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Autor*innen/Author(s): Dennis Niemann, Sigrid Hartong and Kerstin Martens

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Observing local dynamics of ILSA projections in federal systems: a comparison between Germany and the United States

Dennis Niemann[a], Sigrid Hartong[b] and Kerstin Martens[a]

[a]Institute for Intercultural and International Studies, University of Bremen, Germany; [b]Department of Education, Helmut-Schmidt-University, Hamburg, Germany

ABSTRACT

By comparing two federal education systems, namely Germany and the U.S., and their reactions to PISA we show how international, large-scale student assessments (ILSA) have been used by national stakeholders to gain leverage for legitimising or de-legitimising policy reforms in education. From a neo-institutionalist perspective we argue that country-specific path-dependencies and policy legacies, such as different systems of power devolution, testing traditions and also non-governmental actor influence, additionally moderate the impact of ILSA.

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1. Introduction

The aim of this contribution is to show how and why different policy actors at particular points in time have used international, large-scale student assessments (ILSA) as a reference point for triggering, shaping, or preventing education reforms. We use the example of the *Programme for International Student Assessment* (PISA) and compare projections of ILSA(-winners) in Germany and the United States (U.S.) between 2000 and 2015, showing that in both countries reform contexts of projection have changed during this period. These changes include (a) reference-making to other countries, in particular regarding best practices within other countries or to a general 'elsewhere', (b) the intensity of projection, and also (c) the institutional actor constellations, which facilitated projection strategies of reform legitimation and de-legitimation. Overall, we argue that actor strategies in relation to different projections in Germany and the U.S. are bound by existing domestic institutional structures, including changing relations of power. By combining the idea of ILSA-projections with concepts from neo-institutionalism, we seek to draw a more nuanced picture of national PISA-responses in Germany and the U.S., paying particular attention to actor strategies, idiosyncratic political institutions, and the important question of timing.

This article is structured as follows: in the next section (2) we argue that global-local policy flows, such as those facilitated via ILSA-projections, empower particular actor strategies, but that these are embedded in domestic institutional, path-dependent constellations. Building on this argumentation, we (3) describe how ILSA-projections played out differently in two federations, namely Germany and the U.S., since 2000. We show how actors justified or prevented education reforms at different points in time by referring to ILSA. We conclude (4) by summarising our major arguments and by illustrating future research prospects.

CONTACT Dennis Niemann ✉ dniemann@uni-bremen.de

2. Theoretical perspectives

ILSA, like PISA, operate as powerful catalysts for the global transfer of education policy solutions (Martens et al. 2010; Sellar and Lingard 2013). The design and structure of PISA is data-rich and complex: it is the largest global database on educational performance composed of multiple indicators. Simultaneously, its presentation is easily accessible for non-experts through PISA-rankings, summaries, and interpretations of main findings (Martens and Niemann 2013). This combination of highly sophisticated data generation and ease of application renders PISA useful for stakeholders to make projections to other education systems, derive concise reform strategies, and justify policy changes.

In this regard, ILSA and PISA alike not only condense existing local and national contexts globally, but also create new realities by reassembling entities – such as schools, states, or nations – through measurement and data, while relating them to particular ways of technical sense-making, and attributing particular norms of good (effective) and bad (non-effective) (Allen 2011; Lewis and Lingard 2015). As a result, not only entire education systems, but also particular facets of education institutions and specific inequalities are made projectable by PISA. Additionally, the OECD supplements local projections by issuing PISA-related own research and policy information material (such as the 'Education at a Glance' series) or studies on single aspects of education systems, such as analysing the effects of student-teacher ratios or curriculum in primary education (see e.g., OECD 2004, 2011a), which already offer projected 'ready-to-use'-interpretations by identifying practices suitable to be copied by others (Bloem 2016).

