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**Internationalization of Vocational  
and Higher Education Systems -  
A Comparative-Institutional Approach**

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## Abstract

This paper sketches a comparative-institutional approach that seeks to enhance our understanding of internationalization and the resultant national dynamics of institutional change in vocational and higher education systems. Focusing on change at the nexus of general and vocational skill formation institutions, we discuss shifts in the relationship between higher education and vocational training systems. How are such national systems responding to the exogenous pressures of international diffusion and Europe-wide Bologna and Copenhagen processes more specifically? Changes in the competition between the differentially institutionalized organizational fields of general and vocational education also imply the adjustment of individual pathways, participation rates, and life chances. Three complementary studies serve to compare and contrast the transformation of Germany's vocational and higher education systems. The comparison of Germany, Great Britain and the United States analyzes the diffusion and cross-national transfer of educational models in specific historical periods. To highlight different national responses to internationalization and Europeanization, Germany will also be compared with Switzerland and Austria as well as with France. If the first study charts primarily the origins of models to be emulated because of their global salience (*cultural-cognitive* dimension), then the second and third comparative studies analyze the *normative* and *regulative* dimensions, showing the consequences of institutional change processes for the on-going competition between these organizational fields.

## Zusammenfassung

Dieses Papier versucht darzulegen, welche Forschungsleitfragen, theoretischen Zugänge und welches Forschungsdesign für eine Untersuchung von Internationalisierung und nationalen Veränderungsdynamiken von Berufsbildungs- und Hochschulsystemen in Ansatz zu bringen sind. Gegenstand des vergleichenden Forschungsprojekts ist die Untersuchung des institutionellen Wandels an den Schnittstellen von höherer Allgemein- und beruflicher Bildung—mit der Perspektive auf Veränderungen im beruflichen Bildungssystem. Welche Veränderungen ergeben sich im Berufsbildungssystem und seinem Verhältnis zum System der höheren Allgemeinbildung durch den exogenen isomorphen Veränderungsdruck, etwa durch Bologna und Kopenhagen? Mit detaillierten Analysen der nationalen Bildungsstrukturen und -pfade werden gegenwärtige Veränderungsprozesse und -dynamiken untersucht. Von zentraler Bedeutung sind dabei Aspekte des Wettbewerbs zwischen den beiden unterschiedlich institutionalisierten und organisierten Bildungsbereichen. Ferner werden die Implikationen des festgestellten institutionellen Wandels für die Beteiligung der Individuen an höherer Allgemein- und beruflicher Bildung eruiert. Die Ländervergleiche dienen als Kontrastfolien für den Wandel des deutschen Berufsbildungssystems:

Deutschland wird in den drei vergleichenden Projekten mit den USA und Großbritannien, der Schweiz und Österreich sowie Frankreich verglichen. Ziel dieser Ländervergleiche ist es, Institutionalisierungs- und Europäisierungsprozesse der kulturell-kognitiven, normativen, und regulativen Dimensionen zu analysieren und damit den Wettbewerb dieser organisatorischen Felder aufzuzeigen.

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## I. Introduction

Postsecondary educational systems around the world are confronted with the transformation of social, economic, and political conditions, acknowledged in European declarations (e.g. Bologna, Copenhagen) and the resulting reform processes. Moreover, current shifts in economic structures require adaptation of education and vocational training systems that are responsible for conveying skills and for legitimately sorting individuals into disparate career pathways. Such phenomena as rising levels of educational attainment, female educational and labor force participation rates, and information technologies emphasize the concomitant transformation of education and society, under a variety of labels, from internationalization and globalization to transnationalization.<sup>1</sup> World-level dynamics leading to massive higher education expansion in virtually all countries, especially since the 1960s, include “optimistic rationalized ideologies” of science, democratic participation, and national development (Schofer & Meyer 2005: 917). Awareness of the importance of skill formation for a host of societal, organizational, and individual goals has spread around the globe (Mayer & Solga 2008), especially in the developed democracies. However, are such common trends and challenges leading to convergence, as some modernization theorists as well as world polity theorists suggest? Or do national responses instead indicate that adaptations are mainly consistent with specific cultural and structural characteristics, as historical institutionalists (e.g. Thelen 2004) and political economists (e.g. Hall & Soskice 2001) have pointed out? If we are to adequately distinguish growing similarities from sustained differences and to explicate the relevant mechanisms of institutional change, in terms of diffusion but also cultural and structural specificities, then we need in-depth comparative-historical research to investigate national, regional, and local reactions to higher-level processes.

This paper seeks to conceptualize research on institutional change in postsecondary vocational and higher educational systems. In the first step, we explore how and why particular ideas have become ubiquitous, seeking to deepen our understanding of the mechanisms and patterns of *ideational internationalization*. In the second step, we focus on *normative and regulative Europeanization* in a theoretically sampled set of countries. Here, our main goal is to chart the na-

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1 Pries (2008) lays out seven ideal types of the spatial expansion of social relationships, from internationalization (strengthened relationships between sovereign national states), re-nationalization (strengthened boundaries of national territories), supra-nationalization (conceptual spread of nations to supranational level), globalization (raised awareness of world-wide social relationships), glocalization (production or strengthening of connections between global and local phenomena), diaspora internationalization (production or strengthening of connections in pluralistic local spaces with a clearly fixed center or homeland), and transnationalization (strong and lasting societal networks anchored in a variety of spaces).

tional dynamics of change in the complementary and competitive, even interdependent, relationship between the organizational fields of vocational education and training systems (VET) and higher education (HE). To do so, we review the diverse relevant literatures and use the tool-kit of sociological institutionalism to analyze national VET and HE systems. To investigate the varying impacts of global trends on institutionalization, our levels of analysis span educational institutions, organizational fields, and organizations.<sup>2</sup> In nations with differing skill formation systems, how has the relationship between HE and VET shifted over the long-term and especially over the past several decades as a result of growing pressure due to the rapid spread of ideas internationally and increasingly formalized European-wide agreements?

A major contemporary force for transformation in European skill formation are agreements by national education ministers to reform their education and training systems. The Bologna Declaration, signed in 1999 by 29 European ministers, aims to establish a Europe-wide higher education area to facilitate individual mobility, qualificational transparency and recognition, coordinated national quality assurance systems, as well as mutual recognition of duration and degrees of study courses. The Copenhagen Declaration, signed in 2002 by 31 ministers, aims to enhance European cooperation in vocational education and training (VET). Goals include a unitary framework of qualifications and competencies, a system of VET credit transfer, common quality criteria and principles as well as improvements in citizens' access to lifelong learning (see Jakobi 2006). The joint relevance of these two processes is apparent: The European Commission (EC) has launched initiatives to "establish synergies" among the two methods of coordination, such as in the transparency of qualifications (EUROPASS), credit transfer, quality assurance, and the European Qualifications Framework (EQF).

Significantly, throughout Europe, nations *voluntarily* gave their support of the goals set out in the Bologna declaration without needing direct coercive intervention by European Union supranational governance (Witte 2006), with politics and policymaking surrounding implementation of an EQF decidedly interactive (Trampusch 2006). As Balzer and Rusconi (2007) argue, both of these processes rely on the "ideational impetus" that led and leads to the cross-

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2 The concept "organizational field" refers to the totality of actors in an institutional area, which emphasizes the interrelation of organizations, the multiplicity of networks within which each operates, and the structural equivalents of particular organizational forms that share similar positions in a network structure: Those organizations that together constitute a recognized area of institutional life (see DiMaggio & Powell 1991: 64f.). For example, while a national educational system includes all types of organizations in both HE and VET, these two organizational fields must be distinguished if we wish to investigate their shifting relative importance in terms of skill formation, especially given the diversity of organizations responsible for training, including not only schools but also firms. The rise and decline of particular organizational forms and educational pathways will further specify the consequences of (de-)institutionalization processes.



national transfer and internationalization of norms. This underscores the heightened awareness and competition that increasing global communication brings (see Spybey 1996), and emphasizes the guiding effect of educational ideals and cultural models rapidly diffused around the world, with concrete consequences for education.

Since World War II and especially over the past few decades, international competition drives the expansion and differentiation of higher education within nations more than ever before (see Shavit, Arum & Gamoran 2007). As desired by its bureaucratic architects, the Europeanization processes have directly affected national systems of education, especially through the introduction and development of Bachelors and Masters courses of study and certificates. Some of these changes require significant restructuring and adjudication of conflicts at organizational level, thus have not been implemented unchallenged, and whose (un)intended consequences are not yet (fully) visible.<sup>3</sup>

We assume that changes in tertiary education due to internationalization generally and Bologna specifically are already having an impact on postsecondary *vocational training* because these organizational fields or sectors are increasingly competing directly for students, funding, and status. Shifts in responsibility for providing much-needed skills that are the basis for national economic success will have consequences for the relative importance of VET and HE. However, supranational forces, while strengthened, are unlikely to easily transform national complementarities between education and training and employment systems. The organizational fields of VET and HE are embedded in a diversity of educational and economic environments that have co-evolved over time.

