

Adick, Christel

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formal überarbeitete Version der Originalveröffentlichung in:

formally revised edition of the original source in:

Comparative education 54 (2018) 1, S. 35-48



Bitte verwenden Sie in der Quellenangabe folgende URN oder DOI /

Please use the following URN or DOI for reference:

urn:nbn:de:0111-pedocs-280509

10.25656/01:28050

<https://nbn-resolving.org/urn:nbn:de:0111-pedocs-280509>

<https://doi.org/10.25656/01:28050>

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Publication data of the following article:

Adick, Christel (2017): Bereday and Hilker: Origins of the 'Four Steps of Comparison' Model:

- In: Comparative Education; online (Nov., 2017).
- Print-Version (2018): Comparative Education, Vol. 54 (2018), 1, pp. 35-48.
- <http://dx.doi.org/10.1080/03050068.2017.1396088>.
- Reprinted (2019) in: Manzon, Maria (Ed.): Origins and Traditions in Comparative Education. London/New York: Routledge, pp. 35-48 [ISBN: 978-0-367-25361-5] [<https://www.routledge.com/products/9780367253615>].



Bereday and Hilker: origins of the ‘four steps of comparison’ model

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ABSTRACT

The article draws attention to the forgotten ancestry of the *four steps of comparison* model (description – interpretation – juxtaposition – comparison). Comparativists largely attribute this to George Z. F. Bereday [1964. *Comparative Method in Education*. New York: Holt, Rinehart and Winston], but among German scholars, it is mostly attributed to Franz Hilker [1962. *Vergleichende Pädagogik*. München: Max Hueber]. Who, then, is the rightful author of the model? This article attempts to answer this question. The methodological approaches of the two authors will be compared and contextualised in respect to their academic lives, especially through the 1950s and 1960s. Hilker and Bereday both referred to each other’s publications on several occasions, which indicates a close communication between them. In contrast to the Anglophone dominance of scientific journals today, their way of practising comparative education was multilingual. Their cooperation with the nascent national academic associations of those times is also examined. Finally, the epistemological characteristics of the *four steps* model, including its limitations, and value for the field of comparative education today, are evaluated.

KEYWORDS

George Z. F. Bereday; Franz Hilker; methods of comparison; methodology of comparative education

Introduction

This paper aims to reveal the origins of the *four steps of comparison* model (description – interpretation – juxtaposition – comparison) attributed either to George Z. F. Bereday (1964) or to Franz Hilker (1962). The answer seems to be that both may be called the progenitors of this model. Hilker seems to have been the first to canonise the four steps and to have given them their final terminology: description, interpretation, juxtaposition and comparison. This was evidently approved and taken up by Bereday, who in turn authored the visual model widely familiar from the international literature. Over time, Hilker’s contribution to the model seems to have been forgotten in the scientific community, possibly because his publications were written in German. He has disappeared from references in the international (Anglophone) literature, but – what is even more vexing – his part in the origin of the four steps of comparison is no longer mentioned even in recent German literature.

The (alleged) authorship of the *four steps of comparison* model: a brief survey of the literature

Maria Manzon (2007, 86–87) clearly attributes the *four steps of comparison* model to Bereday. She distinguishes between two main ‘purposes of comparison’ – interpretive or causal-analytic – and classifies Bereday’s approach as interpretive. Her text includes Bereday’s graphic model (cf. Figure 1) and highlights the fact that, according to Bereday, ‘the purpose of juxtaposition [...] was to establish a *tertium comparationis*, “the criterion upon which a valid comparison can be made and the hypothesis for which it is

