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Legitimizing the apprenticeship practice in a distant environment: Institutional entrepreneurship through inter-organizational networks

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Abstract

This paper asks how Multinational Enterprises (MNEs) engage in institutional entrepreneurship to successfully transfer the organizational practice of apprenticeship-based training from Continental Europe to the distant host environment of the United States. In our case study, we highlight the important role of inter-organizational networks to coordinate engagement with the cognitive, normative, and regulative pillars of host country institutions. This networked form of institutional entrepreneurship involves the formation of inter-organizational networks for the purpose of bringing about institutional change collaboratively. In the process of transferring apprenticeship, a particular vision of workforce training was created, support gathered, and institutional change was sustained locally around the issue of training. We argue further that networked institutional entrepreneurship is a useful strategic tool to overcome the particular kind of institutional distance between the institutional settings of more coordinated market economies (CMEs) and more liberal market-oriented economies (LMEs). We contribute to existing knowledge by showing how practice transfer is shaped by particular kinds of institutional distance, and highlighting the role of inter-organizational networks as a way of governing collective agency associated with institutional entrepreneurship and the emergence of new local proto-institutions.

Keywords: institutional entrepreneurship; MNEs; agency; practice transfer; institutional distance; apprenticeships; inter-organizational networks; networked institutional entrepreneurship; comparative capitalisms; qualitative case study.

1. Introduction

Institutions matter in structuring business activities of Multinational Enterprises (MNEs) (Henisz & Swarninathan, 2008). While most International Business (IB) research focuses on institutions as constraints (Jackson & Deeg, 2008), we know less about how MNEs respond strategically to institutions or promote institutional change (Ferner, Edwards, & Tempel, 2012; Manning, Sydow, & Windeler, 2012). Since MNEs leverage their position in spanning across multiple institutional environments (Roth & Kostova, 2003), they often transfer practices learned or developed in one institutional environment into new institutional settings. In certain cases, practice transfer involves not only local adaptation, but may involve strategic engagement with and efforts to change host country institutions. Consequently, the role of MNEs as agents of institutional change has been identified as a promising research frontier (Kostova, Roth, & Dacin, 2008).

In this paper, we examine how MNEs act as institutional entrepreneurs in their host-country institutional environment during the course of practice transfer. Often, transfer is achieved by internal adaptation of organizational structures and practices to fit the different constraints of the host country institutional environment (Szulanski & Jensen, 2006). However, in some cases, transferred practices crucially depend on supporting institutional infrastructure for collective resource inputs and legitimacy. Here, successful transfer may also be associated with forms of agency directed towards creating institutional support or more generally promoting institutional change in the host country environment. Thus, MNEs have increasingly become linked with what DiMaggio (1988) called 'institutional entrepreneurship.'

This paper presents a case study of MNEs that have successfully transferred the practice of apprenticeship-based occupational training for skilled blue-collar workers from Continental Europe to their operations located in the United States (U.S.). Currently, managers and public

policy advisors in the U.S. are hotly debating how best to tackle the perceived 'skills gap,' particularly in the manufacturing sector. European-style apprenticeships based on a 'dual approach to technical training' even garnered mention in President Obama's State of the Union Addresses. The 'dual approach' combines both theoretical instruction in a classroom setting and practical application on the shop floor. However, apprenticeship has been historically marginal and lacks legitimacy in the U.S. (Thelen, 2004). Instead, U.S. firms typically rely on school-based training as an alternative type of vocational education and training (Bosch & Charest, 2008). Consequently, the president of one Continental European company described the challenge of implementing a European style of apprenticeships in the U.S. like this:

> "If you talk about apprenticeships in Germany, everyone knows what you are talking about. Here in the U.S. no one knows what you are talking about, nothing, this is basically non-existent. It is like a cell phone that has not been invented yet. And now I have to go and tell them what a cell phone is and what it can do. Well, and then they say, I do have a landline already" (German Partner Firm 4; respondent is German and president of U.S. operations).

Building on these considerations, this paper seeks to address the following question: *How did these MNEs engage in institutional entrepreneurship to transfer the apprenticeship practice to the distant institutional environment of the U.S.?* Drawing on concepts of institutional distance and the comparative capitalisms literature, we find that barriers to transfer were largely based on a specific kind of institutional distance between the coordinated market economies (CMEs) of Continental Europe and the liberal market economy (LME) of the U.S. We argue that MNEs overcame these barriers by engaging in institutional entrepreneurship by creating and utilizing inter-organizational networks to coordinate and govern their engagement with host country institutions. We use the term *networked institutional entrepreneurship* to describe these organized efforts to collaboratively create a vision, mobilize support, and sustain the

implementation of new organizational practices, such as apprenticeship training, in and through inter-organizational networks.

Provan et al. define an inter-organizational network "as a group of three or more organizations connected in ways that facilitate achievement of a common goal" (Provan, Fish, & Sydow, 2007: 482). Building on this, networked institutional entrepreneurship describes the creation and maintenance of an inter-organizational network as particular kind of governance mode for the purpose of bringing about institutional change, supporting transfer of apprenticeships to the U.S. We find that network members use common strategies to legitimize and govern apprenticeship training by targeting multiple 'pillars' of the host-country institutional environment (Scott, 2008). Through this coordinated effort, the firms in our study successfully created and maintained relationship-specific assets which are otherwise absent in the liberal and market-driven institutional environment of the U.S. (Hall & Soskice, 2001). Unlike previous failed attempts by other firms to transfer apprenticeship training (Rogers & Parker, 1996), these firms were successful in using a network-based form of governance to partially suspend existing market forces and embed training practices in inter-organizational relationships built on shared cognitive understandings, strong norms, and enabling forms of regulation. In this process, these companies successfully created a vision, gathered support, and sustained the novel practice (cf. Battilana, Leca, & Boxenbaum, 2009). We posit that networked institutional entrepreneurship is a particularly useful approach to overcome distance between more coordinated and more liberal institutional environments.

Our paper makes three key contributions to existing literature. First, our empirical case poses an important puzzle in that we document the unexpected success of MNEs transferring apprenticeship training practices from the CME context to an LME setting, where key institutional prerequisites are absent. We show that transfer succeeded largely due to institutional

entrepreneurship based on the creation and use of an inter-organizational network to coordinate and govern collective agency. Networked institutional entrepreneurship was effective, since network mechanisms help limit the influence of existing market institutions on firms and simultaneously offer positive ways of generating new cognitive, normative, and regulatory 'proto-institutions.' Second, we extend IB theories of institutional distance to take account not only of the different degrees of distance, but by showing the importance of a more qualitative consideration of the particular kind of institutional difference MNEs face. In particular, we show how the specific challenges for MNEs arising from the absence of strategic coordination in LMEs are important for understanding why MNEs engaged in institutional entrepreneurship in supporting practice transfer. Third, our study has important implications for theories of institutional entrepreneurship by highlighting the potential role of inter-organizational networks as a form of governance in these processes. Here, networks facilitate and maintain collective action that supports institutional change by creating small-scale 'proto-institutions' in two ways: by constraining market forces through relational obligations and pooling resources for engagement with actors outside the network. In the discussion section, we show how this is an important theory-extending insight, and how it opens up relevant areas for future research on institutional entrepreneurship in IB and organization studies.

2. Theoretical framework

MNE practice transfer and institutional distance

MNEs span multiple countries and institutional environments (Westney, 1993), creating opportunities for the transfer of practices across national borders. Such practices are based on explicit and tacit forms of knowledge vital for a firm's competitive strategy (Kogut & Zander, 1993). Many such business practices are influenced by the institutions of the MNE's home

country, particularly in the area of human resource management. Employment practices depend strongly on social institutions outside the firm, such as labor law, industrial relations, and institutions of education or vocational training (Ferner, 1997). Importantly, these institutional differences across countries may offer comparative advantages for different types of industries or business strategies. For example, German firms have been successful in manufacturing high quality products based on strong worker qualifications and other institutions supporting cooperative labor relations, which support their business strategies based on incremental innovation (Hall & Soskice 2001). MNEs have strong incentives to attempt the transfer of such highly institutionalized practices in order to replicate successful business practices and strategies across the global production network, and support organizational integration.

