Knowledge transfer, power and empowerment: MNCs' transfer of vocational education and training to their international subsidiaries

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Abstract

International knowledge transfer in multinational companies (MNCs) is a key issue in economic geography. However, until now the debate has largely neglected the question if knowledge transfer empowers the international partners and thus enables and encourages them in self-determined acting and thinking within their social contexts. This contribution focusses on empowering strategies of those who transfer the knowledge. The empirical study concentrates on training managers and trainers in German MNCs, who transfer vocational education and training to locations in China and India. The study follows a qualitative methodological approach and is based on comprehensive expert interviews. The results show that the training managers and trainers of vocational education and training ambitiously engage in empowering the apprentices in the subsidiaries. However, there are local frictions. Thus, the training managers and trainers generate 'power to empower' the apprentices. Their success is limited, as the paper illustrates.

Zusammenfassung

Der internationale Wissenstransfer in multinationalen Unternehmen (MNUs) ist ein zentrales Thema der Wirtschaftsgeographie. Die Frage, ob Wissenstransfer die internationalen Partner befähigt und somit das selbstbestimmte Denken und Handeln in ihren gesellschaftlichen Kontexten befördert (*empowering*), wird in der Debatte bislang jedoch weitgehend vernachlässigt. Dieser Beitrag konzentriert sich auf die Strategien zur Befähigung der Auszubildenden durch jene Akteure, die Praktiken der deutschen Berufsausbildung transferieren. Die empirische Studie konzentriert sich auf deutsche MNUs, die die Berufsausbildung von Deutschland an Standorte in China und Indien transferieren. Die Studie verfolgt einen qualitativen Ansatz und basiert vor allem auf Experteninterviews. Die Ergebnisse zeigen, dass sich die Beteiligten ambitioniert für das Empowerment der Auszubildenden in den Tochtergesellschaften einsetzen. Allerdings gibt es Friktionen, wie der Artikel herausstellt.

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1. Introduction

International knowledge transfer from headquarters of multinational companies (MNCs) to their foreign subsidiaries is a prevailing topic in economic geography. However, while issues such as tacit knowledge, sense-making and socio-cultural frictions have been studied comprehensively (see *Bathelt* et al. 2018), existing studies largely neglect the question of whether the knowledge transfer contributes to the empowerment of the partners in the foreign subsidiaries. Empowerment means that the international partners gain new competencies that enable and encourage them in self-determined acting and thinking within their social contexts (*Sen* 2017). Usually, the transfer of empowering competencies requires some power exercised by those who transfer them (*Bjerregaard* et al. 2016; *Dörrenbächer* and *Gammelgard* 2019). Thus, the 'power to empower' refers to dialectics and tensions that exist in international knowledge transfer.

In this contribution, the focus is on vocational education and training, which German MNCs transfer internationally to their foreign subsidiaries. German vocational education and training imparts competencies to solve hands-on technical and organisational problems. Through this, the apprentices learn to transfer the skills to other situations in work and life. They also learn to interact in a team, thereby developing social competencies. The apprentices are enabled and encouraged to question ineffective company hierarchies and, if necessary, challenge the supervisor. In this sense, German vocational education and training comprises competencies that empower the apprentices.

The international transfer of German vocational education and training has recently become popular (*Li* and *Pilz* 2021). Since the 2010s, a community of MNCs, ministries and educational bodies have made vocational education and training a successful export hit, particularly the transfer to emerging economies, where local stakeholders expect that German vocational education and training offers know-how for high-road economic success, and promotes the employment of young people (*Wiemann* and *Fuchs* 2018; *Wrana* and *Diez* 2016).

The research question of this contribution is about the kind of the transferred vocational education and training. The question is how training managers and trainers in German MNCs transfer the competencies, which contribute to empower the apprentices, to subsidiaries in China and India.

The next section (Part 2) specifies the research gap, explains the issues of power and empowerment and identifies 'empowering' as educational objective in German vocational education and training. Part 3 clarifies the research design and explains the qualitative methodological approach. Part 4 reveals the results, illustrating the knowledge-givers' high ambitions for empowering the local partners, and how they use the power in their transfer activities. Part 5 summarises the findings, discusses the limitations of the study and suggests implications for future research.