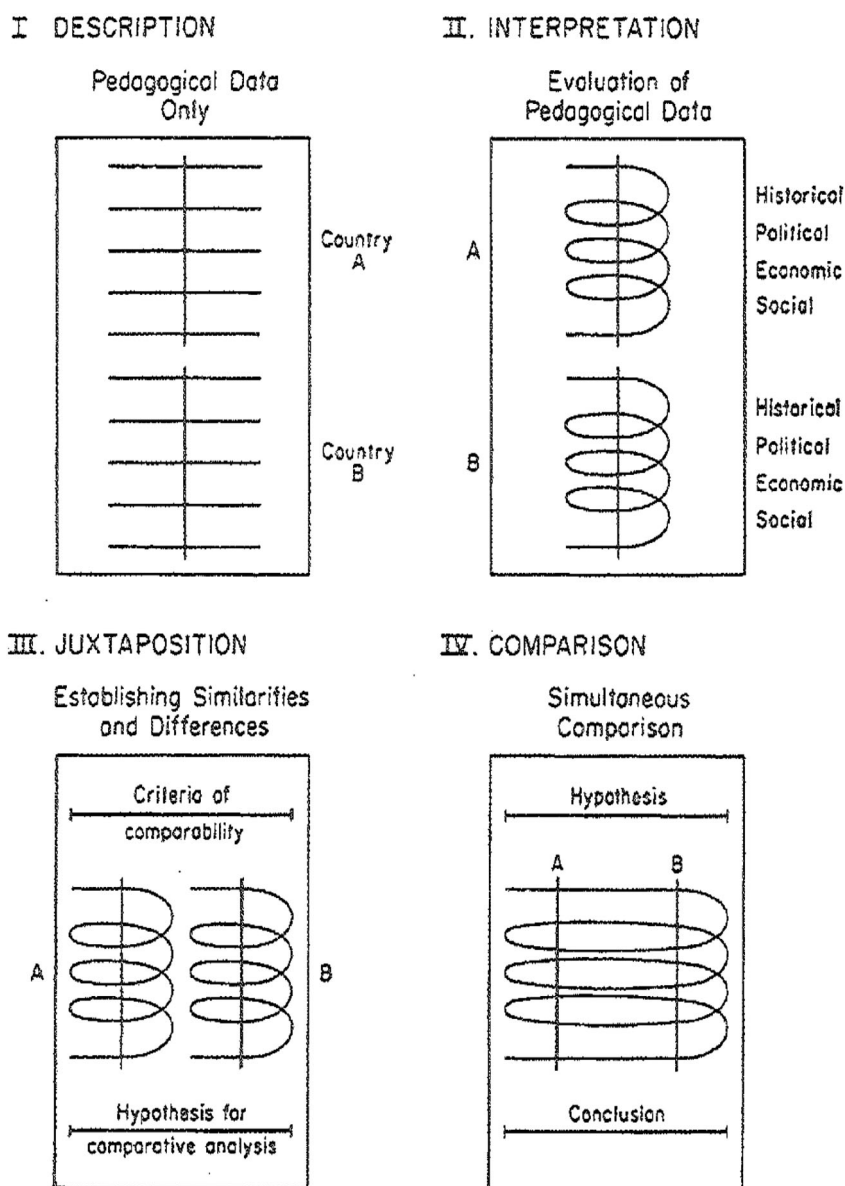


Figure 1. Bereday's model for undertaking comparative studies. Source: Bereday (1964, 28).

to be made". By contrast, I myself have discussed the four steps of comparison as Hilker's invention, referencing his book on comparative pedagogy¹ (1962, 106–126). I paraphrase Hilker's four steps, discuss the methodological limitations of the model, and highlight Hilker's concern for a *tertium comparationis* (Adick 2008, 144–147).

The point is that I do not reference Bereday, and Manzon does not mention Hilker. This is despite the fact that the missing works are both comprehensive books and not merely articles which one might have overlooked. This might suggest that the model is claimed according to language-group: Hilker in the German and Bereday in Anglophone literature. With English as the predominant language in the wider international scientific community, Bereday has become known as the originator of the model while Hilker's contribution has been forgotten.

As might be expected, Bereday's model is cited in publications on comparative education published in English (e.g. Bray 2004; Phillips and Schweisfurth 2014). Meanwhile, Hilker appears as the author of the model in German publications. In Stübiger's (1997) comparison of the relevance of Friedrich Schneider and Franz Hilker for comparative education in post-war Germany, he summarises Hilker's four steps without mentioning Bereday. The same occurs in follow-up research conducted under the auspices of DIPF (i.e. *The German Institute for International Educational Research*) on the first Programme for International Student Assessment (PISA) findings in Germany. The authors² explicitly refer to Hilker's model as their guiding principle (Arbeitsgruppe Internationale Vergleichsstudie 2003, 28). Yet Bereday is named as the author of the four steps model sometimes even in German language publications. For example, in his book on comparative education, Waterkamp (2006, 202–203) reports in detail on the methods and findings of Rothe (2001) who had studied professional education systems of Germany, Austria and Switzerland by explicitly claiming to follow Bereday's model, without mentioning Hilker. Likewise, Parreira do Amaral (2015) introduces the model as 'the comparative method according to Bereday' (114–117), mentioning only later in the text and in brackets only 'cf. Hilker 1962' (115), which seemingly suggests an attribution of the authorship of the *four steps of comparison* model to Bereday.