However, due to the context-dependent nature of institutionalized practices, MNEs struggle to engage in successful practice transfer (Streeck, 1996; Thang, Rowley, Quang, & Warner, 2007; Zander & Kogut, 1995). Practice transfer attempts face a high risk of failure due to potentially poor fit of home country practices with the institutional context of the host economy (Kostova, 1999). Such lack of fit is widely conceptualized as reflecting *institutional distance* between home and host country. Kostova and Zaheer (1999: 71) define the institutional distance between two countries as "the difference/similarity between the regulatory, cognitive, and normative institutions of the two countries." Here, distance reflects the three pillars of the institutional environment introduced by Scott (2008: 48): regulative, normative, and cognitive elements. Regulative elements include laws and formal regulations; normative elements include values and informal norms, resulting in certain expectations of appropriate form and behavior; and cognitive elements include shared beliefs and frames to make sense of social reality. Faced with these institutional pressures, organizations seek legitimacy by adopting established practices and may thus come to correspond with the institutional environment. Cross-societal transfer is

challenging for MNEs because of the differences between institutional environments. For example, organizations may lack certain available resources or face opposition in host environments. Institutional distance therefore implies that practices considered legitimate in one country may be less so in another country, thus creating strategic dilemmas for MNEs, even where few technical or economic barriers exist.

One limitation of existing IB literature is that most studies conceive and measure institutional distance in very general terms, using a high level of aggregation (Berry, Guillén, & Zhou, 2010). For example, distance is often measured by computing the geometric distance between pairs of country institutional profiles, using the broadest possible range of indicators across the country's regulative, cognitive, and normative pillars (Kostova, 1999). While having proven very useful within IB research, this quantified view of institutional distance has been criticized from the perspective of comparative capitalisms, notably for failing to specify how and why specific institutional differences are relevant for transfer and other IB activities (Jackson & Deeg, 2008). Put differently, institutional distance is not only a matter of degree, but shapes transfer in relation to the specific kinds of institutional differences relevant for the organizational practices under study.

Most IB literature sees institutional distance as a barrier to practice transfer, and focuses on types of adaptations made by MNEs to cope with these constraints. For example, Westney (1987) outlines four strategies for organizations: finding a functional equivalent in the new environment, internalizing certain tasks, doing without a certain activity, or to "act as an organization-creating organization and mobilize resources to establish new organizations to perform the required activities" (Westney, 1987: 30). Notably, the first three strategies focus on internal mechanisms of organizational adjustment, where firms make creative adaptations within the constraints posed by a different institutional environment (see also Rosenzweig & Nohria,

1994; Szulanski & Jensen, 2006; Yu & Zaheer, 2010). However, Westney (1987) suggests that successful transfer may sometimes need to go beyond such organizational adaptation, and prompt stronger engagement with the external environment in order to mobilize resources and legitimate these practices. In particular to the extent that organizational practices of an MNE draw upon or even presuppose particular resources similar to home country institutions, organizational adaptation is likely to have only limited success. Rather, MNEs may seek to influence or create conditions outside the organization that support practice implementation. Consequently, IB scholars have begun to focus greater attention on understanding the conditions under which MNEs may act as institutional entrepreneurs.

The process of institutional entrepreneurship

Transferring practices between different institutional environments is often associated with strategic forms of agency[1] by MNEs (Ferner et al., 2012). In this context, the concept of *institutional entrepreneurship* highlights how groups of actors engage in efforts to create institutional change (DiMaggio, 1988). Greenwood and Suddaby (2006: 29) define institutional entrepreneurs as "organized actors who envision new institutions as a means of advancing interests they value highly yet that are suppressed by extant logics." Institutional entrepreneurs operate through actions that "define, legitimize, combat, or co-opt rivals to succeed in their institutional projects" (Garud, Jain, & Kumaraswamy, 2002: 196).

We draw on Battilana et al. (2009) who identify three elements of institutional entrepreneurship: the development of a vision for change, mobilizing other actors' support for these changes, and sustaining these institutional changes. Institutional entrepreneurship is shaped by field-level conditions, such as varying degrees of institutionalization (David, Sine, & Haveman, 2013). Likewise, institutional entrepreneurship is a process that may take a variety of

forms, spanning from individual initiatives to broad social movements (e.g., Rao, Morrill, & Zald, 2000).

Drawing on these ideas, we discuss institutional entrepreneurship as a process by which actors influence the three pillars of institutions: cognitive, normative, and regulative (Scott, 2008). While we can distinguish between these dimensions of institutions in analytical terms, these pillars are empirically inter-related elements of institutionalization (cf. Scott, 2008: 48). Our assumption is that institutional entrepreneurs must, at least to some extent, simultaneously de-institutionalize pre-existing cognitive understandings, social norms, and regulations, as well as mobilize support for new cognitions, norms, and rules. This does not mean that old institutions simply break down and are replaced with new ones—rather, this process is more often incremental (Mahoney & Thelen, 2010; Streeck & Thelen, 2005). For example, actors may strategically exploit ambiguities in cognitive understandings, norms, or rules, and in the process convert them creatively to new ends. In this way, entrepreneurial efforts by organizations and institutions may co-evolve, leading to increased heterogeneity and variation within national institutional settings (Lewin & Volberda, 1999). Previous research has likewise examined the relationship between change activities by collective actors and institutional pillars (Maguire & Hardy, 2009; Regnér & Edman, 2014).

MNEs represent a suitable context for studying institutional entrepreneurship because they are often less deeply embedded in the host-country institutional environment that they intend to manipulate or change, compared to domestic firms (Kostova et al., 2008). MNEs are aware of alternative management practices to the extent that their global locations are organized differently in relation to certain common tasks and challenges. As highlighted by the paradox of embedded agency (Garud, Hardy, & Maguire, 2007), MNEs therefore have a large potential for agency and

offer unique opportunities to examine the relationship between different forms and activities of agency and institutions (Battilana, Leca, & Boxenbaum, 2009; Schneiberg & Clemens, 2006).

3. Setting the scene: Institutions of worker training in Continental Europe and the United States

In this paper, we examine the practice transfer of apprenticeship-based training by Continental European MNEs to the U.S. Drawing upon the concepts above, we ask the following more specific research question: *How did the MNEs develop a vision, generate support, and sustain the transfer of the apprenticeship training practice in the distant institutional environment of the United States?*

Apprenticeship is an interesting case of an organizational practice to study in the context of institutional entrepreneurship for transfer. Apprenticeship training is known to be a marginalized type of vocational training in the U.S. (Thelen, 2004).[2] Moreover, as training practices in general, it is typically highly embedded and deeply intertwined with the surrounding context. Companies depend on collective inputs and infrastructure from the external institutional environment, such as support from schools offering theoretical instruction or government and other bodies providing certification. Firms often find it difficult to estimate the costs and benefits associated with investments in apprenticeship training, and face collective action problems in making such investments in skills that are portable between firms within an industry. Thus, apprenticeship relies on complex governance mechanisms present in Continental European countries, grounded in business associations and involving other social partners and the state, which enable firms to make these long-term commitments yielding firm- or industry-specific skill sets.

Transferring apprenticeships to the U.S. may also be described as a critical case because institutional distance is particularly acute around the specific issue of vocational training (Seawright & Gerring, 2008). While Continental Europe (e.g., Germany) and the U.S. share broadly similar profiles as advanced industrialized economies, the literature on comparative capitalisms has widely stressed how their differences related to worker training are very large, whereby Germany is considered an almost polar opposite to the U.S. (Hall & Soskice, 2001: 25-30).

Germany, Austria, and Switzerland are countries characterized by a dual apprenticeship training system (Graf, 2013), meaning that vocational education involves the structural integration of practical training and theoretical instruction. In Germany, training is organized as part of a broader collective skill formation system that involves a high degree of long-term relational coordination among various private and public entities (Soskice, 1994). In 2012, over half of the school leaving age cohort (55.7%) were trained in one of the 330 apprenticeship occupations totaling 1.43 million apprentices (Bundesministerium für Bildung und Forschung, 2014). Training occurs in a collectively organized system, including public certification and nation- or at least statewide standards. Firms, unions, chambers of industry and commerce, federal agencies, and government provide formal governance of these schemes through strategic coordination. Apprenticeship thus constitutes a widespread and respected initial training route, which is deeply embedded in supporting laws and regulations. In the U.S., by stark contrast, training is typically organized through an individualized and market-driven system, with relatively little public provision apart from general education. The dominant type of vocational training in the U.S. is school-based, as opposed to apprenticeship-based training (Bosch & Charest, 2008), and firms combine this largely with flexible forms of on-the-job training (Thelen, 2004). U.S. firms typically rely on semi-skilled workers, rather than highly skilled ones,

complemented by a larger number of college-educated engineers. Consequently, apprenticeships are often stigmatized as lower-status alternatives to four-year colleges. As such, apprenticeships are far less common and typically limited to low-prestige further training programs, often in the construction trades, and receive only very shallow regulative support at federal or state level. Apprenticeship has declined even further in recent years, as the number of employees receiving training dropped from around 489,000 in 2003 to just 288,000 persons about a decade later.[3]

Table 1 summarizes the specific kind of institutional distance between Germany and the U.S. relevant for apprenticeship training by mapping it onto the cognitive, normative, and regulative pillars of the respective institutional environments. Unlike most existing IB literature, we offer a contextualized view on institutional distance, going beyond a purely relational understanding, instead looking at the qualitative differences between institutions of workforce training in this particular pair of countries, which represent broader differences between LME and CME varieties of capitalism (Hall & Soskice, 2001).

