SCIENTIFIC PAPERS
OF THE UNIVERSITY OF PARDUBICE
Series C
Institute of Languages and Humanities
5 (1999)

SYSTEM APPROACH TO CIVIC EDUCATION

Miloš Vítek
Pedagogická fakulta
Vysoké školy pedagogické Hradec Králové

The concept of system approach finds its place not only in education for citizenship, but in extended conceptions of mathematics, biology, psychology, sociology, and other subjects. System approach can be explained in separate subjects, such as the theory of systems and system engineering. An understanding of complete transformation processes in postmodern society, knowledge economics, or intercultural communication requires system approach.

1. SOCIAL ASPECTS OF THE SYSTEM APPROACH

System approach as a way of transcendence in school education allows crossing sharp boundaries between the individual subjects– from mathematics to history – and seeing the human being as a whole. The human being as the citizen enters the relationship with the state and supranational organisations. Civics leads to a synthetic, interdisciplinary, and even multicultural view of the human being as the citizen. It cannot thus be reduced to ethics, philosophy, political science, or the fundamentals of social sciences.

Inclusion of the theory of systems, system science, system analysis and synthesis, system engineering, and system designing as separate themes, or programmes, of instruction and research is just one possibility of enforcing system approach at school. In particular, if the individual system disciplines are interpreted in a too narrow way, e.g. in the technical or technological conception, it may be only an expansion of the supply of closed and specialised subjects.

System approach means viewing the wholes not only in the mechanical sense of putting together (mechanical engineering) but also in the organic sense (biologism), psychological sense (psychologism), and social sense (sociologism). Biologism comes to a generalised understanding of the whole as a living organism in its environment, psychologism brings in a system conception of the personality, and sociologism studies bureaucratic, state and supranational organisations. In a similar sense, extended and generalised understanding of chemistry, economics, law, etc. contributes to the system approach.

The understanding of the system approach is practically connected with the activities of the state, civic society, and supranational integrations (e.g. the European Union) as well as with integral shifts from modern to postmodern society, from industrial to knowledge economy, from separate to interconnected cultures, from liberal to ecological ethics. This cross-section concerns also complex phenomena exceeding the visual field of traditional branches of science and their standard, usually mathematical-physical methodologies.

That is why knowledge economy starts functioning on other than traditional economic principles (it is said that it is non-linear in the conception of work, productivity of work, and organisation of work, etc.). It also goes beyond the scope of the world of information technology with its hackers, crackers, lamers, or nerds. (We know that hackers are people who understand computers, crackers are able to misuse somebody else's computer systems, lamers imagine they are hackers, and nerds are computer yokels). Knowledge economy is more like a large laboratory for the production of intellectual property (programmes, patents and other knowledge products protected by copyright).

Knowledge economy opens the way to new types of work with decreased demands for material conditions but with increased interconnection of people, firms, and states. At the same time the boundaries between education, work and free time disappear as well as the border between the working and living environment.

If we expect an increase in the system approach in the future, it will be connected with the transformation of school education, conceived in a systemic way. The school will play an irreplaceable role in the education for the order, whether we understand it as Tao, Dharma, the Old or New Testament, Logos, or sustainable life. Great importance is particularly attributed to education for human rights, democracy and tolerance, as it is being promoted by the UNESCO.

2. ANTINOMIES IN CIVIC EDUCATION

The citizen is a full-value element of the state (*polis, civitas*). He is a bearer of political qualities (participation in power and decision-making), ethical (responsibility for good and justice), economic (thrift and industry), legal (fairness), social (solidarity with others and poorer), or cultural (interest in education and protection of the existing values). Undoubtedly, this is not a complete list of civic qualities, or virtues – e.g. the relationship to rational, logical, and mathematical thinking has not been mentioned.

Conceiving the citizen in a systemic way means to recognise his or her political, ethical, economic, social, etc., up to narrowly rational strata (components, ingredients). This immediately raises questions whether the above-mentioned components are of the same importance from the viewpoint of "a good citizen", whether the components can be mutually compensated, and whether the citizen can be without some of the civic virtues. The latter question can be reformulated also in the sense of his or her freedom: can the citizen just refuse to be what he or she is expected to be?

In the present paper we have soon come to the first logical antinomy: the citizen is free and at the same time the state imposes an obligation on him or her of what

he or she is to be like. This antinomy draws attention to the openness of any conception of the citizen, which means that the citizen is an open system and his development has no other end-point than the return to himself or herself, to humanity, and it is thus rehumanisation of the human being.

