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# Problems of conducting comparative research in education

Abstract: The author critically analyses the persistence in comparative pedagogy of such approach to conducting interdisciplinary and transdisciplinary research, inadequate to the state of integration of the sciences worldwide, and perpetuating the atomisation of the humanities and social sciences characteristic of the 20th century. As such, the author explains the reasons for comparative education to become more open in exploring education in its broader political, cultural, religious, legal and economic context. The discipline necessarily needs to consider the comparative nature of ideas, paradigms, theories, concepts or philosophies of education, to refine its diagnostic tools with respect to differences in the aforementioned contexts, and to refine theory maps and methods of comparative research thus minimising errors in comparison of what is, nonetheless, incomparable.

**Keywords:** comparativism, education, education systems, school reform strategies, education policy.

# Introduction

The analysis addresses methodological dilemmas of comparative research in social sciences as significant for educational comparativists. For over a century, not only Polish comparativism has been interested in education across different countries, cultures, political systems, etc. Unfortunately, a 'discipline-based thinking syndrome' (Węsierski, 2011, p. 113) still prevails, characterised by obstinate adherence to institutional and organisational divisions and atomisation of the social and human sciences and their preservation, adequately including the sub-disciplines of the sciences

developed within them. In the 21st century, the sciences fail to develop in accordance with their own specific object of study, their own methods and concepts, as they remain inseparable, despite the tendency, characteristic of the 20th century, for the sciences to become, supposedly, autonomous. Education, similarly to numerous other areas of public life and its management by state or local government or other sovereign social entities, is not an object of study for pedagogy exclusively, and international politics, with respect to this already atomised process, has lost its privilege years ago to separately address the comparative study of various problems of education in the countries selected by researchers.

Michał R. Węsierski aptly wrote: 'The condition of the separation between research areas is permanently disregarded and it is thus difficult to assess how each discipline could be assigned only its respective research object. The different classes of phenomena studied by anthropologists or sociologists are not inseparable from the classes of phenomena studied by ethnographers or historians' (ibid.). One might therefore pose a question per analogiam as to what would e.g. be the substantial difference between comparative education and political sociology, international studies or public policy, since each of these academic disciplines studies precisely the same aspects of differences and similarities in education policies around the world. Therefore, the maintenance of the supposed distinctiveness of the research object of comparative education, which is no longer adequate to globalisation and transdisciplinary movements of scientific knowledge, has no reason to be upheld any further. 'In the social sciences, as in the natural sciences, a partial overlap exists between the material scope (research area) of individual disciplines and the material fields (empirical systems) of co-extensional claims and correspondingly - empirical theories. In this instance, formulation of strict methodological directives with regard to determination of the research object of scientific disciplines becomes obsolete. There is value in addressing disciplines, to factor in their role in teaching as well as in organisation and institutionalisation of research, however, not when the function of science is in question. Theoretical knowledge serves to demonstrate similarities and relationships between phenomena, rather than to create barriers between subject ' (ibid., p. 114).

#### The specific nature of comparativist research

Indeed, comparativists conduct educational research in the world of global movement of information, data, access to educational reports or scientific literature related to current social thought. The tendency towards the international institutionalisation and commercialisation of educational diagnosis is becoming increasingly apparent, with the aim to incorporate comparativism into the stock of tools which are also useful for various purposes from the perspective of business and political authorities. This type of diagnosis concerns the public policies in the countries of interest to the researcher, which are also diverse. The most precise and, consequently, least debatable scope and opportunity for such research is geographical, territorial comparison. The problems, however, begin to emerge with contrasting value systems, cultures, religions, laws, etc. being involved. With open access to a wide range of research data, comparative research develops in several directions:

- within the framework of international agreements and joint research programmes which are co-financed by member state governments, e.g. OECD surveys – PISA, TIMSS, PIRLS, etc. (Dolata, Jakubowski and Pokropek, 2013; Piotrowski, 2006);
- 2. within the framework of international research projects which are funded by global corporations, non-governmental international organisations, supranational organisations, e.g. the Batory Foundation, the Soros Foundation, etc.
- 3. within the framework of interuniversity research projects, which are funded through national and international competitions, e.g. competitions of national research agencies, e.g. the National Science Centre and the National Centre for Research and Development (Gmerek; Melosik; Potulicka, 1993, 1996, 2014, 2017, 2019; Slowinska, 2007);
- 4. on the basis of individual or team initiatives of scientists within the scope of academic doctoral schools or the implementation of individual research tasks as part of scientific progression, e.g. to obtain habilitation or professorship (Kupisiewicz, 1995; Melosik, 1993, 1995, 2007; Murzyn and Śliwerski, 2020; Nowakowska-Siuta, 2002, 2005, 2007, 2014; Nowosad and Tomasik-Abdelsamie, 2020; Nowosad, 2022; Okoń 1997; Pachociński, 1999, 2004, 2007; Piwowarski, 2006; Wojniak 2019).

