an important constitutive component of culture that we have already referred to: the manufacturing of tools. As an exteriorization of the hand, the tool does not exist for its own sake, but has to fulfill a function. For this reason it has to have form, which, however, is subservient to its use. The form thus integrates the tool with the purpose for which it has been designed – a task that has to be tackled recursively. The tool in pre-historic times already shows marks of ‘decorative elements’, which Leroi-Gourhan describes as the ‘dialogue between the maker and the material employed.’ (306) Such a relationship is an integral component for optimizing the tool’s function. There should be an ideal mechanical function, a form that will ensure the latter, and a style that will figure the relationship of the maker to the product. All three aspects of tool-making are interconnected, thus forming a circuit. This makes function, form, and style continually feed into one another for the purpose of optimizing the adequacy of the tool. The feeding always operates recursively, enabling the tool to evolve towards the necessary perfection. This is equally applicable to the production of machines with their built-in self-regulating devices, which exteriorize the feedback loop itself.

What is culture today?

What we have sketched so far is an outline of the fundamental energizing drive through which humans have made their world, and in the process of which they are patterned by what they have brought forth.

The interrelationship between recursion and exteriorization forms a less nebulous basis for conceptualizing culture than approaches that postulate an origin. Therefore we need not decide whether culture arose out of the ‘victimage mechanism’ of scapegoating, as Girard has it, or out of semiotic gestures that abrogated ‘appetitive satisfaction’ by turning it into desire, as Gans suggested. In the one instance, culture is an offshoot of *homo necans*; in the other an outcome of deferred conflict. What remains remarkable, though, in both instances is the gloomy view of the future of culture. Girard proposes a ‘meta-anthropology’ (267) by means of which culture will be redeemed of its inherent victimage mechanism, and Gans maintains that the constitutive feature of culture, *i.e.* the constellation of center and periphery issuing into resentment as its mainspring, is on the wane in a market-based, exchange-oriented society. Even Leroi-Gourhan believes that *Homo sapiens* has now reached the end of his career (407).

In contradistinction to such a prognosis, the idea of culture as a dovetailing of exteriorization and recursion is not driven to such consequences, because the constellation described remains valid insofar as human beings are still exposed to what they have

achieved. Mastering contingencies rebounds on human plasticity, thus subjecting us to suffering our successes. If dispositions are shaped recursively by what humans have accomplished, then they are also put in jeopardy by their achievements, because they have to master – now as always – the impact of and the problems caused by their triumphs, *e.g.* improved transport that pollutes the environment, and improved communications that can disrupt systems at the touch of a button.

The notion of culture as entertained at present is no longer an all-encompassing entity as ethnographers once conceived of it. Similarly, the world we have made and live in cannot be subsumed under the umbrella of culture. However, what still distinguishes the present-day situation is a recursively operating interaction between the constituents of our world. In this respect, the infrastructure underlying the rise of culture still persists. Exteriorization continues to proceed in feedback loops, thus organizing society and the social world in general, as its inputs into entropy have always done. Therefore we might say recursion continues to be the operating agency that structures the process of circulation in the course of which humans are shaped by what they have made and remain what they have always been: cultural artifacts. What used to be the infrastructure of culture proves to be a descriptive tool that allows us to fathom contemporary worldmaking.

Substantiating such a claim requires a further consideration. The inception of culture, as we have seen, ensues from inputs made into entropy, thereby splitting entropy into order and contingency. Such a duality is already in the nature of a product, as it did not exist beforehand. Inputs set feedback loops in motion, what they bring forth has to be processed, and out of these processes the human habitat gradually emerges. This artificially produced habitat is therefore to be conceived as an emerging phenomenon springing from the fact that humans are not instinctively geared to a natural environment as animals are. Consequently, the environment not only has to be built, but its building develops as an unending process. Qualifying culture as an emergent phenomenon is apt insofar as it is not the appearance of something other than itself to which it can give presence. As a self-transforming phenomenon, it reveals its infrastructure as a recursively operating movement of input and output, which makes recursion the mainspring of emergence. What was true of the rise of culture in prehistoric times, namely its continually emerging self-differentiation, still remains the hallmark of present-day worldmaking. It is organized by the same infrastructure which functions as a generative matrix for emergent phenomena.

Let me illustrate this point by focusing on a present-day preoccupation: the structuring of society. Irrespective of whether we consider society – according to Luhmann – as the all-encompassing system of our world, or we conceive of this world – in Varela’s terms – as a network of autonomous systems, in each case the world is made, and emergence is its hallmark. As mentioned earlier, general systems theory comes into being through an exteriorization of operability, which permits us to chart the growing complexity of the contemporary world, and may thus serve as an example of how culture as emergence is still happening in the present.