--- INSERT TABLE 1 ABOUT HERE ---

Jackson and Deeg (2008) argue that specific challenges may be involved in transferring practices from more coordinated institutional environments, which rely on collective inputs, to more liberal settings. This is because the host country institutions of LMEs do not provide the same rich supply of collective inputs and support forms that foster relationship-specific investments (see also Geppert, Williams, & Matten, 2003). For example, business associations do not exist to coordinate training efforts and the policy channels are lacking to negotiate and certify training through unions and state and federal agencies. Given this specific kind of institutional distance, exporting CME-type practices to this particular host country requires going beyond internal adaptations by individual firms. Instead, firms will need to actively engage with the host environment and bring about issue-specific institutional change, in order to implement

apprenticeships. Moreover, apprenticeship involves relationship-specific assets that can be quickly undermined by the institutionalization of market forces, which may materialize in the poaching of skilled workers, the lack of commitment of participating firms to train workers broadly, or workers' unwillingness to co-invest in developing occupational skills. Existing research also suggests that the fluid labor markets in the U.S. pose significant barriers for the transfer of more relational and long-term Human Resource (HR) practices (Beechler & Yang, 1994). So how did the organizations we study successfully engage in transfer of apprenticeships to the U.S.?

4. Methodological approach

Research design and case selection

To better understand how MNEs engage in practice transfer and institutional entrepreneurship, we employ a qualitative case study research design (Eisenhardt, 1989; Yin, 2009) used increasingly to grapple with complex problems in international business (Birkinshaw, Brannen, & Tung, 2011). Case studies have their potential strength in building and extending theories (Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mantymaki, 2011) by putting emphasis on *how* and *why* questions (Doz, 2011) that give insights beyond the particularity of a single case (Eisenhardt & Graebner, 2007).

The case selected here is Apprenticeship Network[4], an inter-organizational network of eight companies which partners with a local community college, the State Department of Labor, and about two dozen high schools in a metropolitan region in the South of the U.S. This network aims to collectively offer apprenticeships in a 'dual system,' meaning that it combines theoretical instruction at the college with practical training and application in the workplace. Of the eight member companies, four are headquartered in Germany, two are American companies, and one

each is headquartered in Austria and Switzerland, respectively. Apprenticeship Network was founded in 1995 by two small and medium-sized companies headquartered in Continental Europe. Over time, the network grew to include more German and also domestic U.S. companies. All companies are in different kinds of high-tech manufacturing industries, where worker skills play an important role in competitiveness. Unlike in the German context, labor unions are fully absent in coordinating the training activities, which is related to a low union density of just 3-4% in many states of the Southern U.S.[5]

Apprentices graduating from the Apprenticeship Network program receive an associate degree in mechatronics from the college, signaling skills at the nexus of mechanical, electrical, and computerized production processes, as well as a journeyman certificate provided by the State Department of Labor. It is a four-year program and roughly 80 per cent of the training is conducted in-house at the different partner firms. The training at each partner firms reflects the distinct capabilities and demands of the individual company. Twenty per cent of the training takes place at the college, with the theoretical instruction being standardized across all apprentices from the various partner firms. More than 120 apprentices have graduated from the program since its inception in 1995.[6]

--- INSERT TABLE 2 ABOUT HERE ---

Inter-organizational networks can be governed in different ways, in order to coordinate a collaborative endeavor (Provan & Kenis, 2008). Our case, Apprenticeship Network, is governed through a lead firm. Its role differs from that of regular members in that it is the go-to company for any inquiries and questions from partner organizations and external actors, such as interested students. Despite the existence of this informal lead firm as well as dramatic differences in firm size within the network, decisions are made through a one member-one vote system.

All network members, including the two American companies (Partner Firm 1 and Partner Firm 7), consciously decided to transfer the Continental European practice of apprenticeship training to their U.S.-based locations. Among the Continental European firms, practice transfer often was initiated by the local subsidiary rather than being a top-down policy of the headquarters. We argue that these cases meet several important criteria of practice transfer. First, the companies are using a pre-existing cognitive-normative template and emulate that in the host economy. Second, most of the parent companies from Europe used sophisticated knowledge sharing mechanisms to assist their foreign subsidiaries in implementing apprenticeships. Partner Firm 2, for example, describes its relationship with headquarters like this:

> "They provide great support, such as curricula und instruction documents or more generally exchange of information and experience from [Headquarters Location], this really happens all the time. We also just had our trainer over in [Headquarters Location] to see how they are doing it at the headquarters" (German Partner Firm 2; German CEO of U.S. operations).

Third, firms actively sought to build external institutional inputs and legitimacy necessary to adopt this foreign model. As discussed previously, in the particular case of transfer of apprenticeship training from Germany to the U.S., firms need to 'move the goalposts,'[7] meaning go beyond organizational boundaries and engage with the host environment, as opposed to organizing transfer only within the firm. Here, the absent relationship-based and collectively available inputs need to be created and legitimacy built—transfer in this case thus requires institutional entrepreneurship.

Data collection and analysis

This study uses primary data from 14 interviews with 12 respondents conducted between May 2012 and August 2013. The interviews lasted between 40 to 120 minutes, and they were

tape recorded and transcribed verbatim. Table 3 below provides additional information on the interviewees and Table 4 shows the open-ended questions used in the semi-structured interviews.

--- INSERT TABLES 3 AND 4 ABOUT HERE ---

While being an excellent source of rich information, interview data suffers from certain weaknesses, such as the danger of retrospective sensemaking (Eisenhardt & Graebner, 2007). Thus, additional data sources were consulted in order to triangulate. Most importantly, we created a large database of archival information based on internal documents provided by the inter-organizational network, such as meeting minutes, presentations, and training plans. Publicly available information was also included and analyzed, such as newspaper articles, public speeches, and statements given by company representatives. In total, we added 167 documents to our database, together containing almost 2,000 pages of archival data. Our empirical data covers the whole period from network formation in 1995 up to the year 2014.

Data analysis involved three main steps. First, we identified key barriers to transfer, and attempts by the organizations to overcome these barriers for the purpose of transfer in a largely inductive fashion. A key aspect here concerned the governance of change activities within and through an inter-organizational network. In a second step, following the institutional pillars as laid out by Scott (2008), we coded these barriers and activities as relating to the cognitive, normative, or regulative dimension of the institutional host environment. In a final step, we reconstructed the process of networked institutional entrepreneurship analytically in terms of three steps: creating a vision, mobilizing support, and sustaining change (cf. Batttilana et al., 2009).

5. Practice transfer across institutional distance: The case of apprenticeships in the United States

This section presents the results of our empirical case study of Apprenticeship Network. Our analysis focuses on how Apprenticeship Network as collective actor became an institutional entrepreneur by creative engagement with different 'pillars' (Scott, 2008) of host institutions, and how member firms were thus able to successfully transfer the previously marginalized practice of apprenticeship training to the distant environment of the U.S. Our analysis pays special attention to the sources of their organizational vision of apprenticeship, the mobilization of support through engagement with the network, and how these efforts were sustained in the wider societal context.

Cognitive pillar

The cognitive pillar of institutions refers to shared belief systems, categories, and mental models with which the social reality is interpreted and made sense of (Scott, 2008). Members of Apprenticeship Network have a shared cognitive template, closely modeled after the Continental European version of apprenticeships. Partner firms consciously intended to transfer this model to their locations in the U.S., where templates and categories of worker training are vastly different. Creating a common vision within and among firms within the network was the first step in the process of institutional entrepreneurship.

Initially, managers within the MNEs built various coalitions within their respective organizations to form a consensus understanding of what actually constitutes apprenticeships. With regard to headquarters, managers won support for the transfer initiative by referring to the similarity of the category 'apprenticeships' as used at the subsidiary and the headquarters:

> "It was an easy argument to make to take pretty much the same model, or a very similar model as back in [Headquarters Location] and implement it

> here in the U.S." (German Partner Firm 2; German CEO of U.S. operations).