The strong exogenous pressures that encourage nations to become more similar and emulate “best” or good practices (isomorphism) seem to have become even stronger. Yet, we also find variance in the endogenous acceptance of or resistance to these international ideals. Not only do institutions offer stability and exhibit durability but also reforms are accompanied by fears of unintended consequences and hesistance to give up comparative advantages or national

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3 Empirically, we find considerable disparities in the growth of university-level educational attainment since the 1960s even among the most highly developed nations (OECD 2006): The US had the highest growth among OECD countries in the 1960s, some in the 1970s, no growth in the 1980s, and very little in the 1990s. Germany had moderate growth in the first decade, very little in the second, with no growth over the past two decades. Similarly, Austria had most growth early on, but none in the 1990s. By contrast, Switzerland, the UK, and France had growth in all decades. The last two, especially France, witnessed considerable expansion in the 1990s. Thus, analyses must take account of when these systems “came of age” and their growth phase(s) to measure the contemporary environment for current and prospective students as they decide how to invest in their own skills given nation-specific pathways and constraints. While future analyses (e.g. Germany’s National Education Panel Study) will capture the consequences for individuals, this paper focuses on the institutional changes that affect VET and HE pathways.

traditions. While the effects of recent changes in skill formation demand enhanced attention, research on VET and HE remains too rarely integrated, perhaps especially due to a lack of comparative-institutional analyses. This paper addresses this problem, proposing comparative studies that utilize an historical opportunity to compare countries' VET and HE systems as these react to internationalization and Europeanization given their specific national origins and unique developmental trajectories.

In the following, we first review the contributions of diverse social science disciplines for the questions raised. Then, we elaborate our research questions and discuss the potential of an institutional approach to guide the comparative study of diffusion and growth as well as change and persistence. Finally, we select a sample of countries—representing three major models of vocational education and training systems—to measure (1) the continuous significance of international comparison and transfer for the restructuring of educational systems and (2) the shifting relative importance of organizational fields in intermediate skill formation.

## II. Contemporary Comparative Research on Skill Formation

Increases in average skill requirements, coupled with the risk of skill polarization, suggest that educational processes and outputs need to be reformed. Shifts away from job-specific skills and toward broader, more analytic general skills, but also moves from technical, routine activities toward autonomous work in multiple social contexts as well as the rapid decline in production jobs toward services seem to demand responses from all organizations that train people (see Mayer & Solga 2008). Yet despite the fundamental social and technological transformations of the past few decades, schooling and vocational and professional training have retained or expanded their utmost significance for individuals' occupational careers. To keep pace with developments in the world of work—without simply extending the years invested in education and training—the organization and contents of schooling and training are called upon to change with the times. But the change mechanisms and expectations for alignment with global and European models must be specified, which requires attention to the institutional processes and organizational structures of educational systems, not only to the receiving labor markets or overarching policy discourse. Comparative research on skill formation should focus on how and why institutions are changing and the consequences thereof. The following review highlights research results from a variety of fields—comparative education, political science, and sociology—that are relevant for the study of skill formation, further specifying findings in later sections.

From the beginning of their field, researchers in **comparative and international education** have focused on the above-raised issues of importing and exporting educational concepts beyond national borders. The core questions relate to the potential of improving an educational system by understanding them better through comparison—or even implementing (successful) elements of other educational systems. Indeed, concepts of educational transfer have been a continuous feature of comparative and international education, construed as a process in which a local problem is identified, solutions to similar challenges found in other countries are identified, and these are imported and (more or less) adapted to the national or local context (see Beech 2006). Recent works have examined these processes under such headings as “the global politics of educational borrowing and lending” (Steiner-Khamsi 2004), “policy attraction in education” (Phillips & Ertl 2003; Phillips 2004), and “markets in education and training reform” (Finegold et al. 1993). At the level of educational organizations, internationalization examples abound, from international schools to private universities (Adick 2003).

Reviewing surveys of educational comparativists worldwide, Cook, Hite, and Epstein (2004: 130) distill the essence of the field as “highly eclectic (...) with fluid boundaries but with a constituency unified around the objectives of un-

derstanding better the traditions of one's own system of education by studying those of others and assessing educational issues from a global perspective." The current exemplar of this age-old understanding is the growing usage of benchmarking, league tables, and diverse (in)official rankings as tools of (self-)evaluation and improvement, demonstrated by the OECD's PISA studies on school performance and by increasingly influential global university rankings (e.g. Shanghai Jiao Tong University 2006). In higher education, the transition from implicit to explicit benchmarking and its growing use have begun to be charted (Jackson & Lund 2000). Only recently has international benchmarking—as a most visible aspect of cross-national educational research—led to global profiles, marketing, and services (a sector expected to grow). The continuous monitoring of education and training systems itself manifests a broadened, indeed global, reference group for organizations, decision-makers, and scholars.

Especially since the end of the Cold War, globalization and Europeanization have become favored buzzwords. Yet comparative institutional analyses question the ubiquity and speed of such often-discussed changes as they instead emphasize the mechanisms and causal concepts of evolutionary, incremental change (see Djelic & Quack 2003; Campbell 2004; Streeck & Thelen 2005) as well as sustained national differences even among advanced industrial societies (e.g. Kitchelt et al. 1999). These competing points of view may be resolved by distinguishing more clearly between the different dimensions of institutions and looking at the transformation and construction of organizations and organizational fields. Indeed, the Bologna and Copenhagen processes—as predominantly voluntary but increasingly normative and regulatory forces—demand enhanced attention to institutionalization processes in educational systems. Furthermore, specific factors, such as interorganizational field competition and exogenous shocks that lead to institutional changes need to be compared in selected cultural contexts and across time.

While higher education reform and research has emphasized common themes such as expansion, differentiation, structural dynamics, selection and opportunities, and efficiency and effectiveness (Teichler 2005), cross-national convergence theses need to be tested, because the rhetoric of both policymaking and social science seems to outpace institutional and organizational change at national, regional, and local levels. A range of studies—from descriptive country studies to more ambitious historical and geographical comparisons—has examined the effects of internationalization on higher education organizations, testing world polity, economic development, democracy, and national culture and structure hypotheses (e.g. Lenhardt et al. 2007; Reisz & Stock 2007). Indeed, some argue that the worldwide diffusion of expectations, values and structures in education and science have led to heterogeneous outcomes (Krücken 2003; Baker & LeTendre 2005), with *transnational* agenda-setting and rule-making not limiting but rather under girding *national* policies (Krücken et al. 2006: 11).

Whether the same is true for vocational training systems is less clear, as this field has not benefited from the same degree of inquiry and VET systems' com-

plexity and diversity makes their relative success or failure very difficult to quantify (Baethge et al. 2005), leading many analysts to use economic productivity as a (problematic) proxy. One area of true convergence is overblown claims of the economic importance of vocationalism, under the banner of the ideal of “progress,” as well as its failure to resolve the problems it was charged to address, if it does not produce new ones (Grubb 1985, 2003). Yet the increased direct competition between HE and VET and challenges to the national vocational system (*berufliche Ordnung*) during European integration (see Kraus 2006) suggests that contemporary analyses are needed to test such claims in any case.

To do so, it is helpful to distinguish several approaches that have been fruitfully used to explore similarities and differences in cross-nationally comparative educational research: Comparative-historical studies, exemplified in the works of Fritz Ringer (1979), Margaret Archer (1984, 1989), Paul Windolf (1997), and Arnold Heidenheimer (1999) examine educational systems holistically and in-depth. Increasingly influential indicator-based studies compare a larger number of countries, such as the OECD (2000) study that defined “general education,” “school-based vocational,” “mixed pathway,” and “apprenticeship” countries. Further, dimensional analyses compare specific institutional characteristics and processes as well as the consequences thereof (e.g. Hillmert 2008). Such diversity not only indicates the complexity of the systems under investigation, but also implies that much ascribed relevance of particular characteristics as well as the range of methodological approaches depends on the research questions posed.

In **political science**, there is a rapidly growing body of research on policy transfer (e.g. Dolowitz & Marsh 2000). The focus is on policymaking and why certain decisions were made or vetoed. Information exchange within global networks has been studied to better understand how policies have been transferred cross-culturally (Stone 2002). Many investigations test an often hypothesized cross-national policy convergence, yet the causes responsible for convergence are still unclear due to disciplinary divisions and a lack of systematic theory-building (Holzinger & Knill 2005: 775). Thus, disciplinary contributions to our understanding of institutional change in educational systems need to be brought together. This literature suggests that even if international pressures to attain standards and reform structures may sometimes be blocked by national models and institutional arrangements over time, these other models are often also used to legitimate endogenous reforms as pieces are picked up, translated, and altered to fit local conditions. Moreover, political scientists of a more historical bent have attended to the impact of politics on the evolution of institutions over longer periods of time.

As Kathleen Thelen (2004) has shown by tracing changes (for the last century up to 1990) in vocational training institutions, gradual changes over decades can sum up, leading to renegotiation and contestation about governance structures at the same time that the idea of collectively managed monitoring of

firm-based training of workers remained “incredibly stable” despite massive breakpoints in Germany’s twentieth century. Indeed, dedication to the traditional training institutions is stalwart. Yet recent transnational pressures in education and training suggest more than incremental change, and the German system of VET may be shifting from a mainly collectivist to a more segmentalist skill regime, in which the composition of firms participating in training changes from a diverse set of firms, in terms of size or industry, to a more limited segment of employers, such as large manufacturers (see Busemeyer 2007; Thelen & Busemeyer 2007).

This paper utilizes the findings of these different disciplines, but relies in particular on the theoretical framework of **sociological institutionalism**. Our approach aims to provide a more thorough understanding not only of the transnational diffusion of ideas as we learn from others, but also of the conflictual and even coercive forces bringing about change in vocational education and training systems. Institutional theory offers a coherent framework that enables us to analyze the different dimensions of these complex skill formation systems, from ideas to norms to policies, and changes in those dimensions. Sociological institutional approaches may highlight cultural-cognitive processes such as global awareness and scientific evaluation but also investigate normative and regulative processes of European standardization and their effects, such as transformed courses of study, degree requirements and certificates to be attained, as well as selectivity and sorting practices.