Even though the OECD continuously provides frameworks for possible projections in education policy, the *de facto* practices of local projection-making remain far from being determined by the international organisation. Instead, the idea of projection-making regarding ILSA highlights the importance of prevalent perspectives within countries when observing policy transfers and borrowing from others. In other words, referring to 'elsewhere' also depends on the perspective predominant in the context from which the reference originates, and not just the context to which it refers (Waldow 2017). This means that 'pieces are picked up, translated and altered to fit local conditions' (Powell, Edelstein, and Blanck 2016, 3). Such context-related strategies, however, appear as particularly prevalent in federal education systems, where decentralised authorities are in charge of education policy. Unlike centralised education systems, in federal systems the local authorities are expected to relate their strategies not only to the projection of ILSA, but also to the national context in which their system is embedded. In addition, recommended reform efforts may also be perceived as initiating competition between the different federal units.

To address local lenses for observing and copying practices from ILSA-winners, we use a historical institutionalist perspective which points out the path-dependency of institutional configurations and the power of policy legacies when it comes to processing new inputs (Mahoney 2000; Pierson 2004; Steinmo 2008; Hall 2010). The institutional composition of governance in a polity is a crucial factor in guiding collective behaviour and generating different policy outcomes in different countries (Hall and Taylor 1996). Over the years, domestic institutions constitute coherent and interlinked networks of established power relations, norms, and rules. Consequently, path dependencies are created which moderate emerging changes (such as ILSA-influence) within the context of past decisions. One important aspect is that institutional configurations also constitute and legitimate power asymmetries by providing some actors privileged access to the decision-making process (Moe 1990; Pierson 2015). Hence, the historical institutionalist account incorporates aspects of power by emphasising that past events and decisions not only shape future policy outcomes but also constitute (asymmetrical) power relations within a polity. Such power asymmetries play a decisive role in terms of opening up, catalysing, or preventing particular projection-making processes. In a similar way, informal institutions, such as historically-anchored traditions or social images of education, influence the dynamics and possible ranges of projection by evaluating new issues in the light of existing norms and values (Martens et al. 2010).[1]

Hence, evolved institutions and governance structures form material and cognitive matrices for the interpretation of new situations which limit possibilities for reform (Hall and Taylor 1996) or, in our case, for viable projections. Consequently, the historical institutionalist approach provides a theoretical explanation for why a similar impetus (e.g., ILSA) may cause varied domestic reaction strategies from different actors (Pierson and Skocpol 2002). However, the theoretical concept of path-dependency does not exclude the possibility that institutions can transform, which is especially relevant for understanding the wide-ranging effects of global trends, such as ILSA, in disrupting existing paths and catalysed institutional transformations, even though the trends may differ in scope and intensity (Hall 2010). Scope for change is continuously, yet path-dependently, created and can be used by reform-promoting actors to foster reforms (Mahoney and Thelen 2010; for an example from education policy see Edelstein and Nikolai 2013).

Policy change can happen rather abruptly and severely (e.g., as external shocks) when agency prevails over structure (Hall and Taylor 1996; Hall 2010) or emerges incrementally in the background of established institutional structures (Streeck and Thelen 2005). While ILSA in the past have mainly been identified as external shocks, we also approach ILSA-projections (as causing or preventing policy transformation) as highly dependent on existing incremental transformations, which are continuously constructing limited options for ILSA-'entering'. In this context, non-governmental actors, such as research bodies, think tanks, or media actors, as well as informal institutional arrangements, are also crucial for understanding (less visible) mediations of ILSA-projections into various political decision-making processes. Hence, we need to consider this ongoing promotion and challenge of actor relations (e.g., governments, parties, interest groups, but also intermediary actors) interacting with environmental (global or local) disruptions when assessing the reconstruction and, especially, the timing of projections to ILSA.

3. Comparing ILSA projections in the German and U.S. federal education system

The U.S. and Germany provide a particularly interesting set of countries for comparison for several reasons. First, both countries are federations in which reform decisions are not implemented by a centralised government, but rather reveal additional dynamics occurring within the subnational policy contexts and also between national and subnational reform flows. At the same time, Germany and the U.S. present two different types of subnational policy decentralisation and power devolution with regard to education: in Germany, school authority is mainly organised on the level of the *Länder*, thus limiting both federal and local influence, whereas in the U.S. local schools and school districts hold the main responsibility for supervising and administering schools. As we will illustrate in the next sections, these differently shaped 'paths' of decentralism directly affected the way both countries have responded to different PISA-'products' (i.e., the general PISA study, PISA at State/*Länder* level or *PISA for Schools*).