Meanwhile, at the subsidiary level, managers had to frame apprenticeship as a viable route to recruit and train skilled workers. This involved problematizing existing local practices of recruiting skilled workers on the external market, and then training employees on the job in very flexible arrangements (Thelen, 2004). For various reasons, this classic route no longer seemed feasible:

> "We hired so many people so quickly that the market was saturated. Anybody that was skilled, we got them" (German Partner Firm 6; American training manager of U.S. operations).

Thus, managers construed a fit between the practical problem of finding skilled workers through established routes and the envisioned 'solution' of transferring the Continental European version of apprenticeship.[8] To solve this problem, many members of Apprenticeship Network drew on a familiar model utilized in their home countries.

While apprenticeship was a rather new concept at the subsidiary level, the fact that it is an established practice in the home countries made it easier to sell this idea to local managers in the subsidiaries:

> "I think that we are a German company and that this is normal in Germany to do this. […] So I think that helped us a lot to support it" (German Partner Firm 6; American training manager of U.S. operations).

Understanding of apprenticeships was also facilitated by the fact that some of the managers responsible were parent country nationals that had been themselves trained in an apprenticeship. The two American partner firms, however, had first to be familiarized with this foreign model. Here, the Lead Firm played a decisive role in identifying and recruiting potential member companies in the founding stage of the network:

> "[Lead Firm representative] and I met and he laid out their concept for an apprenticeship program, based on a European-style program, and when he did, at first I thought he was crazy […]. But he was very open to us being

> a small company. […] So we kind of went forward and they invited us in" (American Partner Firm 1; American president).

Once the category of apprenticeships had meaning within individual firms, Apprenticeship Network members sought to gain support for the understanding that training was a collective undertaking that involved collaboration beyond the boundaries of single firms. Particularly during the mid-1990s, the founding members, Lead Firm and Partner Firm 3, started looking for and recruiting partner firms for the envisioned network. Unlike the dominant understanding of skill acquisition as an investment in individual or firm-specific human capital in a competitive market, the concept of apprenticeship represents a collective endeavor that draws on collective inputs and collaborative pooling of resources across organizations. As such, the MNEs had to gain support for their vision at the inter-organizational level:

> "[W]hat is often missing is communication with other firms that have very similar challenges. And Apprenticeship Network is an example for that, where you can see that when you are trying that on your own, you really struggle a lot, because you often lack the resources to make it happen. But if you then find someone with very similar interests and then create a partnership, you have totally different opportunities" (German Partner Firm 2; German CEO of U.S. operations).

Network firms also negotiated the curriculum taught at the college, including a special schedule for their apprentices. Apprenticeship Network chose to collaborate with a particular college because it was responsive to supporting the creation of a new training program. Other colleges, while occasionally closer to some of the locations, were not interested in developing the previously unknown apprenticeship program and make necessary adaptations to class schedules and training equipment. Members of Apprenticeship Network relate to the college not as individual companies, but collectively as inter-organizational network:

> "To start a college program, you have to have something between six and twelve students, at minimum, per semester. And if you want to start this as a single company, that is not feasible. Except if you are a huge company. And then if someone leaves, the program gets discontinued. And that is why it made total sense that firms cooperate because together we have

> enough students" (German Partner Firm 5; German chief HR manager of U.S. operations).

This notion of training according to common standards again drew upon similar understandings stemming from institutional environments at home:

> "It was very helpful that basically all of the companies that were involved from the beginning had experience with the model from Europe […]" (German Partner Firm 5; German chief HR manager of U.S. operations).

Meanwhile, for the U.S. context, this program was described as "unique in the sense that a consortium of companies […] support[s] the program" (Apprenticeship Network leaflet).

The two American firms in the network now largely share the Continental European template of apprenticeships despite their lack of prior exposure to this type of apprenticeship. Our data suggest only one important local adaptation, whereby unlike all other network partners, Partner Firm 7 does not recruit high school students, but recruits from the ranks of its existing workforce. While the training itself remains the same, here apprenticeships are understood more as a tool for workforce development and promotion. Thus, leveraging a network for transfer does not preclude conflicts or adaptations among member firms, but constrains and manages these by negotiations and compromises sought at the inter-organizational level. Importantly, the other American partner firm, Partner Firm 1, is recruiting high school students. It thus adopted the European template in a more coherent form.

In order to sustain these shared understandings, Apprenticeship Network engaged actively with external actors and their broader and largely taken-for-granted assumption that apprenticeships in the U.S. are mainly in the construction trades. Indeed, U.S. apprenticeships are highly concentrated in this sector where the top five occupations for fiscal year 2012 were electrician, carpenter, plumber, pipe fitter, and construction craft laborer.[9] By contrast, Apprenticeship Network offers apprenticeships in high-tech manufacturing industries, and intends to recruit its skilled workforce through apprenticeships. Introducing a new cognitive

category for apprenticeships and spreading this novel understanding required a combined effort of member companies. Network firms undertook a number of awareness-raising activities in their local environment. For example, they created a program through which they intend to target high school teachers:

> "We sat around a table having lunch one day and the discussion came up about how we are going to change this paradigm [that apprenticeships are not offered in manufacturing]. And partly was, the people we got to change it with first are teachers, because teachers are in contact with kids every day. […] So in 2012 we started a pilot program and 25 teachers went to a two-week summer camp and so they spent a couple of days at different companies" (American High School; American career development coordinator).

Representatives of member companies also frequently visit high schools to talk about apprenticeships and work to make high school students more familiar with apprentice occupations in the manufacturing sector:

> "So, if you go to a group of high school kids and you say 'who wants to be a machinist when you grow up?', they are like 'a what?' They don't know what a machinist is, they don't know what a maintenance person does, they don't know what skilled trades are, they have not been exposed to it, they really haven't" (German Partner Firm 6; American training manager of U.S. operations).

Through these activities, member companies seem to have slowly influenced the cognitive framing:

> "We have worked to change their [the students'] thinking, to get them even interested in the program. Now, we will say that this year [2013], Apprenticeship Network has a record turnout of kids who showed an interest" (German Partner Firm 6; American training manager of U.S. operations).

In the process, Apprenticeship Network seems to have been successful in introducing and slowly ensuring sustained support for its vision of a novel category of training based on the Continental European model of apprenticeships. In a second step, the network had to work

towards the legitimization of the foreign practice, which refers to the normative pillar of an institutional environment.

Normative pillar

The normative pillar of institutions includes values, norms, and expectations associated with a given practice or issue (Scott, 2008). Values refer to desirable outcomes and practices, whereas norms delineate how a valued activity should be implemented. Apprenticeship Network faced challenges in infusing their vision of apprenticeships with value as an outcome, as well as in establishing social norms for implementing training. For example, U.S. firms typically assume that paying for training and education is the responsibility of the individual worker, whereas the expectation that firms also invest in human capital is rather alien (Bailey & Berg, 2010; Thelen, 2004). This fact poses a normative barrier to Continental European-style apprenticeships, where firms both pay an apprentice's wage and make significant investments for the in-house training. Consequently, Apprenticeship Network had to overcome a normative barrier among its member firms in order to establish these norms inside each member firm. More specifically, they sometimes had to justify investments in apprenticeship vis-à-vis the finance personnel in their organizations:

> "They [finance top management] were interested and curious, but they weren't quite—and they didn't understand the mechanics of it here. Even though we are a German company we are run by Americans, I mean mostly Americans, all our senior leadership is American. […] Always the financial part of it is a little startling, because unlike in Germany, we foot the bill, we have to pay for the college and the wages and the books. But in the long term, I think everybody knew it was the right thing to do" (German Partner Firm 6; American training manager of U.S. operations).

Meanwhile, Apprenticeship Network partners supported their investments in apprenticeships by establishing appropriate norms and values, both among member firms and by engaging with local labor market institutions more broadly. Apprenticeship Network faced a

fundamental institutional barrier to apprenticeship training related to the possibility of poaching of trained workers. Poaching is known to be a severe collective action problem in liberal market contexts, where current apprentices or members of the skilled workforce are lured away by competitors who offer a wage premium. The companies investing in training often cannot compete with these higher wage offers, since they have the additional cost burden for training. Extant research shows that the problem of poaching led to the collapse of earlier attempts to introduce apprenticeships in the U.S. (Thelen, 2004). In order to prevent this, Apprenticeship Network has an informal, but very effective social norm not to poach from each other:

> "Based on the laws you can't do anything [if an apprentice wants to go to another partner firm]. If he wants to go, he can go. But I wouldn't accept if an apprentice jumps ships during the program. […] For me, that is simply a gentlemen's agreement" (Austrian Lead Firm; Austrian technical training manager of U.S. operations).[10]

Grounded on the reciprocal expectations of network members, this idea of a gentlemen's agreement seems widely accepted, even by Partner Firm 7 as American firm:

> "We have had occasions where somebody has left from Lead Firm or either didn't leave from Lead Firm and come over here and put in an application, and before we would even talk to the person, I would contact [Lead Firm representative] and say, hey, I got one of your guys over here that has applied for a job and then he would either tell me, hey, if you want to hire him that is fine or no, don't. […] We wouldn't jeopardize the partnership over somebody wanting to jump ship and go to work somewhere else" (American Partner Firm 7; American training manager).