Summarizing the theories that social scientists have developed to explain policy diffusion around the world, Dobbin, Simmons & Garrett (2007) distinguish between (1) social constructivist theories that emphasize knowledge networks and the influence of international organizations; (2) learning theories that point out experiential developmental processes within and between geographical units; (3) competition theories that attend to the costs and benefits of policy choices and global exchange; and (4) coercion theories that point to power differentials among nation-states and institutions operating internationally. While the contribution of institutional theory thus far has been mainly to chart how organizational forms and practices have been successfully diffused and reproduced (DiMaggio 1988) and their effects, analyses of (de-) institutionalization processes and institutional change have become increasingly central (Schneiberg & Clemens 2006: 217). Indeed, if one side of the analytic coin is to show how imitation or emulation influences actions or characteristics, then the other side is to understand why diffusion has been limited in temporal or spatial reach or why successful national models often fail to be (successfully) implemented elsewhere. Thus, we examine not so much the policymaking processes, but their consequences for the relationship between VET and HE.

How have nations responded to these on-going challenges to their specific, evolving educational and training systems? To what extent have contemporary changes remained at the level of discourse or instead signify fundamental reforms? Are international pressures, at the levels of ideas, standards, and poli-

cies, leading to convergence, harmony, or sustained diversity across Europe? Seeking to better understand developments in postsecondary vocational educational systems, our analysis centers on (1) *international diffusion processes* and (2) *national emulation processes* that lead to institutional restructuring as well as persistent developmental paths.

The relevance of these research foci is further enhanced because such changes in these complementary but competing organizational fields—VET and HE—affect participation by differing social groups, implying shifts in educational and social inequalities with relevance for social stratification and individual life courses. Societies around the world seek to ensure greater productivity, cultural progress, and enhanced equality through investments in schooling, vocational preparation, and advanced general education. However, in what the relevant education and training should consist depends on cultural models and institutional arrangements in education that have expanded and differentiated over decades and centuries. Not only the balance between general and specific skills in particular occupations, but also that between merit and equality of opportunity in education remains controversial. Throughout the world, educational systems respond to individual and group disadvantages in significantly different ways (see Baker & LeTendre 2005). The main factors accounting for cross-national variations are the overall supply of education and the channeling of students through different institutions and transitions (e.g. Shavit & Müller 2000; Müller et al. 2007), and the labor market institutions in which educational certificates are utilized (Maurice et al. 1986). Thus, attention must be paid to nationally (and regionally) specific structures and pathways as sources of variation with enormous societal consequences.

### **III. Internationalization & National Skill Formation Systems**

This section sketches our approach to address the above-delineated processes of internationalization and Europeanization and national dynamics of institutional change in skill formation. Much of the existing literature is descriptive and does not adequately investigate the hypothesized increase in direct competition between the organizational fields of postsecondary VET and HE.

#### **III.1 International Diffusion of Higher and Vocational Education and Training Models**

Based on the historical analysis of institutionalization processes, the first area to investigate for institutional change in vocational education and training systems is that of transfer processes. Here, we selected several of the strongest education and science systems worldwide (Germany, Great Britain, United States), that have long been culturally intertwined, to reconstruct and monitor processes of transatlantic diffusion and translation. The latter is significant not only in the sense of concepts being made accessible across linguistic boundaries but also in that functional equivalents must be found in those cases in which considerable adaptation of a foreign model is required. Responses to the twin processes of internationalization and Europeanization have added goals of restructuring to the on-going dynamic of expansion at postsecondary level. Global competition and homogenization in education have been dramatically furthered by such processes as international reporting, scientific evaluation (benchmarking), and educational exchange, which all further the diffusion of particular models.

For example, nations around the world have responded to “education for all” initiatives spearheaded by international organizations, such as UNESCO and the OECD, and have committed to “innovate” their educational systems in a seemingly endless sequence of reforms. Instead of mere self-reinforcing expansion, newly developed and diffused standards are applied to measure not only quantity (e.g. ECTS points, duration of study courses), but also quality (e.g. ratings, rankings, modularization, and accreditation). Not only do those who work in education, but also education researchers and policymakers now accept “educational equality of access, resources, and outcomes as the baseline standard against which reality is to be assessed” (Meyer 2001: 154; 2005). Yet if this is so, which models are being chosen as exemplars for the transformation of educational structures and pathways toward efficiency and equality? Regardless of how effectively are they being implemented, the antecedent question must be: Why have nations chosen and translated particular models (e.g. “best practices” identified in cross-national benchmarking exercises) to guide the reform of their historically elaborated and continuously evolving institutional arrangements?



Beyond systematizing the growing wealth of mostly quantitative indicators, we need analyses of which *ideals* and *norms* have been influential, why they became prominent, and where they originated, going beyond superficial ascription. For instance, both the British undergraduate colleges and the Humboldtian university ideal proposing the unity of research and teaching were highly influential in the United States before World War I and Germany's dual system of vocational training has long been a popular model (if difficult to emulate). By contrast, today elite Anglophone universities are celebrated, along increasing recognition that initial education and training must be complemented with on-the-job training and continuing education. However, the institutional contexts in which such training is provided lead to large differences in the labor market payoffs of these investments (Dieckhoff 2007). While such models may interpreted through national lenses, these skill formation systems have referred to each other over centuries, exemplifying transatlantic interconnectedness as well as on-going cooperation and competition (on "Galton's problem" that refers to the transnational diffusion of particular characteristics, see Ebbinghaus 1998). In different times and places, all three countries have been world champion exporters of educational models. On the importing side, the "international argument" continues to play a key role in educational reforms, independent of their immediate relevance or even applicability (Gonon 1998; see also Zymek 1975).

Increasingly popular neo-institutional approaches to diffusion and imitation offer a useful tool-kit to address such processes of change that focus especially on the cognitive-cultural dimension of institutions (see Section III). Thus, research on institutional change in skill formation systems should address the transfer and translation of models in higher and postsecondary vocational education. Which models have become dominant and been transferred across national borders? What mechanisms lead nations to translate, interpret, implement, and test global models, most evident in the "good" and "best" practice standards of top-ranked countries, as they adapt their historically evolved institutional arrangements in VET and HE to copy successful others? Specifically, which certificates, courses of study or types of training, and organizational forms—relying on German or Anglophone models—were historically and are currently considered worthy of emulation?

### **III.2 The Relationship between VET and HE: Convergence, Harmony or Sustained Diversity**

Transitioning from the study of transnational diffusion of educational ideals and models in skill formation, next the nation-level effects of those external pressures must be gauged as these influence national priorities in educational and training reforms (*cultural-cognitive dimension*), professional standards (*normative dimension*), and policymaking (*regulative dimensions*). In examining reforms in national (and regional) VET and higher education systems, we should

ask to what extent these choices are responses shaped by international influences and European isomorphic pressure or rather by endogenous preferences and priorities. Not only transnational diffusion determines the choice set of policymakers and interest groups, but also national institutional arrangements constrain the choices available at any given time. Such effects can be recognized quite clearly in the regulative forces in the Copenhagen (see Tessaring & Wannen 2004) and Bologna (see Reinalda & Kulesza 2005) processes, but also in much broader normative influences such as cross-national rankings of educational “progress” and global standardization that set acceptable ranges of policies and competitive arenas. At the same time, the tremendously varied stakeholder interests have not only led to innovation, but also brought conflicts, resistance, and differentiation—attempts to modify or subvert top-down reform efforts. Here, we are especially interested in the disparity between global policy discourse and concrete institutional and organizational change leading to realized educational reforms. We call examples of successful cross-national emulation that effectively sidesteps wishful thinking and unintended consequences “*achieved isomorphism*”.

Combining elements of comparative analysis and historical research on educational systems with institutional theory, case studies enable an exploration of major national institutional differences and reforms. A complementary strand of research utilizing a regime approach is “varieties of capitalism,” which illuminates the effects of exogenous pressure on systems that—regardless of their international embeddedness and regional differentiation—remain significantly national in the ways they respond and maintain the underlying logics of their interwoven and complementary societal sectors. Summarizing their approach to analyzing change in national economic systems, Hall and Soskice (2001: 63) focus on external shocks from a world economy—that is constantly changing in terms of technology, products, and tastes—and their effects on equilibria as corporate actors attempt to secure their institutional advantages, which must continuously be recreated. Not only the cleavage between coordinated market economies with internal and occupational labor markets such as Germany and liberal market economies with organizational labor markets such as Great Britain and the US, but also between sectors and their skill requirements are crucial here: Why do particular production and skill regimes demand and produce certain kinds of skills and certificates? This work examines participation in vocational education and training as human capital development and analyzes national differences in “production and training approaches” such as in recruitment (Marsden 1999: 139ff.) or the reform of skill regimes (see Anderson & Hassel 2007 for a contemporary Dutch-German comparison).

The changing status of certain types of skills is indicated by specific qualifications and certificates offered by particular organizations in diverse fields due to developmental processes, both incremental and transformative, in skill formation institutions. In other words, both sectors involved in skill formation, HE

and VET, must react to global isomorphic pressures, but the relationship and division of labor between the two sectors has a different balance in each nation. In times of deep education reform, institutional analyses can help to focus on changes in organizational fields and their constitutive units. This perspective underscores that transmission of effective feedback from economies to educational systems is mediated by political processes that often have more to do with nation-state structures than with market forces (Rubinson & Browne 1994: 595f.). Thus, studies must delve below the discursive level but also go beyond the purely economic to analyze educational systems and the policies—increasingly affected by supranational pressures—that shape their development. If we hope to discover the linkages between these institutions in flux, we should pay more attention to the education/economy nexus (Brinton 2005: 575; DiPrete 2007).

What can we expect in terms of institutional changes in the relationship between VET and HE? Here, a brief sketch lays out the argument. In postindustrial societies, general and more abstract types of knowledge have gained in importance, while specific and more practical skills seem less valued. Responses to this general trend (that must also be empirically investigated in each country) include shifts toward “unification” of higher education and vocational training in terms of institutional structure and “academic drift” in terms of curricula. As Raffae (2003) reports, numerous studies on globalization and education demonstrate that while most education systems face similar challenges, use analogous concepts and rhetoric in research and policy, important differences persist in the approaches to problems and policy responses and these produce even greater cross-national disparities in outcomes (see e.g. Hillmert 2008).