Comparativists also draw from conventional generators of data produced by state institutions, such as the annual and thematic reports of ministries, statistical offices or state archives. 'The comparative approach competes with the study of individual cases, whereas – contrary to the views expressed from time to time – it is not an alternative to the **statistical approach**. Quite the opposite, comparative analysis more often resorts to statistical methods, which is all the more advantageous since in causal analysis variables are selected more sparingly than in other comparisons' (von Beyme, 2005, p. 149). Some consider the initiatives of publicists, journalists, reporters, whose time abroad admittedly stimulates interest in foreignness, in diversity, although the nature of their analyses and narratives is superficial. However, they undoubtedly inspire researchers to generate new research projects or even to verify their own interpretations of the obtained data. Essential to comparative research is the selection of variables which allows for a reductive approach to possibly capture the essence of their international correlations. 'Those who reach for the statistical method are no less concerned with comprehensiveness than comparativists, who proceed in a descriptive and typological way and thus, every now and then, attempts to reduce the complexity of the comparative material are made through the introduction of super variables, the number of which in some cases is scaled down to seven' (von Beyme, 2005, p. 150).

Comparative education research is primarily concerned with the differences and similarities in the public policies of various countries, however there appear discrepancies between them due to the type of research, namely whether the latter is academic, scientific or perhaps oriented towards public policy. While the aim of comparative academic research is to find out the truth of a given public sphere, to gain a better understanding of it, in the case of comparative research in policy research and policy analysis, their aim is to change, to reform a specific area of public life (transport, health, education, culture, security, etc.). Arnošt Veselý (2007), therefore, includes in two research approaches of educational policies not only the difference in their main objectives, but also who their client is, how they are conducted, what is analysed, how the data collection takes place and what is the final product of such research (Table 1). By public policy, this author refers to '(...) the practice and theory of public policy in the sense of policy (public sphere). Policy studies comprise research activity, which is primarily directed towards the theoretical understanding of the policy-making process, and thus towards the management of the public sphere (policy). The analysis of the public sphere (policy analysis) is a practical activity aimed primarily at shaping the knowledge and methodologies used in the formation of real policy, and thus is oriented towards knowledge about the public sphere. The third focal point of this research is policy evaluation, understood as activity directed at valuing the effects and consequences of implemented policies' (ibid., p. 23).

	Academic research	Policy research and policy analysis	
main goal	understanding, establishing the truth	change	
client	unspecified, truth, public inte- rest	specific customer, policy actor (continuous communication necessary)	
method	explanation	valorisation	
subject of the analysis	field, discipline (e.g. transport system, etc.)	problem (e.g. overloading of public transport)	
data collection	extensive phase of primary data collection	often only a secondary analysis of the data	
end product	study, scientific or specialised article	analysis, plan, memorandum	

Table 1. Differences between academic research and public policy-oriented research

Source: Veselý, 2007, p. 27.

Therefore, it is necessary to reconstruct contemporary comparative knowledge for comparative education thus providing its representatives with an opportunity to conduct international inter- and transdisciplinary research on different dimensions of the function of education in the world and the obtained diagnostic results will allow for a more comprehensive, deeper description, reconstruction, analysis and explication of the data. The approach should include scientific disciplines in Poland such as, for example: sociology (sociology of education, sociology of politics, sociology of culture, sociology of religion, macrosociology), anthropology (cultural anthropology, philosophical anthropology), public policy (social policy), psychology (psychology of education, psychology of learning, intercultural psychology, social psychology), political sciences (geopolitics), international relations, research methodology (humanities, social sciences, natural sciences), legal sciences (educational law), economic sciences (macroeconomics), management and quality sciences, architecture (school architecture), art sciences (school design), etc. I do not elaborate on this issue at this point, as it requires a separate study. Instead, I indicate the necessity to compare inter- and transdisciplinary education. Educational policy is no longer the domain, let alone the exclusivity, of pedagogy as a science, as changes in the public policies of democratic states have marginalised scientific discourse allowing the governments to pursue their own public policies, among which

one sphere is education (Kloczowski, ed., 2021; Kurowska, 2011; Wołek, ed., 2021).