Collaborative forms of governance as typical for inter-organizational networks constitute a key factor supporting this norm among the cooperating firms. For example, member companies occasionally offer special training classes outside the apprenticeship curriculum, on a reciprocal basis, free of charge. For example, Partner Firm 3 has a welding competence, and so it offered a welding course to interested apprentices from the partner companies. Other network members have provided similar favors, be it to actually provide the practical training to apprentices from a network member company (as does the Lead Firm for Partner Firms 2 and 7, albeit not free of

charge), or—going beyond the issue of apprenticeships—helping each other fix broken equipment (as has been done by Partner Firm 6, for example, which helped the Lead Firm repair a broken 650 ton press), which suggests multiplex inter-organizational relationships. More generally, members of Apprenticeship Network reported a very high level of trust within the network:

> "I trust them, absolutely. But I trusted them and they are trustworthy. It isn't just blind trust. It has been put through the thick and thin through the whole time. I am sure on both sides of the fence. It is getting to know people, and I can't say it enough, commitment is huge. It shows how much heart you put into it" (American Partner Firm 1; American president).

Trust and reciprocity within the network thus appear to be two mechanisms limiting the potentially eroding influence of markets and establishing supporting norms around apprenticeships at the inter-organizational level.

In order to sustain this novel practice, Apprenticeship Network also actively sought to address normative barriers within the wider institutional context outside the network itself. Here, the main barrier is that apprenticeships suffer from a certain stigma, and that going to a four-year college is usually considered the legitimate education pathway. Since apprenticeship as training route is rarely valued in the U.S., Apprenticeship Network had to overcome normative resistance:

> "How do we get the kids on a pathway earlier and how do we tell them it is okay if you end up at the Community College to get a certificate? […] Let you understand clearly all the options and if you go to the Community College, that doesn't mean you are a failure in your life. That is the most efficient, in many times the most efficient, effective way for you to get where you want to go in your life. Let us help you understand that" (American High School; American career development coordinator).

Apprenticeship Network developed a number of strategies to legitimate apprenticeships as a valued alternative. For example, they purposefully designed their apprenticeship program to be integrated within the college system:

> "It was critical, right from the beginning, that we integrate the college education within Apprenticeship Network. Because that way we can

> counter the argument, my kid has to go to college to have good career opportunities" (German Partner Firm 4; German president of U.S. operations).

This program structure thus utilized the existing and highly legitimate training pathway of college education as reference point to signal similarities to their own program. This way, the novel practice of apprenticeships is framed in old and familiar parlor, for example when it is referred to as "the other four-year degree" (State Department of Labor presentation slides).

This observation echoes previous studies that show how analogies to existing institutions and practices can provide a new practice with necessary legitimacy (Etzion & Ferraro, 2010). At the same time, Apprenticeship Network went beyond this by also stressing where its approach differs as a novel and potentially superior way of doing things. For example, members of Apprenticeship Network market their program as "free college and a paycheck" (Apprenticeship Network program overview), which nicely captures both the similarity to an existing legitimate training path as well as where their offer differs, namely that college is paid for in their apprenticeships.

Also, building and strengthening ties with government agencies is an activity aiming to incrementally change the norms associated with apprenticeships:

> "We have a very good relationship with the [Head of the State Department of Labor] who is every year at our graduation ceremony" (Austrian Lead Firm; Austrian technical training manager of U.S. operations).

Mobilizing political support does not only involve building a formal relationship with organizations such as the State Department of Labor, but also actually working to ensure that apprenticeships are a priority at the top level of these organizations. Apprenticeship Network is increasingly visible at the state level, and political organizations now view it as a flagship project within the state. For example, the state recently nominated Apprenticeship Network for "recognition in excellence and vision" (State Department of Labor annual report).

In sum, the engagement of Apprenticeship Network led to incremental changes in establishing social norms about apprenticeship training and seeing apprenticeships as more valuable in the proximate external labor market as well as the education landscape in the host setting:

> "It is a big paradigm shift for us; it really is" (German Partner Firm 6; American training manager of U.S. operations).

How network members collectively worked to influence the rules and regulations at different levels to accommodate this normative paradigm shift will be discussed next.

Regulative pillar

The regulative pillar of an institutional environment comprises formal rules and laws (Scott, 2008). These rules and regulations constrain potential institutional entrepreneurs, but also enable certain activities aiming for bringing about institutional change. Members of Apprenticeship Network creatively engaged with various rules and regulations at different levels, in order to create a certain vision as feasible, gain support for it at the network level, and finally work towards sustaining the novel practice by using existing regulations and creating new ones.

In envisioning apprenticeship training, firms had to overcome various rule-based constraints within their organizations. For example, Partner Firm 6 was confronted with the challenge that its internal rules prohibit that under-age people work on the shop floor. This internal rule raised issues on whether the company could implement the envisioned apprenticeship model, which includes practical shop floor training alongside the theoretical instruction provided at the college. To deal with this, their apprentices are formally hired by a third party contract agency, which means that they are not officially employed by Partner Firm 6, thus allowing them to formally follow the established rule, but circumvent it in a creative way:

> "It is just one of those things that we have just had to figure out how to do it" (German Partner Firm 6; American training manager of U.S. operations).

Similarly, members of Apprenticeship Network adapted their various recruitment and training practices to accommodate the new apprenticeship approach. For example, Partner Firm 6 had to create, staff, and develop a new department for training. Also, all member firms had to create an internal mentorship program by identifying a number of skilled workers to function as mentors to the apprentices during their practical training in production. In addition, some member firms have invested rather heavily in internal training capabilities. For example, the Lead Firm has spent roughly $1.8 million on an internal training facility, and also hired one manager and three full-time trainers for the purpose of training its apprentices in-house. These changes helped to establish rules and structures that support apprenticeship at the organizational level, which is an important component in practice transfer (Kostova & Roth, 2002).

Gaining support for the novel practice involved negotiating and agreeing on new rules among firms at the network level. This involves more formal elements of governance of the network itself, whereby members collaborate broadly as equals despite their differences in size. For example, the voting routine within the network is very open:

> "When you go to the meetings, I mean there will be a vote and it isn't a secret ballot kind of thing. You'll raise your hand and so it is not that it is very secretive or anything like that" (Swiss Partner Firm 3; American apprenticeship coordinator of U.S. operations).

Based on this process, member companies agreed on a certain list of network guidelines to which members must adhere. For example, they have agreed on an escalating pay scale for the apprentices during the program, as well as on a standard pay scale immediately upon graduation from the program. Through this, they hope to limit wage competition within the network by developing their own set of rules. Notably, these rules are not part of a formal contract, but rather

are laid out in a self-designed guideline. As such, pressures for conformity are less coercive than normative (cf. DiMaggio & Powell, 1983), as can be seen from this excerpt:

> "The Apprenticeship Network is a very special partnership. The companies in the Apprenticeship Network commit to the purpose, value (including financial), ethics, and integrity of an Apprenticeship program" (Apprenticeship Network guidelines).

Nevertheless, conformity to these rules is monitored and deviations are sanctioned. For example, another agreed-upon rule is that member companies recruit for Apprenticeship Network only, as opposed to recruiting for their own company. Our interview material suggests that in several past instances some member companies have given the impression in recruiting events that they were recruiting apprentices for their individual company, as opposed to representing an inter-organizational network. This deviation from the guidelines was then normatively sanctioned by the Lead Firm.

Regulating apprenticeships within the network inevitably also introduces tensions. For example, while Apprenticeship Network recruits together, each partner firm has an interest in getting the best apprentices out of that common pool. But already at its inception, Apprenticeship Network tried to develop mechanisms preventing the intrusion of too many competitive elements. Most importantly, the network guidelines state that member companies do not compete for "associates, customers, product design or other related business issues" (Apprenticeship Network guidelines). Accordingly, the network members are in different types of industries, which represents a largely implicit selection criterion for network membership. A positive side effect is that this increases the occupational specialties the network as a whole has to offer to interested students. More generally,"[t]hat is the beauty of our partnership, is we are really not competitors at all" (American Partner Firm 1; American president).