Three scenarios for the future of these systems have been posited (Raffae 2003): (1) the responsibilities of separate academic and vocational tracks are solidified, with the latter possibly becoming more like the former without losing its main characteristics; (2) both sectors are affected and vocational education loses its independence and identity as qualitative differences between types of learning are reduced, making historically-evolved structural and status differences more significant; and (3) a new intermediate sector develops to offer dual qualifications. Which scenario is most likely depends on such factors as each country’s institutional arrangements at the education/economics nexus and the distance and fluidity between sectors and the respective organizations and certificates as well as their functional equivalents (see section IV).

We know that worldwide economic and technological changes demand responses from all institutions involved in skill formation and that internationalization affects both VET and HE. European reforms seem to be no longer purely rhetorical as preferences and guidelines are imported and merged with endogenous institutions. However, we know less about the consequences of these challenges and on going restructuring (e.g. in terms of standards and courses of study) for the still-separate skill formation institutions and for the individuals participating in these educational pathways. Nation-specific interpretations of

top-down reforms and values attributed to particular courses of study demand close attention as competition as well as cooperation increases among organizational fields in education and training.

Theoretically, we must begin to specify what degree of change in each nation implies path cessation or switch, path departure, or path stabilization (Ebbinghaus 2005). To do so requires an application of recent developments in institutional change theory, to which we return later. In each nation, we must ask to what degree these top-down education reforms (Bologna, Copenhagen) are being joined with existing endogenous interests and realized in, for example, Austria, France, Germany, Great Britain, and Switzerland? Which kinds of adjustments are being made within these diverse skill formation systems to respond to international and European isomorphic pressures? How fundamental and comprehensive have the contemporary reforms been thus far? Is the reality of restructuring—from unique starting conditions—matching the rhetoric of reform? In each national context, how has the relationship between the organizational fields shifted; furthermore, does it imply a transformed systemic logic? Do we find path stabilization, departure, or switch?

Once the institutional evolution and/or transformation in each country has been charted, the next step is to compare the array of countries for an overall analysis of the dynamics of change, asking whether we find convergence, harmony or renewed diversity in skill formation systems? In a sample of European countries with differing postsecondary educational and training systems, how has the significance of these organizational fields shifted, especially since 1990? Regardless of the future impact of formal Europeanization via the Copenhagen process on VET systems, these will be challenged by changes in university education accelerated by the Bologna process. Baethge (2006) summarized the major current challenges to VET systems and the educational policies needed to address them as follows: (1) Rising average qualification levels and in proportion of highly qualified workers among all employees; (2) increased innovations and stronger global competition heighten employment insecurity and make it difficult to calculate quantitative and qualitative labor demand; (3) growing heterogeneity in institutionalized VET and HE systems in many countries exacerbates difficulties in transitions from school to work, with the danger of exclusion for those at risk of not completing any training program especially problematic (see Solga 2004, 2005; Baethge et al. 2007); and (4) quick obsolescence of vocational knowledge as well as demographic developments underscoring the importance of lifelong learning (see Jakobi & Rusconi forthcoming).

According to Baethge's third challenge, a goal of research into institutional changes in VET systems is to better understand the social structural implications of these changes. We propose a focus on *binary* systems because these, more so than highly diversified systems like the American or unified systems like the Italian, divert students away from the academic general preparation provided in universities and towards the lower-status organizational field of occupation-specific training (for example, the *Fachschulen* in Germany or

France's *instituts universitaires de technologie*). Dual VET systems in the German-speaking countries provide specific skills based on apprenticeships and function as a "safety net" but simultaneously preclude HE participation (see Shavit & Müller 2000). Indeed, summarizing the findings of a 15-country study of higher education expansion, differentiation, and market structure, Arum, Gamoran, and Shavit (2007) come to the conclusion that overall, relative inequalities are stable but that diversified HE systems like that in the US are more inclusive than those in Austria, France, Germany, Great Britain, and Switzerland. However, contemporary cross-national studies of higher education *and* VET systems are needed to indicate the extent to which the goal of universal access to education and training has been achieved through growth in supply, due to increased differentiation or via shifts in market structure. Such comparative studies attain much of their significance from the fact that they indicate the considerable consequences of educational systems for social inequality and economic competitiveness.

## IV. Analyzing Institutional Diffusion, Change, and Persistence Comparatively

In this section, we explore the diffusion processes at the heart of neo-institutional theorizing, sketch a comparative and historical approach that we find especially fruitful for analyzing institutional change in skill formation systems, and specify our understanding of developmental trajectories in institutionalization. The questions raised above are located in the world of institutional thought at the levels of the world polity, societies, and organizational fields.

### IV.1 Institutional Dimensions

Sociology, political science, and economic history have shared in the development of institutional analysis at the macro levels of nation-states, organizational fields, and organizations, in which each discipline has a particular emphasis. Institutional approaches have enjoyed tremendous renewal over the past several decades. Especially in sociology, the focus has turned to the cultural-cognitive dimension of institutions (frequently, these are social constructivist arguments that unmask taken-for-granted elements of social life). By its side, traditional institutional approaches emphasize the normative dimension of appropriate standards and the professions that govern such arenas. While all the social science disciplines attach significance to the regulative dimension, economic history and political science in particular have paid attention to rules and laws as well as interests and power. Acknowledging the utility of each “institutionalism” (see DiMaggio & Powell 1991; Hall & Taylor 1996; Brinton & Nee 2001), research on institutional change in VET and HE systems should combine elements of each dimension, even as the research questions posed above address specific levels of analysis, from the world polity to organizational subsystems.

On the one hand, mimetic (cultural-cognitive) mechanisms (DiMaggio & Powell 1991) that foster the diffusion of ideas about vocational training and higher education need to be examined. Powerful myths built into society as ways of interpreting the world influence both the original formal structure of organizations and their ability to survive and retain their legitimacy (Meyer & Rowan {1977} 1992). On the other hand, normative and regulative mechanisms that emphasize organizational aspects as well as legal and political forces are also crucial, especially in highly regulated organizational fields. In the case of education and training systems, the political and social struggles for power and influence are especially loaded. This perspective suggests that in an analysis of the VET sector—and its relationship to the HE sector—we are likely to find that evolving institutions do respond to meta-level discursive shifts and scientific

paradigms, but in ways that are consistent with national environments, organized interests, and political processes.

Studying the institutionalization of American community colleges, Brint and Karabel (1989: 342ff.) emphasize a crucial distinction made by Stinchcombe (1965) that contrasts analyses focusing on the *genesis* of institutions and those that center on their later *functioning*, arguing for more attention to institutional change—and to organizational conflicts between powerful interests. In doing so, they revisit traditional institutionalists' concerns with power, as they show how this organizational field effectively and legitimately diverted a large proportion of aspirants in the American meritocracy into terminal lower-tier courses of study without much chance of transfer to the higher tier. Not only can more highly differentiated educational systems react more easily to demands for greater access (Ramirez & Meyer 1980), but also educational expansion and vocational differentiation go hand in hand (see Benavot 1983). Analyses of (intermediate) skill formation institutions such as these reveal the considerable effects of differing organizations and organizational fields.

While much recent neo-institutional research in sociology emphasizes macro levels of analysis with a focus on cultural-cognitive aspects of beliefs and professional norms as well as international organizations, states, and associations, historical institutionalists in political science and sociology have accentuated regulatory and governance mechanisms and regimes at state or industry levels (Scott 1995: 58-60). Especially given the importance of supranational framework legislation and policy coordination for the further development of national VET and HE systems, the importance of both perspectives should be recognized. Where possible, the focus on the diffusion of ideas may be combined with a conflict perspective on educational reforms that attends to normative and coercive aspects of implementation. A major challenge that needs to be addressed head-on is that sociologists, political scientists, and economists have developed explanations of transnational policy diffusion in parallel universes dominated by disparate theories of constructivism, coercion, competition or learning (Dobbin et al. 2007). We have just begun the task of jointly testing these various theories. Comparative historical analysis and systematic process analysis in particular are methods well suited to test the explanatory purchase of these diverse theories.

## **IV.2 Institutionalization Trajectories: Path Stabilization, Departure or Switch**

Recent attempts to align highly complex institutionalized skill formation systems with contemporary political goals emphasize simultaneously the forceful diffusion and rising relevance of international educational standards and regulations and the persistence of older national-state specific ideas, values, and interests. Often, one vision of institutional change is another's continuity. Thus, it

is important to specify in advance what degrees of change are expected, as the Europe-wide debates about the wording of the declarations regarding “convergence” and “harmonization” indicate. Beyond simple path dependence arguments, three developmental trajectories of institutional transformation are imaginable: (1) path *stabilization* with no replacement of core principles, but marginal adaptation to environmental change; (2) path *departure* with gradual adaptation through partial renewal of institutional arrangements and limited redirection of core principles; and (3) path *cessation* or *switch*, in which interventions end institutional self-reinforcement and reproduction, leading ultimately to replacement of existing institutions (Ebbinghaus 2005). Beyond the truism that “history matters,” these possibilities assist in hypothesizing the degree of change expected in each case. Applied to the case of VET and HE, for each national system, Europeanization may represent a critical juncture, at which choices are made to minimize or maximize institutional changes. Further reform steps once again provide a structuring of alternatives, with resultant changes measured as path stabilization, departure, or switch.