These examples suggest that most comparativists are unaware of the problems in their referencing only Bereday (or less often only Hilker) as the originator of the model. One exception is Jose Luis García Garrido, who attributes the model to both Bereday and Hilker in his introductory textbook (Garrido and Luis 1996, 148). Taking up this challenge,³ I began to look into the origins of the model in an article aimed at a German audience (Adick 2014a). The present contribution will build on this by including more information on the academic context of the *four steps of comparison* model, as well as biographical notes on Bereday and Hilker.

Hilker or Bereday? Hilker and Bereday?

Before reconstructing the origins of the *four steps of comparison* model, it should be understood that Hilker and Bereday knew each other. They seemed to have respected each other, read each other's works, and quoted and referenced each other on several occasions. This suggests that their relationship was cooperative rather than competitive or adversarial.⁴ With this in mind, it is surprising to discover that in his exploration of the four steps, Hilker (1962, 107–126) does not mention any previous works or

contribution by Bereday in formulating his model, even though Bereday is referenced in the text. Similarly, in Bereday's book (1964), the terminology *description – interpretation – juxtaposition and comparison* (the last two points are discussed together and not separately) is applied without any reference to Hilker (1962). Why is this? Bereday's book was published two years after Hilker's; it should be expected that he would have at least mentioned Hilker when discussing the model. Why didn't he? We will try to find out by looking into Bereday's book, as well as examining earlier publications for clues that might solve the puzzle.

Bereday (1964) begins his book by discussing the *raison d'être* of comparative education. He includes short reviews of the methodological contributions of historical figures in the discipline such as Marc-Antoine Jullien, Leo Tolstoy, Michael Sadler, Isaac Kandel, including the German authors Friedrich Schneider and Franz Hilker (1964, 7). He then discusses the 'area studies' approach under which he includes country studies. In a sub-chapter, he explicitly highlights first the challenges of *description* (1964, 11ff.) and then of *interpretation* (18ff.). In another sub-chapter on 'comparative studies' (21ff.), he jointly discusses *juxtaposition and comparison* (22f.) by presenting the *problem approach* of Brian Holmes (23ff. and footnote 24, page 269) and so-called *total analysis* (25ff.), which he defines like this:

Only after working on countless problems and doggedly accumulating experience in research should comparative educators turn to total analysis. The concern with the over-all impact of education upon society in a world perspective is the culminating point of the discipline. [...]. As in all social sciences, this final stage of the discipline is concerned with the formulation of 'laws' or 'typologies' that permit an international understanding and a definition of the complex interrelation between the schools and the people they serve. The total analysis, as the term indicates, deals with the immanent general forces upon which all systems are built. (ibid. 25)

From the structure of this chapter, we can say that, according to Bereday, *description and interpretation* are strongly connected with the idiographic type of area or country study. Meanwhile, *juxtaposition and comparison* are directed to focus on well-defined research questions (like the *problem approach*) or to extract and arrive at generalisations (laws, typologies as in the *total analysis*). Only at the end of this chapter does Bereday explicitly integrate both sets of arguments into:

First description, the systematic collection of pedagogical information in one country, then interpretation, the analysis in terms of social sciences, then juxtaposition, a simultaneous review of several systems to determine the framework in which to compare them, and finally comparison, first of select problems and then of the total relevance of education in several countries – these four steps (Fig. 3) point the way to the future for comparative education. (Bereday 1964, 27–28)

'Fig. 3' is his famous graphic illustration of the four steps (cf. Figure 1) which has often been reproduced in the literature (for example, in Manzon 2007, 86; Adick 2014a, 21; Parreira do Amaral 2015, 116 and elsewhere).

