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The methodological socialization of social science doctoral students in China and the USA

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Abstract This qualitative study reports findings from a comparative analysis of the methodological socialization of doctoral students in the social sciences at two universities: one in China and one in the USA. Relying primarily on theories of organizational socialization, the study focuses on formal and informal processes students report as part of developing their methodological knowledge and skills toward the goal of successfully completing their dissertations. The primary goal is to generate insight potentially helpful to university reform efforts in China and the quest to build world-class research universities. As China further seeks to upgrade research capacity and quality at its leading research universities, it is likely that greater attention will need to be given to doctoral education.

Keywords Methodological socialization · Doctoral education · Organizational socialization · World-class universities · Comparative studies

Introduction

This paper addresses a basic yet critical question relative to doctoral education: How do Ph.D. students in pure and applied social science fields develop their methodological knowledge and understanding as they work to develop and complete their dissertations? We explored this question through a qualitative study of Ph.D. students in China and the

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USA in order to gain a comparative perspective toward better informing the structure and practices of graduate education in the social sciences. A primary concern is linked to our interest in strengthening Chinese university reform as the nation seeks to build stronger research universities.

We select China and the USA as sites for our study primarily because the latter has a well-established research university system and is often looked to by the former as a model for its reform efforts to build world-class research universities (Huang 2015; Liu et al. 2011; Liu and Zhou 2007; Rhoads et al. 2014a, b). China has actively sought to analyze, adopt, and adapt many practices of leading Western universities and in doing so has focused its attention to a great extent on enhancing faculty work and research productivity (Mohrman et al. 2011; Rhoads and Hu 2012; Szelényi and Rhoads 2013). The Chinese Ministry of Education, policy makers, and institutional leaders have paid far less attention to the reform of graduate education. Thus, we are interested in whether or not there is any benefit in analyzing the Ph.D. social science experience in China and the USA with an eye toward how such knowledge might benefit Chinese university reform.

As a starting point in framing our study, we center the philosophical and practical arguments of the early twentieth-century Chinese educational reformist Cai Yuanpei and his positioning of Western-based notions of science as transcendental. Cai, first in his role as minister of education and then as president of Peking University, was at the center of university reform in China during the 1910s and 1920s promoting notions of university autonomy and academic freedom (Hayhoe 1996, p. 42). Cai's reform efforts were in part aimed at supplanting Confucian values that had informed imperial-based education with values more consistent with "Republican education" such as the development of "citizenship" and a "world view" (p. 42). Having participated in advanced education in Germany and France, Cai believed that knowledge based on scholarship (academic-based research) "was expected to contribute indirectly to broader social transformation" (p. 44). He increasingly questioned "the universal relevance of Confucianism" and leaned toward the "importance of modern science" (Weston 2004, p. 80), advocating a form of transcendentalism in which aspects of Western empiricism could be wedded with Chinese ways of knowing. In her book, *Peking University: Chinese Scholarship and Intellectuals, 1898–1937*, Lin (2005) described Cai's vision in this way: "Cai borrowed the concept of a transcendental realm of knowledge—of which both Chinese and Western learning were manifestations—and the emphasis on theoretical knowledge" (p. 54). Cai's thinking helped to forge a movement rooted in the universal qualities of enlightenment and aimed at reforming not only education but the overall society. This is captured to a great extent by the role Peking University students and faculty played in the May 4th Movement, a cultural movement aimed at democratizing aspects of Chinese society (Hayhoe 1996; Lin 2005).

Our discussion of the influence of Cai Yuanpei is meant to raise a critical question lurking beneath the surface of our study: To what extent might one describe the empirical methodologies that have come to define the social sciences in nations such as Germany, the UK, and the USA as transcendental? This is an issue that in one form or another Chinese universities and scholars have struggled with since at least the days of the early Republic of China and the subsequent university reform period, led to a great extent by Cai (Hayhoe 1996).

In addition to our study being informed by the educational philosophy of Cai, we also draw on theories of socialization and organizational socialization, focusing mainly on formal versus informal mechanisms for imparting methodological understanding. Of course, socialization to new positions in society, such as becoming a professor or scholar, typically involves a variety of complex processes in which one assumes new roles and

ways of thinking about self and others (Mead 1934). For doctoral students seeking to acquire a body of knowledge and engage in empirical inquiry at a level consistent with scholarly conventions, this involves developing particular ways of thinking about empirical inquiry. Our use of the term “methodological socialization” is intended to convey the kinds of understandings to which a doctoral student is socialized as part of the doctoral experience. By “methodology,” we refer to the basic way that individuals think about conducting empirical inquiry—including both the theories that help to frame research as well as the approach to collecting and analyzing data.