Second, within the first rounds of PISA both countries ranked in the middle of the field, while being outperformed by several other industrialised OECD countries. Despite such similar rankings, both countries exhibited strongly differing reactions: in Germany, PISA immediately caused a national 'shock', triggering enthusiasm for large-scale national reforms by referring to education systems of more successful nations in PISA, while in the U.S., PISA was almost completely disregarded by politicians and also by the general public until 2009 (Martens 2010; Niemann 2010; Hartong 2012, 2015). An important reason for this lies in the U.S.' longer tradition of implementing standardised assessments.

Third, while political actors in both countries ultimately drew from the projections of PISA to legitimate or to de-legitimate education reforms, we also observe a distinctive role of other actors (such as research institutions, think tanks, or media actors) 'pouring' ILSA-projections into political reform contexts. In this regard, the U.S. reform context of the *Common Core State Standards* (after 2001) is of particular interest for tracing such ILSA-mediations into politics, particularly into the federal *Race to the Top*-Program after 2009. In Germany, the PISA-consortia, a group of research institutions conducting the national PISA study and publishing reports on the results, played an important role in fostering projections and particular national reform initiatives by transforming the rather abstract results of the study into concrete reform propositions.

3.1. PISA-projections in the U.S.

The U.S. was one of the countries that pushed the OECD in the second half of the twentieth century to develop reliable, comparative indicators and ILSA in the first place (Leibfried and Martens 2008). This is surprising considering that the results of PISA were almost completely disregarded by U.S. policy-makers, the media, and also by the general public until 2009. Only when East-Asian countries – and in particular China – suddenly appeared as top-scorers in PISA, did the study's importance grow significantly in the U.S., both at the federal and state level (Martens and Niemann 2013; Sellar and Lingard 2013).

This does not mean that international projection-making did not take place before the emergence of ILSA and the Chinese entry into PISA. Instead, referring to 'elsewhere' in the sense of pointing to potential threatening global competitors has a long history in the U.S., including the *Sputnik-shock* in the 1950s or the report *A Nation At Risk* in the 1980s (Martens 2010, 242). In fact, from the 1950s on, the continuous perception of being threatened by other countries led to an early establishment of large-scale, standardised assessment structures. The *National Assessment of Educational Progress* (NAEP) or standardised college admission tests, such as SAT and ACT, are examples of such structures, which since the 1960s have regularly indicated a diagnosis of educational underperformance (Hartong 2018). In other words, the U.S. was familiar early-on with national large-scale assessments, initially perceiving PISA as only one assessment among many others.

Particularly from the 1980s onwards, debates and reform attempts to implement stronger centralised standards, accountability, and monitoring instruments such as ILSA (as later heavily promoted by the OECD) grew significantly. In spite of these measures, however, efforts to 'order school from above' (Mehta 2013, 2) remained widely limited to the state level, as federal reformers were constantly confronted with the high degree of decentralisation in the U.S. education system; a system which builds upon community-oriented school regulation via local school boards and opposes any kind of centralising political authority (Kirst 2004; Hartong 2016).[2] Against this backdrop, the debates and reform attempts to implement stronger standards, accountability, and monitoring instruments from the mid-twentieth century on brought about new national structures such as NAEP, while simultaneously introducing ambivalence toward both centralising and decentralising the system (Hartong 2015).

During the 1990s, when attempts by the federal government to nationally standardise curriculum was once again successfully opposed by the proponents of educational decentralisation (Cross 2004; Anderson 2007), the supporters of stronger accountability, monitoring, and standardisation proceeded to reinforce the idea of the U.S. being increasingly threatened by international competitors. Particularly through their participation in benchmarking events (such as a series of *Education Summits*, i.a. in 1996 and 1999, see also below), global actors such as members of international business corporations or educational industry sectors (tests, assessments, technology etc.) had a major influence on developing standards- and accountability-based policy initiatives and networking (Hartong 2016).

