

*Envisioning Possible Post-PhD Careers Outside Academia:
An Exploratory Study of Two Chinese Doctoral Graduates' Differentiated Experiences*

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Abstract

Amid heightened positional competition in the graduate labor market, doctoral graduates' progression into non-academic employment has become an emerging focus of concern. Drawing on the concept of possible selves, this exploratory study examines how doctoral graduates envisage and plan for their post-graduation careers outside academia in the context of China. The study presents the narratives of two PhD holders from the field of Social Sciences and graduated from universities of varying reputational statuses, both of whom had made the decision to enter non-academic employment during their doctoral journeys. The analysis demonstrates marked differences in the scope of graduates' envisioned future careers and their perceived abilities to realize them along the lines of privilege and disadvantage associated with institutional hierarchy, which in turn shaped their strategies of responding to the intensified job competition. In doing so, the paper sheds light on both the material and affective dimensions involved in graduates' construction and negotiation of envisioned future careers, and provide insights into how this is shaped by institutional hierarchy that enables or constrains the ways post-PhD career possibilities can be imagined. With that, this paper seeks to contribute to the broader discourse on doctoral employment and offers implications relating to post-PhD career planning.

Keywords: Doctoral Career, Non-academic Employment, Possible Selves, Institutional Reputation

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Introduction

The increasing emphasis on the notion of knowledge-based economy in global policy discourses has led to a substantial rise in the number of PhDs awarded worldwide in recent decades (OECD, 2016). While the rates of doctoral expansion and labor market conditions vary across countries, in most national contexts, it is evident that a significant proportion of doctoral graduates are leaving academia to pursue non-academic careers upon completing their degrees. This shift aligns with political agenda that frames doctoral recipients as vital contributors to the knowledge economy, especially when employed outside academia. Within this vision, doctoral graduates are positioned as highly qualified human capital whose expertise facilitates knowledge transfer into further societal and economic development (Hancock, 2019).

The Chinese context shares this global outlook. Since the 1980s, the Chinese higher education (HE) system has expanded rapidly following a series of state-led initiatives, producing abundance of doctoral admission opportunities (Huang & Shen, 2019). In 2012, the number of Chinese doctoral graduates (i.e., 53,011) surpassed that of the United States (i.e., 50,977) for the first time, making China the world's largest PhD producer (Li, 2004). Thereafter, the Chinese doctoral population has continued to grow steadily. According to the latest national statistics, a total number of 87,126 doctorates graduated in 2023 from Chinese higher education institutions (HEIs), accounting for an approximate increase of 5.8% from the previous year (National Bureau of Statistics of China, 2024). In light of this doctoral expansion, the global phenomenon of doctoral graduates venturing into non-academic careers is also visible in China. While academia remains the preferred choice for many when first embarking on the doctoral journey, a gradual diversification in post-PhD career destinations has been noted. Increasingly, Chinese doctoral graduates are seeking employment in industry and business sectors, government agencies, and non-governmental organizations, etc. (Shen et al., 2018; Shen & Chen, 2018). As reported in the collective data published by a group of research-oriented Chinese universities, nearly 50% of their doctoral graduates are occupying non-research positions outside academia since 2018 (Chen, 2021).

However, crossing from the familiar academic environment to the dynamic non-academic settings is not always straightforward. Given the increasingly congested graduate job market which fails to keep pace with HE expansion and the excessive supply of highly skilled workers, doctoral graduates are likely to face an intensified job competition where they are placed within a hierarchy based on their relative desirability to employers (Brown et al., 2004). Despite it being a subject of growing relevance, research on doctoral graduates' experiences of navigating the complexities of the non-academic job market remains limited, including how these individuals envisage their possible careers and strategize for post-graduation job competition. Given China's rising prominence in the global doctoral education landscape, the Chinese experience is particularly salient that warrants a deeper exploration.

This paper intends to address the gap by presenting empirical findings derived from interviews with two female doctoral graduates from universities associated with differing reputational statuses in China. Using the concept of possible selves, the paper explores how these graduates envisaged and planned for their post-graduation careers, with a particular focus on examining the role of institutional reputation within this. The findings shed light on both the material and emotional dimensions involved in the construction and negotiation of

their envisioned career possibilities. In doing so, this paper provides insights into the interplay between institutional reputation and doctoral employment in the context of China.

Post-PhD Occupational Landscape Outside Academia

The progression from doctoral education into professional destinations takes place against the backdrop of an increasingly competitive labor market. While the empirical shift of doctoral graduates pursuing non-academic employment is widely recognized and highly encouraged, not all doctoral recipients are able to find opportunities that align with their career aspirations.