Finally, overcoming regulative barriers posed challenges within the wider societal context—particularly dealing skillfully with the U.S. Department of Labor and existing regulations governing workforce training, in order to sustain the support for transfer. For example, the legal basis for apprenticeships in the U.S. goes back to the National Apprenticeship Act of 1937. Today, hundreds of 'apprenticeable occupations' are approved by the U.S. Department of Labor, even though the concept of apprenticeships differs markedly from the Continental European model, as discussed above (see Table 1). Apprenticeship Network built upon this regulative framework of the host economy, but needed to engage in institutional entrepreneurship by creating a new type of apprenticeable occupation within it, modeled after the distinct Continental European version of apprenticeship. This also involved various changes in the curriculum and program development over time, whereby the program evolved from a general occupational apprenticeship program to a manufacturing technology curriculum and most recently to a mechatronics program, which now has received nationwide approval:

> "The focus and the attention continued to be there and Apprenticeship Network continued to say, we want the apprentices, we want their credentials to actually read that they are certified in what their area of expertise is, as opposed to it being machinist" (State Department of Labor; American apprenticeship consultant).

In a collaborative effort, they created mechatronics as a novel trade, which was approved in January 2013 by the Federal Department of Labor. In the corresponding Department of Labor bulletin, it is stated specifically that this has been done on behalf of the Lead Firm, which represents Apprenticeship Network to outsiders. Thus, this was a collective entrepreneurial activity targeting the regulative pillar of the existing institution by creating a new occupation using existing rules and regulations, in order to sustain the novel practice of apprenticeships in the distant host environment.

Networked institutional entrepreneurship as a process for overcoming distance

The efforts of Apprenticeship Network can be interpreted as a case of successful practice transfer involving institutional entrepreneurship. For example, firms report a strong similarity between the home country template and the implementation at the subsidiary:

> "The education itself, the training, there is no difference [between headquarters and U.S. subsidiary]" (Austrian Lead Firm; Austrian technical training manager of U.S. operations).

Transferred practices are also becoming strongly anchored in the host country context. For example, respondents frequently argued that Apprenticeship Network is gaining prominence and 'momentum':

> "When you are running a small program for six to ten students, who cares? Once you have a hundred, people will start to pay attention. Once you get into the TV, we will really get them involved, sure we are. The whole college, it is a known program now which it wasn't years ago" (American College; Finnish instructor).

Likewise, numbers of interested students continue to rise in modest fashion: from 37 students in 2011, to 74 in 2012, and 94 students in 2013. Support for apprenticeships has also become more broad-based to include a variety of stakeholders:

> "[Our apprenticeship model] is in the interest of so many, there are so many interest groups that have an interest in seeing it growing. It is not only companies, it is also colleges, it is the schools and the population—the parents, the kids. […] That is why I don't see any danger that this stops" (German Partner Firm 5; German chief HR manager of U.S. operations).

Key components of the German mechatronics curriculum, such as instruction on analyzing, running, and maintaining mechatronics systems, have been included in the mechatronics technology curriculum of the local college. For example, the college catalog states that graduates of this program "assist in designing, developing, testing, process designing and improving, and troubleshooting and repairing complex engineering and manufacturing systems" (Community College catalog).

Finally, the network itself also appears to be increasingly institutionalized:

> "I see Apprenticeship Network by now as kind of free standing. It is not dependent anymore on one or two specific partners. It actually is kind of an institution in and of itself. We have the support of the college, we have the support of the State" (German Partner Firm 5; German chief HR manager of U.S. operations).

In the past, the particular composition of the network has repeatedly changed (cf. Table 2), with some new companies joining the network and others leaving. Despite these changes, Apprenticeship Network sustained its efforts independent of particular members, suggesting the importance of its organization and internal governance as collective actor. Starting as a process of practice transfer within single organizations, Apprenticeship Network is the result of MNEs who became actively engaged in creating or joining an inter-organizational network, which was designed as a collective actor to influence wider aspects of the institutional field. Acting together as an inter-organizational network enabled firms to seek changes collectively across multiple pillars of host country institutions. These changes were incremental and interdependent ones to be sure, and the result was not a wholesale institutional change to apprenticeship training in the U.S. Nonetheless, we see this process of institutional entrepreneurship as resulting in very significant localized proto-institutions (Lawrence, Hardy, & Nelson, 2002), which may or may not result in wider scale changes in the future.

Given the specific kind of institutional distance between Continental Europe and the U.S. regarding vocational training (Hall & Soskice, 2001), this success is surprising. Most IB literature predicts that high institutional distance leads to low success in practice transfer (Kostova & Roth, 2002), or implies that MNEs are likely to decouple their activities from host country institutions and substitute for institutional supports by internal activities within the firm. By contrast, our empirical findings show that the transfer of apprenticeships to the U.S. required more active engagement with the host environment. Here, the inter-organizational network was critical

precisely because it helped the member firms of Apprenticeship Network to address the very specific institutional challenges involved in transferring coordinated types of training into the more liberal institutional environment of the U.S. Inter-organizational networks support these efforts in two ways: First, networks help to de-institutionalize (or at least suspend) existing market-driven practices locally, which have historically undermined investments in apprenticeship training through poaching or poor job security. Second, networks provide a necessary governance structure to organize coordinated pooling of resources, which in turn supports the development of new cognitive, normative, and regulative institutions, both within the network and in the local institutional environment. For example, firms engaged with external actors (e.g., schools, applicants, etc.) collectively, thus sharing their knowledge, increasing their bargaining leverage, and reducing associated transaction costs. Apprenticeship Network was thus able to create an institutional space within the larger field of the U.S. liberal market economy by using network-based governance to support relational forms of coordination in ways that were sufficient for a localized transfer of a practice to the distant institutional environment of the U.S.

Table 5 below summarizes our case study findings.

--- INSERT TABLE 5 HERE ---

6. Discussion

In this paper, we have drawn on concepts of institutional distance and institutional entrepreneurship to examine the surprisingly successful transfer of practices of apprenticeship training by mostly Continental European MNEs to the U.S. Going beyond IB literatures on practice transfer and adaptation, our case study demonstrates how MNEs are able to develop a vision, generate support, and sustain new practices in a host country institutional environment. Moreover, they did so in an unlikely institutional setting, where collective inputs from their home

country environment are absent and market-based forms of training are institutionally dominant. Our main finding is that the MNEs were able to engage in institutional entrepreneurship through the development of an inter-organizational network. During this process, the foreign MNEs and their domestic partner firms collectively engaged with cognitive, normative, and regulative aspects of institutions of worker training, and promoted various changes along each dimensions. While these changes are limited to fairly local shifts, we interpret this case as an instance of proto-institutionalization that may yet lead to wider scale changes by diffusing to other locations (Lawrence, Hardy, & Nelson, 2002). Next, we turn to the theoretical implications of our paper and outline how these make two further distinct contributions to the literature.

First, we extend IB theories of institutional distance and practice transfer by arguing that attention should be given to more fully consider the particular kind of institutional difference MNEs face. The comparative capitalisms literature suggests conceptualizing institutional distance in a contextual and case-specific manner (Jackson & Deeg, 2008). Here, we show that practice transfer from a CME to an LME environment raises specific barriers related to the absence of coordinated institutions needed for apprenticeship training. Given this particular kind of institutional distance, we can more fully understand both why institutional entrepreneurship was necessary for practice transfer, and why internal adaptations were insufficient. Moreover, we can understand why the inter-organizational network played such an important role for institutional entrepreneurship: The network as organizational form allowed firms to limit the influence of external markets on their training practices yielding firm- and industry-specific skills, but also to coordinate in creating new understandings, norms, and rules at a local level. Thus, inter-organizational networks constitute social spaces in which cognitive templates can be agreed upon, facilitating norms and values construed and maintained, and forces joined to influence rules and regulations to make them more conducive to the particular practice in

question. In our case, networks help to mobilize and sustain collective investments into coordinated forms of training, thereby creating an institutional infrastructure with functional parallels to the more formal and associations-based governance of apprenticeship in Continental European CMEs.