#### Comparativism of ideas, paradigms, theories, educational concepts

Contemporary comparativists are particularly interested in quantitative studies, however, in order for them to be used in the practice of governance in the public sphere, such studies should account for the context of the political system, the legal system (the dominant doctrine in such countries), the ideologies, theories and paradigms of social thought evolving or preserving their status quo in the governance of the state and this sphere. The 'geography' of social paradigms and theories, including educational ones, which constitute the overt and/or covert agenda of the political formation in power (a monist one or an ideologically heterogeneous coalition), may not be irrelevant for comparative research. The currents, concepts, ideological orientations moving to the centre '(...) are of the greatest importance for the Polish philosophy of theoretical foundations of education and pedagogy and the foundations of thinking about educational policy in the period of cultural breakthrough, as they directly address questions about education in a period of great changes and challenges' (Kwieciński, Witkowski, 1993, p. 5).

The shift in geopolitics probably also affects educational reforms in countries of different political, economic and even military communities. Polish education has also been included in comparative studies of the OECD, EU and NATO countries, at the same time providing citizens and politicians with access to scientific debates around ideological spheres, rather than merely to the measurement of school achievement or the efficiency of each state in solving the social problems of its citizens and their children. Theories of social sciences are not developed for a temporarily ruling political formation, as they are rooted in the history of thought in times of orthodoxy, heterodoxy, as well as heterogeneity, while educators reach for such a theory to either conform to or contest political correctness, or use theories or ideas which support their professional independence from political power. Thus, research activities of some are aimed at confirming the alleged legitimacy of existing educational policies, while others are interested in the scientific credibility of the studied processes, the changes taking place in education, regardless of whether it pleases the authorities.

Of significant value to contemporary comparativism is also the reconstruction of educational reforms in selected countries of the world, which Polish comparativists have conducted from the perspective of their chosen ideology and school reform strategy (Chłodna, 2008; Gmerek, 2005, 2007,

2011, 2017; Melosik, 1993, 1995, 2007; Potulicka, 1993, 1996, 2014, 2017, 2019; Suwalska, 2018; Nowakowska-Siuta, 2002, 2005, 2007, 2014, 2021; Nowosad, 2022; Murzyn and Śliwerski, 2020) or philosophies of education leading in other countries (Godoń, 2012; Kohlberg, Mayer, 1993; Melosik, 1993; Szkudlarek, 1993, 2017; Szkudlarek and Śliwerski, 1991; Witkowski, 1993). The development of this field of comparativism is essential insofar as it allows to avoid the subordination of national discourses and theories to the dominance of American approaches, which almost completely neglect the participation of scholars from European countries, especially post-socialist ones, even though educational philosophies or theories emerge in an increasingly visible manner and are remarkably similar to each other. Klaus von Beyme writes about the dominant tradition of thought in the social sciences back in the 1980s which were subjected to the typology of thinking styles developed by the Norwegian sociologist, Johan Galtung. In the light of these analyses, a Gallican style based on linguistics and the arts was developing in comparative science in France, a Teutonic style combining Marxism with a systemic theory of the control of social change was dominant in Eastern European countries, and a theoretical style, following the tradition of Anglo-American pragmatism with a clear liberation of science from the influence of political ideology on the public sphere, prevailed in Britain.

'Comparative studies of political science in the US and Europe suggest that globalisation of this discipline has not yet progressed to a great extent, notwithstanding the dominance of US theories and methods. In many European countries – apart from the UK – political scientists have easier access to institutions of power and the media. They still prefer – like Canadians, for example – to publish in European journals. There is also a different distribution of tendencies with regard to theory construction. Americans continue to emphasise the individual first and foremost, while the approaches of Europeans are more diverse, with political science reflecting the state of political systems, which are a mixture of liberalism, corporatism, consensual democracy, elitism, populism, statism and socialism' (von Beyme, 2005, p. 26).