We were previously driven to believe that the value of academic credentials would continue to rise as the economy became more knowledge-intensive (Brown et al., 2011). Following this, doctoral graduates were assumed to be moved to the front of the labor market queue with an advantageous access to elite firms and more ‘upper-hand’ positions (i.e., professional and managerial roles) at the top of the occupational hierarchy. In reality, however, the global expansion of HE has led to more apparent credential inflation, meaning the value of academic credentials as a ‘currency of opportunity’ is declining (Brown & Souto-Otero, 2020). Similar to undergraduates and master’s degree holders, doctoral graduates may also find themselves competing for limited high-status job opportunities that are now allocated based on how well they can demonstrate the exclusivity of their credentials and prove their relative worths.

In the meantime, the labor market competition is complicated by structural divisions, which further undermine the assumption that doctoral graduates are readily welcomed into non-academic sectors. It has been well established that rising participation in HE does not necessarily eliminate inequalities; rather, these disparities are reproduced in new forms (Marginson, 2016). In the Chinese context, the development of a high-participation HE system has been accompanied by an entrenched hierarchical structure that stratifies HEIs into different status groups with distinct reputational influences (Mok, 2016). This institutional hierarchy plays a significant role in differentiating graduate outcomes (e.g., Sheng, 2017).

Essentially, this suggests that doctoral graduates do not compete on a level playing field. The job market competition is therefore framed as a power struggle, where graduates are expected to leverage diverse resources – including their credentials granted by institutions of varying reputational statuses – to create a competitive edge over others. Within this competitive framework, some doctoral graduates may experience prolonged periods of searching and waiting than others (McAlpine & Amundsen, 2016). On top of that, they may also end up in positions offering considerably less than expected (Brown et al., 2004). These outcomes reflect more than just individual differences, but also structural conditions such as institutional hierarchy that perpetuates beyond HE settings to regulate recruitment preferences.

The Concept of Possible Selves

This paper adopts the concept of possible selves to examine how doctoral graduates envisage and plan for their post-graduation careers outside academia. While this concept is grounded in the broader framework of self-concept developed within the field of social psychology (Markus & Nurius, 1986), it has previously been applied in the context of HE to analyze how students’ aspirations vary by class differences (e.g., Hardgrove et al., 2015; Harrison, 2018; Henderson et al., 2018; Jones et al., 2021). This thus makes it a useful lens for exploring how

doctoral graduates' perceptions of their possible careers varied along the lines of advantage and disadvantage created by the reputational status of their own universities, and how this shaped their strategies for post-graduation job competition.

According to Markus (1977, 1990), the self-concept is seen as a set of knowledge structures consisting of an individual's generalized assumptions and understanding about himself or herself. Possible selves represent the future form of one's self concept, capturing perceptions about a range of future-oriented visions of the self resulting from the construction of numerous imaginaries (Harrison, 2018; Henderson et al., 2018). As outlined by Markus and Nurius (1986, p. 954), "Possible selves are the ideal selves that we would very much like to become. They are also the selves we could become, and the selves we are afraid of becoming." This underlies the central notions of possible selves, that are, the ideal, probable, and feared selves. These notions define what individuals see as opportunities and constraints, and impact how they initiate and structure their actions to realize or avoid the future selves (Markus & Ruvolo, 1989). It is suggested that when possible selves are activated, it is accompanied by emotions tied to how individuals imagine themselves experiencing the future state (Markus & Nurius, 1986).

A key contribution of this concept lies in its exploration of the relationship between aspirations (or ideal self) and expectations (or probable self). These two dimensions are not necessarily the same, with expectations often tempering aspirations (Harrison & Waller, 2018). The role of elaboration is essential here, referring to how clearly individuals can articulate the imaginaries of their future selves and the steps they must take to realize them (Harrison & Waller, 2018; Jones et al., 2021). The fuller and more coherent these imaginaries are, the more they can be linked to specific strategies to achieve desired outcomes (Oyserman et al., 2002, 2006). The coherence points to the alignment of aspirations and expectations, or in other words, the ideal and probable selves. Such alignment is found to be particularly powerful in motivating individuals to connect present actions with future goals (Leondari, 2007).

Moreover, Markus and Nurius (1986, p. 954) have emphasized that the concept of possible selves also reflect the extent to which the self is socially determined or constrained. This suggests that structural contexts shape normative values and the resultant range of possible selves that can be envisioned. As such, the ability to construct a viable future trajectory is differentially distributed (Harrison, 2018; Papafilippou & Bathmaker, 2018).

Drawing on these insights, the main focus of this paper is to explore how institutional reputation enables or constrains the scope of doctoral graduates' envisioned possible post-graduation careers and the practices undertaken to facilitate the fulfillment of their imaginaries.