2. 'Empowering' as issue in the debate on international knowledge transfer

2.1 The research gap

The academic discourse in economic geography and related disciplines analyses the international knowledge transfer in MNCs especially with a view on 'implicit' parts of knowledge (*Polanyi* 1958) that are causing frictions when transferred to a distant region (*Faulconbridge* 2006). Tacit knowledge can only partially be explicated and thus requires practical training, such as exercising and imitation of role models (*Howells* 2002). Therefore, the exchange of tacit knowledge demands comprehensive processes of knowing and learning (*Ibert* 2007).

Another challenge in international knowledge transfer is that institutional and socio-cultural contexts differ internationally (*Bathelt* and *Cohendet* 2014; *Bollhorn* 2015; *Gaur* et al. 2019; *Morrison* and *Cusmano* 2015). MNCs try to bridge such internationally different rules and routines by organisational learning and skill transfer (*Alvstam* and *Ivarsson* 2004; *Beugelsdijk* et al. 2010; *Beugelsdijk* and *Mudambi* 2013). A simple transfer of templates often fails because such blueprints do not match to the local patterns of thinking and acting (*Jensen* and *Szulanski* 2007). In particular, successful transfer requires to overcome narrative distinction about 'us' and 'the other' (*Basche* 2021; *Fuchs* et al. 2017) and to counteract discursive othering practices (*van Houtum* 2021; *Zhang* and *Xu* 2020). The relevance of narratively generated power is already indicated here.

Given the challenges of 'translating' implicit parts of knowledge and overcoming narrative othering practices, *Bathelt* et al. (2018) emphasise that sense-making is necessary (see *Weick* 1995), meaning a comprehensive de- and recontextualizing of knowledge in different localities through ongoing communication. Sense-making can take place intuitively, or it can be produced purposefully as intentional 'sense-giving' (*Maitlis* and *Christianson* 2014). For 'sense-giving', the knowledge givers frequently engage in discursive legitimation strategies (*Fortwengel* and *Jackson* 2016; *Vaara* and *Tienar* 2008), deliberate sense-giving through using certain narratives (*Whittle* et al. 2016) and reputation building (*Glückler* 2007). Again here, the relevance of narratively generated power is already indicated.

While power obviously plays a role in social relations of international knowledge transfer, the issue has hardly been analysed from a critical point of view in related studies of economic geography. However, power is a topic in the larger contexts of postcolonial studies. The knowledge recipients can experience the transfer activities as a 'Northern' or 'Western' dominance (*Blazejewski* 2009; *Dörrenbächer* and *Gammelgard* 2011; *Michailova* et al. 2017) and as a normative "infusion" of the subsidiaries in the South (*Kostova* 1999: 310). Hence, international knowledge transfer is considered as a strategy that is based on modernisation-oriented developmental premises (*Phelps* et al. 2018). International knowledge transfer then appears as a hegemonic project, which produces and reproduces unequal global power relations (*Banerjee* and *Prasad* 2008; *Mir* et al. 2008).

However, the transfer of competencies can comprise empowering practices, for example, competencies of bearing responsibility and acting with greater autonomy, that enable persons to pursue their interests independently and in a self-determined way, within their local communities and further social networks (*Käbisch* 2019; *Munir* 2002; *Mir* et al. 2008). Obviously, there is a dialectical relation between exercised power and empowering (*Bjerregaard* et al. 2016; *Dörrenbächer* and *Gammelgard* 2019).

2.2. Power and empowering

Power can, but does not always imply dominance and suppression. In general, power means the ability to realize one's own goals in social contexts. Early on *Weber* (1922/1980) stressed that power is the ability to enforce one's own will 'also' against the will of the other. That is, the other can (consciously or unconsciously) agree to such goals rather than be forced into existing control structures. Recent contributions, inspired by *Foucault's* (2008) notions of governmentality, emphasise that people often internalise subordination through practicing and exercising. The dominated unconsciously agree with existing power structures as "willing subjects", as *Mir* et al. (2008: 207-208) emphasise for the case of organisational knowledge transfer in MNCs. In this sense, further studies have critically analysed the dimension of power practiced in the international knowledge transfer in the cases of religious education (*Käbisch* 2019), geocentric strategies of MNCs (*Fuchs* 2020) and technology transfer (*Munir* 2002).