The citizen is not born as a complete citizen; it is necessary to educate him or her for citizenship purposefully and for a long time. Education for citizenship lasts on the rule for the whole lifetime, and he or she comes across many possibilities and stumbling blocks even in a very advanced age. With regard to its versatility, civic education is of particular importance: it teaches not only to think logically, to act rationally and to calculate strategically, but also to independently evaluate one's motives and to improve, or at least to correct them.

Here we meet the second logical antinomy: we educate for citizenship without being able to define it in a satisfactory way. Also from this aspect civic education is an open system which exceeds formal logic itself towards new forms of communication and dialogue between people. We can expect that the conception and formal modification of civic education will practically change ad infinitum and perhaps even improve.

It is difficult to understand civic education as a branch of science not only because of its interdisciplinary nature (well, sciences do include physical chemistry, political economy, etc.) but mainly because of its unclosed nature, i.e. at any time and in any place – even in a remote one like Hradec Králové – completely new and at the same time traditional conception of the field is born. The fact that civic education cannot be replaced by mathematics, history, economics, sociology or law, or even philosophy, ethics or political science, can be explained by the special and clear-cut forms of the above-mentioned branches of science, represented by renowned universities, institutes, and publishing houses. It is nearly impossible to add or modify something in mathematics or sociology from a local viewpoint.

The openness of civic education is connected with a chance of its non-totalitarian understanding. If we view the state from the aspect of, for example, law as a whole in whose functioning there should be no variance, and if it develops, it is something that must be urgently and consistently removed, then the requirement of this state for the citizen must form a logically non-contradictory whole. It is different with education for citizenship whose rules do not form a totality but only invite to what is considered to be human, good.

The idea of common good (*bonum commune*), which includes also the health, ecological, and safety boundaries, will be developed in the future with the use of information and communication technologies (ICT). Attention paid to the coming of information society and knowledge economy leads to findings about possible interconnection of study, work, and free time as well as mingling of the working and living environments. However, the role of school, conceived in a systemic way, is not usually sufficiently stressed.

Loosening of the state, civic society, and social institutions (matrimony, family, school, firm, etc.) should not mean abandoning of the order and making room for chaos, anarchy, and catastrophes. Care of the order belongs to every individual as well as the state, society and its institution, which includes also school. In the implementation of the order of Education, the role of school in the future seems to be irreplaceable. In this order the education for citizenship, democracy, and tolerance

is not a mere supplement to education in science and technology, but an integrating, synthetic and unifying matter. Only integral education can defend the Order guaranteeing sustainable development.

My shortened paper is going to be concluded by the third logical antinomy: system approach consists of scientific disciplines but on the whole it is not of scientific nature. System approach does not fulfil the usual requirements for exact scientific work, as it cannot work only with clearly and precisely predefined terms, with pre-set methods, and aim to clearly specified goals. System approach reduced to technical, technological, or mathematical routine would pave the road to totalitarianism for civic society. The concepts of system theory, system science, or system engineering are reductions of system approach so that it should not be excluded from the decent society of recognised scientific and pedagogical disciplines.

We are practically confronted with the third antinomy in the university instruction in Civics as a subject taught at pedagogical faculties. Doctoral programmes, appointment of associate professors and professors in Civics are mostly replaced with promotion in related fields: history, political science, philosophy, etc. But it is *a trick of reason*, or simply *a swindle*, when an open system approach is substituted with a closed one, and in addition with a very narrow specialisation in a different branch.

Similarly, objections are raised (as the head of a department carrying out the instruction in Civics I sometimes meet with even unpleasant reproaches) saying that the graduates in the Civics programme know history worse than historians, philosophy worse than philosophers, mathematics worse than mathematicians, information science worse than information scientists. In other words: what would not stand the test at the department of history or mathematics is performed at the department of civics with impunity.

This causes a problem: who is to teach Civics? Is he to be a good historian, good mathematician, good teacher of physical education, or a synthesiser with system thinking who cannot, of course, be a professional in altogether ten scientific disciplines? In system engineering we have been reminding ourselves for years: *A Jack of all trades is a master of none* without grasping the real nature and importance of system approach (see the Proceedings SI'69 to SI'98).

Abandonment of system approach in Civics undoubtedly contributes to spreading of antisocial phenomena, such as careerism, vandalism, stealing, terrorism, and murdering. There exists a dangerous opinion saying that pedagogical faculties should deal only with didactics as a technique and technology of education of the individual subjects without substantially contributing to the theoretical development of the particular branches of science. With regard to its human and social importance, also Civics, which we conceive in a systemic way, has become a separate discipline.