It should be remarked that the characteristic labelling of the four steps as they are known in academic discourse (*description – interpretation – juxtaposition – comparison*) do not stand out in Bereday's text in any way (e.g. as subtitles); only at the end of the elaboration are they epitomised as the headings of the four parts of the illustration (cf. Figure 1). We can note also that neither Bereday's summary of the four steps (quoted

above) nor his illustration (reproduced above) contain any mention of Hilker. However, a closer look at the footnotes of the chapter throws some light on the context in which the ideas originated. Bereday writes in his first footnote that he had already presented an earlier version of this chapter on several occasions and in different languages: in 1960 at the Sorbonne, Paris (French); in 1961 in Moscow (Russian), and in 1962 in Tokyo (English). Bereday then hints at a version which had been published in German for the *Festschrift* for Friedrich Schneider edited by Wolfgang Brezinka. He adds that he had already presented the contents of this chapter in lectures at different universities. From this footnote, it can be concluded that Bereday had produced some oral or written versions of his model since 1960, in any case before he incorporated them into his book. Would a written manuscript of his 1960 presentation at the Sorbonne in French still exist? Are any of such previous versions identical with his 1964 book publication? Had any of these lectures reached German scholars including Hilker? From when onwards did Bereday utilise the illustration? All these questions are left for future researchers to solve.

One piece of evidence connects Bereday with German; his contribution to the *Festschrift* devoted to Friedrich Schneider (the other internationally renowned German comparativist) (Bereday 1961a). This article was published prior to Hilker's book, and was known to Hilker who could have quoted it while writing his chapter on the four steps (Hilker 1962). After a short historical review, Bereday's article in the *Festschrift* presents, as he says, his 'own variant of comparative analysis', which consists of 'two steps' titled 'area study' and 'comparative study' (1961a, 145), each of which is then subdivided into two sections: area study contains (a) the 'geography of education' and (b) the 'application of other social sciences'; while comparative study consists of (a) the 'problem approach' and (b) 'total analysis' (145–159). This pattern can be interpreted as a forerunner of the chapter in his book as depicted above. But there is a certain inconsistency in that Bereday speaks of 'two steps' at the beginning of his article, whereas in resuming his argument at the end, he speaks of 'these four steps of processing' which lead comparative pedagogy into the future (159).⁵ It is also important to note that throughout the article, there is no mention of the terms *description*, *interpretation*, *juxtaposition*, *comparison* and so at that time Bereday did not (yet) associate these terms with his nascent 2 × 2, i.e. four steps.

The answer to our question becomes clearer when we consider further Bereday's book (1964) in which he references Hilker in respect of the four steps, if only in the second chapter (i.e. *after* he has presented the model in the first chapter). This second chapter compares school reforms in France and in Turkey by applying the concept of comparison. Its first extensive footnote is important in that it reads:

An earlier version of this chapter was read as a working paper at the second annual eastern regional conference of the Comparative Education Society on April 29, 1960 at Teachers College, Columbia University. It was published in German in *Bildung und Erziehung* as 'Schulreformen in Frankreich und der Türkei – Versuch einer systematischen Vergleichung', Vol. 14, Heft 4 (April 1961), pp. 246–258. The four steps of classification of procedure first proposed in that article were later happily named by Franz Hilker in *Vergleichende Pädagogik* (München: Hueber, 1962) as *description*, *interpretation*, *juxtaposition*, and *comparison*. That terminology (in part derived from other writers in the field, such as Pedro Rosselló) has been adopted throughout this book. (ibid. footnote 1, 270)

This means that in his earlier publications, Bereday (1961a, 1961b) operated with 'four steps', but without the terminology as we know it – which came from Hilker's book, in

which Hilker himself attributed the term ‘juxtaposition’ explicitly to Rosselló (Hilker 1962, 121). Bereday sanctions the concept and adopts the terminology by applying it throughout his 1964 book. At the end of his treatise comparing school reforms in France and Turkey, he resumes his acknowledgement of Hilker’s work:

If instead of off-the-cuff comparisons, students of comparative education forced themselves first to tabulate pedagogical data for each country, then to interpret the data in the light of other social sciences, then to set them side by side to determine their comparability, and finally directly to compare them, they would reach, what Franz Hilker urges as the ideal, ‘a clarity of personal grasp and an elevation from subjective understanding to objective precision’. (Bereday 1964, 51)

The adjacent footnote in his book (Bereday 1964, footnote 12, 271) refers to an earlier article by Hilker (1957, 618). This hints that the origin of the concept dates back much further than would be expected if one only reads both authors’ books from the 1960s.

It must be stressed that Hilker also referenced Bereday’s (1961b) German article on school reforms in France and Turkey while describing his own model. He credits Bereday when utilising ‘a steps model’. He then paraphrases the headings that Bereday used which, however, were not yet identical to those Hilker (1962) established in his book and as we know them today: *description – interpretation – juxtaposition – comparison*.

