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Postdoctoral researcher development in the sciences: a Bourdieusian analysis

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Abstract

This research explores how postdoctoral researchers and principal investigators (PIs) in scientific disciplines experience *researcher development*, following the implementation of UK policies that attempt to challenge the professional socialization of researchers. The Bourdieusian concepts of *field*, *capital* and *habitus* help to conceptualizes *researcher development* as a *practice* within the *field* of postdoctoral research. This paper presents an analysis of Postdocs and PIs' *habitus* through their experiences during research socialisation. For Postdocs, volumes and configurations of capital were evaluated; together they contribute to shaping the scope of possibilities to acquire further capital, the positioning and trajectory within the field. Through an analysis of PIs' *habitus*, a number of researcher development practices, understood as position-takings or stances (Bourdieu & Wacquant, 1992, p. 105) are identified. Through its "specific logic" (Bourdieu & Wacquant, 1992, p. 97), the field of postdoctoral research structures and produces a particular *researcher habitus*.

Context

The work presented results from an analysis of how postdoctoral researchers and academics in scientific disciplines see, think, and experience *researcher development* within a research-intensive academic environment. This work is set in the context of UK policy implementations (the Roberts agenda) related to the professional development of researchers (Roberts, 2002). This work was part of an exploration of policy enactments at the micro-level of individual researchers and academics as perceptions vary greatly between individuals as well as across disciplinary fields and institutional structures (Bryson, 2004). This research aims to offer a scholarly focus on the particularities of postdoctoral researchers, an understudied population in the research system and HE (Cantwell, 2009), particularly when it comes to the development of evidence-based policies to support professional development (Scaffidi & Berman, 2011). Åkerlind (2005, 2009) started exploring the experiences of researchers using a qualitative phenomenographic perspective, while other scholars have used narrative studies along a longitudinal frame to study early research careers (Chen et al., 2015; McAlpine & Amundsen, 2014; McAlpine & Emmioğlu, 2014; Wohrer, 2014). The perception of principal investigators on the postdoctoral period, and their role and engagement with postdoctoral researchers, is also an underexplored domain of the literature which this work contributes to.

Methodology and Framework

The research presented uses a qualitative methodology with a dual approach of “at-home ethnography” (Alvesson, 2009, p. 174) and semi-structured interviewing to explore the experiences of being and developing as a postdoctoral researcher, as well as being an academic employing postdoctoral researchers, within the structural context of a research-intensive institution. The methodological intention was to build layers of descriptions and meanings and undertake what Trowler (1998) describes as studying HE “close up”, where:

fine-grained understanding of academics' values and attitudes, of cultural context in which they operate, is important for the understanding of policy implementation and policy change. (p. 2).

The methodological position taken, towards an ethnographic approach is well defined in the following quote:

I offer a definition of practice-focused ethnography specifically. That flavour involves: . . . fine-grained, usually immersive, multi-method research into particular social activities aimed at developing 'thick description' (Geertz, 1983) of the structured behavioural dispositions, social relations, sets of discourses, ways of thinking, procedures, emotional responses and motivations in play (Trowler, 2013, p. 19)

Because ethnographic approaches exploring "the lived realities of their own organizations" are rare (Alvesson, 2009, p. 156), particularly in HE settings (Lucas, 2012; Pabian, 2014), I assert that undertaking an exploration of researcher development under such methodological approach makes a useful contribution to HE research.

Methods

Data from 9 Postdoctoral researchers and 12 Principal investigators (academics) from a single UK institution, interviewed between 2013-14 was used for this analysis. Following coding and thematic analysis of interview transcripts, the Bourdieusian concepts of *field*, *capital* and *habitus* (Bourdieu & Wacquant, 1992) were used to frame the analysis of researcher development, as a practice within the field of postdoctoral research. During the course of this study, an ethnographic exploration permitted to narrate the institutional implementation of researcher development policies which permitted to identify objective structures contributing to shaping the Postdoc habitus and the positioning of researchers within the institutional context.

Findings

Perceptions about researcher development have appeared problematic and are indicative of sites of struggle in the field of postdoctoral research. The postdoctoral field (Bourdieu & Wacquant, 1992; Maton, 2005) was scrutinised through a number of institutional structures and practices,

constituting structuring structures (Bourdieu, 1977), that contribute to shaping postdoctoral positioning within the field.

From this explorative study emerged 6 domains of postdoctoral researcher positioning (*projecting, grafting, hopping, stepping, resisting and bobbling*) within the field of postdoctoral research. These domains were conceptualised on the basis of volumes and configuration of capital, particular habitus, modes of entry into the postdoctoral field and trajectory within the field. Some individuals within the field were taking positions at odd with the postdoctoral game and likely to limit their trajectory within the field, but in accordance to situations or core values. Postdocs' practices and approaches to developing as researchers were embedded in their habitus and field positions

The analysis pointed that PIs have developed an early academic habitus that has structured a disposition towards a sense of freedom for research exploration. High symbolic capital held early on by academics contributed to their positioning within the field. Within the PI habitus, I identified 3 broad ways of seeing researcher development: practical mastery, assessing and advising, and idea-ing and collaborating. The analysis made visible elements illustrating that the academic habitus had incorporated ways of seeing, a doxa about *being cut out for* research or deficits being placed on researchers. The analysis of the PIs habitus unearths mechanisms of academic reproduction impacting on postdoctoral researcher development. In addition, the study identifies instances of symbolic violence that pertain to the lack of capital afforded to postdoctoral researchers.

Researcher development policies were equivalent to “the appropriation of the field of education by the field of employment” (Robbins, 1993, p. 161), placing skills and competencies as core values. The logic of the field of employment was confronted by the logic of the field of postdoctoral research, that of scientific capital functioning as symbolic capital (Bourdieu, 2004, p. 55). Embedding an external logic – that of production of knowledge workers – meant reshaping the internalised logic of the field of postdoctoral research, which is one of knowledge production; knowledge production representing

the *doxa* (Deer, 2014) of the field. Researcher development policies intended a combining and balancing of the weight of these two logics. However, findings from this study bring to the fore that these policies have had limited impact in reconfiguring the postdoctoral *field logic*. This study has implications for UK HE policy makers in their attempts to shape the logic of practice in HEIs. Shaping the logic of practice in HEIs entails attending to both field structures and academic habitus. If a combining of the two logics (knowledge production and production of knowledge workers) are to become intertwined new strategies of engagement will need to be deployed.

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