When PISA was released for the first time in 2001 and revealed the U.S.' rather weak performance, the country was facing a unique crossroads which directly affected its ambivalent response to PISA: while the federal government had failed to implement national standards, it still implemented the most far-reaching school accountability law in U.S. history, the *No Child Left Behind Act* (NCLB) (Anderson 2007; Payne 2008; Ravitch 2010), which obligated the states to test, monitor, and report disaggregated student performance against state standards and to reward or punish schools according to their measured Adequate Yearly Progress (AYP). In other words, while the standards' elaboration remained decentralised within the states leading towards a range of very different benchmarks against which students were tested, the formal accountability measurement of AYP and the far-reaching sanctions became largely centralised, increasingly powerful, and of growing public interest (Ravitch 2010).

Hence, in the following years, political attention within the education sector was mostly concentrated on NCLB and its tremendous effects on school regulations, rather than on PISA as a new international supplement to the national assessments. At the same time, however, an alliance for a more comprehensive standardisation of education, which around the same year (2001) initiated the *America Diploma Project*[3] and later the *Common Core State Standards*,[4] started to systematically use ILSA for strategic projection-making. During their *Education Summits* between 1996 and 1999, the alliance around the newly-established organisation *Achieve*[5] had already turned to the ILSA TIMSS (Trends in International Mathematics and Science Study)[6] to define common key characteristics of 'world-class standards' as a role model for the U.S. reform (Achieve 1999, 65). PISA projection-making then emerged with the *Common Core State Standards Initiative* (CCSS), launched around the mid-2000s, building on the *Summits* and also on the *America Diploma Project*. A crucial step in that context was the implementation of the *International Benchmarking Advisory Group*, which consisted of industrial leaders, university experts, experts from international organisations, and state actors. The group was assigned the task of anchoring the CCSS internationally and released the report *Benchmarking for Success* in 2008. The report scrutinised the weak performance of the U.S. in ILSA, which had by that time fallen further in PISA rankings, while also developing an 'action agenda' for the future which relied heavily on ISLA-benchmarking. Not only did the report include projection-making to a diffuse 'elsewhere', as had regularly been done in past decades, but also concrete projections to other countries[7] and to particular best practices within certain high-performing countries (e.g., from Finland). At the same time, the report addressed the states within the U.S. to become leaders in using ISLA for policy-making, e.g., by encouraging them to participate in PISA individually (Engel and Frizzell 2015).

Taken together, as federal politicians and the general public between 2001 and 2009 mainly concentrated on NCLB and its (unintended) consequences while more or less ignoring PISA, the alliance around the CCSS, which addressed and later included the *National Governors Association* (NGA) and the *Council of Chief State School Officers* (CCSSO) as state authorities for education, used PISA for strategic projection-making for state-led benchmarking, standardisation, and accountability policies, thus fostering a growing awareness of ILSA at least within the alliance.

More awareness for ILSA emerged in 2009 when the publicly-diagnosed 'failure' of NCLB coincided with a deep economic crisis and the emergence of new Asian top-performers in PISA (Martens and Niemann 2013; Sellar and Lingard 2013). As a consequence, the Obama Administration started one of the largest federal investment programmes (*Race to the Top* [RttT]), which also included competitive grants for states to quickly boost their educational performance. Part of the grant regulations included the international benchmarking of reform instruments, such as standards or assessments, which pushed the states to use PISA findings for reform adjustments. Hence, after 2009, several states (Connecticut, Florida, and Massachusetts) decided to participate independently in PISA, and to use that decision as well as ILSA-projections in their RttT-application (for Florida see Engel and Frizzell 2015). In other words, the states applied '[…] an international project like PISA to enhance their competitiveness *within* the national space' (Engel and Frizzell 2015, 15). The U.S. finally saw slight improvements in PISA 2012 and 2015, which caused the federal government to refer to PISA to (post)legitimise the new reform paths that were taken to boost educational performance. At the same time, more and more states began incorporating PISA-projections into policy-making in response to growing global and national competition (Engel and Frizzell 2015).