This leads to the question: where did Hilker get these categories? In Hilker’s 1957 article (referenced in Bereday’s 1964 book), Hilker posits that to compare would involve ‘different steps’, and he begins with an elaboration of ‘the first step’ (1957, 614). But then he seems to forget this in what follows: the term ‘steps’ never appears again, although it is shown (by numbering) that he operates with three points, i.e. ‘steps’. There is no mention of a fourth point or ‘step’ nor of the later terminology – which shows that the concept had not yet been developed in 1957.

As for the question ‘Hilker *or/and* Bereday?’, we can say that their concepts of the four steps of comparison were *parallel developments*; neither plagiarism nor independent inventions. The concept-building spanned several years, grew out of preceding lectures and articles by each, and entailed mutual references to each other’s publications. While the *graphic illustration* of the model is clearly Bereday’s contribution, the canonised labelling *description – interpretation – juxtaposition – comparison* stems from Hilker’s concept, and was only imported into Bereday’s writings when he formulated his graphic model.

Bereday and Hilker: some notes on their biographies and achievements

We will now look at what the two scholars shared in common and at how they differed, and so contextualise what has been discovered about the origins of the *four steps of comparison*.

To begin with the differences, the authors belong to two different generations. Hilker (1881–1969) was born in the nineteenth century and experienced two world wars. Having been dismissed in 1933 from his posts during the Hitler era, he had to re-start his career after the war when he was already approaching retirement. He was in his early 80s when his book on comparative education (Hilker 1962) was published. Bereday (1920–1983) was born after the First World War and had been an active combatant during the Second World War in the Polish and British Armies. His academic career

only began after the end of the war. His sudden death at the early age of 63 meant that it lasted less than two decades. When his book on comparative education was published (1964), Bereday was 44 years old. Given the age gap and their different experiences, the fact of such rewarding academic communication between these two academics after the war traversing generations and war alliances should be highlighted.

Hilker had no university career. He had a secondary or high school education (in the German *Gymnasium*), including posts with international affiliations, which he began because of his strong inclination for international comparison and cooperation. Without a doctoral degree, Hilker could not attain a chair at a university; he only became a professor in an academy – the State Arts Academy in Berlin temporarily in the 1930s. He was already in his retirement when, finally, in 1960, he received an honorary doctoral degree from the University of Hamburg. In contrast, Bereday rapidly climbed the US higher education ladder and occupied posts devoted to university-level comparative education. He earned his Ph.D. in sociology and comparative education at Harvard, and taught comparative education at Teachers College, Columbia University (1955–1983).⁶ These very different careers, however, did not keep Hilker and Bereday from fruitful academic communication with each other.

Bereday seems to have outperformed any comparativist of the day in this respect. He is said to have been proficient in eight languages.⁷ This contrasts sharply with today's quasi-monolingualism in 'global English' as the medium of scientific communication. Hilker was less of a polyglot, although he learnt Latin and Greek as part of his humanistic education and was proficient in English and French. Hilker's education and career were entirely German-focused. Bereday, on the other hand, left Poland and studied and worked in different countries; he attained academic degrees in the UK, then stayed in the USA and held guest professorships in various countries.

So much for these differences. But what did the two men have in common? Hilker and Bereday were both the authors of leading comprehensive introductions to comparative education of the post-war period. Both books are now classics of the discipline, Hilker in German (1962) and Bereday in English (1964). Both authors describe their books as collections based on previous publications. Hilker (1962, 9) writes that his book leans on numerous articles which he had published before (1920–1933) and after (1945–1960) the war. Bereday (1964, vii–xiii) states that several chapters had previously been published, and lists permission to reprint from such publications, beginning with his two articles published in Germany (Bereday 1961a, 1961b). Hilker's and Bereday's seminal books on comparative education may be considered as *the peak of their concept-building* which had grown out of several years of thinking, lecturing and publishing and – not least – of international communication between them and others.