3. HISTORICAL NOTES

We suppose that no pure equality among people exists, the equality is always combined with some portion of unequality. Similarly as St. Augustin considered the evil as a not perfect good, or in today fuzzy thinking we take notions e.g. good, equ-

ality, justice as multivalent, i.e. we find in them a tension between extreme poles good-evil, equality-unequality, justice-unjustice.

In this way democracy is always connected with some degree of elitarism and its good is combined with some degree of evil. The elitarism is then in certain extent generous (noble) and in other extent low (vile). Elites cannot be only rejected, specially when they are models of honour, dignity, courage and education, but we doubt about the contribution of perfidious, traitorous and stupid élites (3).

Liberal and democratic ideals of Rousseau and Kant were abandonned already in the revolutionary and war practice, in the theory among others by the idea of Saint-Simon´s socialism that the government above people should be replaced by the administration of things. The belief in the State able to administrate things in a technical or technological manner was posed against the parlamentary democracy (2).

Saint-Simon´s book Nouveau Christianisme (1825) proposed a new religion guided by excellent scientists and artists, which will spread the belief in a new society able with the help of science and industry to build up the paradise on the earth. The basis of the new industrial order can become the positive science, the society can be guided by a technocratic government. The book criticizes the liberalism because of its unability to handle the life conditions of the majority which suffers much.

Meritocratic and technocratic view of politics stressed the colleaque of Saint-Simon, Auguste Comte, which wrote in his Early Essayes: *The military commanders give orders, the steermen of industry manage. In the first case people are subordinated, in the other they are partners*. According to the law of three stages the humanity develops from the theological monarchy towards metaphysical democracy and further to the positive scientism and industrialism. His book System of Positive Politics (1824) tries to elaborate a religion of the scientific moral, which can substitute Christianism (1).

Not only at the École Polytechnique, where Comte studied, but also on a great number of universities are up to the present the traditions of positivism and neopositivism further elaborated. Ideas of positivists about the extraordinary role of scientists and technicians in the modern society and about the application of the technocratic management in governing the society were denoted by Friedrich August Hayek as the counterrevolution of science.

In the book The Counterrevolution of Science (1952) Hayek reflects unjustified ambitions of technicians, mathematicians, physicists, chemists, biologists and others to control the society in compliance with an apriori designed plan. Since the half of the XIXth century the term Science is more and more reserved to physical and biological disciplines with a special request for rigour and determinacy. Their success fascinated specialists working in other areas so that they begun to overtake the vocabulary and the manner of thinking. Thus the tyranny of some sciences against the others started and in following 120 years more and more chaos into social sciences was introduced and their discredit grew.

The assertion that specific methods of natural sciences are the only correct ones leads to an unjustified and unhappy expansion of thinking habits own only for the natural sciences. The slavish imitation of the language and methods of the Science and not the idea of the unprejudiced research the Scientism was followed. A further simplification and narrowing of scientism lead to the mental attitude of the engine-

er, characteristic for the thinking of the XIXth and the XXth century. Hayek calls it *engineer´s type of thinking*.

Rationality as the significant feature of our period is all along expressed in the universal requirement to control *consciously* the social processes. On the contrary, a sign of irrationality is when the whole is not controlled consciously. Such a superposition of consciously controlled processes over the spontaneous ones holds Hayek for a prejudice and he affirms that a spontaneous play can often solve problems better than an individual ratio.

Nevertheless some people assume they dispose of a certain type of superintellect allowing them as a specially privileged class or simply as a floating intelligence to possess the absolute knowledge. This sort of superrationalism demanding the control of everything by the superintellect however makes space open for the entire irrationalism.

The general acceptance of formal rules is according to Hayek the only alternative to the control dictated by the will of an individual. Here we must obey principles, which we can hardly understand and which were obtained through the influence of traditions, superstitions and religional confessions. The rationalist refusing all these habits and institutions, which were not planned consciously, becomes to the destroyer of civilization.

So, as the result must be based on the separated knowledge of many people and not on an unique set of the integrated knowledge there exists the conflict between the approach of the natural and the social sciences. The progress of natural sciences does not help to understand a wider process, here is the humanistic education necessary. The education oriented only on Science and Technology breaks down when we need to understand that we are only a part of the social process where attempts of many individuals are integrated.