At the beginning of the transformational breakthrough in Poland, Zbigniew Kwieciński emphasised the necessity of restoring courage and seriousness to education with regard to undertaking research problems, comparative ones as well, interrupting the mimetic games, especially characteristic of scientists in a totalitarian state, which boiled down to '(...) the shaping of minds, worldviews and competences appropriate for the tasks of education and upbringing defined outside of it (education – added by the

author), externally' (Kwieciński, 1993, p. 7). While three decades ago, one could complain about the lack of recognition by a large part of scientists of the multiplicity of educational theories in the world of developed democracies and social sciences, now, at the end of the first quarter of 21st century, Polish education has already experienced the state of knowledge deficit, limitations, unawareness in this regard, but has become involved in the joint creation of paradigm and theory maps, which also enrich the state of global knowledge with Polish sources of thought, its diverse currents (Śliwerski, 1998, 2009; Witkowski, 1998; Wołoszyn, 1998).

Polish comparative education has managed, in the span of over three decades, to catch up, as well as expand its knowledge of the state, scope and typology of maps of contemporary educational theories in the world and their related critical meta-discourses. The globalisation of the 21st century has fostered an acceleration and internationalisation of research evidence in this area, and thus it is considerably harder for authorities to manipulate data from comparative empirical studies concerning the state of educational reforms in different countries, their determinants, the applied strategies and outcomes. One indisputable point is that in the realm of ideas and theories it is impossible to claim they are comparable.

The need for comparative research should concern every scientific discipline - as literary scholars emphasise the importance of such research, not only for Polish science - to enable (...) the search for tools for understanding the multilingual and multicultural world, experiencing a period of real flourish in Poland along with Central and Eastern Europe, as a result of the growing interest in translation, cultural phenomena of contact, interference and hybridisation connected with the global movement of people and symbolic capital. Nowadays, these movements have an unprecedented impact on the functioning of individuals and communities of all kinds, raising questions about the mechanisms of identity identification, domestication and alienation, which are also accompanied, to some extent, by various forms of institutional consolidation of comparativism (...). Undoubtedly, it is worth seeing them in the perspective of the powerful socio-political transformations, which have emerged in the entire region subjected to decades of communist ideology, whose influence restricted the freedom necessary for all kinds of comparatist endeavours, excluding even the domestic academy from those intellectual and existential opportunities available to the world behind the Iron Curtain' (Bilczewski and Hejmej, 2022, p. 13).

The participation of Polish comparativists in international research projects brings multifaceted benefits, as it contributes to accelerate the

liberation of Polish educational thought from constraints, its marginalisation, undervaluation or isolation, which, as a result of censorship, deprived them of access to the foreign literature of Western European countries. In the exchange of data and research results it is possible to produce knowledge which allows us to understand each other better. The contribution of domestic comparative scholars is crucial from the perspective of further development in this discipline of knowledge, the identification of correlations of Polish experiences with foreign ones, and, thanks to the participation of scholars, entirely new situations, events or project experiences, exchanges of personnel and translations of scientific publications. 'This peculiar situation undoubtedly led to a particular indulgence in inspirations, which other geographies have already treated as well assimilated, and at times as slightly outdated, however, it also gradually made us aware of the necessity of what is characteristic of the cultures in the region - its micro- and macro-history- with the heritage comprising places, communities and perspectives on human creative activity' (ibid., p. 14).

#### **Comparativism of diagnostic tools**

Petra Anýžová had addressed the problem of comparability of attitude scales in comparative research in her study (2015). From the methodological and analytical perspective, they must, at the very least, provide intersubjective communicability, to ensure that an interview or opinion poll conducted with respondents is equally understandable to all interviewees, regardless of their country of origin, their nationality, etc. The author therefore analyses the conditions that must be met at the stage of conceptualising research and creation of diagnostic tools to measure the attitudes of respondents. A significant barrier in this matter is the indisputable fact that '(...) no nation is homogeneous in the sphere of its citizens' linguistic resources, modes of expression, level of education, etc., therefore every variable in a questionnaire is always exposed to the risk of prior measurement error, which the researcher must take into account in the course of statistical inference, data analysis and interpretation. (...) The vast differences in language, culture and in the social structures of individual countries make international research analytically valuable, but at the same time pose a fundamental obstacle to the comparison of theoretical concepts and their indicators between the studied communities' (Anýžová, 2015, p. 13).

It does not mean that international comparative research should be discarded because of methodological criticism, when efforts can be made to jointly discuss the various possible variants of diagnoses and to subject them to research practice transparent to the organisers. There is no doubt that the results of carefully conducted research may have significant implications for the social, public and policy practice of the participant countries. Therefore, the key in this approach is to ensure that the completed measurement is not based on unreliable, flawed data analyses which may lead to negative consequences within society (ibid., p. 13-14).

