Transgressiveness in Science, the Humanities and Literature

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The concept of transgressiveness first appeared during the Early Modern Age, and can since then be found in legal, theological, scientific and philosophical discourses. It predominantly refers to phenomena that transcend the limits of the ordinary, shift from expected practices and defy the fundamental conventions of communication, society or morality. Although its meaning is not sharply defined, there is no doubt that transgressiveness is linked to the vital functional dimensions of cognitive and social systems, since establishing, controlling and eliminating unconventional states is part and parcel of the fundamental mechanisms that ensure adaptability in complex environments. Of course, these mechanisms manifest themselves in various ways in different social systems such as science, the humanities and literature.

Introduction

Accessible realities are more or less predictable. Stable states and recurring processes ensuring this predictability can be found everywhere: in ourselves, who observe the environment, and in the environment itself. Stability defines the limits of expectation, enables orientation and ensures survival. In the natural, cognitive and social sciences, mechanisms for establishing these states are described by the concepts of habitualisation, assimilation, accommodation, conventionalisation, schematisation, canonisation, etc.

To what extent the structures of accessible realities originate from the cognitive systems themselves, and to what extent from the environment, are complicated questions, but this will not be the focus of this essay. I will concentrate more on the capacity of systems to reflect upon and transcend the norms, principles and mechanisms of their functioning. Therefore, the concept of transgression will relate to systemic self-reflection regarding threshold values. I will focus on the fields referred to in the title: science,

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literature and the humanities. I will try to answer the question of the function of transgressions.

Science

The field of science has changed over the thousands of years of its development. Nevertheless, it has always retained the mark of elaborate rationality (Ede and Cormack 199). In earlier periods, mathematical, metaphysical, hermeneutic and empirical discourses were intertwined in different constellations. However, during the last 200 years, there occurred an erosion of universality, while the scientific criteria became more rigid. Crucial becomes the connection between three norms: theoreticality, empiricality, applicability. Since then, an activity qualifies as scientific, if (a) it is based upon abstract, logically constructed conceptual systems, (b) it organises methodically acquired empirical data by means of these systems, and (c) based on these models, it offers verifiable and reproducible solutions to socially relevant problems. The relevant institutional infrastructure ensures that the aforementioned norms are enforced. In this way, science gradually establishes itself as a relatively autonomous social system with specific rules and social functions.

During the process whereby the scientific system became independent, literary criticism was also transformed. Tendencies towards establishing more rigid scientific criteria have been evident at least since the era of positivism in the nineteenth century, and they gained particular strength during the so-called cultural turn in the second half of the twentieth century. Such tendencies are most explicitly evident in studies that redirect the focus from the literary texts themselves to the context of literary communication. In these studies, the methods of natural and social sciences are used, and the criterion of verifiability is taken into account (Dović 11–20). Nowadays, we are witnessing a wide range of interdisciplinary connections in this spectrum of literary criticism.

Because of their pragmatism, empirical sciences are not favourably disposed towards transgressive thought. Trying to achieve the greatest possible degree of applicability, these sciences direct all their attention towards solving the problems in the observer's environment, while any reflection on the origins and limitations of their own functioning seems from their perspective redundant or even disruptive. This is all the more so, since the fundamental scientific norms are derived from basic mechanisms of rationality such as causal connections, coherent structures and consistent models. Reaching beyond these norms would therefore necessarily lead to

contact with the irrational, which is, of course, unacceptable to scientific thought.

Discourses dependant on the cognitive origins of constructivism come closest to the logic of self-reflection. Here, the central ideas originate from the cybernetic concepts of self-referentiality, circularity, insularity and self-organisation (Glasersfeld 198–219). In this regard, the concept of the second-order observer is especially interesting. Observation itself becomes the object of observation, while the relation between the observer and his or her environment shifts away from naive realism. However, constructivist self-reflection usually adopts the status of a realistic perspective, and thus does not necessarily lead to reflection on the limits of scientific cognition or to transgressiveness. Furthermore, more often than not, constructivism remains on the level of cognitive theory and is seldom incorporated into research practice.