Importantly, our study does not suggest that networks necessarily work similarly given other kinds of institutional distance. A simple counterfactual suggests that practice transfer in the opposite direction from LME to CME contexts would not require the same re-creation of missing collective inputs and institutional resources. In fact, U.S. firms operating in Europe often pursue transfer using more hierarchical modes of implementation within the firm, and strategies of institutional avoidance rather than active engagement (Edwards & Ferner, 2002; Lawler, Shyh-jer, Pei-Chuan, Johngseok, & Bing, 2011; Pulignano, 2006). Thus, we agree with Battilana et al. (2009: 85-86), who stress that "different activities that constitute institutional entrepreneurship vary in different contexts" and thus comparative research is needed to better conceptualize "which approaches to managing the process of divergent change implementation work best in which contexts."

Second, our study has important implications for theories of institutional entrepreneurship by highlighting the role of inter-organizational networks in governing collective action. Greenwood and Suddaby (2006: 29) describe institutional entrepreneurs as "organized actors," but we know relatively little about how collective action involved in institutional entrepreneurship can be organized (David et al., 2013). Existing research discusses how collective action takes shape in social movements (Rao et al., 2000), coordinated efforts to influence existing standards (McGaughey, 2013), and in groups based on social and inter-personal networks (Dorado, 2013). Our study extends these perspectives by stressing distinct features of inter-organizational networks. Given their characteristics in constraining outside pressures and enabling the

coordination of actions, inter-organizational networks may offer a distinct mode of governance for creating new visions, gathering support, and sustaining support for a particular change initiative. We conceptualize *networked institutional entrepreneurship* as describing the particular mode of governing collective action in and through inter-organizational networks for purposes of institutional entrepreneurship. While previous research has shown that institutional entrepreneurship is involved in creating new organizational forms (Rao, 1998), we stress that inter-organizational networks as an organizational form are an important device for coordinating entrepreneurial activities.

Building on the argument that "we need to understand what difference it makes when institutionalization processes are jumpstarted by collaborative efforts" (Dorado, 2005: 404), our study suggests that networked institutional entrepreneurship may play an important role in the development of 'proto-institutions' (Lawrence, Hardy, & Phillips, 2002). Unlike social movements aiming at larger-scale change through deinstitutionalization, networks may be particularly effective in triggering and sustaining more issue-specific institutional change, by shielding organizations from institutional pressures and by sharing resources locally to create social spaces for developing new and creative forms of business activity. Under what conditions these newly created proto-institutions lead to larger scale institutional change, either through replacing dominant institutions or by incremental processes of institutional layering or drift, remains an important agenda for future research. Before we map avenues for further research, we first discuss the managerial relevance of our empirical findings.

Managerial relevance

To better highlight the role of inter-organizational networks in institutionalizing apprenticeship within the market-led institutional environment of the U.S., we discuss one major barrier frequently mentioned by directors and HR managers: the risk of poaching. In fact, the risk

of poaching skilled workers by outside firms has made past initiatives in the U.S. to offer apprenticeships collapse (Thelen, 2004) and remains a problem in other countries too (Sheldon & Li, 2013). Interestingly, our study suggests that the network-based governance may provide a solution to this collective action problem. Even though companies do not make their apprentices sign any kind of contractual agreement, Apprenticeship Network members have retention rates of around 80 per cent five years after graduation—a level that in many cases exceeds the corresponding number for home country operations. It thus seems that necessary levels of firm loyalty, trust, and normative control can even be developed in and through inter-organizational networks, since competitive elements of inter-organizational relationships are reduced through the establishment of social norms and values, at least at a local level. Notably, our case material suggests that high retention rates were one key reason for Partner Firm 6 to join Apprenticeship Network:

> "Talking to some of these other companies that had done it for a little while here in the U.S., they'd become very loyal to you, the company. Because the company invested in training them and gave them a job, they said the turnover rate of people that have been to the apprentice program is very low" (German Partner Firm 6; American director of U.S. operations).

This assessment was also supported in conversations we had with apprentices during our fieldwork, who envisioned their future to be with the particular company training them, suggesting that relationship-specific assets can indeed be sustained for both parties involved. This surprising finding should encourage managers to explore networked institutional entrepreneurship in training, in particular in more market-oriented economies (Hall & Soskice, 2001) or emerging market economies, where retention is known to be a problem. Furthermore, forming or joining inter-organizational networks may be particularly helpful for small and medium-sized enterprises, which lack the resources and social capital often needed to run a training program.

Limitations and further research

This study has some limitations that suggest promising areas for further research. Here, our study suggests the importance of linking macro-level institutional change to more micro and actor-centered views of institutional entrepreneurship (Deeg & Jackson, 2007). While our qualitative case study yielded rich data on how Apprenticeship Network engaged in networked institutional entrepreneurship, this approach could be extended by an ethnographic study to gain insights into micro processes of agency, thus going beyond accounts from interviews and formal documents. Similarly, our single case could be extended by comparing these efforts to similar cases of practice transfer, such as German or Continental European firms in other regions of the U.S. or operating in non-manufacturing sectors. This could help answer the question whether proto-institutions in one locality may be an impetus for more widespread institutional change. While the apprenticeship practice has gained legitimacy within this particular region and industry setting, we need to explore the boundary condition of this result. We cannot infer a national-level shift in training institutions, perhaps apart from a modest increase of institutional and organizational diversity within the U.S. variety of capitalism (Lane & Wood, 2009).

Whether the local proto-institutions trigger broader institutional change thus remains to be seen (cf. Lawrence et al., 2002: 283). Through the activities of Apprenticeship Network, this is certainly conceivable. For example, other companies in the U.S. can now draw on the newly created apprenticeable occupation regulation, and thus implement their own apprenticeship program in mechatronics, based on the Continental European template. Our case is currently being discussed as a best practice example for new parallel initiatives. In fact, in early 2014 two other inter-organizational apprenticeship networks were formed in the region, and both of them were deliberately modeled after Apprenticeship Network:

> "It is a model I think should be emulated. […] I really believe that that is what is happening within USDOL [United States Department of Labor]" (State Department of Labor; American apprenticeship consultant).

While collaboratively developed practices as proto-institutions may diffuse and become adopted by other organizations (Lawrence et al., 2002), we still have an underdeveloped understanding of the particular mechanisms of diffusion (Colyvas & Maroulis, 2015). Proto-institutions may set positive, albeit deviant, examples that change perceptions about what is possible and may trigger further experiments with imitation—suggesting a gradual diffusion process. Alternatively, in bringing larger-scale change, networked institutional entrepreneurship may be effective only if it sparks or combines with other forms of institutional entrepreneurship, such as social movements (King & Pearce, 2010). Better understanding and explaining the relationship between different types of institutional entrepreneurship and institutionalization processes would make a meaningful contribution.

A related promising research frontier is to undertake further comparative case studies linking different forms of institutional entrepreneurship, such as those driven by individual firms as single collective actor (Garud et al., 2002), social movements (Rao et al., 2000), social groups and inter-personal networks (Dorado, 2013), or inter-organizational networks as described in this paper, and different kinds of institutional distance. This study suggests an elective affinity between the role of networks and the liberal market environment of the U.S. However, this claim needs further investigation by looking at cases of attempted transfer of apprenticeship to other settings—both similar LME-type host settings like the United Kingdom, Canada, or Australia, as well as emerging economies where business associations are similarly lacking but additional differences come into play related to rule of law, the level of economic development, or the dominant role of the state in many of these countries. For example, German companies are trying to transfer training practices to other settings as well, including Central and Eastern Europe

(Juergens & Krzywdzinski, 2009). Such comparison promises to further a broader organizational theory agenda regarding how specific kinds of institutions shape the agency of MNEs.

Similarly, we see value in drawing together the results of different qualitative studies to better conceptualize institutional entrepreneurship as a process phenomenon. Here, we have used several sets of intermediate concepts, such as three pillars of institutions or the Battilana et al. (2009) framework of institutional entrepreneurship as the creation of a vision, mobilizing allies, and sustaining institutional change. However, comparing studies would help us better understand their temporal dynamics and interdependence, as well as the range of mechanisms used to govern efforts of institutional entrepreneurship. For example, one could imagine an implied sequence whereby institutional entrepreneurs will need to engage with the cognitive pillar first, before then creating, adapting, or reinterpreting norms as well as rules and regulations for their particular change project. Likewise, we would particularly emphasize the important frontier of theoretical work that would better leverage empirical findings to conceptualize the more macro and contextual factors driving the diversity of institutional entrepreneurship. The MNE offers a promising research context to inquire these research questions from a comparative perspective, given that it is active in a set of institutional environments simultaneously, and as foreign yet large organization typically possesses the necessary financial and social resources to envision, implement, and sustain institutional change.

Appendix

Table 1: Issue-specific institutional distance between Germany as CME and the U.S. as LME.