We find insight in comparing the socialization experiences of social science doctoral students studying in China and the USA, given differences between the systems of doctoral education operating in both countries. Indeed, the experiences of all three authors studying and/or working in both China and the USA initially called attention to what we perceived to be differences in approaches to socializing doctoral students to the norms of social science inquiry, specifically noting the more informal nature of methodological socialization in China and the more formalized approach in the USA. Such a hunch formed the essence of our primary research question: What types of formal and informal processes are involved in the methodological socialization of social science doctoral students in China and the USA? A second research question addresses the comparative aspect of our study: What similarities and differences exist in the methodological socialization of social science doctoral students in China and the USA?

Research on doctoral students

Research on doctoral students and doctoral education has drawn rather limited attention over the years, especially when compared to the expansive empirical work on undergraduates and their in-class and out-of-class learning experiences. This is the case with research in both China and the USA, with Chinese scholars mostly focusing on assessing the perceived quality of doctoral education (Chen 2010; Wang 2012; Zhang 2009), with a small group also examining the quality of doctoral advising (Zhao and Shen 2011).

Several US scholars have contributed in significant ways to advancing understanding of the graduate experience with some focusing specifically on doctoral students (Anderson 1998; Anthony 2002; Clark 1993; Gardner 2007, 2008; Golde 1998). A consistent point of analyses of graduate education stresses a certain degree of vulnerability shared by graduate students as they seek to acquire new forms of knowledge and understanding in academic environments that at times are characterized “by an overall sense of ambiguity” (Gardner 2007, p. 724). This seems to be true both for students oriented toward professional practice and for those seeking entrance to the world of scholarship and academic careers (Gaff and Pruitt-Logan 1998).

Several scholars have paid particular attention to the research facet of doctoral education focusing on students’ experiences in research laboratories as well as their participation on funded research projects, typically as part of a research team (Mars et al. 2014; Mendoza 2007; Szelényi 2013). An interesting facet to this fairly recent work is the role that academic capitalism plays in shaping the basic norms of the research enterprise; this most notably includes conveying to doctoral students the great importance placed on acquiring research funding. These studies also highlight how becoming engaged nationally through participation in scholarly conferences helps to socialize doctoral students to the norms of academic science. A problem with a number of these studies, however, is the narrow focus on STEM (science, technology, engineering, and mathematics) and STEM-related fields.

Conceptualizing doctoral student socialization

A starting place for conceptualizing the doctoral student experience in the social sciences is recognition that the Ph.D. in some sense is about conveying the basic norms of research to the next generation of scholars. When it comes to considering the basic norms that shape empirical research and the sorts of experiences doctoral students might be expected to have, it is hard to proceed without at least some mention of Merton's (1973) classic work on the norms of science. For Merton, becoming a scientist involves internalizing the basic precepts and values of empirical inquiry, often transferred to neophytes (doctoral students in the case of this project) through role modeling and exposure to rich examples and repeated experiences. The process in some ways is about conveying the importance of the "scientific spirit"—essentially an ethos that one is expected to embrace as a scientist, which includes to a great extent high levels of competition for prestige and funding. Norms relating to intense or hyper-competition in academic science may have both positive and negative effects for advancing research, and no doubt are likely to influence the socialization experiences of doctoral students (Anderson et al. 2007). But academic norms are not static and the work of research professors is not entirely autonomous. Indeed, academic science and the socialization to it involve both norms and counternorms in which economic, social, and political forces act on scientific and scholarly agendas and at times have contradictory and countervailing influences (Anderson et al. 2010; Blume 1974; Mendoza 2015; Mitroff 1974; Mulkay 1976). What this suggests is the need to bring greater nuance to the study of not only academic science but of one's socialization to it.

Norms and values related to carrying out academic science, and scholarly projects more broadly, also include methodological knowledge and insights. We use the term "methodological" in a broad sense to convey both the theories brought to bear on empirical inquiry and analysis as well as the strategies for engaging in empirical work, including such facets as data collection and data analysis. Here, we find Harding's (1987) work insightful when she wrote that, "A methodology is a theory and analysis of how research does or should proceed" (p. 3). She contrasted research methodology with "research method," which she defined as "a technique for (or way of proceeding in) gathering evidence" (p. 2). Similarly, Crotty (1998) distinguished methodology from method, noting that methodology is concerned with "the strategy, plan of action, process or design lying behind the choice and use of particular methods," whereas methods are "the techniques or procedures used to gather and analyze data" (p. 3).

In this project, we are mostly concerned with how doctoral students develop their methodological understanding and are less concerned with their acquisition of the basic "techniques" for gathering evidence. However, given that many doctoral students (and scholars as well) may not make such a clear distinction between methodology and method, therefore, in the course of conducting the interviews we were also open to any commentary participants offered about either methodology or method, including the role of theory. To be more clear, and ignoring the research jargon, we wanted to better understand the organizational mechanisms through which doctoral students learn to think about and conduct empirical inquiry.