Educational systems have been buffeted by a number of profound external *shocks* due to technological innovation, legalization, and changes in public awareness, but environmental *shifts* and environmental *regression* have also been theorized as forces leading to organizational change (Hanson 2001: 654ff.). Competing skill formation sectors must more or less gradually adjust their programs (standards, courses of study, enrollment criteria) and these forces will affect the educational pathways offered. Yet educational and training organizations are stabilized by deeply institutionalized rules, which challenge substantive educational reform (H.-D. Meyer & Rowan 2006). Furthermore, these organizations may adopt a variety of strategies to respond to environmental changes (see Oliver 1991). Institutionalization trajectories depend on the types of institutional change prevalent within each nation.

### IV.3 Types of Institutional Change

Closer than the bird’s eye view of popular convergence hypotheses, we follow Campbell (2004) in understanding institutional change as “constrained innovation” on the ground: Historically-evolved national educational and training systems will most likely react to exogenous pressures—such as the Bologna and Copenhagen processes—in ways largely consistent with their specific cultural and structural characteristics. However, a simplistic model of path dependence will not suffice. Speaking directly to the institutional effects of globalization, Campbell further develops conceptual, methodological, and theoretical tools useful in institutional analyses that seek to explain world-level change and corresponding national dynamics, emphasizing the problems of *ideas*, *change*, and *mechanisms*, such as translation, bricolage, in such studies.



The *translation* of popular concepts and their organizational implementation requires more scientific attention than ever before (see Czarniawska & Joerges 1996 on how ideas travel). National interpretations and implementations of models available worldwide require enhanced critical analysis, especially given the growing challenges of international competition. Looking only at recent developments is insufficient if we wish to understand why in some countries path departure seems possible while in others path stabilization reigns. What do the international best practice models represent for specific national systems? In which nations do the goals set forth in the Bologna and Copenhagen agreements require the changing of core principles, and how do these systems respond to these reforms?

Often, national policymakers pick-and-choose elements (*bricolage*) thought to be most compatible or just easier to implement, and for most nations compliance with Bologna and Copenhagen most likely means path stabilization, not *path departure*. For example, in the Anglo-American world, there are a range of Bachelor-degree models (e.g. Witte et al. 2004), such that policymakers and educators in European countries looking to implement such a course of study may choose a model that seems to offer a good fit within particular organizational fields. Yet what is “best practice” in a given time and place cannot be imported 1:1 into other national educational systems (Rose 1991). Neither the past success of one system nor the current success of another guarantees future success.

While the focus is on the relatively recent specific isomorphic pressures at European level and their implications for the cognitive, normative, and regulative dimensions of skill formation institutions, analyses can rely on the wealth of historical detail and data that exists, but should use recent theoretical insights to chart contemporary dynamics of institutional change. Distinguishing a variety of types of gradual institutional change, Streeck and Thelen (2005) show that no critical juncture or major historical breakpoint is necessary to significantly transform an institution. Particularly when several of the following types of change occur in conjunction, the probability of breaking down persistence and facilitating path departure is increased.

In the fields under investigation here, three of five types can be identified as highly probable, with their mechanisms needing further comparative study to conclusively identify. *Displacement*, in which subordinate institutions gain vis-à-vis dominant ones, relies on the mechanism of defection, which may be found in the replacement of *Diplom* courses of study by BA/MA, or, more globally, in the strengthened position of lower-level tertiary VET. Similarly, *layering*, which is based on the mechanism of differential growth, would suggest that these new elements injected into existing institutions alter those structures and status. Thirdly, *conversion*, implying the redirection or reinterpretation of old institutions, is a stated goal of Europeanization, although gaps remain between formal rules and their enactment in practice. Two other types of gradual change that we would expect to be of less relevance for the case of skill formation are *ex-*

*haustion* (depletion), which would occur when returns to old institutions wither away to the point that these break down, and *drift*, in which deliberate neglect leads to failure to adapt to changing circumstances. These last two, more passive, mechanisms—depletion and deliberate neglect—seem less germane to institutions currently undergoing exogenous shocks designed to facilitate renewal and change; however, they should nevertheless be included as possibilities for specific organizational forms.

The above delineated mechanisms seek to explain *incremental* change, but skill formation institutions currently seem to be experiencing considerable and possibly fundamental changes. Alternatively, a combination of these mechanisms actually might represent path departure or path switch. As Paul Pierson (2004) emphasizes, some reforms that in the moment seem to be abrupt may in time represent far less radical junctures. In understanding the cases to be compared, there lie opportunities to evaluate the degrees of change. Conceptualizing mechanisms of *import* in explaining the diverse phenomena subsumed under the catch-all phrase “globalization,” John Campbell (2004: 21) maintains that there is a consensus among neo-institutional analysts that regardless of preference for evolutionary or radical views of change, analyzing how fields of organizations implement similar practices must address three main problems: change, mechanisms, and ideas. Furthermore, he finds basic conceptual similarities in the three disciplinary approaches of sociology, political science, and economics as they rely on similar concepts, namely diffusion and path dependence, to establish causal arguments. In research on institutional change in skill formations systems, it is therefore necessary to investigate the extent to which supranational agreements may in fact constitute a critical juncture as well as the structuring of alternatives exemplified in the change mechanisms presented. The methods of cross-cultural and cross-institutional comparisons to be undertaken and the selection of comparative country studies in which we will reconstruct the institutionalization of skill formation systems and analyse the relationship between VET and HE will be discussed next.

## V. Methods & Comparative Cases

How can we examine the effects on diverse educational and vocational training systems of diffusion and of recent reforms that increase cross-national standardization as well as competition between organizations involved in skill formation? Our strategy, briefly sketched below, develops comparative studies that will enable us to explain changes in the two organizational fields of post-secondary skill formation (VET and HE) and their shifting relationship by charting transnational processes designed to achieve uniform goals, but specified and modified in existing institutional arrangements. Comparing developments across and within (especially federal) countries provides the opportunity to highlight distinctive contexts and organizational forms that aim to reach similar goals (functional equivalents), codified in transnational agreements as well as in national and regional policies. In analyzing the reactions of HE systems to Bologna and the resultant effects on VET systems, we utilize the above delineated theories of institutional change to evaluate their significance.

### V.1 Comparative-Historical Analysis and Systematic Process Analysis

Using contemporary strategies of comparative-historical analysis (see Mahoney & Rueschemeyer 2003), our comparative studies must locate mechanisms responsible for institutional change and specify for each nation (1) the relevant transnational expectations and pressures on skill formation systems and (2) the institutional changes carried out in response. Fortuitously, there exists a growing literature that describes the implementation of European reforms, sometimes providing a more nuanced understanding of institutional change processes and outcomes. We analyze the distance between the ideals touted in supranational declarations and the contemporary norms and policies in each country context. Above all, these reforms must be placed in context, with attention paid to differences in actual adjustments. Following recent institutional analyses that reject strong “path dependence” but also “path departure” theses, we concur that only attention to specific change processes (both revolutionary and incremental), to mechanisms (such as *translation*, *bricolage*, *displacement*, *layering*, and *conversion*), to sequences of events, and to interest constellations can provide explanatory purchase on the recent challenges and on-going evolution of these highly complex and interrelated systems (see Campbell 2004; Thelen 2004; Streeck & Thelen 2005). The status of certain ideas and foreign models’ relevance over time and comparatively can be fruitfully analyzed.

Identifying the utility of research designs that investigate a small number of countries to reach causal explanations in social science, Peter Hall (2006) argues that “systematic process analysis” as theory-oriented explanation offers a valu-

able alternative to historically-specific explanation (that seeks a complete causal account of what happened in one time and place) on the one hand, and multivariate explanation (that seeks to locate a small set of causal factors responsible for a broad class of occurrences), on the other. The goal in this explanatory mode is to specify those mechanisms that produce the crucial elements in a causal chain generating the outcomes of interest: What was the process in which those chosen (theoretically-derived) variables have effects? Since we cannot be sure to know all the relevant variables in advance nor that all of them are quantifiably measurable or theoretically well-specified, a promising way to investigate institutional change in skill formation would be to intensively investigate cases whose structurally-different, historically-divergent systems of VET and HE are now affected by a common external process of “harmonization” that seeks standardization, comparability, and transparency, if not outright convergence. Convergence criteria would be most stringent, requiring path switch by some nations, whereas harmony implies path departure for some. By contrast, those countries providing the models (GB, US) may be content to stay their courses. Likewise, acknowledged benefits or enhanced respect vis-à-vis international diversity, comparative advantages, and institutional complementarities would facilitate path stabilization, leading to sustained differences.

To recapitulate the questions raised above, comparative education and training research might ask: Which countries are most successful in educating and training young adults and how have they adjusted their institutional arrangements in education to address social, technological, scientific, and political developments? Why do some national HE and VET systems effectively persist, while others innovate incrementally or through considerable change? Why have national differences in educational structures—such as general school-based instruction, full-time school-based vocational training, and combined in-firm and school training—and their relationships to university education been retained? Are the investigated nations responding superficially (e.g. re-labeling certificates) or indeed completing a transformation (e.g. offering sequential courses of study and eliminating traditional, accepted degrees)? Which comparative cases would lend themselves to investigate such questions will be addressed next.

## V.2 Comparative Studies

The proposed comparative studies will be historical in charting long-term institutional changes, will be dimensional in emphasizing the shifting balance between the two major organizational fields in intermediate skill formation, and will be indicator-based in utilizing the wealth of cross-national data routinely produced by such organizations as CEDEFOP and the OECD to measure contemporary developments in these systems. The selection of national postsecondary vocational education systems to be compared is facilitated by typologies

that emphasize relevant dimensions of difference within a group of nations. Among the typologies of relevance for skill formation is Greinert's (2005) delineation of three persistent "*classical*" *training models*—Type A is the liberal market economy model (Great Britain), Type B the state-regulated bureaucratic model (France), and Type C the dual-corporatist model (Germany) (see also Marsden 1999).<sup>4</sup> Similarly, these countries' university systems have often been the subject of comparative study (e.g. Ben-David {1977} 1992). In terms of the *characteristics of the receiving labor markets*, Maurice et al. (1986) distinguish between "qualificational" versus "organizational" spaces. Such typologies may or may not continue to parsimoniously describe the current institutionalization processes of VET and HE and their outcomes. We aim to test existing educational system typologies for their relevance to help explain sectoral tension or academic drift. Do they assist in better understanding which countries develop in which ways, leading to convergence, harmony or sustained diversity of VET and HE sectors both cross-nationally and in relationship to one another?