Let us have a look to the evolution of the Czech thinking in the same period. In the 20th of the XIXth century finished Bernard Bolzano the first version of his book On the Best State. He came further than Saint-Simon when he proposed his concept as fully secular and not rooted in the ideology of a new christianism. On the other side his approach is closed in the limits of the utopistic thinking of the XVIIIth century with a little attention to the dynamics of the industrial mass production. He sketched a secularized christian-asketic ideal of the man in the tradition of the étatism of the Joseph the Second. For our point of view it is important that the building up *the best State* does not start from the complex process of the construction of the public opinion and the democratic decision-making but it is based on an optimistic fiction of the omniscient social intellect.

Later T.G. Masaryk often citizes Saint-Simon, e.g. *in the democracy as in the ruling of all to all no more the governing is significant but the administration and selfadministration*. (4). In the book The Social Question he recalls Eduard Bernstein, e.g. *democracy is the political form of liberalism*, where Bernstein the liberalism considered as an epoch-making movement the inheritor of which is the socialism. The purpose of the socialist movement is the free and educated personality as we can read in liberally conceived programs of social democrates since Bernstein until today.

In spite of the difference between positions of Bernstein and Masaryk they are connected through the refusal of the historical and economic fatalism and the resis-

tance against the shallow materialism without respect to the spiritual aspect of man, which becomes to the source of amoralism and indifference. In this way we find also in the Czech political thinking the universality of the claim for legal equality and for political and economic plurality likewise for the plurality spiritual. The Masaryk´s concept of citizenship and democracy corresponds to his idea of the civil government abolishing the supremacy and substituting it by the administration in the context of the parlamentary democracy.

The goal of the State gives Masaryk in his work World Revolution (1925) as follows: *Without general acknowledgement of moral fundaments of State and politics no State, no social organization can be administrated. The State violating the people´s basis of morality cannot hold... I repeat and I stress: the democracy is not only a form of State and administration, but also a view on life and world. The fundament of the State, as already Greeks and Romans said, is justice, and justice is the arithmetic of love* (4, 26).

The realism of Masaryk´s considerations about the democratic State resumes with a liberal defence of individual values and with a socialistic approach to the organization of the economic life in the sociologic realism, represented by Émile Durkheim. The defence against anomique social states was for Masaryk the morality.

The inheritor of the Masaryk´s concept of democracy in Czechoslovakia after the 2nd World War was the socializing democracy of Eduard Beneš. In antagonism to it was the national democracy of Klement Gottwald. This communist concept of the nation and democracy presented a mystification. Communists won the mass support not only by their program of the radical democracy, but also by the national program (6).

Nowadays, in the Czech Republic we restore the parlamentary democracy in the sense of a free-thinking State, which is to be built on moral fundaments. In new conditions we must solve the old problem of social homeostasis securing processes necessary for the stability of the inner environment of the society as a living organism. Practically it requires to complement the market by a control mechanisms.

We remember that the overtaking of a primitive dirigism according to the Soviet model during 1948 - 1989 was possible only after the betrayal of the Czechoslovak Communist Party abandoning the promised own Czechoslovak Communist Paarty abandoning the promised own Czechoslovak trajectory. The negation of the previous system since 1989 brought untill now no good form of homeostasis, rather a jungle from in a hurry basted laws and directives. The garancies for entrepreneurial activities are lost and an untransparent structure of ownership is built up. So, bankrupts of banks, propriety speculations and thefts in great dimensions occur, what troubles also the President Václav Havel.

In the future, our democratic system will be based on the market as a place for mutual economic interactions among free partners. With regard to the objection that the economic concept *laissez-faire* cannot prevent neither from moral decay nor from ecological catastrophy a new conception of the economic policy is necessary. It means that a program for compensation of failures in control mechanisms is needed. If we transit to a social market economy or towards another innovations of today market mechanism is the concern of intense discussions (5).

4. COMMUNICATION, DISCOURSE, UNDERSTANDING

The concept of *Reason* has been interpreted in different ways in modern times – from the narrowest to the broadest sense. In the narrow sense it is the logical reason in the sense of formal logic, mathematics and physics. This concept holds true not only for natural and technical sciences, but it is also often used as social physics (A. Comte). Only what allows mathematisation, calculation, or possibly construction of an axiomatic theory is often considered scientific.

In the broad sense, the reason then includes three components: the above-mentioned logical one, the ethical one, and finally the aesthetic one. Already two hundred years ago I. Kant demonstrated that ethics, morality and law are dealt with a special kind of reason which he termed practical and defined its limits in his Critique of Practical Reason. Since his times, ethics has not been understood as mere moralising, preaching, or scolding, but as independent intellectual principles and procedures, which include categorical and hypothetical imperatives, personal principles or maxims, duty, and responsibility of the individual.