After 2013, the impact of PISA once again increased significantly when the OECD introduced its new product *PISA for Schools* to the ILSA market. This school-level PISA aligns with existing PISA assessment frameworks and allows single schools to be evaluated against existing PISA scales, other nations, or states (Lewis 2016). In fact, by directly addressing schools, *PISA for Schools* matched the

American system of path-dependent power devolution much better, with individual schools and districts at its centre. Additionally, one of the largest and oldest U.S. testing providers (CTB/McGraw-Hill) was nominated as the exclusive U.S. administrator for *PISA for Schools* (until 2015). Consequently, even though schools themselves have to pay the expenses for the assessment, around 450 U.S. high schools have so far participated in *PISA for Schools*, while increasingly responding to global 'best practice'-examples published in the largely standardised school data reports (Lewis 2016).

3.2. PISA-projections in Germany

Before PISA was launched in 2001, ILSA were not a common practice in Germany and had almost no point of reference within German education policy discourse. Even more, comparative analyses of education outcomes were not considered in line with German policy-making traditions, beliefs, or views on education. The German field of education was instead generally shaped by philosophical norm debates from a humanistic approach (Bos and Postlethwaite 2002; Zapp and Powell 2016). Although Germany participated in the *First International Science Study* (FISS) and *First International Mathematics Study* (FIMS)[8] in the 1960s, both of which could be considered the very first education ILSA, the country withdrew from any following cross-national education studies until the 1990s. At that time, due to an emerging emphasis on issues of quality assurance, transparency, and also accountability in matters of education (Baumert, Cortina, and Leschinsky 2003), Germany took part in TIMSS. The results were alarming. In the fields of mathematics and science, German students performed at a level far below that of their peers in other industrialised countries. However, TIMSS did not succeed in becoming a point of reference in the political or even public policy stream concerning reforming the German education system (Martens and Niemann 2013).[9]

Germany's neglect of education ILSA ended in late 2001 when the first PISA study was published, providing a wake-up-call for German (secondary) education. Severe education deficits were exposed, and the necessity for comprehensive improvements became apparent. Apart from the plain PISA rankings, in which Germany ranked 20th out of 27 participating OECD member states (OECD 2001), numerous follow-up publications of the OECD and the German PISA consortium provided in-depth analyses of the encompassing shortcomings in the German education system, and included concrete reform propositions. Overall, the diagnosis by PISA was not a one-shot observation but an identification of a systemic problem embodied in the German education system. Namely, that it was designed in such a way as to strengthen the already privileged students while neglecting the disadvantaged. This led to massive equity issues (Allmendinger and Leibfried 2003) and since then the German policy discourse on education reforms have regularly addressed how socio-economic factors predetermine education performances (Niemann, Martens, and Teltemann 2017).

As a consequence of PISA, awareness of education systems of other countries rose in Germany (Steiner-Khamsi 2003). Thereby, projection in comparison to others was rendered useful to justify own preferences for reforms and, at the same time, to de-legitimise ideas that were not in line with these preferences. PISA provided leverage to argue for specific reform directions, which within the institutional context of German policy-making had been inferior to reform opponent interests before (see below). Surprisingly, after PISA, almost all stakeholders in German education policy focused on what others were doing better and which features could be copied from them to improve the German education system, ultimately turning PISA into the most important reference point in the German discourse on education (Tillmann et al. 2008; Niemann 2016).

In general, German education politics after 2002 increasingly turned toward evidence-based policy-making by establishing a regular monitoring strategy, including national and international ILSA, in order to better identify causes for problems in the education system and to provide suitable reform solutions. The objective in German education policy to strengthen standardised empirical assessments and gather encompassing data had already intensified in the 1990s, but PISA substantially boosted this emerging development (Aljets 2015; Zapp and Powell 2016). The influence of PISA on German education is also apparent when taking into account national studies that compare the performances of the 16 *Länder* in education (PISA-E; test of education standards since 2009), which were designed according to the PISA template of monitoring education competencies.[10]

Due to the scandal that emerged from the PISA results in Germany, almost all education actors participated in the discourse and argued for their preferred reform direction by making use of projections based on other countries and their education systems and by utilising the findings in PISA for their own arguments. Hence, PISA was indirectly able to change the power constellations in German education politics since the programme strengthened the argumentative leverage of those actors whose preferences and beliefs were supported by the empirical findings (see Armingeon 2004). In other words, PISA 'gave ammunition to various groups to push their own agenda for reforms' (Dixon et al. 2013, 499).