Let us assume that social systems, as described by Varela, are extrapolations from living systems such as the nervous and the immune (Varela 57f., Maturana and Varela 193-201), which have other systems as their environment. There are two possible scenarios: either the systems perturb one another, or they are structurally coupled. Perturbation could mean, in the worst case, that the system will fall apart. As a rule, however, the perturbation experienced by a system results in an internal reshuffling of its structure, which in turn has repercussions on the interloper, thus forcing the latter into a similar internal organization. This happens through information being transmitted in recursive loops between the components and the levels of the system concerned, thus ensuring the self-maintenance of the system. By interlocking intrasystemic levels, recursion enables the system to cope with the disturbances of its threatened homeostasis.

As systems experience manifold perturbations, they accumulate an internal history of their behavioral patterns, and these develop recursively by interacting with their previous patterns. This process of behavioral specification has to hark back to earlier ways of coping with perturbations in order to work out recursively a response to the new challenge. Because self-maintenance of the system has no essence, it must avail itself of these previous behavioral patterns and processes, and potentially of all the efforts it has made to ensure self-maintenance, and this is what gives rise to its internal 'recursive history' (Varela 33). It is recursive because it has no goal outside itself, and so it must take up what it has already developed earlier as guidance for maintaining self-organization. Thus the recursive history allows the system to reactivate its own past as 'an interlocked history of structural transformation' (Varela 33). Entropy resurges in manifold perturbations, whose processing produces something new. For this reason continually self-organizing systems are regarded as 'auto-poietic', which points to the character of a system as being a form of emergence.

This designation becomes even more apposite when systems are coupled with one another, which happens all the time as a great many systems are tied up with one another. Structural coupling may also cause reciprocal encroachments between the systems concerned; generally, however, higher-order systems will be the result. We only have to think of society as such a higher-order system emerging out of the interlocking of political, economic, cultural, communicative, legal, scientific, and religious systems to recognize that many of them are already composite. If structural coupling brings about higher-order systems, then we are confronted with a form of emergence that differs from the one to be observed in the internal reorganization of the individual system. Higher-order systems are forms of expansion trying to chart what is still beyond reach. In this respect, we are simply witnessing the continuation of a tendency that already marked the inception of culture. What used to be control of entropy is now an attempt to achieve a comprehensive integration.

There is a final link between the forms that organize our contemporary world and the initial reciprocity between human inroads into an entropic environment and the resultant patterning of human plasticity. This reciprocity does not develop on a linear trajectory towards a goal, but is characterized by the fact that the controller is exposed to and shaped by what has been controlled. Therefore all available and accumulated information

which the various patterning have yielded has to be exchanged by feeding forward and by further processing. All the systems of which we have spoken so far are marked by the same non-linear structure, because it is their recursively operating non-linearity that ensures self-maintenance, just as the non-linear reciprocity of inroads made and patterning experienced ensures survival. In contradistinction to linear processes, non-linear systems have their *telos* within themselves. In this respect, a fundamental structure of cultural evolution continues to function in the contemporary world.

Culture, then, we may conclude, emerges as a non-linear system. As such, it continually generates its own constantly shifting organization. It could be described as a network of interlinking processes, which in turn produce the very components that set the processes in motion. The relationship between process and components is one of continual recursive looping, in the course of which components structure the process, and the latter yields further components that are fed back into the network. Such a structure emerges out of the relationship humans entertain with their environment, and as humans have to ensure their survival by means of culture, the latter – just like all non-linear systems – has to produce its self-maintenance, thus turning it into a paradigm of emergence.

Non-linear systems have no essence, let alone an underlying substratum out of which they arise; in the words of Nelson Goodman, ‘there is nothing stolid underneath’ (6, 96) our ways of worldmaking. If culture emerges out of the continual recursion between humans and their environment, then self-transformation becomes its anthropological hallmark. Humans live by what they produce, which spotlights an important facet of our condition: humans appear to be the unending performance of themselves.

Culture: A System among others

As has already been pointed out, we are no longer inclined to subsume the mastering of contingencies under the umbrella of culture. The inherited notion of culture has shrunk to a system existing side by side with other systems that map our environment. However, since our different ways of worldmaking are organized by the same recursively-operating infrastructure that guided the cultural evolution, basic features of culture persist as constituents for the production of our habitat. Still, there is general agreement in these days that culture comprises first and foremost the arts, scholastic activities, and the often-blurred division between sub, counter and minority cultures. It has lost its erstwhile status as the all-encompassing world humans keep building for themselves. In addition we encounter phenomena that are difficult to classify as culture in the sense in which we have inherited the concept from bourgeois society – the media and the entertainment industry being striking examples. Consequently, features that nowadays are bracketed together under the umbrella of culture trigger disputes as to whether they may claim to be cultural at all. Obviously, even this more limited domain of culture is open for renewed charting, which however interestingly enough, makes it into a training ground for experimentation.