The word empower*ing* conveys this strategic dimension that characterises the knowledge givers' ambition to transfer empowering practices (*Banerjee* and *Prasad* 2008; *Mack* and *Szulanski* 2017). As indicated above in the contexts of sense-giving and othering, empowering means that the knowledge-givers use particular narratives and discursive strategies to realise their emancipatory objectives within social relationships (*Vaara* and *Tienar* 2008). Thereby, they can produce a self-attribution of legitimately conveying the 'right' knowledge, and an external attribution of the knowledge recipients as unknowing (*Whittle* et al. 2016).

In this sense, some contributions on the international transfer of vocational education and training are critical about claims to the patronage and neo-colonialism inherent in such transfer activities. Other contributions stress that if power is used for empowering the international partners, this generates potentials for their self-determination and emancipation (*Deissinger* 1997; *Gonon* 2014). To sum up, these studies illustrate that knowledge givers often follow two contradictory objectives: firstly, to empower the recipient side and, secondly, through doing so practice power. The following specifies how the claim to empower the apprentices is embedded in German vocational education and training.

2.3   Empowering as educational objective in vocational education and training

The educational objective of empowering the apprentices is an essential part of the skill formation system and the related socio-cultural contexts of Germany (*Emmenegger* et al. 2019). It is also part of vocational education and training in other countries such as Austria and Switzerland; however, a selection is required here given the variety of different skill formation systems (*Boschma* et al. 2013; *James* 2019; *Patchell* and *Hayter* 1995; *Phelps* et al. 2005). In Germany, vocational education and training takes place as comprehensive 'dual' apprenticeship (3 to 4 years). This means that the apprentices are trained equally in vocational schools and in companies (*Deissinger* 1997). This kind of apprenticeship is different from many other countries where vocational education and training is exclusively the task of vocational schools, without involvement of companies.

Within German companies, there are 'masters' ('Meister') who supervise, teach and train the apprentices. 'Meister' is not only an official German qualification (a certificate that a graduate receives who has passed the multi-annual training to become a 'master') that authorises the training of apprentices, but it also denotes a broader concept of the 'master' as a responsible mentor, who contributes to empowering apprentices rather than simply being a 'trainer' or 'instructor' (*Gonon* 2014). In this way, the 'master' accompanies the learning process of the apprentices within the company. Empowering means that the 'master' enables the apprentices to solve practical problems in the company, to transfer such practices to other situations, to interact in the team and to participate in decision-making processes. Thereby, the 'master' shapes the personality of the apprentice. This educational mandate is inspired by traditional approaches to teaching handicraft work (*Glückler* and *Lenz* 2018; *Greinert* 2002). Thus, the educational goal of empowering is deeply embedded in a 'professional culture' (*Storper* 2013) in Germany.

3.   Design and method

While Germany forms the common reference point (as 'country of origin'), the research design compares two different 'host' regions in emerging economies. Both are important locations of German foreign direct investments (FDIs). China is characterised by a state-led skill formation system and India by a largely liberalised skill formation system with developmental state intervention. Hence, the study design relates different cases (China and India) to a single (German) reference point, which is a common research design in comparative methods (*Li* et al. 2019; *Pilz* and *Li* 2020). *Table 1* shows the key characteristics that were relevant in selecting the countries. The focus of the study is on metropolitan regions, which represent hotspots of FDIs and are, therefore, the dynamic cores where MNCs build up subsidiaries and perform training activities. As metropolitan regions connect global actors, such as MNCs, with 'local' actors (*Storper* 2013), the results of this study do not represent 'the country' or 'the city', but rather illustrate the complex spatio-relational contexts (*Storper* 2013)