When one thinks about the ways in which the normative qualities of social science in the form of appropriate methodologies are conveyed to neophytes such as doctoral students, concepts related to socialization tend to arise (Weidman and Stein 2003; Weidman et al. 2001). In this regard, it is not so surprising that many scholars seeking to make sense of the doctoral experience have relied a great deal on theories of socialization, including

theories of organizational socialization. Accordingly, we find the work of Van Maanen and Schein (1979) and Tierney and Rhoads (1993) particularly insightful.

Van Maanen and Schein (1979) distinguished several types of socialization employed to bring new employees into an organization. Of particular relevance to our work is their idea of formal versus informal socialization, a conceptualization also stressed in treatment of the graduate experience as a form of “anticipatory socialization” to faculty life (Tierney and Rhoads 1993). Formal organizational socialization relates to processes aimed at conveying the normative nature of an organization or profession through a series of planned and coordinated activities. In terms of doctoral students, we might think of required courses as fitting this type of socialization. Informal organizational socialization relates to laissez-faire processes in which the norms of a particular field or organization are learned mostly through trial and error, often on one’s own. Here, we might think of a doctoral student identifying and reading key works she or he sees as related to a topic or area of interest (including methodology). Doctoral students may consult with a faculty member as part of identifying a reading list, but the overall process is mostly unstructured. Another example of informal socialization is the case of doctoral students engaging in conversations with one another over a cup of coffee perhaps, more or less working their ideas out through peer ideational exchanges. Obviously, there is a looseness to informal socialization processes that may lead to important norms being inadequately conveyed through organizational processes. If, however, one relishes nonconformity, such processes may be seen in a different light.

Structural features of doctoral education in China and the US

As part of framing our study, it is also important to understand basic structural differences in doctoral education relative to the two countries in question. First, it is important to note that doctoral education is relatively young in China by comparison with the USA with Chinese universities building doctoral programs mostly during the 1980s in the aftermath of the Cultural Revolution. Another important difference is that Chinese doctoral education typically follows acquisition of a master’s degree and at most universities doctoral study is limited to 3 years (some universities such as Peking University now allow for a 4-year Ph. D. program); the latter point regarding duration of study contrasts with the USA where mandatory time constraints typically do not exist (although universities may place an “upper” limit in terms of years of study such as for example 10 years). Coursework is not a central feature of doctoral education in China as it is generally assumed that course-based knowledge is acquired during the students’ master’s program. Further, the dissertation process is primarily directed by one faculty mentor, nearly always a full professor (正教授 or *zheng jiaoshou*), as less senior faculty (副教授 or *fu jiaoshou* and 讲师 *jiang shi*) generally are excluded from guiding the dissertation process. Topical and theoretical restrictions are likely to exist within various programs and universities given limitations on academic freedom; for example, a social science doctoral student may feel compelled to pay a degree of respect to Marxism and enact forms of self-constraint in developing the conceptual basis for a study.

By contrast, US doctoral education often involves extensive coursework beyond the master’s program and many doctoral programs do not require a master’s degree with students in some cases proceeding from their undergraduate degrees to doctoral study (in such cases students may earn a master’s degree along the way typically in the first 2 years of study). Further, unlike the Chinese pattern, most tenure-track faculty regardless of rank are able to guide a student’s dissertation project and a committee of faculty (typically from

3 to 5 professors) also offer direction. The dissertation committee in fact must first approve a proposed study and then sign off on the final product as part of the dissertation defense (some variation in these processes exists throughout the US higher education). Finally, while US doctoral students in the social sciences may experience greater degrees of academic freedom than their Chinese counterparts, they still may experience forms of self-constraint linked to market-oriented forces and forms of academic capitalism (Mendoza 2007; Slaughter and Leslie 1997; Slaughter and Rhoades 2004; Szelényi 2013); in other words, US doctoral students intent on pursuing academic careers may perceive the need to select topics and theories in line with the interests of funding sources such as federal agencies (e.g., National Science Foundation) or private foundations.

Methods

This study utilized qualitative methods to explore the methodological socialization experiences of doctoral students in pure and applied social science fields in China and the USA. We followed strategies consistent with the basic methods articulated in key qualitative texts (Bogdan and Biklen 2006; Maxwell 1996). The primary data collection tool was the semi-structured interview conducted in Chinese Mandarin with doctoral students studying in China and in English with doctoral students studying in the USA (with the exception of three Chinese doctoral students studying in the USA). We elected to sample doctoral students from a leading research university in each country, which we refer to using pseudonyms: “Chinese Research University” (CRU) and “American Research University” (ARU). Both universities are highly regarded public institutions consistently ranked among the top 20 research universities in their respective nation. In order to provide greater human subject protection for our interview participants, we opted to keep the university sites anonymous (hence the limited background information about them).