Hilker and Bereday were also among the first and leading personalities in the nascent academic associations in comparative education. The history of the US-based Comparative Education Society (CES) founded in 1956, later renamed the Comparative and International Education Society (CIES) in 1969, is closely connected to Bereday. From there sprang the idea for an international conference in London in May 1961. This led to the founding of the Comparative Education Society in Europe (CESE). The German participants in this – among them Franz Hilker – became the founders of the Comparative Education Commission which, in 1965, was the first to gain the status of an accredited commission of the nascent German Society for Education. Decades later, reorganisation of that German

Society (2000) led to the founding of the Section for International and Intercultural Comparative Education (SIIVE).⁸

Bereday and Hilker were both founders of leading academic journals that still exist today. As early as 1948, Hilker founded *Bildung und Erziehung*, which was and still is very international and comparative even though it does not contain these descriptors in its journal title. In 1957, Bereday became the first editor of the *Comparative Education Review*, the society journal of the US-based CES (later CIES). Each published in the journal of the other, as with Bereday's article (1961b) on school reforms in France and Turkey in *Bildung und Erziehung*, and Hilker's article on what the comparative method can contribute to education in the *Comparative Education Review* (1964). Hilker's death was commemorated in his own German journal in *Bildung und Erziehung*'s first issue of 1969.⁹ He was also remembered in English-medium journals: in the *Comparative Education Review* by Brickman (1969), and in *Comparative Education* by Anweiler (1969). Bereday's death was also commemorated in his journal in a special 'in memoriam' issue which contained articles by various authors (*Comparative Education Review* No 1/1984). However, it was not commemorated in the German journal *Bildung und Erziehung*.

Both were internationally minded comparativists. They liked and practised international relations and travelling. In this respect, Hilker's activities in the 1920s before his dismissal in the Nazi era should be noted. As part of his posts at the Zentralinstitut für Erziehung und Unterricht in Berlin, Hilker founded and headed a special Pädagogische Auslandsstelle. He organised fact-finding missions and educational exchanges for foreigners touring in Germany and for Germans visiting abroad (Hilker 1962, 88–90). Such activities involved study tours between the Zentralinstitut and the International Institute of Teachers College, Columbia University, which later became the alma mater of George Bereday (1955) when he became Professor of Comparative Education there. Hilker also published his experiences of such journeys, for example, to the United States (Hilker 1928). Shortly before the Nazis dismissed him, Hilker had begun working for the Commission for Intellectual Cooperation of the League of Nations. After the war, he renewed his international contacts by founding the Pädagogische Arbeitsstelle in Wiesbaden (1947) to continue his pre-war tradition of exchange visits. Bereday also took up all the chances of international cooperation and contacts which he encountered in his university career as a professor of comparative education.

Hilker and Bereday were both interested in education in Russia and the Soviet Union. One of Hilker's first publications (1922) treated education in post-revolutionary Russia. According to Anweiler (2013), he had a continued interest in educational developments in Russia and Eastern Europe after the Second World War, which he followed by reading translations in German, English or French of publications by East European authors. Bereday published on Soviet education from the 1960s together with other authors (e.g. Bereday, Brickman, and Read 1960) and extensively in various books and articles, not least because of his guest professorships in Moscow (1960 and 1961). Bereday read publications from the East, because he spoke Polish and Russian.

What is the value of the four steps of comparison model today?

Every model has its limitations and the four steps model is no different (cf. Adick 2008, 145–146, 2014b, 231). Firstly, consider the implicit premise of the four steps: How can

researchers *describe* let alone *interpret* social reality without any foregoing concepts? For instance, what a school system is, how one conceives of teacher training or how educational success is defined; these should be theorised and defined *before* collecting data and interpreting them. The model is also limited by its inductive methodology:¹⁰ it posits that *juxtaposition* and *comparison* lead to generalisations and hypotheses able to be tested in future research. But epistemologically, conclusions from specificity to generalisations are impossible; a fact well known but often forgotten.¹¹ Another limitation is the model's implicit methodological nationalism. Hilker and Bereday, like other comparativists, simply assume that the nation-state is the relevant unit of comparison in that national cultural traits can explain educational developments in a given country. This assumption still underpins much comparative research today, but is ever more questioned in the context of globalisation, cross-border migration, and transnational educational biographies and educational organisations across borders.

The model only allows the comparison of a very limited number of cases. As much as it may serve as a valuable blueprint for typical exercises in comparing two countries (or two reforms or two ways of financing schooling, as illustrated in Bereday's graphic model), it becomes impracticable with rising numbers of cases under comparison. The model then appears to be intuitively conclusive for comparisons of a limited number of cases, yet it remains problematic. From an epistemological point of view, the limits of inductive reasoning must be considered. *Description* and *interpretation* might contain implicit assumptions about education in national settings. *Juxtaposition* might turn into a procedure for confronting some over-typified variables in a rather mechanical way. *Comparison* tends to end up in the well-known but often forgotten normative and/or natural fallacies of generalising from *what is* to *what ought to be* (normative fallacy), and/or of concluding from *single cases* to the alleged *universal nature* of something (naturalism, essentialism).