Table 1 Overview of the local characteristics. Source: own compilation of Ajithkumar and Pilz 2019; Liefner et al. 2013; Madoun 2020; Ohm and Liefner 2011; Pilz and Wiemann 2020; Vang and Asheim 2006

Country	Characteristics of the skill formation system	Main actors within the respective skill formation system	Dissemination of German vocational education and training
Germany	Corporate skill formation system	'Dual apprenticeship' of companies and vocational schools	About half of school leavers opt for vocational education and training instead of an academic career
China	State-led, modernisation-oriented skill formation system	Vocational schools of different performance	German vocational education and training for technical specialists
India	Liberalised skill formation system, with developmental state intervention	Vocational schools of very different performance	German vocational education and training for technical specialists

The interviews were conducted in the metropolitan areas of Shanghai, Suzhou, and Taicang in China, and in Mumbai, Pune, and Bangalore in India. Additional interviews took place in capital cities to build an understanding of the general economic and political contexts (Beijing and New Delhi). In the analysed Chinese metropolitan regions, rapid upgrading in manufacturing has taken place during the last decades, which generated a massive need for skilled workers, particularly in the automotive industries, machine building, electronics, and chemical industries. Governmental politics of the Chinese state, as well as the local authorities, support the training activities financially and organisationally. In the analysed Indian metropolitan regions, the situation is different. Generally, the need for skilled workers is lower in the Indian regions, compared to those in China. Apparel and light industries with labour-intensive work characterise the production structure in the research regions (besides the prominent software industries in Bangalore). Companies and governmental politics prioritise general poverty reduction with (mostly short-termed) skill development (*Ajithkumar* and *Pilz* 2019).

Data collection started with pilot studies conducted by the whole research team (two supervisors, two research assistants) in the recipient regions. In this stage, the semi-structured interviews were analysed and explored. After the team had analysed and interpreted the pilot studies, the research assistants carried out the main field studies. Based on the detailed insights gained in China and India, the research team then conducted interviews with training managers at the headquarters in Germany. The study comprised of manufacturing MNCs that are leading German MNCs within the recipient regions, such as automobile manufacturers and automobile supply companies, chemical and pharmaceutical industries, electronics industries, and machine-building industries. Initially, the interview partners were identified through extensive web research and then expanded on through snowballing procedures, that is, asking the responsible managers at German headquarters for local interviewees in China and India, and then asking the Chinese and Indian interview partners for further local contacts. In the MNC subsidiaries, the interviewees were executives of human resource management, trainers, training managers and factory managers.

Some interviewees were Germans who stayed in China and India as expats for a longer time. However, most of the interviewees were local training manag-ers and trainers who already had adopted the notion of German vocational education and training. It is usual in the transfer of vocational education and training that the training managers come from Germany only temporarily and that most of the organisation and implementation of vocational education and training is carried out by local specialists who, on the one hand, have absorbed the spirit of vocational education and training as it exists in the country of origin (*Gonon* 2014) and, on the other hand, speak the local language and are familiar with the local labour market. The empirical part does not distinguish between training managers and trainers by their country of origin, because the interviewees consistently expressed their objective of empowering the apprentices.

Besides those who implement vocational education and training within the MNCs, important actors of the international transfer community were also included. These were representatives of the German foreign chambers of commerce, embassies, public vocational education bodies, private providers and non-governmental organisations in the Chinese and Indian research regions. Interviews within German headquarters and in institutional bodies in charge of international transfer of vocational education and training completed the study.

Interviews usually lasted two hours and were often conducted in small groups with two or three experts providing information. On-site visits to training centres completed the picture. Interviews with apprentices were not included, given the social distance between our (German) research team and the local (Chinese, Indian) young apprentices. The extant framing fits with the objective of this contribution to explain how the training managers and trainers perform empowering apprentices. *Table* 2 gives an overview of the interviews and visits.

All interviews were recorded and fully transcribed. Given the range of interview partners within subsidiaries and additional organisations, the questionnaires were adapted to specific areas of responsibility. Questions started with general information about the interviewee's commitment to vocational education and training. Thereafter, the interviews focused on intentions, strategic notions, motives, perceptions of success and frictions, what the interviewees would have liked to have done differently, and their future prospects.