Of course, aversion to transgression does not signify that science is predictable or conformist. On the contrary, among its maxims are creativity and innovativeness, which by definition include reaching beyond the known, as well as a shift away from conventionality. However, such shifts – for instance, the development of new methods, models, technologies, concepts, paradigms and interdisciplinary connections – are, of course, taking place in the framework of systemic logic. The system either accepts these as effective solutions for problems and establishes them as the new norm, or rejects them. The limitations of scientific cognition essentially remain a blind spot of scientific discourse.

We could perhaps speak of transgressions – in the narrower sense of the word – in instances where scientific criteria are losing their exclusive role. This is most frequently the case in hybrid zones between different social systems, for instance, in contacts between science on one side, and economy, politics, law, religion or, say, art, on the other. Such boundary crossing can fulfil the functions of two or more systems by means of symbiosis or hegemony.[1] In any case, these intersystemic connections are for the most part standardised and hence merely give the appearance of being transgressive.

Literature

Similarly to science, literature is, on one side, integrated into its social contexts, changing along with these contexts, while on the other side, it always preserves certain basic functional characteristics. Literature differs from other discourses in the sense that it develops those potentials of

writing culture that stem from the decontextualisation of communication processes. Writing separates communication from the body, from the mutual observation of the communication partners and from the perception of the collective communication situation. In this way, the space of autonomy for constructing meanings expands, and the awareness that cognitively produced models of the world form the reference framework for communication increases. Because these models are arbitrary and inaccessible to perception, scryptographic and typographic traditions stimulate insights into the interactive nature of the discourse on the socially accepted versions of the real world. These kinds of potentials are most distinctly developed in fictional texts and texts with multiple meanings, which, through the weakening of referential and consensual conventions, strengthen the mechanisms of decontextualisation and establish space for alternative models of the world.

However, even this kind of unconventionality does not yet signify transgression. In the case of literature, the breaking of communication conventions is incorporated into the discursive logic, and has gradually become a norm in its own right. It is expected by participants in the literary system. The extent to which this break is realised and the sphere of the system which it encompasses are not of crucial importance here. The possibilities are practically unlimited: the break may involve playing with aesthetic processes, narrative strategies, concepts of time and space, genre schemes, intertextual connections, etc. (Juvan 14).

As in science, in literature transgression occurs only when the identity of the system itself becomes questionable. Literary discourses weaken their own identification criteria by adopting the functions of other systems, including scientific ones. For instance, the construction of alternative worlds can be understood as a sharpening of awareness about the interactive, arbitrary and constructed nature of *each and every* discourse about the real world. Thus, cognitive functions beyond the categories that establish the system's identity can be attributed to this aesthetic experience. In other words, the aesthetic experience complements the kind of scientific observation that maintains that all accessible worlds – real and imaginary – consist of the same substance: the chemical and electrical processes in the brain.

And when the experience of the formalisable arbitrariness of worlds elicits a premonition of that which is unformalisable and non-arbitrary, these aesthetic transgressions can acquire a metaphysical dimension.

The humanities

The humanities do not establish norms and conventions for their functioning that are as clear as those characteristic of empirical sciences and literature. They are characterised by a tendency towards objectification of their fields (mainly thought, language, art and culture), on one side, and a high degree of self-reflection and multiperspectivity, on the other. The processes of verification are replaced by the logic of 'hermeneutic reasoning', whereby self-reflection and multiperspectivity are not in the service of verifiability and applicability (as in science), nor are they in the service of semantic openness (as in literature). While science excludes transgressions from the logic of its discourse, the literary system incorporates them as a fundamental convention, and it appears that the humanities are always located in the transitional or transgressive space between descriptions of the laws of the observed fields and reflections about the laws of self-observation.

Latent and uncontrolled transgressiveness leads, inter alia, to a conflicting relation between the humanities and the empirical sciences. When, along with the rapid ascent of natural and social sciences, the 'hard' scientific standards assume the dominant and exclusive position, the disciplines that do not meet these standards become marginalised in the economic as well as in the symbolic sense. The situation became particularly critical in the 1970s and 1980s, with empirical and humanistic paradigms playing antagonistic roles. Although in recent decades tendencies towards bringing them closer together have strengthened, the humanities still only exceptionally retreat from their defensive stance. The problem seems unsolvable: the adoption of empirical methods endangers the humanities' identity, whereas their rejection endangers the humanities' reputation.

