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**Handout 1 - The Post-Humboldtian
Doctorate**

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Introduction

The doctorate is the highest qualification awarded by universities, and it is also one of the oldest; its origins can be traced back over 800 years. Over that span it has, of course, evolved and changed, but perhaps not more so than it has done over the past two decades or so.

The purposes or aims of this presentation are to outline these developments and consider their implications for supervisory practice. The objectives are:

- to briefly outline the Humboldtian model;
- to look at recent developments in doctoral education;
- to look at the post-Humboldtian doctorate;
- to consider the implications for supervisory practice;

The origins and spread of the Humboldtian model

At least in the West, institutions with the titles of universities originated in the mid-12th century in the cities of Bologna and Paris respectively. Unlike the universities of today, these were devolved establishments in which scholars established themselves in houses or halls and invited students to study under them. But these new institutions had to find a way to, in modern terminology, accredit those desiring to teach their subjects. The solution which was adopted was for aspiring scholars to be verbally examined by their peers and, subject to satisfaction with their knowledge and understanding of their subjects, to be licensed to teach. The aspiring teacher entered the examination, or *viva voce*, as a *doctus* (one who has been taught); if he or (rarely) she passed muster, they became a *doctor* (one who teaches)

This notion of the doctorate remained largely unchallenged for six hundred years, during which the European universities still viewed their primary function as the dissemination of knowledge and understanding (teaching) rather than the discovery of new knowledge (research). So, in the late 18th century, the intellectual revolution of the enlightenment largely took place outside the universities and ignored by most of the latter. But there were exceptions to this, one of which was in Prussia where in the early 19th century the Education Minister was Wilhelm Von Humboldt, the eminent philosopher of liberalism and friend of both Goethe and Schiller.

What Von Humboldt proposed was that henceforth, universities should have original research as their core mission. An essential component of that mission was to make provision for the training of future researchers, particularly in the sciences (see for example Clarke 1993). So as well as proposing a new type of university – and the University of Berlin founded in 1810 was the prototype – he also proposed a new type of doctorate, one which was to be awarded for making a contribution to the knowledge and understanding of science.

Of course in those days, science was called ‘natural philosophy’ so the new award became that of doctor of philosophy, i.e. DPhil or PhD. To qualify for one, candidates had to find themselves a *Doctovater* (supervisor), complete a research project, write it up in the form of a thesis and then, borrowing from the older form of the doctorate, defend it at an oral examination.

Except in what became Germany, the new research degree made little headway during the rest of the 19th century in the rest of Europe, where the universities remained primarily concerned with undergraduate teaching. But if the universities of the Old World remained unimpressed by the doctorate, it was more rapidly embraced by those of the New World, by

the United States. There, the first PhD was awarded by Yale in 1861, and the precedent was quickly followed by Harvard, Michigan, and Pennsylvania.

By the start of 20th century, Germany and the US had a virtual monopoly in the market for doctoral education, with the consequence that they not only retained their own students looking to undertake research but attracted those from other countries. These included the UK which had, up until then, had not only held on to its own domestic students but enrolled large numbers of international students both from its then-Empire and other countries, particularly the US. So the UK began to suffer the defection of some of the brightest and best home students to undertake doctoral research in Germany as well as lose out on its traditional overseas market share to the United States.

It was only when the First World War cut out Germany as a destination for overseas doctoral students and opened up the market that, under pressure from the government of the day, UK universities were persuaded to offer the PhD. The first (in fact a DPhil.) was awarded by Oxford in 1920, and over the following decade all of the UK universities adopted the degree. Subsequently, the PhD was exported to other countries with higher education systems modelled on the UK, including Australia where the first doctoral programmes were offered in 1946 (see Williams, 2000).

The 1950s and especially the 1960s saw research rise to the top of the political agenda in many countries as a key to both economic growth and defence capability, and this was reflected in a rapid growth of PhD programmes and studentships in the Anglo-American democracies, particularly in the United States (see Bowen and Rudenstein (1992). Similar considerations led to the introduction of the PhD in the 1960s and 1970s in a number of other countries which had hitherto resisted it, particularly in Western Europe (see Oden, 1997; Smeby, 2000; Eurodoc, 2003).

By the mid-1980s, the PhD had conquered Western Europe, but not Eastern Europe. In most of the so-called 'Soviet bloc', there were different arrangements based on the USSR model of a two-step doctorate which could be taken inside or outside the universities, for example in the Academies of Sciences, and in either case was subject to state approval (see, for example, Connelly 2000). However, the 'velvet revolutions' at the end of the 1980s and start of the 1990s was followed by the re-organisation of graduate education and by the establishment of the PhD in the universities (see OECD, 1998).

Recent developments in the doctorate

Over the last three decades or so, there have been ten major developments, mainly stemming from changes in public policy, which have transformed the doctorate. Taylor (2009) has outlined these as massification; internationalisation; diversification; commodification; McDonaldisation; regulation; capitalisation; and proliferation.

Massification

Up to a few years ago, as Joyner (2003: 123) has written '...very few people, mostly of high attainment and motivation, undertook research degrees.'