Undeniably, to conduct cross-national comparative research on the directional personality traits of respondents, i.e. their attitudes, values, aspirations, goals, motivations, spirituality, etc. is incredibly difficult. However, the fruitful practices adopted in this area determine that the diagnostic tools developed may also be applied within the framework of domestic, inter-regional differences between people in precisely the aforementioned spheres. According to Anýžova it is essential that the variables studied are equivalent to each other, that they are operationalised, so they could be comparable despite the differences in time, population and methods of measurement. 'Already in the definition of equivalence, three different levels of comparison are included: 1) comparability of the theoretical concept, 2) comparability of the variables under study, 3) comparability of the scales of their measurement, i.e. the response categories. For the most part, comparability of measurement could be achieved by the fact that respondents, despite their different backgrounds, cultures and social situations perceive, understand and interpret a given concept, a set of possible answers, measurement scale completely similar or at least in a highly similar way' (ibid., p. 21).

In her study, the author demonstrates how differently the same concepts may be understood not only in different countries, but also within a given country when, for example, for some 'traditionalist' means being a Catholic and for others a history-oriented citizen. The same is true for the frequency scale of perception of a given attitude or behaviour. While for some a frequently practised activity takes place e.g. every day, for others it may mean once a month. Therefore, everything is culturally contextualised, in terms of customs, but also geopolitically or due to temperamental differences. After all, a choleric and a phlegmatic react differently to certain stimuli. The situation is similar in school achievement tests. In some countries, the highest mark is 1, while in Poland it is 6. This may therefore affect the approach to the scale of attitudes towards certain variables.

For educational comparativism two research strategies may be relevant, their source being contemporary anthropology. Indeed, the study of foreign cultures may be carried out with an ethical approach (core items, culture in general), i.e. taking into account the external and objective aspect of the studied culture, e.g. the study of school cultures, or in an emic approach (cultural specific items), with the emphasis on studying a given culture from the inside, referring to the internal organisation, its functioning behavioural patterns, the distinctiveness of the students' mother tongue, etc. (Anýžová, 2015; Zielinska-Pękał, 2014). Thus, the technique of translation of the attitude scale or survey questionnaire into the national language of the respondents drawn for the study turns out to be instrumental. European comparative research in the social sciences uses the TRAPD method – Translation, Review, Adjudication, Pretesting (preferably involving bilingual people) and Documentation (Anýžová, 2015, p. 34).

Anýžová compiled selected statistical techniques to verify the equivalence of attitude scales in a table, which is quoted below for Polish comparativists to have access to the results of her literature search:

Method	Relevant variable type	Empirical study – application of the method	
Exploratory factor analysis	Ordinal and nominal variable (CATPCA)	Welkenhuysen – Gybels, Van de Vijver 2001 (construct equivalence)	
Testing scale reliability	Ordinal variable	Devins et al. 1997 (translation equivalence)	
Multidimensional correspondence analysis	Ordinal and nominal variables (graphical method)	Blasius, Thiessen 2006 (construct equivalence)	
Multidimensional scaling	Ordinal variable (graphical method)	Braun, Scott 1998; Fontaine 2003 (construct equivalence)	
Multilevel modelling	Ordinal and nominal variables	(conceptual equivalence)	
<ul> <li>Structured modelling:</li> <li>Structural modelling</li> <li>Multilevel structural modelling</li> <li>confirmatory factor analysis</li> <li>MTMM design</li> </ul>	Ordinal and nominal variables	(Configuration, metric and scaling equivalence) Mullen 1995; Billet 2003; Byrne, Watkins 2003 Van Hemert et al. 2002; Van de Vijver, Poortinga 2002; Davidov et al.2012 Hsueh et al.2005; Lievens et al. 2007; Davidov 2010 Saris 2003; Saris, Gallhofer 2007; Revilla, Saris 2011 (conceptual equivalence)	
atent class analysis Ordinal and nominal variables		Kankaras, Moors 2009 (configural, metric and scaled equivalence)	
Response theory	Dichotomous variable, ordinal variable	Wang, Russel 2005; May 2006; Woehr, Meriac 2010 (equivalence of translation and scales)	

 Table 2. Selected multilevel statistical techniques for testing equivalence of attitude scales

Source: Anýžová, 2015, p. 41.

The equivalence of the measurement of opinions, attitudes, beliefs, i.e. directional characteristics of respondents must not be treated in the light of descriptive statistics as a true value. The latter, in the case of this type of latent variables – as it is impossible to determine them objectively, '(...) does not exist, there are only answers of respondents in accordance with their perceptions of the subject of the survey' (Jabkowski, 2015, p. 25).