At the same time, however, the emergent political conflict over education reforms was moderated by institutional structures. As among the U.S. states, nation-wide education reforms require cooperation among the 16 German *Länder* since they have almost complete autonomy in matters of education policy. Formal cooperation primarily takes place in the KMK (*Standing Conference of the Ministers of Education and Cultural Affairs*), a forum of the *Länder* to coordinate their education systems. The Federal Government (or its education ministry, represented in the *Federal Ministry for Education and Research* [BMBF]) has always had very limited responsibilities particularly regarding secondary education – and almost entirely lost this efficacy in the reforms of German federalism in 2006 and 2009. However, in accordance with the amended Article 91b (2) of the German Basic Law (the German constitution), a new joint task of the Federal Government and the *Länder* was established, which states that both governmental levels can cooperate in matters concerning ILSA. This means that the Federal Government can make (non-binding) recommendations with regard to the ILSA and, hence, is enabled to influence the discourse on ILSA-related reform discussions. As a consequence, the Federal Government became increasingly engaged in projection-making by gaining influence in secondary education through this mechanism regarding participation, financing, and interpretation of international comparative studies.

According to its influence in secondary education, the BMBF (in cooperation with the KMK) made extensive use of projections based on other education systems by highlighting the decisive education features of countries like Finland, Canada, or Sweden in 2007 (BMBF 2007) and by linking the identified best practices to the German reform agenda. In its general programme on empirical education research, the BMBF analysed successful countries in PISA – particularly the Scandinavian countries and Canada – and how these countries reformed their education system and policy-making processes in accordance with empirical evidence-based policy measures and strongly focused on the development of academic competencies. Furthermore, the programme took 'political and structural considerations' as well as 'scientific and systematic considerations' into account to provide guidance for developing and reforming the German education system (see BMBF 2008, 5–6, *own translation*).

The eventual success of implemented reforms was emphasised in 2011 when the OECD presented Germany to the U.S. as a best practice example on how to recover from poor education performances and reform education policy-making (OECD 2011b). In the eyes of the OECD, Germany changed from being a problem child to a poster child in education. By making Germany an example for best (reform) practices, the OECD further legitimised the German education reform process, German officials were assured that the direction of reforms were suitable to increase academic performance, and that the changes met the demands of a modern education system.

In turn, with improved PISA results (at least since the PISA study of 2006) and the 'stamp of approval' (Steiner-Khamsi 2010) of the OECD in 2011, the projection strategies changed: while in the first two PISA rounds (2001–2004) policy actors predominantly referred to other countries (e.g., Finland) when demanding certain reforms, since 2006/2007 the new reference points included the reforms implemented since 2001 in the German *Länder*. Because the introduced measures worked and Germany improved substantially in the PISA ranking, the taken reform path was consolidated and gained legitimacy. Strong proponents of the recent reforms (e.g., employers' organisations) emphasised the positive outcomes and demanded to stay the course (Niemann 2014). Those stakeholder groups who were skeptical of the new educational paradigm, which emphasises output orientation and turns toward empirical evaluations which comprises standardised measuring of education outcomes in order to make decisions based on empirical 'facts' (Niemann 2014; Zapp and Powell 2016), changed their projection tactics in the light of the indicated reform success. They now focused more on issues of equality and equity by highlighting that other education systems are better able to provide socio-economically disadvantaged students with the same chances for academic success than the German system.[11] In doing so, they criticised the German post-PISA system as one-sided, relying on the definition of educational success and failure of the OECD while at the same time neglecting values such as social cohesion and self-refinement which were central to the traditional German education ideal.