When trying to solve the problem, an elimination of the asymmetry in terms of values is probably a step in the right direction: the humanities should model themselves on empirical sciences in the dimensions in which the latter are more effective (for instance, in pragmatic syntheses of theoreticality, empiricality and applicability), while refusing to perceive the potential for self-reflective and multi-perspective thinking as an epistemological shortcoming. Additional stimulation in this direction comes from the applied sciences themselves, which have recently been discovering the importance of hermeneutic methods in assessing empirical data (Hladnik 329). It is true that the 'empiricists' are far from willing to transcend the hierarchical relations between the two paradigms, but this is precisely why advocates of the humanities would actually benefit from redirecting their attention towards the cognitive advantages of self-reflective and transgres-

sive thinking, and also from heightening their awareness of the concept that contemplation of the limits of one's thought is an important factor in the economy of orientation strategies.

The humanities would probably have to admit that they cannot compete with the empirical sciences in the field of finding pragmatic solutions for socially relevant problems; on the other side, they should also be aware that they can develop cognitive potential that remains unutilised in the disciplines that focus only on the objects of their observation. By incorporating the observer's perspective into elaborate descriptions of the environment, the humanities not only stimulate fundamental reflection on the concept of social relevance, but also stimulate more than merely intuitive insights into relations between the arbitrary and non-arbitrary dimensions of the world. It is precisely these insights that are able to cope with contingency more efficiently than mere exclusions of contingency from the logic of the observing discourse.

Let me conclude by illustrating the synergy between the empirical and self-reflective approaches with a short example from the field of orientation strategies. In neurobiology it can be assumed that cognitive systems develop along with the increasing complexity of the central nervous system. A high degree of complexity has two seemingly contradictory effects: on one side, it ensures adaptability of orientation in the environment, and on the other, it leads to the autonomy or functional insularity of the system. Adaptability is manifested in an extensive repertoire of orientation strategies, while autonomy stems from the tendency of systems to develop criteria for evaluating their processes by themselves (Roth, »Gehirn« 178). Thus, the crucial question at this point is, what can orientation strategies tell us about the world if we are aware that they originate in systems that have access only to their own states? In light of these findings, what can we say about the limits of cognition? More precisely: who is the subject of the cognitive processes, and what is their object?

In this context, neurobiology and self-reflection come to the same conclusion: the concepts of subject and object need to be redefined. On one side, the concept of self is not suitable to be the carrier of cognitive processes. At most, the subject is the *result* of cognitive self-organisation. The same holds true for the construct of free will (Roth, *Fühlen* 494–544). We have long known this, although we are reluctant to admit it. Each of our actions is entirely conditioned by factors that were not chosen by ourselves, and which we cannot influence in any way whatsoever. We did not choose our own bodies, we did not choose the environment in which we have constructed our world, nor did we choose our desires. The source of power is not within us. On the other side, the object of our cognition dis-

integrates in a similar way. We have long known that perceptions can only be compared to perceptions, and not to the environment itself (Schmidt 13). We also know that the world is accessible exclusively in the mode of criteria immanent to the cognitive process. Everything incompatible with these criteria remains incomprehensible.

When we bring our thoughts about cognitive autonomy to a conclusion, emptiness and powerlessness are revealed where pillars of the world were expected. The connection between empirical reflection and cognitive self-reflection has brought us to an abyss of absence. If it has not done so before, it is now – in the core of the problem – that we hear the voice of poet, the messenger of incomprehensibility: 'But where there is danger / The Rescue grows as well' (Hölderlin, *Patmos*). And *what* is the rescuing element? It is time for the ultimate transgression.

In the abyss of absence, there arises the consciousness that the existence of the world is not self-evident. The absence of nothingness becomes incomprehensible in the same way that nothingness itself is incomprehensible. In contact with emptiness, we touch upon the force that negated non-existence. It is then that we recognise the same power of which we are made in everything that exists. When we renounce power, we renounce powerlessness. This is the epistemology of love. The final transgression has led us to the edge of the world, and it is there that we discover the foundation of our existence within the other.

Like every other emotion, love too is connected to the body, to the experience of life. With it, each reading is live. Science, the humanities and literature easily incorporate love into their basis as an ethical attitude. If cognition is derived from evolution, then evolution may be derived from such cognition.

NOTE

[1] An obvious instance of such symbiosis would be popular science, while hegemony is characteristic of, say, the political and economic manipulation of science.

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