Marc-Antoine Jullien is often described as the founder of comparative education, having been the first to write a treatise (1817) of the new discipline by applying empirical research while emphasising international cooperation (Adick 2008, 15–24). This view is challenged by Lenhart (forthcoming) who discusses the treatise of Friedrich August Hecht, who wrote a set of articles between 1795 and 1798 in Latin under his Latin name Hechtius, i.e. two decades earlier than Jullien's. But as Lenhart posits, Hechtius's treatise is also characterised by a very different methodology:

The two founding fathers led the ground for two different methodological approaches that can be pursued across the history of the discipline: an interpretive historical-philosophical-qualitative (Hecht) and a data-generating empirical-positivist-quantitative one (Jullien).

If the *four steps of comparison* model of Bereday and Hilker is placed into this broader debate, it can be characterised as an elaborated version of the 'interpretive historical-philosophical-qualitative' type, even though it might encompass quantitative data such as enrolment ratios or other factual data. This categorisation is in line with Manzon's view (2007, 86); she distinguishes between 'interpretive' and 'causal-analytic' purposes of comparison.

As an alternative to the interpretive model, the use of deductive reasoning and quantitative analyses and testing, such as PISA, has become more frequent in recent decades. This may lead to naive empiricism and result in normative and natural fallacies, for which

Jullien's vision may be criticised (Adick 2008, 24). However, these dangers are there in 'causal-analytic' as well as in 'interpretive' approaches.

The limitations of the *four steps* model, with respect to the number of cases or countries that can be treated, has led to new and different methodologies. In the meantime, even global comparisons have become 'normal'. They are widely practised and manageable not least owing to new information technologies and the rising impact of data collection in international organisations. Examples include the acquisition, processing, reporting and interpretation of enrolment statistics on a worldwide scale by the Education for All initiative under UNESCO. This resulted in a set of extensive *Global Monitoring Reports* (2000–2015), continued from 2016 as *Global Education Monitoring Reports*. Also, from an academic point of view, today, macro-level theories in respect of education worldwide may not only be formulated but can also be effectively and empirically tested as is demonstrated in the numerous research papers of the *world-polity approach* following John W. Meyer and others (Boli, Ramirez, and Meyer 1985; Meyer and Ramirez 2000). Their approach has been evaluated as predominantly quantitative not least through their preference for using existing data sets (e.g. from UN sources) in order to test hypotheses stemming from various macro-perspective theories on the relation between education and political, economic, cultural and other variables in the world (Adick 2009).

Research realities also often display a mix of approaches. For instance, findings from inductive studies are considered as pre-tests that lead to the heuristic formulation of theoretical assumptions then tested in a deductive research design. Secondary analysis is used in which results are arranged in a quasi-experimental way according to pre-defined variables and tested for significant effects. In his treatise on comparison, Hilker (1962, 106f) references the German philosopher Wilhelm Windelband. Known for his classification of science(s), Windelband suggests a distinction between *idiographic* sciences (culture research) which aim to *understand* the world and *nomothetic* sciences (nature research) which aim to *explain* the world. In Windelband's views, both are *empirical* sciences as opposed to *rational* sciences (mathematics and logic). He stressed that any research object in the empirical sciences is *not* taken from reality, but is always a scientific construction, and that research in empirical sciences will always use both idiographic and nomothetic ways of reasoning (Windelband 1914, §12, 229ff.).

Historically, comparative education – such as educational science in general and other social sciences – has adopted both these views. Hechtius aimed to understand the historical and societal context and ways in which education in England and Germany made sense in his times. Jullien was interested to discover and explain variables which guaranteed the functioning of nascent national education systems in Europe by means of questionnaires which he intended to circulate in various countries. Even today, the dichotomy 'idiographic vs. nomothetic' is seen as basic to the discipline and is canonised in introductory texts on comparative education (e.g. Parreira do Amaral 2015, 109–111). Seen from this perspective, the *four steps of comparison* model may be characterised as an idiographic approach which, however, and following Windelband, logically leads also to imply nomothetic reasoning. This is firmly established in Hilker's concept (1962, 126) which ends by referring to Bereday's (1961b) diagnosis of school reforms in France and Turkey – that both systems would be a copy of another model depending on a centralised education ministry; this could then be tested in further research under different

circumstances. In his final discussion of ‘total analysis’, Bereday (1964, 25) also appeals to nomothetic reasoning in ascertaining that the final stage of comparative education as an academic discipline such as other social sciences ‘is concerned with the formulation of “laws” or “typologies”’.