Method

The data presented in this paper are part of a larger research project investigating the early career trajectories of Chinese Social Science and Humanities (SSH) doctoral graduates beyond academia. The primary method of data collection involved semi-structured interviews conducted in Chinese Mandarin. The open-ended questions facilitated free-flowing discussions, allowing participants to share openly their experiences of and reflections on how they prepared for the process of seeking post-graduation employment. Questions followed a

pre-determined interview outline, focusing primarily on tracing participants' educational and professional trajectories.

The following section presents the narratives of two female SSH doctoral graduates. Their degree-granting universities are both located in Shanghai, but are associated with differing reputational statuses. The following table provides an overview of their backgrounds.

Table 1: Participant Profile

Pseudonym	Age	Institutional group	Field of study
Song	32	C9 League university	Gender Studies
Cai	31	Non-C9 League university	Cultural Studies

Song earned her doctoral degree from a university known as part of the C9 League in Chinese terms, which refers to an elite group of institutions with long-standing and nationwide reputations bolstered through supportive government policies and funding privileges. On the other hand, Cai graduated from a university outside of the C9 League, with a relatively limited scope of recognizability. Both graduates have made the decision to pursue non-academic careers during their doctoral studies. It is evident from their narratives that institutional reputation had played a significant role as they positioned themselves explicitly as advantaged or disadvantaged graduate job seekers attuned to the reputational status of their respective universities. This in turn influenced their perceptions of what was possible for them to be and achieve in the job market competition, and how to act upon those perceptions.

The use of data from only two interviews was intentionally designed, seeking to provide illustrative and in-depth cases that illuminate the interplay between institutional reputation, possible selves, and individual agency. This aligns with the objective of the paper, which is not to generalize findings, but to offer rich and contextualized insights into how doctoral graduates navigate the complexities of the post-graduation job competition.

Data analysis was guided by the concept of possible selves, focusing on identifying the two graduates' ideal, probable and feared selves. Upon close reading and re-reading of the interview transcripts, the analysis proceeded to uncover the influence of institutional reputation in shaping graduates' imaginaries of post-graduation careers. This involved examining how they revised, confirmed, and translated their envisaged selves into actionable strategies. In this paper, graduates' experiences are presented in reduced forms, accompanied by direct quotes.

Interview Findings

Song's Experience

Song graduated from a C9 League university in 2022, majoring in Gender Studies. She is now working in the area of corporate social responsibility at an IT firm based in Shanghai. She had initially planned to become a university lecturer, but later shifted to non-academic options because of her desire for higher earnings.

Despite her awareness of the supply-demand imbalance within the graduate job market, Song still sensed a wide range of employment opportunities available owing to her institutional affiliation. Coming from a well-regarded university, she believed that she enjoyed an advantageous basis in the job competition and greater chances of securing decent

employment upon graduation. This was articulated as a sense of confidence in the symbolic value of her credential, in which the ideal self was rooted:

I had a strong faith in the value of my credential and thought it would differentiate me from others. It would help me find something, maybe not the top firms, but for sure it would lead me to a place that wouldn't be too bad.

Throughout her doctoral journey, Song focused wholeheartedly on academic duties and did not engage in additional CV-building activities. According to her, she sought to complete the doctoral degree on time without disruptions. With that, she has not considered alternative strategies for post-graduation job competition other than relying on the reputational value of her credential.

As she started sending out her CV for job applications in the final year of her doctoral studies, unanticipated outcomes were encountered, including constant rejections and unsatisfactory offers which were not aligned with her aspiration. A significant disconnect between what she aspired to achieve (i.e., the ideal self) and what the actual opportunities or realities were (i.e., the probable self) was realized. She reflected, "I thought this would be easy, but now I was told that I was falling short."

At that point, her feared self included more than just prolonged periods of searching and waiting, but also a potential risk of becoming unemployed. As a doctoral graduate from a highly prestigious university, she described this scenario as "getting a slap on the face". This thus reflected her fear of social stigma relating to perceived job market failure. This urged her to develop "some immediate measures in place, to get out of this situation and get back on track". In other words, the need for action emerged as a form of coping strategy to avoid the feared self.

Following the advice of her doctoral supervisors, Song participated in an internship at a start-up company. Although the status of the firm conflicted with her initial aspiration, she explained, "It wasn't the time to be picky ... ultimately it was about gaining experience". She was assigned with heavy responsibilities that demanded full commitment and ability to work across several departments. Towards the end of the internship, Song gained clarity about what she could bring to the table and modified her job applications accordingly. In this way, the internship allowed her to recalibrate her aspiration into more attainable goals, aligning her ideal and probable selves to facilitate more targeted job applications.

Cai's Experience

Cai completed her doctoral degree in Cultural Studies earlier this year, and currently works as a social media and community specialist at a leading high-tech company in Shanghai. With the recommendation of her master's degree supervisor, she pursued her doctorate in the same university where she had completed her previous degrees. Although she insisted that her university is a "good one", she also acknowledged that "it's not as prestigious as those top institutions with nationwide reputations". It was explained as such that those outside of Shanghai might not be familiar with her university.