Sampling

To identify and recruit interview participants, we relied on a mix of snowball and purposeful sampling of Ph.D. students (Bogdan and Biklen 2006). In terms of the purposeful facet of the study’s sampling method, we intentionally recruited on the basis of covering a range of social science pure and applied fields in a manner consistent with Biglan’s (1973) model of academic disciplines. Tables 1 and 2 highlight basic background information about our 22 interview participants broken down by their location at either ARU or CRU.

We also aimed to recruit equal numbers of females and males and came relatively close to this initial goal with 12 females and 10 males. Additionally, it is important to note that our intention was not to study US or Chinese doctoral students in the social sciences, but instead the goal was to study doctoral students studying *in* the USA or China. Hence, two international students (both from China) are included among those working toward the Ph.D. at ARU (there are few foreign Ph.Ds in the social sciences at CRU, and so, the sample is entirely composed of Chinese nationals). We do not see including two Chinese students as interview subjects from ARU as undermining our research objectives; indeed, the opposite was the case in that they had the ability to reflect on their graduate education based on experiences in both countries.

Table 1 Social science Ph.D. students at “American Research University” (ARU)

	Gender	Field of study	Year in doctoral studies	Race/ethnicity
US # 1	F	Urban planning	8	Mexican–American
US # 2	F	Education	5	Chinese International
US # 3	M	Sociology	7	Caucasian
US # 4	M	Urban planning	3	Caucasian
US # 5	F	Education	5	Latina
US # 6	F	Social welfare	5	Chinese International
US # 7	F	Social welfare	6	Caucasian
US # 8	M	Education	4	Multiracial (Filip/ Cauc)
US # 9	F	Sociology	8	Iranian American
US # 10	F	Sociology	6	Multiracial
US # 11	M	Sociology	8	Caucasian

Table 2 Social science Ph.D. students at “Chinese Research University” (CRU)

	Gender	Field of study	Year in doctoral studies	Race/ethnicity
CH # 1	M	Public admin	3	Han
CH # 2	M	Education	3	Han
CH # 3	F	Sociology	4	Han
CH # 4	F	Social welfare	3	Han
CH # 5	M	Economics	3	Han
CH # 6	F	Education	3	Hui
CH # 7	F	Education	3	Han
CH # 8	M	Sociology	4	Han
CH # 9	M	Social welfare	3	Han
CH # 10	M	Sociology	3	Han
CH # 11	F	Sociology	3	Han

Data analysis

Interviews lasted about 1 hour and were digitally recorded and transcribed verbatim. The combined transcripts constitute the data corpus and served as the primary source of conclusions drawn in this paper and presented in the Findings section. Data analysis involved tacking back and forth between our theoretical perspective grounded in organizational socialization theories—namely the assumption that both formal and informal socialization processes are likely to be involved in the overall anticipatory socialization phase (the doctoral experience) of becoming a scholar—and the raw data represented in the comments of our research participants. Thus, we see our analysis as originating from a deductive position focused on key concepts relating to organizational socialization, but then being further refined by inductively driven findings, rooted in our reading and re-reading of the

interview transcripts. In employing both deductive and inductive analyses, we identified several themes (originally “data codes”), some of which eventually constituted key sub-sections of the [Findings](#) section.

Findings

One of our key findings concerned different ways in which doctoral students studying at CRU and ARU spoke about their methodological expertise with the US group expressing greater confidence in their ability to understand and apply various methodological insights. For the group studying at CRU, methodological considerations were seen as important; however, students were more likely to question the degree to which their academic studies had adequately prepared them to apply various methodologies in a rigorous manner (methodology in China is typically discussed in terms of 方法 or *fangfa* and 方法论 or *fangfalun*). A few CRU students explained that methodology seemed to be of secondary importance to more topical and applied concerns. For example, several CRU students noted that their dissertation advisors (dissertation chairs) were more helpful with broader professional development objectives than in terms of working out the details of their methodological direction (a few CRU students noted that their dissertation advisor was quite helpful with the dissertation methodology, and, so the evidence is somewhat mixed here).

Another key difference relates to formal methodological coursework with the ARU students taking more of such courses than their CRU counterparts. Indeed, ARU students described as many as five or six courses relating to methodology that they took over the course of their doctoral studies. In contrast, some CRU students noted that they had taken no courses related to methodology and instead had taken mostly “practical” and/or “topical” courses. This perhaps contributed to several CRU students describing theory and method as less prevalent in their dissertation research. For example, a CRU doctoral student in education noted “I utilized the traditional way of thinking of speculation in the Chinese academia. As to the specific methodology, I did not use too much.” And another in sociology explained “I did not think too much about the theoretical contribution [of her dissertation].... In terms of theoretical contributions, I lack that.”