A suitable sample to address such questions would be five countries with binary postsecondary educational systems: Germany, Austria, Switzerland, France, and Great Britain. Ideal-typically, whereas binary systems, as in the German-speaking countries, have a dual structure of clearly separate VET and HE, diversified systems like the American have fluid and permeable boundaries between these organizational fields (e.g. a wide range of offerings in each). Unified systems like the Italian have a single system providing educational services at tertiary level. Both highly differentiated and unitary systems would be less appropriate to measure the shifting or overlapping of the organizational fields to be analyzed. In the listed nations, available and newly-constructed indicators (for Germany, see *Konsortium Bildungsberichterstattung* 2006; Baethge et al. 2007) will be used to locate the national cases in a synthesized typology of educational and employment systems. Based on them, we will map the organizational

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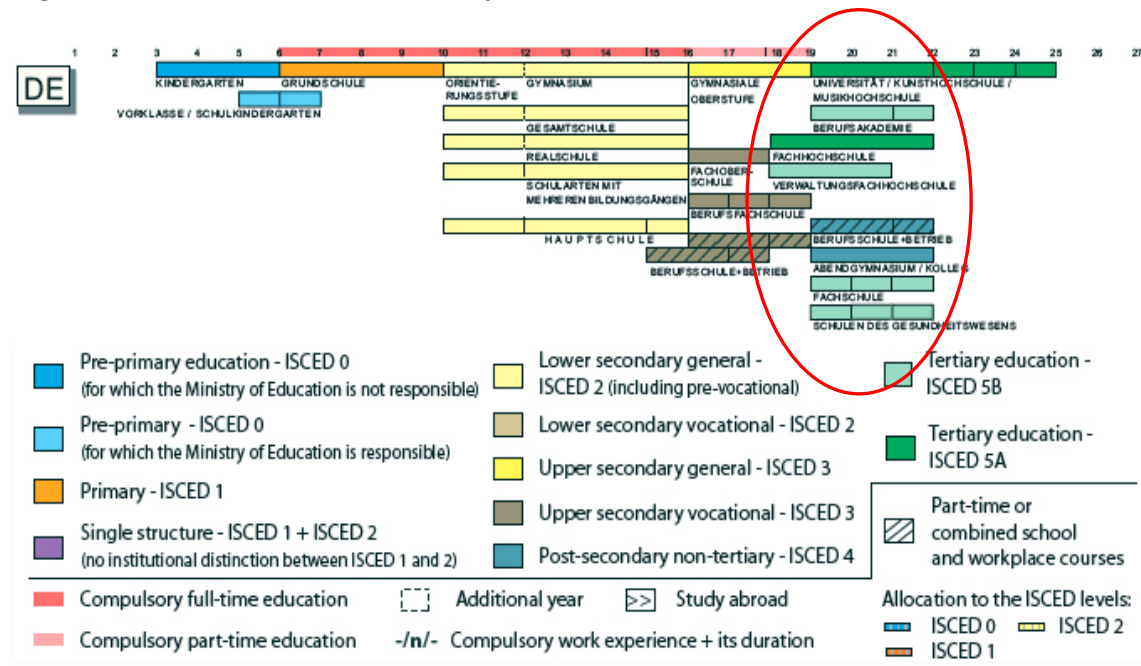
4 Further typologies include that of Hamilton and Hurrelmann (1994), who look specifically at school-to-work transitions, emphasizing the distinction between "transparency" and "permeability" with the first referring to how well young people can estimate how their career will progress from the present to a distant future goal and the latter indicating the ease of movement between organizational forms or levels (e.g. Germany's system is transparent but impermeable, while the American is rather opaque, but permeable below elite college level). Kerckhoff (2001) analyzes the impact of nationally-differing educational systems on stratification processes via four basic dimensions: Stratification (different kinds of schools and curricula that prepare for different vocations), standardization (whether standards are relevant nationwide), vocational specificity (extent to which curricula prepare for jobs and structure career paths) – described as yardsticks to evaluate the system's "capacity to structure" – and finally, "students' choice" that measures the variety of credentials and the flexibility of educational linkages between curricula, credentials, and structural locations. These dimensions should be included in estimating the effects of institutional and organizational change for individual educational and employment careers.

fields and boundaries of diverse VET and HE systems to more fully understand how internationalization processes have affected the dynamics of institutional change in these countries' postsecondary skill formation systems.

After developments in each country have been charted and skill formation institutions analyzed, these national contexts should be explicitly compared. In each comparative study of the effects of internationalization and Europeanization on postsecondary skill formation systems, Germany provides the touchstone, given its historical importance for the development of both vocational training and tertiary education as well as the institutional inertia, evident in the division of academic, general education versus practical, vocational training—what Martin Baethge (2006) has termed the “German educational schism”. Two centuries ago, Germany innovated the research university and later, also apprenticeship-based vocational training, successfully exporting these models, however difficult they are to implement ad-hoc into other institutional arrangements (see C. Mayer 2001). Today, its once-leading position is called into question by contrary educational and training models, but most nations that seek to compete globally face similar challenges of moving targets as benchmarking exercises in rapid succession hardly allow for substantive evaluation of reforms. Unfortunately, even Europe-wide comparative studies that rely on national datasets collected by Eurostat lack sufficient detail for such comparative analyses, prompting Mitter (2000) to argue for additional, fine-grained qualitative investigations. To do that, the focus should be on transnational processes and their effects on national-level institutional change, while also acknowledging regional differences especially within the federal nations. In the following, we sketch the main bases of comparison in each binary or three-country study, with the Germany and its educational system serving as the main case for comparison (see Figure 1).

Advancing internationalization and Europeanization seems to have created hybrids not (yet) adequately represented in internationally comparative work. Our initial inquiries suggest that especially new combinatorial forms may provide a means to understand relevant reactions to altered conditions due to tertiarization and shifts in governance. Especially international organizations and the marketization of education have forged a strengthened international level of educational policy (Leuze et al. 2007). Despite the shift to the BA/MA courses of study, a number of types of newer, often hybrid organizational forms (such as Germany's rapidly-growing “transition support system” or *Übergangssystem* and vocational academies or *Berufsakademien*), flexible learning pathways, and less standard programs of study (that may not lead to a degree, including part-time study, e-learning, or adult education) are obviously of relevance here. Within diverse VET and HE systems, a large group of participants in “tertiary short cycle” courses—understood as short-duration vocational or professional education taken up after secondary schooling—cannot be ignored (Grubb 2003).

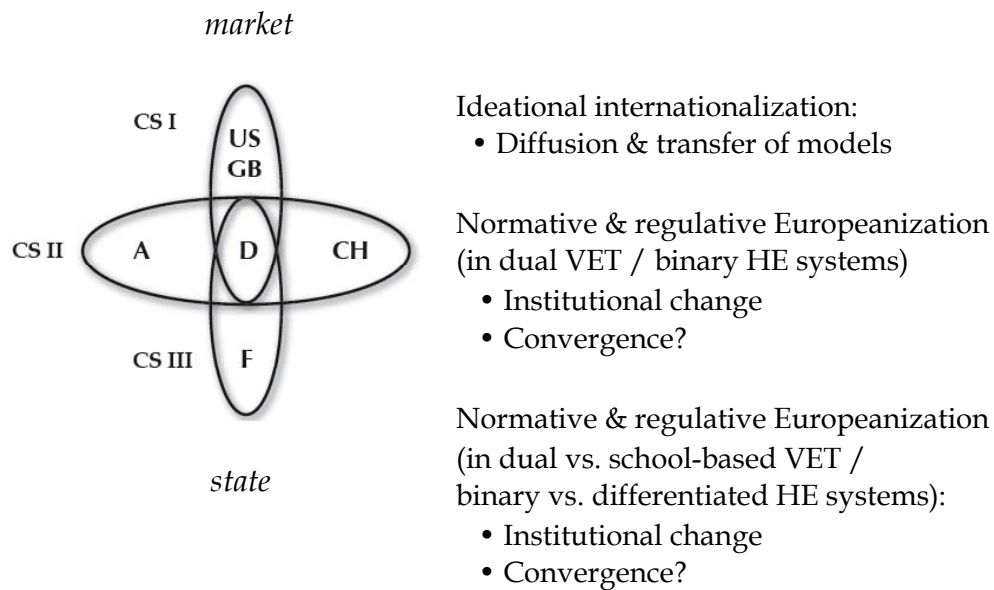
Figure 1: German Educational System (ISCED-97)



Source: ISCED (1997). *International Standard Classification of Education* (May 2006 re-edition). Paris: UNESCO.

Among the countries to be compared, linkages exist between post-secondary, tertiary short cycle, and higher education (except in Switzerland and most German *Länder*). Although most European countries surveyed have less than 10% of their students participating in tertiary short cycle programs, Austria, France, and Great Britain have high participation rates in these (Kirsch et al. 2003). In the United States, community colleges were transformed over the twentieth century from transfer-oriented institutions to those offering terminal vocation-specific degrees, a considerable shift in purpose and function (see Brint & Karabel 1989). Such newer courses of study and organizations—that may bridge the gaps between sectors—must be recognized when asking whether the standard dimensions of difference upon which current typologies are based continue to be valid and useful for a systemic view and monitoring of institutional change.