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Table 2 Overview of the interviews and visits. Source: own illustration

Country	Number of companies	Number of further organisations	Number of interview partners	Number of visits in training centres	Number of visits to factories
China	30	15	73	9	10
India	29	14	67	6	11
Germany	8	3	15	1	2
Total	**67**	**32**	**155**	**16**	**23**

After transcription, a qualitative evaluation was carried out. A first round developed a systematic overview of insights from the expert interviews. In this stage, the coding categories (intentions, strategic notions, motives, perceptions of success, frictions etc.) were specified (based on *Flick* 2009). Then, given the research objective to reveal empowering practices and latent power patterns, further interpretative approaches were used (*Reichertz* 2004; *Soeffner* 2004). The basic idea was to identify largely subliminal structures of meaning in the logic of argumentation within interview protocols and to reconstruct them carefully. The analysis of the interview protocol started bottom-up, looking for salient expressions before discovering the overarching structures (*Soeffner* 2004). The objective of this kind of interpretation is to carve out patterns of meaning (structures) that appear in the interview protocols. Similar patterns of meaning are the key issue in this methodology; however, these are combined with an openness to variety and exceptions (*Reichertz* 2004). After reconstructing the patterns of meaning, relevant key quotations were selected, which are presented in the following section. The list of quoted interviewees is included in the Appendix.

4.   Empirical results

4.1   Engagement for empowering by hands-on competencies

Both in the Chinese and Indian research regions, the interviewed training managers and trainers, who were responsible for the local implementation of vocational education and training, consistently expressed that vocational education and training shall contribute to empowering the apprentices. They emphasised that practically applied competencies are crucial for empowering the apprentices. The interviewees explained that they teach hands-on competencies through being role models and acting as 'masters', who introduce the apprentices to the 'real life' of production. An interviewee (I 1) illustrated how his colleague implemented such teaching:

> Alex is really passionate and really wants his apprentices to learn something on the shop floor. (…). He gave torque wrenches [to the apprentices], the ones you have to move by hand, simply so they get a feeling for what the resistance of this material is and what it means with so many Newton meters. All these are things he reflects on.

The hands-on competencies described here comprise the knowledge of how to use, maintain, and repair machines, equipment and tools. The interviewees stressed that it is not useful if the teacher only shows the apprentices a picture of the machine or if the teacher demonstrates a simplified model or does the demonstration on an expired machine. The interviewees shared the idea that is not enough to just have the knowledge, knowing how to apply knowledge and developing a 'feeling' of correct procedures is what advances apprentices' ability to transfer such knowledge to other situations, and thus to create sustainable competencies. For example, a training manager in China (I 2) emphasised: "Our target is that we want our apprentices to be flexible and develop long-life competence."

However, as interviewees frequently expressed, the local trainers, whom the subsidiary either recruit from the local labour market or from teachers working at local vocational schools, rarely share this spirit. This becomes obvious when the local trainers are recruited. Hence, experienced-based learning appears as a 'Northern' or 'Western' principle of vocational education and training, which, from the interviewees' view, has not really 'arrived' in the Chinese and Indian skill formation systems until now. The interviewees explain that such 'flaws' are often based on the limited resources of many

vocational schools, for example outdated teaching-learning materials and a lack of modern machines for training. The main problem, as perceived by the interviewees, results from teaching-learning practices from the recipients' side. The interviewees explained that local teachers in vocational schools, train apprentices through the process of memorising rather than through problem-solving. For example, a training manager of a German automobile subsidiary (I 3) reported the following about a visit of his Chinese colleagues to Germany:

We were also in Germany with [Chinese] teachers at a vocational school […] and it was about a book of tables because there is a book of tables for programming. And in China, it is learned by heart. Then they asked why Germans don't learn that by heart. And then the student just (…) said: 'I know where it is. I don't have to learn that by heart.' But he could easily explain how he does it. I think that is the big point, there is still [something to] change. But the whole school system is directed towards learning by heart and exams, with little contextual knowledge.