But, and across the globe, over the past two decades the numbers registering for doctoral programmes in most countries has increased very substantially (see Kearney 2010, Powell and Green 2007). The causes of this development probably lie in two main factors.

The first was the shift in many countries from an elite to a mass system of higher education at the undergraduate and taught postgraduate levels. On the one hand, the fact that there were many more people with undergraduate or Master's degrees increased the numbers who were eligible to undertake doctoral programmes; on the other, the fact that these lower degrees had become relatively common increased the cachet associated with the doctorate and gave it an edge in terms of status and possibly qualifications in the labour market.

So the number of research students has been growing at a rapid rate. In the UK, for example, in 1997 there were just over 40,000 research students but by 2007 the total had reached 119,000.

Internationalisation

The second trend has been the internationalisation of doctoral education in the sense of students studying for their doctorates in a country other than that of their origin. While there is nothing new in this in principle – for example in the 19th century both US and UK chemists did their doctoral studies in Germany (Simpson, 1983) – what has changed very rapidly in recent years is the sheer scale of movement to study abroad for doctorates, particularly of course in the US, UK, Oceania, and Western Europe. The reasons for this are many and varied, but they include the very rapid growth of undergraduate education in developing countries coupled with a lack of capacity for postgraduate education, which has led both governments and the emerging middle classes to send graduates abroad to do research degrees (see for example Zhao 2003, Mogeruo 2005). In other cases, research students are staying at home, but studying for degrees with foreign universities. As a consequence, significant proportions of doctoral students are now from other countries, including 45% of UK research students, 25% of those in France, 23% in South Africa, 21% in Canada, 20% in Australia, and 14% in the USA (Powell and Green 2005).

Diversification

Moreover, this expansion in numbers has been associated with an increase in the diversity of the domestic graduate population. Domestic students have a broader range of academic and social backgrounds than their counterparts of a few years ago, and many have little or no prior experience of supervision or of operating in research mode. as Yeatman (cited Johnson et al. (2000: 137) has put it:

....many supervisees are barely socialised into the demands and rigours of an academic scholarly and research culture. It is especially inadequate to the needs of many PhD aspirants who, by historic cultural positioning, have not been invited to imagine themselves as subjects of genius. These include all those who have been marginalised by the academic scholarly culture; women, and men and women from the non-dominant class, ethnic or race positions.

A further major aspect of diversity has been the growth of part-time students. The model of the undergraduate or postgraduate coming forward to do a research degree a few years ago was one who has just completed a first degree and who had come straight, or in some cases via a Master's, onto a research degree programme.

While this remains the case in many of the sciences, outside those disciplines the student coming forward today is likely to have been in employment for several years, have a family, and be working to support themselves during their studies (see McCulloch and Stokes 2008).

Commodification

In the quote that started off this part of the workshop, the traditional system was described as one in which as one in which 'the precocious few were called to emulate the master as scholar.'. While many supervisors were highly conscientious, others were neglectful, and some students had a raw deal, as in the example below.

Example

Morley et al. (2002: 263) report one former student's comments about:

'....the sad experience that I went through in the 1980s when I undertook a part-time PhD..I had little contact with my supervisor, except when I sent him draft chapters and he gave me (limited) feedback on them...I got fed up with it after about four years, but was encouraged to continue – with the implication that it was OK. I completed and had a viva without any preparation or information about what to expect. The only thing I remember about the viva was the external examiner asked why I had included such a long appendix...I was awarded an MPhil without any feedback as to why – my supervisor never made any further contact with me (ever)...I didn't know of any appeal procedure...'

But, in the same way as undergraduate and taught postgraduate education has been fashioned by neo-liberal government policies into a 'provider-consumer' framework, so has doctoral education. Reflecting this shift, the often highly indebted, paying and often mature students of today now expect their supervisors to offer a service in supporting their research (see for example Grant 2005, Dann 2008). If the latter goes wrong or falls behind schedule, they are much more likely to look towards their supervisor for assistance. If this is deemed to be inadequate, they are more likely to complain, demand a change of supervisor, use institutional complaints procedures or, in extreme cases, resort to external bodies.

Example

The report for 2009 of the Office of the Independent Adjudicator (OIJ) in the UK gives the case of a research student whose thesis was examined and referred for significant further work. The student ('S') complained to the institution that she had received inadequate supervision, and made a request for compensation. The institution investigated and refused to take the matter further, so she turned to the QIA. Her complaint was found to be justified on the grounds that:

The University was unable to provide any records of supervision of S's research or minutes of meetings which took place to discuss S's dissatisfaction with the supervision. The supervisor had not completed any successful supervisions of the PhD...The OIA found that the University had failed to demonstrate that it complied with the normal levels of supervision and guidance routinely anticipated by students to ensure satisfactory progress in a research degree (31-32).

S was awarded compensation for the poor quality of supervision.