Between the theoretical (pure) and practical (moral) reason, Kant placed another kind of reason – judgement, which is manifested in the taste, in the sense of harmony and matching, as well as in beauty and sublimity. Aesthetically expressive evaluation is not a capricious *drivel*, but it is again rationality *sui generis.*

Max Weber considered purposeful rationality to be the highest form of rationality for the capitalism of the XIXth and the beginning of the XXth centuries, finding it incorporated in the depersonalised and strictly functioning bureaucracy. In the 1980s, Jürgen Habermas proposed a concept of a higher than purposeful, i.e. communicative rationality.

In his concept, there are three demands on the communicatively acting persons, corresponding to the three components of the Kantian *Enlightenment* reasons:

1. demand of veracity (talking about the objective world),
2. demand of accuracy (talking about the social world),
3. demand of trustworthiness (talking about the subjective world).

In other words, one component of communication as exchange of information is truth (pure reason attempts to achieve it), the second component is accuracy (corresponding to the requirements of practical reason), and the third component is the trustworthiness of the participant of communication (it depends on his or her modesty, prudence, and decency, whether he or she wins and keeps our confidence).

The above-mentioned demands are further deepened in a dialogue, which can attain the form of professional argumentation, or a discourse. Here, besides the logical construction of speech, the so-called ethics of discourse plays a part. It means the culture of language, putting oneself into other people's place (intersubjectivity), acceptance of common standards of the discourse, etc. There is not space enough in the present paper to sufficiently discuss the third component – the aesthetic one, connected with the beauty and charm of the Czech, English, or any other colloquial language used in the discourse.

Understanding is thus supported by various components of speech, which can be termed as follows:

a) constatives, if they assert and logically deduce something,
b) regulatives, if they formulate the norms of behaviour more precisely,

c) communicatives, if they contribute to the comprehensibility of speech,
d) representatives, if they serve the purpose of self-representation of the speaker to the public.

In the real *world of life* (Edmund Husserl's term), the level of comprehensibility is accomplished above the level of organisations, which are more or less bureaucratised institutions (authorities, schools, firms, banks, etc.). Understanding on the basis of communication and discourse is evidently supported by social sciences, and the concrete ways by which understanding is developed are, for example, education (including school education), mass media, protest or other social movements, arts, and scientific criticism.

In the sense outlined above, for reasonable solution of social problems it is not sufficient to adopt some social technology (for the determination of subsidies, introduction of the wages scale, collection of taxes, care for the disabled and the elderly, etc.) but such social communication is necessary which will take into account the reason of man in the broad sense. This obviously opens the way for understanding of other components of the human personality (emotions, will, fantasy, etc.). And what is most important: we can thus resist dehumanisation of the world within us and around us!

CONCLUSION

We characterized the positivistic thinking as one significant source of elitarism in our period. The ability to handle technologically any problems without respect to economic, moral, ecological or cultural losses promotes many managers in industrial or unprofitable, governmental or nongovernmental organization to positions which they don´t merit. A wide net of contacts, connections and acquaintences fortifies the posts of technocrats and the positivistic procedures are required from all others. When these can not or will not obey, they are endangered by the fall in marginality, insignificance and redundance.

References

1. Blackwell´s Encyklopedy of Political Thinking (in Czech). Proglas, Brno 1995.
2. Dahl, R. A.: Democracy and Its Critics. Yale Univ. Press, 1989.
3. Jodl, M.: Teorie elity a problém elity. Victoria Publ., Praha 1994.
4. Masaryk, T. G.: Světová revoluce. Čin, Praha 1936.
5. Vítek, M.: Politická filosofie. VŠP, Hradec Králové 1994.
6. Znoj, M.: K Šabatově novodemokracii. Listy, 2:33-37, 1997.

Resumé

Systémový přístup ve výchově k občanství

Systémový přístup je nezbytný nejen ve speciálně pojaté výchově k občanství, ale též ve zobecněných koncepcích matematiky, biologie, psychologie, sociologie a dalších školních předmětů. Výklad systémového přístupu je možný v samostat-

ných disciplinách, např. v teorii systémů nebo systémovém inženýrství. Pochopení ucelených transformačních procesů v postmoderní společnosti, ve znalostní ekonomice nebo v interkulturní komunikaci se bez systémového přístupu neobejde.