To explain the projection techniques, referring to prevailing structures and historical legacies of the German education system provides some useful clues. The OECD recommendations for reforming the German education system – derived from PISA – were shaped by Germany's institutional configurations and education traditions. The *Länder* were not able to introduce far-reaching education reforms unilaterally: although they possess full autonomy in the field of education policy, the Basic Law rules that there must be almost equal living conditions in all *Länder* (see Article 72 Basic Law). According to this fundamental objective, education systems of the *Länder* have to produce similar outcomes as well in the education sector to ensure comparability and mobility across Germany (Wolf 2008). If single *Länder* were introducing unilateral reforms, the transferability of degrees, for example, might not be ensured and the different standards would ultimately cause unequal living conditions. Furthermore, although Germany is organised as a federation with heterogeneous *Länder*, German society is more homogeneous (Katzenstein 1987) than societies in other federalist states (e.g., Switzerland, Belgium, etc.). Because the *Länder* had to coordinate their encompassing post-PISA reforms within the KMK, they had to find a common ground for the pending reforms. The institutional structure in German education politics, with the KMK as the central coordination forum for the *Länder* in education policy, also fostered projections based on nations successful in PISA, and accounts for a relatively coherent reform framework in Germany by coordinating the introduction of education standards, output evaluation procedures, and concrete education programmes to boost education performances in all *Länder* (see KMK 2002). This coordinated orchestration of German-wide education reforms also partially accounts for the minor relevancy of the recent *PISA for School* programme in Germany thus far.

To summarise, no approach to evaluating education performance in international comparative assessments previously existed in Germany. Thus, no particular perspective has been established for how ILSA are perceived or coped with in the country. Since PISA generated much public and political attention in Germany, policy-makers had to refer to the study in legitimising reforms. In doing so, they widely followed the arguments of the OECD of establishing outcome monitoring, measurable standards, and measures to support socio-economically disadvantaged students (Niemann 2016). Hence, in Germany, PISA served as the gold standard for evaluating education reforms. Since Germany's performance improved significantly in PISA and the country itself became a best practice example for other countries, the introduced reforms were approved ex-post by almost all political parties, policy-makers, and relevant stakeholders, like trade unions and employers' associations (see Niemann 2014).

4. Conclusion

The renewal of education policies in industrialised countries has increasingly received attention in recent years. Along with social and economic facets of globalisation, education reform processes, as shown by the two examples of the U.S. and Germany, have been driven largely by the question of how education systems can be more efficiently and effectively organised. In this context, the improvement in producing so-called human capital is progressively perceived as a solution to the needs of knowledge-based, global economies competing with each other worldwide. One influential instrument in this respect has been the trend towards more comprehensive measurement and standardisation in core education areas of schooling, in particular with regard to curriculum, teaching standards, and accountability measures.

As part of this debate, ILSA have gradually raised interest in education within politics, media, and society. In particular, results and rankings in PISA, TIMSS, and other studies have been used to legitimise or de-legitimise policy reforms in education. The aim of our contribution was to study how projections of ILSA affected policy reforms in two federal education systems, namely Germany and the U.S. Both provide a particularly interesting set for comparison since initial reactions to PISA differed tremendously despite similar mediocre results. Whereas Germany was severely shocked by its below average results in PISA and in the aftermath substantially reformed its education system, the U.S. was already aware of many of its educational deficits leaving little for PISA to reveal. Hence, while we observed an already well-established practice of performance assessments in the U.S., Germany had neglected such assessments until the launch of PISA.

Still, PISA-related critical junctures could be identified in both countries, ultimately opening up particular windows of reform opportunity. In the U.S., PISA (and particularly *PISA for Schools*, see below) started to become an important part of national, state, and local education discourse from 2009 onwards, while it was also used even earlier by particular reform alliances around the *Common Core State Standards* as an instrument to gain legitimacy. Like in Germany, PISA was used to justify reforms of the education system, in particular for implementing standardisation and pushing for higher graduation rates. However, while in Germany the performance of Finland was particularly emphasised when calling for comprehensive reforms, the U.S. (at least in the national context) referred more strongly to the general narrative of international competition in education, particularly pointing to the newly rising PISA-winners in Asia. Additionally, the importance of the different modes of federal power devolution (to the *Länder* in Germany, to districts and individual schools in the U.S) became clearly visible.