Such an idea ties in with what ethnographers to a large extent have taken art to be. If it is pertinent to obtain, by means of exteriorization, models of as templates *for* mapping the uncharted, then the arts turn into a blueprint for this task. They adumbrate possible ways of mastering something, which entails their having no practical function, let alone any specific use. As figurations of what can be done, they only represent templates, and as such they are nothing but a gigantic 'As If', because they depict something which – according to all available knowledge – does not exist. Small wonder, then, that the arts have been denounced as 'guile and cunning', and yet prominent ethnographers have elevated them to the capstone of evolution.

The fact that it is still so difficult to define culture is due to its continued changeability. For instance, the media now play a more important role than they used to only a few decades ago, as do the different levels as mentioned above. They do not just exist side by side, not least as each of them raises claims to its own importance and validity, which gives rise to their interaction. They interlock in the form of reciprocal intervention. Subculture, for instance, undercuts hegemonic structures of evaluation, and high culture marginalizes such acts of subversion. Minority cultures exploit high culture, and the latter turns ethnic cultures into exhibits. These levels form relations among one another by permanently circulating information that is channeled through recursive loops. The feedback loops in turn reveal the fact that culture not only shapes and reshapes itself as a result of its components' transformation, but also periodically transcends the existing configurations of its components in order to generate new ones in the process of cultural circulation. Thus culture emerges as that which exceeds the configurations of its levels and components.

Independently of how these demarcations and interactions develop, what distinguishes their interchange is their continual 'conversation', as described by Hans-Georg Gadamer:

'As one word calls forth another, and as the turns of the conversation lead into new directions, the partners nevertheless assume that there is some guidance operative in such an interchange. Even if the partners may believe this, they do not really conduct a conversation, but are conducted by it. Thus nobody actually knows beforehand what the outcome of the conversation will be.' (361 – the translation is mine)

For the same reason, the 'conversation' between components and levels of culture unfolds as a process with no foreseeable result; instead, the process will produce other components that, in turn, are subjected to transformation by the very process they themselves have helped to trigger. Therefore, culture cannot be equated with any of its components or levels. It figures the otherness of the determinate, so that what is achieved will be exposed to becoming 'other', which means that even within culture, the infrastructure of the cultural evolution is still operative.

Such a basic characteristic ensures the continual relevance of culture, which is otherwise under stress if it is equated with high culture or the arts and literature in particular. However, as long as even this limited notion highlights the interplay between components and processes, it depicts current ways of worldmaking, just as in the past it

organized the interchange between entropy and control. Therefore the ethnographers, for whom the arts were a lodestar, were not so far off the mark.

In the modern world, culture as a system at best accompanies ways of worldmaking, thus reflecting what happens in such an activity. In this respect it has gained a different status in present times. It duplicates what distinguishes worldmaking, thus providing a stance from which the growing complexity of our world can be monitored. Since the world cannot monitor itself, there being no transcendental vantage point, culture is thus elevated to a grandstand view of events. It can offer this reflective self-description of modern society thanks to its infrastructure, which now serves as a model for observing how social organizations are brought forth and how their achievements are exposed to becoming ‘other’.

Even if culture is conceived in these terms, it is nevertheless only a system among other systems and, like society, one of a higher order. It is bound to cause perturbations in other systems with which it interferes. These disturbances, however, are for the most part ‘noise’, which frequently does not necessarily require processing, because more often than not such perturbations have only a peripheral effect on the systems concerned. The most these inroads can cause is attention.

Related to the limited effectiveness exercised by culture as a vantage point for monitoring the processes of the modern world, it is a marked duality. First there are the media to serve a general public by providing information and entertainment, and even if at times they deliberately cause irritation, they nevertheless either manipulate or cater for their addressees. Then there are ‘Cultural Studies’, guided by the attempt to short-circuit cultural knowledge with interest-governed politics, but in spite of their notoriety, they are confined to academia. Catering for the public taste and politicizing are indicative of a dissatisfaction that is not prepared to put up with culture as only a system in the modern world. However, the price to be paid is a massive pragmatization of what culture seems to offer.

What elude such pragmatization are the arts and literature, which in a technocratically organized society open up a play space that allows us to enact what invention might bring forth, and permits us to stage the non-existent. Thus an unfettered imagination comes to life, and presents models of intervention in the process of social circulation. Such an array of potentials will come to fruition as long as the arts and literature are not put to any specific and hence limited use; they must remain ‘useless’ because, as abstractions from the infrastructure that has organized the artificial habitat, they spell out how it functions. While the activity of modern worldmaking is doing something and is not a reflection on the nature of doing, art and literature elucidate how worlds are mapped out. If art and literature were once the capstone of bourgeois culture, the diminishing of their status has not kept them from continuing to articulate culture as both reflection and observation of worldmaking.

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