Given the questions posed and theoretical approach outlined above, a fruitful research design would consist of three comparative studies to investigate the translation of ideas into national educational models (Comparative Study I) and to measure recent national changes in these models and their implementation, including the gap between goals or reform rhetorics and actual practices as well as shifts in the status, functioning, and competition of organizational fields in education and training (Comparative Studies II & III). In each of the three comparative studies (see Figure 2), key goals include the analysis of comparable data, where available, and the construction of similar indicators.

**Figure 2. Research Design: Comparative Studies**

To carry out the intended institutional analyses, a mixed-method approach seems most promising. Especially for the first study of ideational internationalization, analysis of primary documents will play a key role. Process tracing and other tools of comparative historical analysis will be a crucial methodology for all the projects. Especially for the second and third comparative studies, interviews with experts and policymakers are needed to establish how the relevant discourses differ cross-nationally and how European norms and agreements are transferred. Utilizing large-scale datasets such as those of the OECD, Eurydice, CEDEFOP, and national statistics (e.g. Germany: BIBB, Statistisches Bundesamt, HIS) permits us to examine shifts in educational pathways and the differing relevance of particular organizational types within the diverse HE and VET systems.

The levels of analysis will be macro—organizational fields in educational systems, national cultures, and the global polity, but the organizational level will also be helpful to reconstruct the influence of particular interests regarding specific institutional changes within national contexts and time frames. All of these methods are necessary to adequately portray the three dimensions—ideas, norms, and policies—of educational and training institutions (see Kaelble & Schriewer 2003; Schriewer 2006 for overview of research methods and cases). For the analyses of the *cultural-cognitive* dimension of ideas, models, and paradigms, it is useful to compile time series on such mechanisms as educational exchange between the countries as well as to systematically sample both research literature and popular reporting on education and training in different eras. For example, the diffusion of global discourse can be paired with quantitative time series of academic exchanges that have traditionally facilitated inter-



cultural lending and borrowing. In terms of the *normative* dimension—of professions and differentiating organizational forms—analysis of selected leading educational research journals can be supplemented with interviews of experts in the field of comparative and international education. The third, *regulative*, dimension consists of international declarations, national educational policies, and other laws, rules, and regulations. Here, Europeanization processes in educational governance can be studied along with the rising influence of leading nongovernmental organizations that coordinate data collection, construct benchmarks and rankings, and influence the policymaking process. Interviews would round out analysis of reports and data to understand global and particularly European isomorphic pressures. In analogy to the institutional dimensions mapped above, we specify a sample of analyses to be carried out in the comparative studies in Table 1.

Beginning with the diffusion of *ideas* that lead to imitation and homogeneity in certain aspects, this process can be examined empirically through the study of educational research and benchmarking, educational exchange, and awareness-raising in traditional and new media. For example, the growth of foreign travel and study implicitly or explicitly influences what elite decision-makers believe and the goals they share. Indeed, the current motto of the German Academic Exchange Service (DAAD) is “change by exchange” (*Wandel durch Austausch*). Similarly, the PISA shock emphasizes the tremendously increased salience of international comparative education research and benchmarking coordinated by the enormously influential think tank OECD. Normative processes include the *standard-setting* of international nongovernmental agencies, professional associations, and accreditation agencies, such as the Bologna “scorecards” produced for the meetings of educational ministers that monitor progress on the goals set forth in the conventions and thus imply leaders and laggards with all the positive and negative sanctions such ratings and rankings suggest. Thirdly, regulative processes can be analyzed in *policy-making* at various levels of governance. Not only the EU’s supranational pressure and national policies, but also a variety of agreements and resolutions directly transform the conditions for skill formation. In each national context, these processes must be investigated to answer the research questions described above, as the cases will enable us to estimate the impact of isomorphic pressures and measure normative and regulative changes that affect dissimilar postsecondary vocational education and training systems. As the German Rectors’ Conference puts it in their Bologna publications—“from vision to mature praxis” (*von der Vision zur Praxisreife*).

**Table 1.** *Institutional Change Processes in VET and HE Sectors*

Dimensions		
<b>Cultural-cognitive (Ideas)</b>	<b>Normative (Standards)</b>	<b>Regulative (Policies)</b>
Transfer of ideas through study, research, personal contacts, experience.	(I)NGOs (e.g., CEDEFOP), Professional associations, Accreditation agencies	Implementation of changes through agreements, resolutions, policies (e.g., OECD)
Medial awareness-raising (e.g., “PISA shock”) International organizations’ internal communications (e.g., multinational corporations’ teams)	Standardization (e.g., ISCED revision)	EU supranational governance (OMC)
Scientific evaluation & benchmarking exercises (e.g., university ratings, rankings)	“Bologna Scorecards” Excellence Initiative University ratings & rankings	KMK resolutions, HRK recommendations Training regulations (BIBB <i>Ausbildungsordnungen</i> )
Corporate prizes, profiles, fashions (e.g., TQM)	Quality assurance & guidelines in training (e.g., courses of study, internships)	
Personal experience & networking (e.g., learning through educational exchange, tourism, trade fairs: Altered understandings and expectations)	Modules, workload standards (e.g., ECTS points), contents Accreditation	Funding & finance rule-making

### V.2.1 Comparative Study 1: Germany, Great Britain, United States

Addressing primarily the first research question on the cultural-cognitive dimension of institutions and especially the *transfer* and *translation* processes, the first comparative study asks how nations interpret, implement, and test models from other nations as they set out to improve their VET and HE systems. Specifically, which educational ideals, certificates, courses of study, and organizational forms were and are considered worthy of emulation? Where did the models originate and how were they received? This study’s historical time frames are broad, as it emphasizes transfer and feedback processes between Germany and the Anglophone world (see e.g. Füssl 2004; Phillips 2004). For two centuries, English interest in German educational policy and provision has been strong (Ochs & Phillips 2002). Similarly, German educational and scientific models enjoyed preeminence in America before WWI (Veblen 1918; Veysey 1965; Geitz et al. 1995). However, we find the reverse – an increasing dominance especially of American models – in the post-WWII era (see Goldschmidt 1991;

Teichler & Wasser 1992; Kohl 2001; Drewek 2002; Mayer 2005). Recent German-American comparisons challenge many widely held myths about American tertiary education, which these authors show is extraordinarily diverse and expansive and much less selective than the German system (Lenhardt 2005; Janson et al. 2006), but heavily privatized (Sackmann 2004). Moreover, Ash (2006) has argued that not only was the German influence on American universities more modest than widely believed, but also that substantial differences between these systems will persist regardless of the successfully re-labeled degrees.

If the transatlantic feedback processes seem clear in HE, do we find similar influence in VET? To what extent has German vocational training provided an ideal in Great Britain and the United States, and if it has, how has the model been reconciled with the different institutional environments in which these systems are embedded (see Ryan 1991; Schütte 2001)? Within and between these nations, competition between apprenticeships and on-the-job training continues. The apprenticeship model retains its prestige due to the low youth unemployment rates and prevalence of high-skill jobs in countries that have such VET systems. Although advocates of the German model have repeatedly made the case for revivals of apprenticeship in the US (Beckwith 1913; Hamilton 1990, 1999), thus far this vision has not been broadly implemented. In the British and American VET systems, labor market priorities and on-the-job training are paramount, rather than the state or collaborations between businesses and labor (see Lauterbach 2006a,b; Kohlrausch 2007; Hillmert 2008). In the Anglophone world, vocational training represents a program largely for disadvantaged youth. Furthermore, overarching standards are generally lacking due to the tremendous diversity of educational and enterprise-based providers of vocational training (Greinert 2005). Individuals themselves bear the major costs of training, especially in school-based general qualifications, with employers investing in specific, relevant skill development. In fact, the different principles upon which British and German approaches to training were built have remained stable, despite updating, since the Industrial Revolution (Deissinger 1994).

Contrasting imported ideals with concrete institutionalization processes, this study asks to what degree Germany's skill formation institutions are moving toward Anglophone market-based models by implementing Bologna and Copenhagen reforms. This comparison will emphasize similarities and differences in the diversity of postsecondary and tertiary colleges, institutes, and universities that all contribute to differentiated courses of study and degrees in general education, which retain primacy over specific vocational training in market-dominated systems. Further, by including Great Britain, the study can revise beliefs about a solitary "Anglo-American" market model (Finegold et al. 1993) that seems to drive the Bologna process. Emphasis should be on periods of deep reform and political transformation that lend themselves to the study of "imitation and persistence" (Jacoby 2000), and on those elements of Anglophone systems that inspire current Europe-wide reforms, whether or not the

reformed structures and degrees in Continental Europe actually match those in Britain and America.

### V.2.2 Comparative Study II: Germany, Austria & Switzerland

The second study analyzes the German-speaking (and influenced) countries with their extensive systems of vocational training that provide attractive apprenticeship opportunities at upper secondary level. Because these educational systems place emphasis on upper secondary schooling and well-developed vocational training, a consequently smaller group participates in tertiary education (see OECD 2006). Thus, vocational training plays a far more significant role in preparing young adults for the labor market in these countries (as well as in Denmark and the Netherlands, for example) than it does in many other European countries. Most importantly, a parallel system of VET grew apart from tertiary education, thus solidifying the institutional and organization distinction between general academic and vocational preparation (Baethge et al. 2007). It is not only that separation that led to the designation as “dual systems”, but also the unique combination of in-school and in-firm education and training (apprenticeships) that involves extensive mediation and coordination among state, employers, and labor representatives in an autonomous system of vocational training (Greinert 2005). Such training is an integral part of secondary schooling, often providing specific instruction far beyond what other nations consider to be upper secondary education. Such vocation-oriented systems tend to enable relatively smooth transitions into labor markets; but these systems also foreclose access to higher education (Shavit & Müller 2000; see Allmendinger & Ebner 2005 on transitions in German-speaking countries).