Despite her initial intention to stay within academia upon graduation, the prevailing emphasis on publishing across Chinese HEIs created uncertainty with respect to her academic career prospects. She shared, "the pressure to publish more papers made me anxious about my

future in academia, I wondered if these academic posts were actually stable.” After careful consideration, Cai decided to explore the non-academic options.

She was aware that the regionally-confined reputational influence of her university might pose as a constraint in post-graduation job search, making her less competitive in comparison to other graduate job seekers from more prestigious universities:

My university doesn't have the same nationwide reputation as those top universities, so employers might not see candidates like me as their first choice. I wasn't sure how my credential would be perceived, especially by those based outside of Shanghai. I was worried that it might be less valued, and I might have to focus on finding jobs within Shanghai.

The above comment revealed her feared self, characterized by a sense of insecurity regarding the potential devaluation of her credential when applied beyond the immediate regional boundary, and anxiety linked to perceivably limited chances of success in competing against peers from more prestigious universities. Her sense of what was possible to be and act upon appeared rather restricted, with the expected career options being concentrated within Shanghai where her institutional affiliation might be more appreciated:

I definitely wanted to join those leading firms, but I must be realistic. I must bring something else to the table, something more than my credential in order to make this happen. Otherwise, I could only expect local employment opportunities because here, employers know my university.

Cai viewed internships as an effective means of acquiring additional forms of distinction. She completed two internships during her doctoral journey. As she was not committed to any specific industry and occupational role, these internships allowed her to develop a more focused career orientation by identifying the business sectors and the kind of roles that she was interested in. By the time she was involved in post-graduation job search, Cai was already able to envisage a more specific and viable career self. With the additional experiences, skills, and industry exposure gained from the internships, Cai felt more prepared to compete in the graduate job market.

Conclusion

This paper provided a preliminary exploration of how doctoral graduates from universities associated with differing reputational statuses envisaged their post-PhD careers and planned for their subsequent movements. Through the conceptual lens of possible selves, the findings reveal how the scope and nature of the two graduates' envisioned career possibilities were shaped by how they perceived and internalized the structural advantage or limitation imposed by the reputational status of their own universities. Song, graduated from a distinctively prestigious C9 League university, perceived the long-standing and nationwide reputation of her university as a significant advantage that created favorable chances of succeeding in the job competition. On the flip side, Cai viewed her affiliation with a non-C9 League institution as a constraint that exposed her to the potential risk of having to narrow down the scope of her job search within the regional confine. Essentially, the internalized hierarchical differences in institutional reputations produced a subjective sense of how they were positioned within the labor market queue and their relative desirability to potential employers. This subjective positioning shaped not only the ways in which their possible careers were

framed, but also informed the kind of practices to be adopted to prepare for post-graduation competition.

In this paper, the role of feared self stemmed as a key motivational force. For Song, the fear of social stigma concerning job market failure prompted her to adjust her aspirations and take pragmatic steps to develop more attainable goals. Similarly, Cai, driven by her fear of a limited range of employment opportunities, subscribed to internships to progressively build her profile and enhance her chances of achieving the pre-determined aspirations. Both cases resonate with Markus and Nurius' (1986) proposition that feared self can drive concrete and targeted strategies to bridge the gap between desired and real-world outcomes, thereby aligning the ideal and probable selves and at the same time avoiding the feared ones.

In fact, the two graduates' interpretations of their relative chances of success in the labor market competition appeared to be underpinned by distinct emotions. Song exhibited a sense of confidence in articulating her ideal self, reflecting the internalized advantage conferred by the distinctively prestigious status of her university. In contrast, Cai's narrative revealed her anxiety associated with her perceived disadvantage in competing against peers from more prestigious institutions. The emotional undertones noted here underscore Reay's (2005) notion of 'psychic landscape of class', wherein structural inequalities are not only lived but also deeply felt.

While this paper contributes to the broader discussion on doctoral employment outside academia, the findings presented here are drawn from a small sample that limits their applicability to the larger doctoral population. Future research can build upon this, incorporating larger and more diverse samples to explore patterns across different disciplines, geographical regions, and cultural contexts, etc. The use of longitudinal methods can also provide a more nuanced understanding of how doctoral graduates' perceptions and strategies evolve over time in response to shifting labor market conditions and policies. Furthermore, the emotional dimensions identified in this paper in shaping how doctoral graduates envision their future selves and possible careers present an important avenue for further exploration. Integrating psycho-social theories with structural analyses can offer a more comprehensive perspective on the interplay between individual agency and structural divisions in individual career trajectories.

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