This differing sense about the role of methodology may be explained by the fact that at ARU more formalized processes for conveying methodological norms were utilized, whereas at CRU more informal mechanisms tended to be emphasized. In what follows, we share our findings relative to the formal and informal socialization processes described to us, while also comparing and contrasting doctoral students’ experiences at CRU and ARU.

Formal socialization

The more formalized acquisition and development of methodological insights and skills took place in the context of structured research projects, typically led by one’s advisor or dissertation chair, and through courses offered primarily in the respective department but beyond one’s department as well, especially in the case of applied social science students. Students also talked about advancing their methodological knowledge and skills through the development of empirically based research papers for conferences and/or publication. These kinds of experiences were reported by both groups of students, but these more formalized processes were highlighted far more often by the doctoral students studying in the USA by comparison with those studying in China.

Structured research projects

Several ARU doctoral students specifically noted the ways in which working on collaborative research projects with faculty mentors helped them to acquire key methodological understandings and skills. For example, a third-year doctoral student in urban planning noted that he “learned more from having to do research with faculty,” adding that when he worked with professors on a project he found it much easier to get “immediate feedback” about his ideas and that they held his “work to a higher standard.” A fourth-year student in education maintained that working on research projects with one of his professors was of great help in better understanding how to apply theory in the context of empirical inquiry. “I think it was also helpful because she [his research mentor] studies a particular theory that is really complex. So working through some of those complexities has been helpful for how I understand the theory, and generally I look at theories differently now.”

CRU students also discussed working on research projects with faculty members, although this was not the case for more than half of the students in the sample. For example, a third-year sociology student talked about her work on a project with professors that helped her to develop one-on-one and group interviewing skills. “So I became very familiar with doing interviews.” But a few CRU students made a point to note the absence of such research experiences. As a third-year doctoral student in economics explained, “I did not have many academic activities that are helpful with my dissertation.... The projects I worked on did not have much to do with my dissertation topic.” Most of the students studying in China found collaboration with faculty to be helpful in clarifying topical interests, but less helpful in advancing their methodological understanding. A third-year student in social welfare captured the tenor of this finding when he noted:

I think a dissertation topic is a very accidental thing. It was first started as a project I worked on with another professor in the process of doing this project. I thought it was a valuable topic since it concerned very urgent issues in China, and only very a few people had done research on that topic. I did not want to do it in the beginning, although I really came to love that topic.

Interestingly, this student did not see the theoretical aspects as very significant: “It also required a lot empirical data, but it did not have much of a theory component to it.” Here, though we can begin to see the importance of collaborating with mentors as part of the development of not only methodological understanding, but of topical understanding as well.

Coursework

The doctoral students studying at ARU tended to stress the role of coursework as a source of methodological insight more so than the CRU doctoral students. Indeed, nearly every student studying at ARU mentioned key theory and/or methods courses that helped to advance their thinking about their research area. A student in urban planning captured a general sentiment expressed by most of the ARU students: “Courses definitely provided a foundation for me to think analytically about what methods were appropriate in answering my research question.... [The courses] were really instrumental in helping me think through some of the questions, and understanding what could be used and what couldn’t be used.” This student went on to note how a course on social networks helped her develop a more sophisticated sampling strategy for surveying her target population. A second ARU student in urban planning reinforced the importance of courses, noting that a good deal of

his theoretical understanding came “from the classes [he took] in political science.” He also found some urban planning courses helpful in terms of the “theoretical development or conceptualization of urbanization.”

Doctoral students studying at CRU also stressed some of the methods courses they took, although nearly everyone highlighted courses focused on statistics. Only a couple CRU students noted taking a course that helped to advance their theoretical insights. Several complained that methods courses were not so helpful, with a third-year student in social welfare putting it this way: “We have methods classes. But these classes are not so useful in instructing us in terms of doing our own research. Maybe because these methods classes are mostly quantitative courses, and I don’t do quantitative research.” It appeared that finding qualitative methods courses was not so easy, something confirmed by our own experiences at Chinese universities. One is left to wonder whether doctoral students studying in China might benefit from such courses. The preceding doctoral student speculated as much, noting, “But I don’t know if it would be helpful if they had a qualitative methods class. All in all, I don’t think the theory and methods courses are helpful in our academic training.”