Overall, then, the *four steps of comparison* model was a valuable inductive methodology of its time, and *may still* guide scholars in constructing the basic steps of comparison of particular countries, in cases typical for academic examinations, acting in international collaboration, and in comparing a limited number of countries.

Notes

1. For an international readership, it should be added that in the history of comparative education in Germany, two terms were used for what is internationally known as ‘comparative education’. Hilker deliberately used *Vergleichende Pädagogik* (*Comparative Pedagogy*) instead of *Vergleichende Erziehungswissenschaft*, as Friedrich Schneider (1961) chose to call this academic discipline, whereby *Educational Science* would be the adequate translation of the German *Erziehungswissenschaft* instead of just calling it ‘education’. For details of his choice, cf. Hilker (1962, 142–143).
2. The *Arbeitsgruppe Internationale Vergleichsstudie* was coordinated by Eckhard Klieme (DIPF) and consisted of researchers from various universities and research institutions, among them Hans Döbert, Isabell van Ackeren, Wilfried Bos, Klaus Klemm, Rainer H. Lehmann, Botho von Kopp, Knut Schwippert, Wendelin Sroka and Manfred Weiß. The book has been in print and open access online for the public and has been reprinted several times.
3. The challenge came about when reading Manzon (2007), which overlapped with writing my *Introduction to Comparative Education* which was published in 2008.
4. The author thanks Oskar Anweiler for his communication on what he recalled about the relationship of Hilker and Bereday and in which languages Hilker was proficient. Anweiler supported the view that both of them got along well and respected each other’s academic work, despite the generational gap and the historical challenges of the post-war situation. Anweiler also confirmed that, according to his recollection, Hilker was proficient in English and French but not in Russian or other (modern) languages (telephone interview, 2 November 2016).
5. Quotation from the German original:

Zuerst die Geographie der Erziehung, die systematische Sammlung pädagogischer Informationen in einem einzigen Land, dann ihre Analyse mit Hilfe der Begriffe der Sozialwissenschaften, danach der gleichzeitige Vergleich ausgewählter Probleme in verschiedenen Ländern und letztlich die totale vergleichende Analyse: diese vier Schritte der Verfahrensweise zeigen der Vergleichenden Pädagogik den Weg in die Zukunft.

6. For a short biography of Bereday, see the entry in the online *CIEclopedia*: <http://www.nie.edu.sg/research/publication/cieclopedia-org/> [accessed 14 Oct.2016], in this source there is, however, no entry on Hilker. For a short biography of Hilker, see Steier (2012) in the *Klinkhardt Lexikon Erziehungswissenschaft*, in which, however, there is no entry on Bereday.
7. George Z.F. Bereday *Dead; Education, Author and Editor*. In the ‘Obituaries’ Section of the *New York Times* 26 October 1983.
8. For an overview of the history of these organisations, cf. Adick (2008, 24–29). Articles especially devoted to the CIES (Swing 2007), the CESE (Mitter 2007) and the German SIIVE (Waterkamp 2007) are also part of a collective work on the World Council of Comparative Education Societies edited by Vandra Masemann, Mark Bray and Maria Manzon (2007).
9. This obituary (one page and no author) was obviously written at short notice before the first number of 1969 of the journal went to the printer. It begins by stressing that Hilker, who died

on 4 January 1969, had still actively participated some weeks earlier in the meeting of the editorial group of 'his' journal.

10. Addressing the inductive nature of the *four steps of comparison* model is in line with the self-evaluation of Hilker who himself deliberately categorises and defends his methodological procedure as an 'inductive way of reasoning' in earlier articles (cf. Hilker 1957, 618).
11. While teaching comparative education, I often employed some simple but eye-opening examples to sensitise students to the traps of this basic fallacy: If we research some 10 or so countries and find that all or the great majority of them practise single-sex schooling (or other features like having compulsory education laws), it cannot be concluded that all education systems function like this. Also, it cannot be concluded that education systems *should* practise these things (the also very frequently occurring normative fallacy).

Disclosure statement

No potential conflict of interest was reported by the author.

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