Institutional pillar	Germany	United States
Cognitive	Apprenticeships as *initial training* for *high-tech* manufacturing jobs and other occupations in various industries and sectors	Apprenticeships as *further training* for *low-skilled* existing workforce and primarily in construction trades
Normative	*Highly valued* and respected education pathway	Seen as *inferior alternative* to college education for poor-performing students
Regulative	*Deeply embedded* in national support infrastructure providing collective inputs (*Berufsbildungsgesetz* [*Vocational Training Act*] (1969) as main regulative foundation)	*Very shallow* regulative support structures at federal and state level only (*National Apprenticeship Act* (1937) as main regulative foundation)

Table 2: The members of *Apprenticeship Network*.

Organization	No. of employees at U.S. operation	No. of employees globally	Network member since	Industry	Home country
Lead Firm*	300	5.900	1995	Manufacturing	Austria
Partner Firm 1	22	22	1996	Tool making	U.S.
Partner Firm 2	89	1.300	2012	Machine tools	Germany
Partner Firm 3*	92	550	1995	Printing	Switzerland
Partner Firm 4	23	200	2008	Injection mold making	Germany
Partner Firm 5	~200	2.500	1996	Medical equipment	Germany
Partner Firm 6	1.500	80.000	2011	Power generation	Germany
Partner Firm 7	600	25.000	1996	Manufacturing	U.S.

* = Founding members.

Table 3: Interview respondents.

No.	Organization	Interview respondent (function)	Nationality of respondent
1	Lead Firm	Technical training manager	Austrian
2	Partner Firm 1	President	American
3	Partner Firm 2	CEO	German
4	Partner Firm 3	Apprenticeship coordinator	American
5	Partner Firm 4	President	German
6	Partner Firm 5	Chief HR manager	German
7	Partner Firm 6	Training manager	American
8		Director	American
9	Partner Firm 7	Training manager	American
10	College	Instructor	Finnish
11	State Department of Labor	Apprenticeship consultant	American
12	High School	Career development coordinator	American

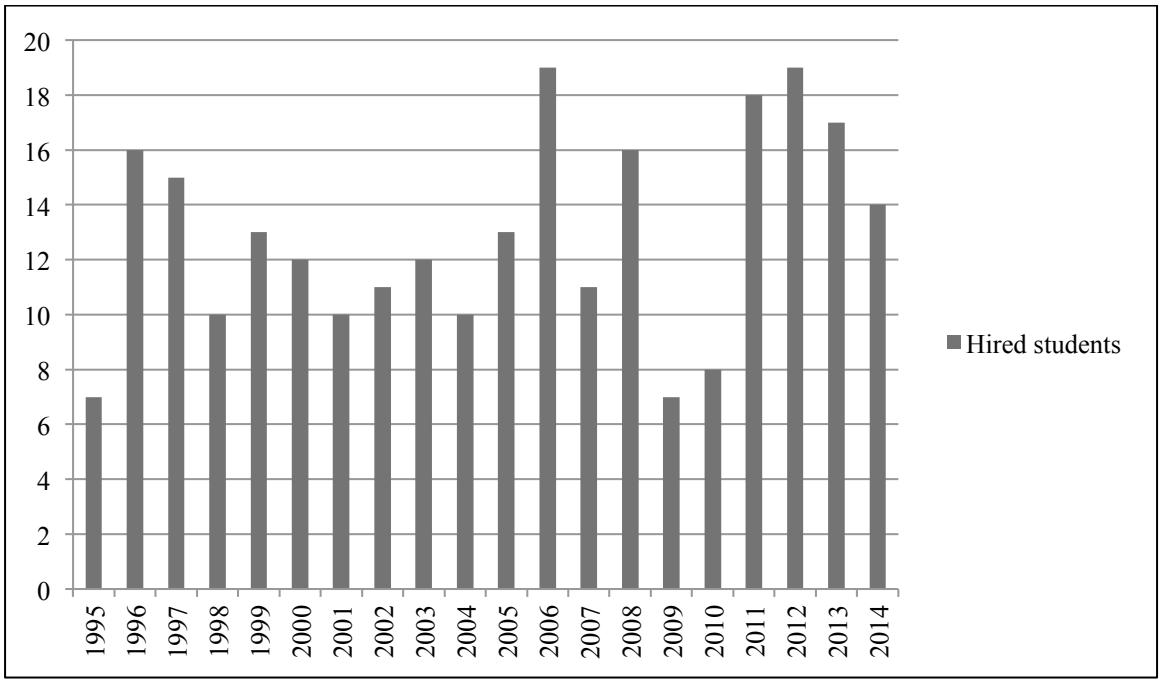
Table 4: Questions for semi-structured interviews.

Interview guideline
1. Why do you follow the apprenticeship approach at this location?
2. When and why did you decide to create/join Apprenticeship Network?
3. Where do you see factors that facilitate your attempt to introduce apprenticeships?
4. And where do you experience barriers trying to implement apprenticeships?
5. How do you try to overcome those barriers?
6. How does being a member of Apprenticeship Network help you in overcoming these barriers? And where does being a member maybe even constrain you?
7. Where do you see Apprenticeship Network in five or ten years from now?

Table 5: Networked institutional entrepreneurship as a process for the purpose of practice transfer.

Pillar / Entre-preneurship	Cognitive	Normative	Regulative
Vision	Network shares German template of apprenticeship-based training	Network firms share norm to invest in workforce training	Network firms creatively adapt their organizational regulations to accommodate apprenticeships
Support	Network firms train apprentices according to common curriculum involving inter-organizational collaboration	Network creates and sustains social norms to prevent poaching	Network establishes socially binding network guidelines
Sustain	Network externally promotes understanding of apprenticeships as viable training route for high-tech manufacturing job roles	Network legitimizes apprenticeships as valued vocational training pathway similar to four-year college	Network works towards adapting existing and building new federal regulations

Figure 1: Apprentices hired by *Apprenticeship Network* per year, 1995-2014.



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Endnotes

[1] Different from how it is used in agency theory, the term agency here refers to (collective) actors engaging in particular kinds of behavior in order to bring about institutional change.

[2] In 2012, for example, only 104.000 new apprentices were recruited nationwide into registered apprenticeship programs. In comparison, in Germany more than 550.000 new apprentices started their training in 2012. It is important to note, however, that not all apprenticeship programs in the U.S. are registered with the Department of Labor. That is why the actual number of apprentices might be slightly higher than the number provided here based on the official Department of Labor statistics.

[3] See Department of Labor statistics, http://www.npr.org/2014/11/06/361136336/in-south-carolina-a-program-that-makes-apprenticeships-work (last access: January 4, 2015).

[4] This is a pseudonym used in order to protect the anonymity of the inter-organizational network and its members as well as our interview respondents.

[5] See Bureau of Labor Statistics, http://www.bls.gov/news.release/union2.nr0.htm (last access: January 4, 2015).

[6] Figure 1 in the appendix provides information on the total number of apprentices hired each year by network members. The respective figure for graduates from the program is lower, as not all apprentices hired complete the program. The relatively low number of apprentices hired is explained by the fact that most network member companies are small and medium-sized firms, which often recruit only one or two apprentices per year (cf. Table 2).

[7] We thank Tatiana Kostova for suggesting this metaphor to describe the particular challenge that adaptation may be necessary but not sufficient for successful transfer of apprenticeships in this case.

[8] This is not to be confused with a classic make-or-buy decision as discussed in transaction cost economics, primarily because firms cannot easily 'make' these firm- and industry-specific skills on their own. Instead, they are dependent on institutional support infrastructures, such as schools and colleges providing instruction and other bodies issuing certificates. This is one main reason why we argue that transfer of apprenticeships requires at least some degree of institutional entrepreneurship.

[9] See United States Department of Labor, Employment and Training Administration, http://www.doleta.gov/oa/data_statistics.cfm (last access: September 29, 2013).

[10] This agreement not to poach from each other fundamentally is in conflict with the free market system of the U.S. In fact, similar arrangements between firms—albeit not within inter-organizational networks—have been found to be illegal, resulting in a fine for the involved companies. For example, there recently was a prominent wage-fixing case in Silicon Valley, including firms such as Apple and Google (http://www.cnet.com/news/apple-google-appeal-settlement-rejection-in-wage-fixing-case/; last access: November 28, 2014). We thank one of the reviewers to bring this to our attention. It is important to remember that in the case of Apprenticeship Network, the agreement is not legally binding, but rather a 'gentlemen's agreement' based on strong social norms, and thus does not violate existing laws and regulations.