The interviewees complained that local teaching-learning practices did not include enough problem-solving competencies. Apprentices are not able to ask adequate questions and discuss possible solutions as a team. The interviewee (I 3) explained how he engages in empowering the apprentices to think about problems as a team:

There are small groups of apprentices, five to seven, usually, and then they are given the task by the teacher: 'Why doesn't it work?' And then they just have to find out and explain it and then wait. (…). That is what is interactive now. And they have to stand up front and explain how they found it and why. The very typical Chinese would be, the teacher would explain everything, everyone would nod and that was it.

The study showed that in the subsidiaries the domestic training managers and trainers adopted the engagement for empowering the apprentices over time. The reason is that practically-applied competencies, and related capabilities of problem-solving through asking questions and collaborating in teams, successfully improve production processes and, thereby, contribute to economic profitability of the subsidiary. Hence, despite being employed from the local labour market or a local vocational school, domestic trainers

also adopted normative notions about empowering when they worked in German subsidiaries.

At the same time, however, there are various frictions when training managers and trainers tried to implement practically-applied knowledge on a broader scale and disseminate their notions about empowering to other regional stakeholders, beyond the subsidiary. In both the Chinese and Indian research regions, the interviewees agreed on this problem and talked vividly and with expressive wording about these topics. On the one side, the interviewees perceived themselves in a position of high ethical legitimacy and, therefore, principally superior. Yet, on the other side, they experienced themselves as a minority, given that the prevalent practices (such as about memorising) still strongly impacted the training activities. This tension field of their claims of legitimacy and their limited elbowroom provoked some interviewees to give generalising pejorative statements. For example, a practitioner at an Indian MNC subsidiary stated about the post-secondary industrial training institutes (ITI) in India (I 4): "They don't learn anything at ITI, and they can't do anything at work."

Particularly in India, the interviewees explained the limited scope to implement their notions of empowering by lacking possibilities for local cooperation. An interviewee (I 5) explained "every company tries to do its own thing somehow" and that "here in India, there is a big disconnect between [the public vocational schools], their trainers and the companies". If at all, the training managers in the subsidiaries usually cooperate with applied universities but hardly ever with vocational schools. The interview material showed that large German subsidiaries that perform vocational education and training in India mostly realise it inhouse, instead of opting for an alternative that Indian law allows for, which consists of two years in a public vocational school and a one-year internship in the company. For example, Bosch (a 'flagship' for vocational education and training in Bangalore) offers a three-year in-house apprenticeship for about 60 trainees each year. Although there are some private training providers and non-governmental organisations that operate within this field and offer a spectrum of courses in the Indian research regions ranging from comprehensive vocational education and training to specialised technical training, interviewees frequently expressed that the local networks are characterised by 'voids' in India. The interviewees explained the 'holes' in the network by particular conditions in

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India. One such condition is the broadly spread poverty, which results in governmental social policies that support short-termed skilling programmes for many young people, rather than backing the multiannual vocational education and training needed for a relatively small number of technical specialists. Another condition is that, except for the high-tech industry sector of Bangalore, low-tech production prevails in the Indian research regions. The commercial demand of domestic companies and other international subsidiaries is relatively low for comprehensive vocational education and training and, therefore, related economic policies are less pronounced.

In a similar way, the interviewees emphasised that their notions about the benefits of vocational education and training in manufacturing companies clash with the low reputation of factory workers in the population. Again, this is more pronounced in India than in China. If they can afford it, school-leavers and their parents usually prefer university degrees and white-collar work to vocational education and training. I 6 expressed:

> The people who work by hand (…) generally have a low level of education, who then have the problem of developing an understanding of what they could do with skilled manual work. So [the German saying] 'craft has golden ground' is the opposite here. Manual work is always dirty work and is despised.