In Germany, the *Länder,* as key authorities for education policy, directly responded to PISA through jointly-coordinated comprehensive reforms, while individual schools or districts have hardly been involved in direct PISA-responding. In the U.S., the overall response to PISA has significantly increased with *PISA for Schools*, which now directly addresses schools as central authorities within the U.S. system. Consequently, and different from Germany, U.S. schools that are participating in PISA are now directly addressed by an ILSA-product, which simultaneously exposes them to an OECD-produced international ‘set’ of best practices for local school leadership, thus fostering a new, so far little explored, dimension of ILSA-projections and topological power (Lewis and Lingard 2015).

As our analysis has shown, institutional path-dependencies and policy legacies, such as different systems of power devolution, testing traditions and also non-governmental actor influence, reveal a crucial impact on options, dynamics, limits, and changes of ILSA-projections. In that context, we highlighted the particular institutional characteristics of two different federative systems each of which opened up unique, yet changing, scopes of ILSA projections between 2000 and 2015. While most research so far has dealt with the impacts of ILSA on *national* politics, too little is known about how international standard testing affects policy flows within *federal* systems.

Overall, international assessments have to be viewed through the lenses of institutional configurations, and thus must consider the interplay between federal, national, and local policy-making levels in education policy in addition to the differences and similarities that can be found based on the historical roots of testing cultures in countries. Therefore, we see a need for future research to take a stronger account of how federal education systems respond to global reform trends as drivers for data-driven measurement and standardisation in education. We also see great potential in a closer analysis of the changing nature of ILSA-projections within particular contexts over time.

In other words, while ILSA have become an integral part of education policy-making in most countries over the last 15 years, projection-making itself seems to be perpetually subject to change and conflict. As the example of *PISA for Schools* shows, projections of ILSA are ultimately forming a contested, globalised field of education governance of its own. In this regard, it is of major importance (and this might be a weakness in historic neo-institutionalism) to further reveal existing and changing power constellations and power asymmetries, which not only open up, catalyse, or close particular windows for ILSA-'entering', but also have been fostering a global topological rearrangement of educational governance through ILSA.

Notes

1. For example, if ILSA reform impulses starkly conflict with traditional perspectives on education policy, ILSA either lack the necessary legitimacy which is required to be considered a source of projection at all, or the projection to other countries serves as a means of reform de-legitimation.
2. To date (2012), only 8% of public school funding is provided by the federal level, compared to 48% from the state, and 44% from the local level (CEP 2012, 31).
3. See http://www.achieve.org/adp-network, accessed February 11, 2017. The *America Diploma Project* is a network of states that, under the guidance of different intermediary actors (such as Achieve, Inc.), align their school diplomas to a standardised benchmark of 'college and career readiness'.
4. See http://www.corestandards.org/, accessed February 11, 2017.
5. See www.achieve.org.
6. For more information on TIMSS and its sponsoring organization, *International Association for the Evaluation of Educational Achievement* (IEA), see https://timssandpirls.bc.edu/, accessed February 11, 2017.
7. E.g., 'Young Chinese, Indians, and Poles are not racing us to the bottom. […] They do not want to work for us; they don't even want to be us. They want to dominate us ⍰ in the sense that they want to be creating the companies of the future' (NGA/CCSSO/Achieve 2008, 14).
8. Only the *Länder* Hesse and Schleswig-Holstein participated in FIMS (Klein and Hüchtermann 2003). This also underscores the minor role ILSA used to play in Germany.
9. In the discourse on PISA also TIMSS was rediscovered since it revealed almost the same deficits as PISA and highlighted almost the same underlying structural problems (high correlation between socio-economic background of students/pupils and academic success and deficits in MINT-disciplines).
10. To meet the demands for measuring education outcomes, several university institutions were established in Germany to provide knowledge on how education performance has developed and which policy measures were proven successful in causing a positive effect on the outcome (Radtke 2003; Zapp and Powell 2016).
11. For instance, the teachers union GEW stated that the good German PISA results overshadow the deep-rooted problem of persistent social inequity caused by the German education system (see https://www.gew.de/aktuelles/detailseite/neuigkeiten/soziale-auslese-ist-bremsklotz-des-deutschen-bildungssystems/, accessed February 11, 2017).

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