We do not want to paint an overly simplistic picture. A couple of CRU students reported taking a qualitative methods course and benefitting from it as well. One example was a third-year doctoral student in sociology who found an “ethnography class about oral history” at a neighboring research university. And another third-year student in sociology noted that during her Ph.D. studies she “had a class on qualitative interviewing” and found it to be helpful.

Developing research papers for conferences and/or publication

Another more formalized mechanism through which students advanced their methodological insights was through preparing and presenting research papers for conferences, and in some cases, further developing those papers for possible publication. This type of experience was expressed more often by the ARU doctoral students, with a few mentioning the support (in the form of feedback) of a faculty advisor or mentor. For example, a fifth-year social welfare student talked about how a research paper she worked on and eventually published helped to frame the theory for her eventual dissertation. A key socialization experience for her was learning about how journals and their editors often expect writers to “revise and revise,” as part of satisfying the reviewers and editors. She stressed that it was “really hard” to publish the paper, but she learned that getting critical comments and rewriting are a “very normal process.” The theory used in her published paper eventually became part of her dissertation.

Other ARU students mentioned participating in major conferences such as those linked to their discipline. A fourth-year student in education found presenting at national conferences to be “helpful...because it allowed [him] to test different ideas out, and get to a sense of where [his] research fit within a larger field of study.” A seventh-year sociology student noted that his department organizes formal opportunities—“practice sessions”—for doctoral students to present their own work if it is accepted by the field’s annual conference. Such presentations are of course critical to getting feedback about one’s methodological choices. Other ARU students offered a range of comments about preparing papers for conferences, while such remarks were quite rare among the CRU students.

Some differences in the socialization experiences of the students studying in the two countries are likely to be influenced by the duration of their studies as much as anything else. To be more clear, given that the Chinese Ph.D. typically is 3 years long (some

universities such as Peking University and Zhejiang University are moving to a four-year Ph.D. in select fields), such a brief period of study makes it quite difficult to advance one's ideas far enough along to successfully produce a conference quality paper. We find it worth noting that six of the 11 students pursuing their Ph.D. in the USA were in their sixth year or beyond (three were in their eighth year!). Although a shortcoming of the US system may be the length of time to degree (far too long in some cases), especially for many students in the social sciences and humanities, there likely is no shortage of time to develop one's ideas and become involved in scholarly endeavors such as preparing and presenting a conference paper.

Informal socialization

Doctoral students in the social sciences at CRU tended to describe a more informal process for acquiring methodological insights, often stressing casual yet helpful conversations with peers as well as reading on their own. Students studying at ARU also discussed informal processes, but they were far more likely to see their interactions with faculty and faculty mentors as more helpful than the Ph.D. students in China.

Interactions with faculty

One-on-one discussions with their advisers or a faculty member were a key source of methodological insight. For example, an ARU doctoral student in urban planning explained how he often talked with professors one-on-one about his research and was generally surprised by how “approachable” most of the faculty in his department were (he did not have the sense though that faculty in other departments were as approachable). He noted going to meet with professors specifically about methodological concerns, such as when he sought out a particular faculty member “because she really knows the methods.” The ARU students generally had positive things to say about one-on-one interactions with their professors, although they did note that their professors were under many time constraints, and that the faculty preferred fairly focused conversations about specific methodological issues, as opposed to more rambling conversations.

For the CRU students, their experiences interacting with faculty members were rather mixed, with one group offering that faculty were very little help, while others found one-on-one conversations with professors to be critical to their development, especially in terms of working out a dissertation topic. For example, a third-year student in education did not see interactions with his faculty adviser (often described as 导师 or *daoshi*) as especially helpful: “I discussed my dissertation with him a few times. But the discussion was not very deep, and we did not have too many in-depth discussions. He only took a look at my dissertation framework, the basic idea, and then he told me I can start working on it.” A fourth-year CRU student in sociology reinforced such views, suggesting that Ph.D. advisers may be too busy: “Maybe professors are very busy given that they have a lot of projects. So they do not have enough time to advise us.” She later added that she rarely meets with her advisor to get help with her dissertation, because her advisor told her that she “was supposed to solve the problems herself...be responsible.” He told her that she is “the one writing the dissertation” and “if he told me to do every small step, it would be his paper, not mine.” Helpful to note here is a point we stressed earlier in this paper: The fact that at Chinese universities most Ph.D. advisors are the highest ranking professors (*zheng jiaoshou*), who typically have many responsibilities, including oftentimes holding simultaneous administrative positions.