Not the mass research universities, but rather universities of applied science (*Fachhochschulen*), which now also grant B.A. and M.A. degrees, are expanding fastest in all three countries. Most of them have developed from precursor institutions of non-university tertiary or upper secondary education over the past few decades. They offer training in a growing variety of fields, combining applied research and comparatively extensive practice-related training. Some *Fachhochschulen* in these countries have started offering such dual courses and some German states maintain colleges of advanced vocational studies (*Berufsakademien*) that offer courses of study that combine postsecondary-level teaching with an apprenticeship or training contract with a private or public employer. In Austria, several forms of separate professional colleges persist, whose courses of study in Germany and Switzerland have either been integrated into *Fachhochschulen* or are still formally part of upper secondary level education, such as midwifery or paramedic training courses in Germany (Rothe 2001; Gonon 2005). The distinctions between all postsecondary institutions are challenged by European-level standardization. But no matter which solutions are proposed to adapt such institutions to conform to European models, these shifts will impact not only HE but also VET.

If continued HE expansion heightens labor market competition between graduates of HE and VET, we would expect shifts in the distribution of students, due also to changes in student choices. Global standardization, while seemingly ubiquitous, may remain largely rhetorical, as the impact of these norms gets lost in translation. Furthermore, autonomy and “loose-coupling” (Weick 1976) may lead to superficial imitation without consequence. The stability of key ideals and norms in VET, such as the focus on occupations (*Berufe*), signal that isomorphic pressures can be resisted or undermined, especially when these threaten a (fragile) consensus between the social partners or contradict widely-held beliefs or the logic of an educational model. Two examples emphasize this: (1) instead of a move to more emphasis on *general* skills, in Germany the occupational principle (*Berufsprinzip*) has been transferred to higher education in the form of occupationally-specific BA certificates (undermining stated goals of mobility and flexibility), and (2) the pre-vocational training system, which delays entrance into the dual system proper, indicates that even those young adults who may never attain an apprenticeship “should be” prepared for such an eventuality. They pay for this with lost years, as more often than not they transition to less attractive training places, if they gain access to the dual system at all. Even as the status of apprenticeships is thus maintained, HE interests will attempt to maintain their higher status despite increasing permeability due to ECTS points, modularization, and BA/MA courses of study. Furthermore, despite the increasing variety of credentials and the diversity of curricula, students will still find themselves in a hierarchical system that continues to pose barriers to mobility. If employers accept the BA as sufficient for intermediate-level jobs, on-the-job training is likely to increase in importance, shifting labor markets toward the “qualification space” end of the spectrum and leading to increasing competition of HE and VET graduates at the BA level. On the other hand, even for HE students, specific organizational experiences, such as internships, are increasingly relevant. This emphasizes the importance of labor market structures in shaping skill formation regimes. Here, the education/economy nexus should be analyzed, particularly as HE and VET organizations (most of which are regional in outlook and constituency) are likely to differentiate as they implement reforms from unique starting conditions.

In terms of governance in these federal countries, regional disparities are unlikely to be reduced by model projects as attempts are made to emulate foreign good practice. Similarly, the continued search for best practices will strengthen regional differences, especially if (inter)national standards remain loose and exceptions to the rule are allowed in attempts to reach Europe-wide consensus or international goals. But the type of federalist polity clearly needs to be analyzed as a factor that impacts the ways in which reform agendas are translated and shapes the regulatory dimension of skill formation institutions. Furthermore, in each country, the meaning and status of education and training alternatives must be delineated. Only then can the resultant functional equiva-

lents be usefully compared and the motivations for implementing or resisting isomorphic pressures be charted. Here, the substantial differences even among the German-speaking countries provide an opportunity to explore the commonalities and differences of relatively similar binary national skill formation sectors (apprenticeship-oriented, highly selective higher education, and labor markets oriented to vocational certification)—found in Germany, Switzerland, and Austria. Do the two organizational fields respond in similar ways to international and particularly European isomorphic pressures?

### V.2.3 Comparative Study III: Germany & France

The third study, comparing Germany and France, follows the logic of difference that suggests we investigate what may be similar reactions to recent European reforms despite such different educational ideals and institutional arrangements. In France, educational provision is based in the Revolutionary principle of equality, resulting in demands that the state provide an educational system that formally offers chances to all social groups. The VET system in France also reflects the logic established in the French Declaration of Human Rights of 1789, which abolished guilds and corporations of all kinds. Private vocational education and training was considered to violate the principle of the state responsibility to educate and instruct young citizens. Thus, based on the idea that education, including vocational education and training, are of national importance, the VET system has been and still is integrated into the state-dominated general educational system. The French Ministry of Education, in cooperation with representatives of industry and commerce, attempts to elaborate new concepts and to create new programs in order to meet labor market demands for specialized and skilled workers.

While youth aged 10 to 16 must attend the *college unique* where they obtain different qualification levels that enable them to attend one of three different types of state-run upper secondary schools or to enter the labor market. Secondary school achievement determines admittance to these schools and the choice of general, technical or professional education. While upper secondary education provides access to the primary cycle of university education or to a better paid position in the French labor market (Courbebaisse 2001), a differentiated system of levels of qualification exists. Although nearly three-fifths of students leaving upper secondary schools reach a level providing access to HE, formal application procedures and exams control access to the elite schooling at all levels. Schools may enjoy complete state funding but financing is insufficient for all potential students to attend. Thus, sociologists studying France have focused on the problem of inequality in the French educational system and its social structural effects (Duru-Bellat 1996; Brauns 1998).

A crucial characteristic of the French bureaucratic, centralized state, and school-based model of VET is the state agencies' determination of how many trained workers are needed in particular occupations at any given time. Focus-

ing mainly on a few key occupations, vocational schools offer training in abstract, verbal, and theoretical knowledge at the expense of specific, practice-oriented activities, but different types of schools have different emphases (Greinert 2005). Because in France the VET system is mainly school-based, its independence from general education is at risk, and the politicians responsible for it must continuously react to changes in demands of both employers and unions (Culpepper 2001; Culpepper & Thelen 2008). Put more positively, there is more formal permeability and flexibility in an organizationally diverse, mainly meritocratic structure. Indeed, an *adaption* of practical skills and knowledge within a special program offered at technical schools provides a pathway that provides access to HE the originally less successful graduates of general education (see Oerter & Hörner 1991).

France's more highly differentiated and less selective tertiary system is embedded in an "organizational" space of labor markets and career mobility. Here, vocational education and training are viewed principally as investments in firm-specific skills and career advancement within firms. Historically, the French understanding of equal opportunity resulted in an educational system in which vocational training has been integrated into state-run public schools, where the symbolic value of vocational training corresponds to that of academic education. But state efforts to innovate vocational training in the past were marked by a continued lack of skilled labor on the French market and unequal chances, especially for the unskilled. By contrast, in Germany, where vocational training is embedded in the dual system, decisions are taken jointly by the social partners to address cyclical labor market challenges.

This comparative study contrasts isomorphic pressures in the reforms of dissimilar skill formation sectors in France and Germany and examines whether international arguments and agreements wield greater influence in federalist Germany than in centralized France—and how they are interpreted and implemented. In French HE, the relevant change processes have been mainly incremental and the causal linkages are multidirectional, not simply resulting from diffusion of European discourse about the primacy of university autonomy and self-regulation (Musselin 2000). In other words, in this comparative study as in the other two, the relationships between ideas, norms, and policies in both HE and VET sectors need to be understood within their national contexts and close attention paid to institutionalization processes in educational systems responsible for skill formation as well as in the receiving labor markets.

## VI. Outlook

In this paper, we have sketched how institutional processes affect the conditions of skill formation organizations that provide intermediate vocational training and general education. Both organizational fields, VET and HE, are called upon to react to global exogenous isomorphic pressures as well as specific, more coercive European standardization attempts. Current reforms aim to facilitate the adoption of “best” practices, but in each of the countries to be compared, the transformation or even unification of these separate sectors is not easily achievable, despite the rhetoric and ambitious planning by education ministers at annual meetings and the rapidly approaching target dates of 2010 for the Bologna process and 2012 for the Copenhagen process.

Both competition between the diverse organizational fields involved in advanced skill formation and complementarities between educational systems and labor markets remain. Here, fine-grained analyses of dynamics of institutional change were proposed, as these promise to uncover the incremental steps being taken that may represent path stabilization or, alternately, sum up to a path departure or even a path switch. A sociological institutionalist approach, coupled with the methods of comparative-historical analysis, seems promising to understand the significance of current changes in these educational systems’ complementary models as well as competition between such ideals, norms, and policies.

We have suggested that all three dimensions of skill formation institutions—cultural-cognitive, normative, and regulative—and the corresponding mechanisms of change require attention. In conjunction with a synthesis of the rarely combined literatures on VET and HE sectors, the comparative examination of past and present national models among these developed democracies offers a promising way forward for the analysis of the transnational diffusion of ideas, the growing relevance of Europe-wide standards and policies, and the more or less persistent national structures and pathways delineated above.

The transatlantic comparison primarily identifies mechanisms of diffusion and transfer to explore the first (cultural-cognitive) dimension and the processes of ideational institutionalization. Then, contrasting change processes in a variety of contemporary HE as well as VET systems ranging from strong apprenticeship-based to school-based to on-the-job training systems facilitates the test of the impact of specific isomorphic pressures evident in the normative and regulative dimensions. Will the originally voluntary ideational, now more strongly normative and regulated, diffusion processes affect skill formation institutions even more consistently and quickly than have those in other organizational fields of education and science on both sides of the Atlantic over the past two centuries?



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