This quotation demonstrates the binary notion of what the interviewee identifies with as a core notion (skilled manual work 'has golden ground') and work as 'dirty' and 'despised'. Such a dualistic attribution of characteristics occurred less in the interviews in China. Again, local circumstances can explain the different manifestations of such thought patterns in the Chinese and Indian research regions. In the analysed Chinese metropolitan regions, particularly in the Shanghai metropolitan region, there is a vivid local community supporting the transfer of vocational education and training. Besides the state government and the local governments, there is a highly involved German foreign chamber of commerce supporting and providing vocational education and training. Moreover, Chinese public vocational schools very actively promote German vocational education and training as a means to improve their skill formation system. Some interviewees reported that representatives of local vocational schools actively approached the Ger-

man subsidiaries, and not vice versa. Consequently, German subsidiaries cooperate in various ways with local vocational schools. Some German chemical MNCs even have their own classes in local vocational schools. With thousands of vocational education and training graduates per year and many local 'master' ('Meister') training programmes, particularly in the Shanghai metropolitan region, German subsidiaries, therefore, find supportive local conditions for vocational education and training.

This section showed that the interviewees described that empowering the apprentices by implementing practically applied competencies required a high engagement for communication and acting as a role model. While training managers and trainers were successful within the subsidiary, success was limited if they tried to spread empowering practices on a local scale, beyond the subsidiary. This is particularly the case in the Indian research region and less in China, due to different local economic conditions, policies, actor networks and attitudes of the population. While even the relatively modest objective of transferring practically applied competencies produces local frictions, a deeper dimension of empowering, which leads to a questioning of existing social hierarchies, causes more serious problems, as shown in the following.

4.2 Engagement for comprehensive empowering practices

Both in China and India, the interviewees reported about hierarchical patterns in society. For example, an interviewee from a German automobile subsidiary in India critically expressed: "The boss decides everything. (…) It is unusual to really ask the employee for their opinion and get a real opinion." (I 7). Similarly, a training manager from a German electronic subsidiary in India (I 8) noted that she met local trainers who put apprentices in the corner to punish them, and she criticised these trainers because this form of punishments has long been abandoned in most parts of the world. In a similar way, interviewees mentioned that they must continuously fight against the pronounced patterns of subordination in teaching-learning practices.

Thereby, interviewees generated a self-attribution as 'masters' and an external attribution of 'them' as those who follow hierarchically structured social relationships. Generally, the interviewees were not only prepared to defend their point of view, but they were

also highly committed to implement their empowering learning objectives as unchanged as possible. For example, while the interviewees expressed that it is necessary to adapt particular educational contents, such as the contents of textbooks (language, metrics, technical standards), to the local conditions, broader notions of empowering the apprentices were not given up. This was the case in both the Chinese and Indian research regions.

However, some interviewees reported situations when they had to resign to the implementation of empowering because of the social hierarchies they faced. For example, an interviewee of a German chemical headquarters described how the Chinese local managers had their own communication practices with regards to the implementation of safety standards (I 9). He explained that the MNC supplies the safety equipment (working coats, safety goggles, gloves) for the workforce in the Chinese subsidiary, which apprentices had to wear but teachers did not:

> The apprentices always come with goggles and so on (…), and the teachers without. We have repeatedly tried to make it clear that they are role models. (…) Then, the department head came by and asked: 'Was everything alright?' So, I said: 'Yes, all super motivated and so on, I have only one small point: role models. (…) It would be nice if the trainers would participate.'

The interviewee then described the local department head's method to 'convince' the trainers to wear safety equipment as well:

> Then he brought them into line, as we could hear well – not understand, as I said – and he went there but also without goggles, in normal street clothes of course. He out again, all out, and afterwards they were all in work clothes. So, if only that works, we have noticed, then it's just like that. Too bad, because we have tried so many times to explain why we value it so much, but that was ignored. And from the day, it worked. And so it was with other things.

In general, interviewees were sceptical about the success of their empowering engagement, at least in the short run, and they stressed that empowering could only be implemented in the long run, if at all. A human relations manager of a chemical MNC explained (I 10) that "You are always in your world of thought, with its

particular origin and structure. And changing these structures takes a lot of time. I don't think it can be done quickly."

Regarding the comprehensive empowering practices, the interviews, therefore, consistently showed limited success within and beyond the subsidiary in both research regions, although domestic training managers and trainers adopted the empowering teaching-learning practices, and although these 'masters' were engaged in further dissemination of these assumptions ("First of all, train the trainers", I 11).