Another group of CRU students offered a contrast to points in the preceding paragraph, as their interactions with faculty and faculty advisers proved to be quite helpful to their development. A third-year doctoral student in economics explained that he met with his adviser weekly, sometimes he initiated the meeting, and sometimes his adviser did. “We talk... in his office... every week. We have flexible topics... not for very long though, about 10–20 min.” Similarly, a third-year doctoral student in education received extensive feedback on the early development of her ideas when her adviser took the time to edit a key paper she wrote, even taking the time to “circle typos and punctuation.” She also noted that her adviser helped to clarify key concepts she used in the paper. And a doctoral student in sociology spoke glowingly about the role his adviser played in his scholarly development: “He not only helped me with methodology, theory, etc., but the most important thing is that he also enlightened me about my life attitude, how to be a real scholar. I think that is the most helpful part.”

Interactions with peers

Interactions with peers also contributed to the informal methodological socialization of both groups of students. A CRU doctoral student in education, for example, stressed methodological help he received from classmates. He described a course focused on social science sampling, but talked more about discussions outside of class with classmates that were “pretty helpful in terms of methodological thinking.” He also highlighted that he got help from his roommate after he returned from studying abroad in the USA. “He brought some new ways of thinking about methodology, so that was helpful.” Another student studying at CRU in sociology relied on classmates to clarify theoretical ideas and concepts: “Sometimes you can have discussion with your peers, they might know something you don’t know. They can correct you or give you directions or feedback.”

Similarly, a seventh-year ARU student in sociology talked about how some students in his department had formed writing groups as a means of providing feedback to one another. As he explained, “There are occasional efforts by groups of grad students to form writing groups. This is pretty common—students forming a writing group and reading each other’s stuff....writing groups have been successful.” And a second ARU sociology student—in his eighth year—pointed to the importance of peer support, noting how “those informal conversations” with members of his cohort helped to solidify and at times challenge his ideas and theories. Along these lines, a sixth-year doctoral student in social welfare noted how her “more experienced officemates” helped her to think more deeply about the theory and methods for her dissertation: “They are really amazing researchers and they were really helpful in advancing my ideas and discussing them.”

Attending conferences and campus talks

Both groups of students talked about learning experiences related to attending conferences or campus talks. Although we treat the act of developing a research paper for presentation at a conference or to be potentially published as a more formal socialization activity, alternatively we consider attending conferences and campus lectures as an audience member as somewhat informal. We recognize that we may be splitting hairs here, and perhaps it is reasonable to argue that such processes are neither entirely formal nor informal, but more likely a mix of both.

An ARU sociology student discussed courses as being only marginally helpful in terms of advancing methodological insight, but found a campus lecture series offered by a

population research center to be quite useful. “They have weekly talks and going to those helps in terms of how people present and the types of analysis they do.” And an ARU education student pointed to the positive benefits of conferences: “Going to conferences and seeing how other people use theories in their research was also very helpful.” A doctoral student in social welfare at CRU also found participating in conferences and lectures to be quite helpful in terms of strengthening her understanding and use of theory. “I go to places like some seminars and conferences. And then sometimes when my adviser needs to go to certain conferences or meetings, he would give me the information so I can go as well.”

Pursuing knowledge on one's own

Several students talked about the importance of developing their methodological understanding through extensive reading or other forms of intellectual exploration, often beyond course requirements. This was heavily stressed among the students studying at CRU. For example, a third-year doctoral student in social welfare saw reading as critical: “Another important way [to develop theoretical insight] is that I need to read the literature.” And a third-year CRU student in public administration noted that his knowledge of theories to explain relationships among key variables in his dissertation mostly came from reading in his field. As he explained, “I think reading” is the key to developing your own theories. “If you don’t have a solid theoretical background, then you did not read enough books.” He then added these comments,

I read something really interesting a few days ago. The author says that if you cannot write something novel or innovative, it is largely because of your lack of knowledge accumulation and theoretical background. That’s why you may be unable to come up with something new. It is not because there is nothing new out there for you to discover. So all in all, it is because you don’t have enough theoretical understanding, a theoretical foundation.

This student was one of the few CRU students to emphasize the relevance of theory.

Several students in China stressed the reality that the development of their methodological insights was largely a “hit and miss” process in which they relied a great deal on their own intellectual exploration with a few describing themselves as “self-taught” (自学 or *zixue*). A key facet of this self-directed process was identifying important texts related to their dissertation ideas. A third-year CRU student in economics put it this way: “Theories provide an analytical framework for you, because you must build your argument based on previous studies....It’s not like you start with a clear framework. On the contrary, you gradually build your framework as you read literature and write your dissertation.”