# Theoretical positions and methodological approaches to the construction of theories for comparative research

In social sciences, theory maps have been developed to identify the school reforms introduced in individual countries together with their possible political, legal and sociological origins. Each of them allows one to notice the influence of ideas on the designed and implemented educational changes, which at the same time serve to diagnose their consequences, their effects on an international scale. The liberation of Polish education from Marxist orthodoxy has obliged educators to expand their knowledge of the geography of thought, its theories and paradigms. It also fosters the debate on the relationship between what is in the centre of the attention of authorities and what is brought by the latest scientific findings, which – if pushed to the periphery – will become a deferred necessity for changes in the educational processes of the younger generations, together with a sense of lost time.

The institutionalisation of practices aimed at creating new, more beneficial, effective, and prospective educational solutions takes time and political will, thus comparativists should at least be read by those in power and political elites, including those in the opposition, to foster the right systemic solutions. The complacency among educational practitioners with regard to reading popular scientific works by foreign authors, teachers, pedagogues, psychotherapists or counsellors of various sorts under the influence of the publicity they receive as allegedly outstanding, as they sell millions of copies worldwide, results in inadequate implementation of para-scientific solutions in the Polish reality concerning education at school or beyond. Practitioners and government authorities are both susceptible to marketing slogans, preferring them over useful products of scientific thought and profound knowledge of the actual conditions of learning and self-development processes. Meanwhile, educational thought is constantly vibrating, changing, joining or leaving a particular current as a result of developing new research paradigms with far-reaching consequences or as a result of criticism of previous approaches to education.

In the process of comparative research, for example, different goals may be pursued with regard to the formulated objective, the research problem and the adopted object of research.

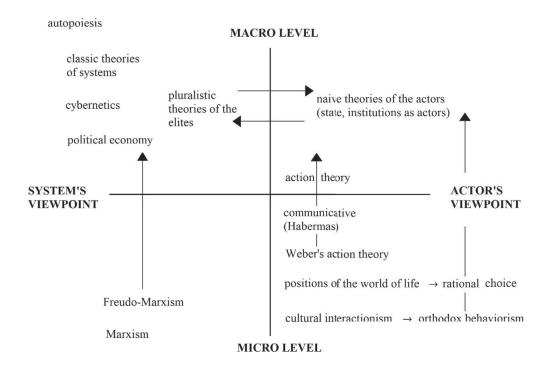
	1.	2.	3.	4.
Objective of the comparisons	Description	Explanation	Evaluation	Forecast
Research qu- estion	How do the school systems of selected countries differ?	Why do they differ?	What role does national education policy play in the process?	What can we learn from others?
Research object	Ideology of the government, law, state system, school system, educational system, educational paradigm	Extra-school factors, intra-school factors, entity factors	Effects and con- sequences of educa- tion policy	Synergy of factors contributing to quality education

Table 3. Objectives, problems and object of comparative studies

Source: own elaboration based on Geissler, Mouralová, 2011, p. 178.

# Political maps of theories and methods of comparative research

Of particular interest in the political sciences is a map developed by Klaus von Beyme, combining theoretical positions with methods for constructing theories and comparative studies on the application of such theories in practice, which is also significant from the perspective of noticing the peculiarities of the educational reforms carried out in the given countries. The four-field diagram reflects a matrix of theoretical positions intersecting on the axis of ordinates and abscissae, which make the starting point the macro- or micro-perspective and the systems approach that is inscribed in it – the macro-system viewpoint or the entity approach – the author's perspective (von Beyme, 2005, p. 28).



**Diagram 1.** Theoretical positions and methodological approaches to theory construction (source: von Beyme, 2005, p. 28)

Taking into account not only the political regime of the compared systems or educational reforms in the different countries, but also the place in which the authorities' approach to educational reform occurs at a given time, that is, whether a top-down strategy is applied, which is characteristic of a macro-, statist educational policy perspective, or whether the school system is open to micro- or meso- strategies of school reform, of grassroot educational innovation? However, this does not exclude the necessary polar variables to be accounted for, as there remains the point of view permitted by the authorities, which is either systemic in nature or enables the implementation of changes from the perspective of their actors (teachers, parents, pupils). 'In the light of *autopoiesis*, the comparatist of the old school will appear to be a fool, for he strives for the impossible, as he wants to understand that which is diverse and whose code he has not sufficiently explored, or tries to adapt to the system with what is completely foreign to him. Within the circle of autopoiesis there is ultimately no understanding (...). The suggestion that systems could learn one from the other is ultimately reduced to code-compliant adaptations. Only where systems are controlled by the same code can the adaptations be recognised at all' (von Beyme, 2005, p. 135).