5. Discussion, limitations, and conclusion

The results showed that the transfer of empowering teaching-learning practices usually means implementing practically applied competencies. That is, the apprentices do not only theoretically understand how something functions, but they are able to practice it. Moreover, rather than simply learning schemes by heart, they learn how to solve problems, as individuals and within teams. The results illustrated that empowering – in the sense of practically applied competencies – is a relatively modest objective in transfer activities and comparatively easy to implement, albeit even this aspect causes difficulties. More intense frictions, however, appear when the objective of question existing social hierarchies comes into play. This illustrates that not only the skill formation system from Germany is too specific to be transferred to other countries (see *Greinert* 2002). Some German teaching-learning practices and related objectives are also difficult to transfer. This is not only due to the complexity of such practices (see *Wiemann* 2021) but also due to socio-cultural notions on hierarchies and empowerment of the learners. The study therefore showed that the scope of the impact in the subsidiary, and the local impacts (beyond the subsidiary), are influenced by local socio-cultural particularities (see *Bathelt* et al. 2018). Thus, empowering is "highly sensitive to the structure of local context" (*Bathelt* and *Cohendet* 2014: 870).

In fact, the relevance of the local contexts reveals a limitation of the study. The results are based on findings about vocational education and training in the metropolitan hotspots of China and India (*Stewart* 2015; *Zhang* and *Cerdin* 2020). The study excludes other kinds of local training, for example, short-termed onboarding and training-on-the-job (*Li* and *Pilz* 2021).

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Moreover, the study did not include MNCs from other countries of origin, or local businesses (*Li* et al. 2019; *Ramasamy* and *Pilz* 2019; *Li* and *Pilz* 2021). To include such issues systematically could help integrate the findings into a broader context and, thereby, more fully evaluate the scope of empowering teaching-learning practices.

Future research on international knowledge transfer could profit from such understanding of the locally practiced 'power to empower'. For example, studies on the transfer of technological and organisational innovations could further specify the 'frictions' of international knowledge transfer (*Bathelt* et al. 2018). Moreover, research on the roles of international teams, expats and 'epistemic communities' in international knowledge transfer can profit from including the power dynamics (*Faulconbridge* et al. 2020). They can do this by focussing on the reputation of the transferred knowledge and on actors who stand for this knowledge as role models. In case of vocational education and training, satisfying conditions of factory work and the social recognition of blue-collar work are relevant factors (*Li* and *Pilz* 2021).

The question remains whether the objective of strengthening the recipients' empowering legitimises the exercise of 'power over' the recipients (*Avelino* 2017; *Bollhorn* and *Franz* 2016; *Kim* 2016), particularly in view of that the transfer of vocational education and training could be understood as superimposing a 'Western' concept on the recipient regions (*Kostova* 1999). One could say not, as the knowledge-giver is in a dominant position in the Global North and training often only reproduces capitalist production under a friendly guise (*Banerjee* and *Prasad* 2008; *Kostova* 1999; *Mir* et al. 2008). Alternatively, one could emphasise a general need for empowering workers to encourage democratic attitudes and promote citizenship (*Bjerregaard* et al. 2016; *Dörrenbächer* and *Gammelgard* 2019). Any attempt to decide on such legitimacy requires a fine-grained view on power and empowerment in international knowledge transfer (*Banerjee* and *Prasad* 2008). This challenges researchers and practitioners to position themselves within these dialectics (*Hoekveld* 2008; *Sayer* and *Storper* 1997).

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Appendix

List of interviewees, representing the following organisations:

I 1   Foreign Chamber in India
I 2   German automotive supply subsidiary in China
I 3   German automobile subsidiary in China
I 4   German electronic subsidiary in India
I 5   German development agency in India
I 6   German automotive supply subsidiary in India
I 7   German automobile subsidiary in India
I 8   German electronic subsidiary in India
I 9   Headquarters of a chemical MNC in Germany
I 10 Headquarters of a chemical MNC in Germany
I 11 Headquarters of a chemical MNC in Germany