A second CRU student, studying social welfare, criticized the self-directed quality of doctoral education in his country: “I think Ph.D. training in China, especially when it comes to students’ disciplinary training and knowledge, needs to be improved urgently. Because a lot of people I encounter are mostly self-taught. Thus, they lack a holistic knowledge of the system.... It is still very backward in China compared with foreign universities.” But this student went on to note a potential positive: “I have to say the Chinese system is not completely bad. One good thing is that it trains the students to be independent....That is a good way to learn. However, the cost we pay is that our system has low efficiency, we waste lots of time and miss opportunities.” This student went on to note

that he had no training with the method he was using for his dissertation: “I did not have any training in the methods I am using now. What you can do is read papers, literature, and practice with writing and writing. Gradually you figure out what you are good at and what is most convincing.” The stress of more individualized pursuit of scholarly insight may reflect the ongoing and broad influence of Confucian ideals, including heavy emphasis on self-cultivation through diligent reading and analysis.

Doctoral students studying at ARU also relied a great deal on reading on their own, but it was typically stressed as an additional strategy beyond some of the more formalized mechanisms such as course-related reading. For example, a doctoral student in education did not find her coursework to be very helpful in developing the theory for her dissertation, but instead relied on “collecting literature” through her own inquiry: “I think this is a way to do it [learn theory]. You should gradually find a way to collect information you need to serve your own research in the process of doing research.” A second ARU student spoke of learning STATA (statistical software) on his own, although with the support of tutorials offered through the campus technology center—“They have a website so you can teach yourself.”

Discussion and conclusion

Given limitations with our site selection (only one university case from each country) and sampling (only 11 Ph.D. students at the respective site), concluding points offered herein should be understood as speculative and in need of further verification. Nonetheless, this important exploratory study offers possible insights. For example, our initial hypothesis—that Chinese doctoral preparation in the social sciences when compared to the USA was likely to involve greater emphasis on informal socialization—was confirmed by the evidence in the form of doctoral students’ discussions of their overall Ph.D. experiences.

Although doctoral students studying in both countries experienced a mix of informal and formal processes in acquiring methodological knowledge and skills, those studying in the USA tended to place greater emphasis on more formalized processes such as coursework and collaborating on research projects with professors. For the students studying in China, methodological socialization tended to emphasize more informal processes, including talking with peers and reading on one’s own. What this suggests is that, on the one hand, the more structured approach employed at the US university is likely to directly transfer the norms of social science methodology in accordance with organizational socialization theory (Tierney and Rhoads 1993; Van Maanen and Schein 1979). On the other hand, the more informal processes stressed at the Chinese university leave great room for individual students to interpret and misinterpret basic methodological norms. Although the latter may be disadvantageous in conveying well-defined norms of methodological rigor, it does in some sense instill a sense of scholarly independence (and perhaps non-conformity), which arguably also exists as a norm of academic science.

Is it possible that the variance between CRU and ARU students depicts deep cultural differences between what one CRU student described as the “traditional way of thinking of speculation in the Chinese academia” and Western scholarly norms in which much emphasis is placed on empirical methodology? In some ways, we see this as a key facet to the differences highlighted in our study, but obviously more research needs to be conducted to clarify the philosophical roots of such differences.

Important to note here is a concern we raised in the introduction of this paper: To what extent might one describe Western-based empirical methodologies in the social sciences as

transcendental? In seeking to better understand the methodological socialization of social science doctoral students studying in the USA and China, and in stressing the learning opportunity potentially beneficial to Chinese university reform, we believe it is reasonable to consider some aspects of empirical methodology in the social sciences as having universal qualities. This is in keeping with arguments advanced by the Chinese educational reformist Cai Yuanpei. Further, we see this position, in part, as a defense against possible ethnocentric charges tied to our willingness to apply understanding about the US methodological socialization to the Chinese context. As further defense against potential accusations of ethnocentrism (or even cultural colonialism), we point to a previous paper published in a leading Chinese higher education journal in which at least one of the present authors outlined the shortcomings of the modern US research university and how Chinese university reformers should proceed cautiously and with a critical eye when seeking to learn from it (Rhoads and Chang 2011). To be clear, the aforementioned paper highlighted major shortcomings of the US research university to be avoided, including the perverse role of academic capitalism in the US higher education system.

Does China need to re-envision graduate education, specifically the methodological socialization of its Ph.D. students in the social sciences, or will it be able to transform the norms of international social science in a manner consistent with “traditional” ways of “speculation in the Chinese academia”? The former seems more likely than the latter, given how firmly entrenched Western ways of knowing are, epitomized in the most obvious way by the dominance of Western universities in a host of global ranking schemes, including one originating in Shanghai, and especially in light of how important these schemes are to present-day Chinese reform initiatives (Liu et al. 2011; Liu and Zhou 2007). Accordingly, we see strengthening Chinese doctoral education by adopting more formalized methodological socialization processes as an important step in the present reform era and the goal of building world-class research universities (Huang 2015; Rhoads et al. 2014b). However, such processes need to be adjusted and incorporated in a manner consistent with the best practices of Chinese educational models.

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