According to K. von Beyme, the 20th century and the beginning of the 21st century are characterised by the vestigial or systemic inclusion or grassroot participation of educational actors in changes therein, which may serve elites, ideologues or the satisfaction of the needs of those for whom the schools were established or foster a movement towards the viewpoints and interests of both the system as well as the actors. 'Comparison has become of greater significance in the science of politics than in any other social science from the time when science of the state is concerned mainly with national systems, sociology has concentrated on relationship charts and is barely concerned with society as a whole, and economics has replaced comparisons with mathematical models. The danger of such a situation is for political science to be labelled the 'comparative science of governments', a label that is sometimes applied to studies that do not even attempt to make comparisons, but only involve foreign countries. Therefore, a distinction must be made between the comparative method and the subject scope' (ibid., p. 132).

One might wonder whether the trend towards uniformity of the world or its parts, which intensifies as a result of globalisation, should also lead in the course of comparative research on the school achievements of children in different countries, to a standardisation of school systems and the educational approaches applied within them, or whether educational comparative studies should encourage a tendency towards autonomy of school systems in accordance with their national conditions and cultural codes? According to K. von Beyme: '(...) postmodern theoretical positions have grasped something essential for the future: as the world is becoming more equal, the more radically **the method of differences** has to be applied in the search for persisting dissimilarities. It is only postmodern thinking that has established the primacy of this method over the search for similarities, thus also in this respect it must be considered more a culmination of modernity rather than its defeat' (ibid., p. 136).

The policy of the European Union allows the member states the right to decide for themselves on solutions in, among other things, the sphere of education, though at the same time promotes the funding of research, whose subject matter will serve to harmonise educational practice in preschool and school education in the spirit of so-called good practices, which are the subject of international cooperation and exchange between teachers, pupils and authorities responsible for funding this public sphere. Educators should have a closer look at the methodological approach in comparative political science research, which draws attention to such dangers or methodological pitfalls as the preference for macro-political considerations over smaller

units; the application of national or ideological biases in the context of using statistical data to remain faithful to political correctness or the interests of the party in power; the concealment or reduction of the importance of real political variables; the failure to see in publicly available government data the manipulation or even falsification of reports by institutions subordinate to the government, the omission of hidden functions of aggregated data or the deliberate disregard of systemic differences, and the pseudo-strictness of quantification (ibid., pp. 154-155).

A systemic approach in comparative research makes us aware of the need to recognise the boundaries, beyond which the environments/surroundings exist, affecting the education system in each of the countries studied. 'With the adoption of a systemic approach, these will include among others: the ecological, biological, personal and social system, encompassing the cultural system, the economic system, the demographic system and the social structure. The external surroundings, on the other hand, consist of components outside the state/EU and society, i.e. the international system. With the last system being the object of the study, by contrast, its surroundings will consist of the environment of the international system, which conditions its manner of functioning' (Szymanski, 2010, p. 164).

#### Comparing the incomparable

Dalibor Antalík formulates a question which is crucial for comparativism: 'Is there a single comparative method, since in the human sciences scholars tend to make different types of comparisons? (...) Humankind has striven and continues to strive for some sort of a 'natural' comparison even without a deeper reflection on the principles and internal logic of such procedure. It might be possible that the centre of the problem here is the oldest, most archaic and at the same time widely spreading intellectual skill. In the more or less developed disciplines of past and contemporary sciences, we will mostly encounter comparisons existing within them' (Antalík 2005, p. 9). On a daily basis, everyone compares and is compared with others as well. The more cultures, faiths, organisations, etc. we discover in the world, the more difficult it becomes to compare them, because the criteria and methods for this comparison become problematic. While it is simpler to find similarities without arousing conflict, suspicion or hostility, it is considerably more difficult or even dangerous to show significant differences between the studied phenomena, since every fact, idea is simultaneously subject to evaluation.

The reports on the state of education published by governments or their agencies are therefore not a reflection of the processes actually underway in education, but rather constitute a register of legal regulations, 'censored' data or the methods of their collection (Śliwerski, 2019) in order to ensure their political correctness. Any research that unveils appearances, the cognitive dissonance between the state as advocated, idealised by the authorities, and the implemented situation, also raises barriers limiting access to sources and even opportunities for field or institutional research out of fear of the political consequences of revealing the hidden agenda of those in power. The comparatist from outside the country, but from within as well, may be unaware of the different kinds of games, conflicts or trades happening in relation to education or education policy in the various arenas of the education system, where, in the case of coalition governments, there is pressure to impose own approach by one of the parties forming the coalition or in opposition to centrally decided solutions.

'The comparative method assumes the systematic comparison of empirical data on individual political phenomena. It allows for the elimination of erroneous hypotheses concerning uniqueness of the cases that have occurred and extraction of the real causes of specific features of a given social system, be it a single state or the European Union. The three dominant types of comparative analysis are case study analysis, systematic comparison of a limited number of cases and global statistical analysis. It is particularly useful to compare the systems that are most different from each other or most similar to each other, with the latter approach being more popular' (Czaputowicz, 2010, p. 263).

However, what occurs in works of comparative studies on education, is elimination from some reports of data concerning their immediate context (Śliwerski, 2015). Another threat to the comparability of data in these studies is an insufficient understanding of the metalanguage, the metaphors that function in a given society, its cultures, which also have their own language, symbolism. With such a plethora of data on the global education of children and adolescents, and thus an inflation of source materials, the question of the criteria adopted for their selection must be answered in the first instance. As a consequence of the reduction of sources and the difficulty to verify their level of reliability, one realises that the comparison is made between what is in fact incomparable, and yet, there still are differences in the methods used to obtain the data and their compilation. Only due to differences in the religious sphere, attitudes towards the faith of parents and teachers of children or adolescents, would it be necessary to include in comparative studies those comparative methods which are characteristic of religious studies or due to differences in the political systems of states.

As a result of globalisation, diffusion of ideas, methods, and data is also taking place between the disciplines of the social sciences and humanities, which undoubtedly enriches both of them, as well as hinders the ability to discern their key phenomena. It should not be irrelevant for the comparison of achievements of pupils, educational programmes, education funding, training, working hours and gratification for teachers in different countries, etc., what is the political system in those countries, the extent of the rights of educational entities and fundamental civil liberties, the economic development of the country and financial investment in education, social, cultural or religious changes. 'It is obvious - Antalík writes - that any comparative endeavour implies the need to define the object of comparison and to determine the scope of its application from the beginning. Thus, it is logical for another set of problems to unfold. Firstly, they concern the boundaries, the limit of comparisons. Is it even possible to propose models of attitudes, perceptions, actions, etc., which would address sufficiently the history and different cultures? Patterns which would be transhistorical and transcultural?' (ibid, pp. 17-18)

The consequence of the integration, as well as disintegration processes in the countries of the European Union, countries belonging to other political-economic and military communities, along with global and open communication in cyberspace, is that non-territorial participants and actors, who do not represent the interests of their own country or society, also appear in the educational sphere of individual countries and societies. 'In the environment of the continually progressing internationalisation of various aspects of the functioning of nations and states, they are becoming not only more numerous but also increasingly influential participants in international relations. Barry Buzan called them 'human collectivities', to emphasise the difference in their nature from states and state-created organisations. New actors give a new character to international relations, in which the role of states is relatively diminished, thus reducing the usefulness of the realist theory to study these complicating international relations' (Wierzchowska, 2010, p. 33).

Comparativism, arguably, plays a significant role as a defence against social amnesia and confusion of concepts in the consciousness of societies (ibid., p. 14). One cannot demonstrate the equivalence of what is unsimilar when the social systems of different countries are incomparable with each other. Researchers come across diverse state and social structures – from authoritarian, dictatorship, monocultural ones, from closed to multi-party ones, to those which are multicultural, open. It is not without significance what are the results of parliamentary elections in countries where education reform policies are pursued in a top-down strategy affecting the ideological dimension of the education process, the extent to which it is funded, bureaucratised and legalised, e.g. the autonomy of teachers, the socialisation of education policy, the perpetuation of the class and classroom system, the subordination of the ideology of the party to the authority of the curriculum bases of general and vocational education, etc. Phenomena that are neither completely identical nor completely different may be compared, thus comparative education faces a difficult task. To establish any similarity between the educational achievements of countries with different system solutions and cultural differences is by no means easy. The aforementioned dilemmas do not mean that we should refrain from conducting comparative research or that there is no use for it. 'As the French saying proclaims: 'comparaison n'est pas raison', comparison does not equate to evidence' (Antalík 2005, p. 22).

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