McDonaldisation

Historically, sponsors of research students have a fairly relaxed attitude to completion times and submission rates. Indeed, prior to the 1980s, there were no statistics on how many students completed and how long it took them (see Simpson 2009). But then in the mid-1980s the first studies were undertaken of completion rates among doctoral students (see for example Blaume and Amsterdamsaka, 1987; Winfield, 1987; Bowen and Rudenstein, 1992; Leonard, 2000; Colebatch, 2002; McAlpine and Weiss, 2000). Their findings indicated that many fell by the wayside while those who did complete were taking significantly longer than the allotted time to do so.

Since then, research sponsors have been taking a much more businesslike approach. They have insisted that a high proportion of students complete and submit within three or at most four years of full-time study, and have penalised Departments which have not met these targets. Currently the targets of the major UK research councils are:

Research Council	% target for submission within four years	% sanctions applied at:
AHRB	70	Less than 70
BBSRC	70	Less than 70
EPSRC	80	None
ESRC	75	Less than 75
MRC	70	None

While the above only apply to Research Council-funded students, in the past few years the Higher Education Funding Council for England has started publishing qualification rates across the sector (Higher Education Funding Council 2005, 2007, 2010) and these have been used to compile the first league tables. All of these targets are ramping up the pressures on supervisors to ensure that students get through within the allotted time.

Regulation

Traditionally neither external bodies nor institutions took an interest in research supervision. As Park (2008: 2) has written:

Traditionally, a 'secret garden' model prevailed, in which student and supervisor engaged together as consenting adults, behind closed doors, away from the public gaze, and with little accountability to others. Supervisors were trusted not only to provide good academic guidance to their students, but also to nurture them as individuals and empower them as future professionals – usually with the tacit assumption that they will in turn become academics and pass on their wisdom to future generations of research students. Many students thrived in such an environment; the best (or best adapted) became academics, and in turn supervised their own research students in the same way... There were implicit 'rules of engagement' and boundaries to be negotiated, but neither their institution nor outside agencies were inclined to peep inside the secret garden nor to ask or require the gardener to explain or justify their practices.

However, the 'secret garden' has been opened up by the drive of public authorities to enhance the student experience and to improve completion rates and regulation has become the order of the day across the globe (see Bitusikova 2010a and 2010b, Bohrer 2010, Jakopovich and Borosic 2010, Negyesi 2010, Pietzonka 2010).

Capitalisation

Historically again, the primary purpose of the doctorate has been to reproduce the academic workforce, i.e. to train new generations of researchers for the universities. However, a combination of a static or declining supply of permanent academic posts and increasing comparative advantage in non-academic employment has curtailed this justification of devoting resources to doctoral education, and led to a search for alternatives.

One that has been widely advanced is that doctoral graduates have a key part to play as frontline workers in the so-called 'knowledge economies' (see Usher 2002), and that the function of PhDs is to supply human capital for the knowledge economies. However, there has been some scepticism about whether at least the traditional PhD could be described as an adequate preparation for such a role. As Taylor and Beasley (2005: 11-12) have put the matter:

The traditional PhD was, it was argued, aimed at producing researchers in the so-called Mode 1 of knowledge production, i.e. academic subject specialists who would conduct the search for knowledge for its own sake in line with the traditional academic values of truth, objectivity, and universality. But what was needed in the knowledge economies of the future was researchers trained in the so-called Mode 2 of knowledge production, i.e. researchers inside or outside academia who were able to spot commercial opportunities for the application and exploitation of research, bring expertise to bear upon research problems, effectively manage research projects, and place and market the final product. In a nutshell, the traditional PhD was about producing academics, but the new knowledge economy required research entrepreneurs.

In response to such arguments, governments have effectively extended the purposes of doctoral studies to incorporate both generic employment and knowledge-economy specific skills, and insisted that these form part of the research training of all research students whom they fund. So the traditional PhD has been developed away from being a proving ground for academics to promoting employability in general and employability in the knowledge economy in particular (see Bitusikova 2010b, Kearney 2010).

Proliferation

The same 'knowledge economy' driver that have promoted adaptation of the PhD have also been associated with the development of other forms of doctoral degrees, including professional doctorates.

Such doctorates are, in fact, hardly new, for most of the 20th century these degrees were far overshadowed by, and in many cases regarded as inferior to, the traditional PhD. However, in the late 1980s there was a re-evaluation of professional doctorates because, unlike the traditional PhD, they met the canons of employability (students were often already in employment) and entrepreneurship (developing and marketing solutions to work-based and professional problems). In consequence, in the US, the UK and Australia, professional doctorates have begun to enjoy a new popularity, and as a recent report by Brown and Cook (2010) has shown, there are now over 300 in the UK alone. That said, within Europe this development seems largely confined to the UK and other countries have not followed suit because of fears about standards (see Times Higher Education 2010).

In addition to professional doctorates, there are of course also other new types which have been developed, including both practice- and project based doctorates (see for example Green and Powell 2005).

The post-Humboldtian doctorate

As a number of commentators (see McWilliam and James 2002, Green and Usher 2003, Enders 2004, Holligan 2005, Ulhoi 2005, Deucher 2008) have argued, these changes have evolved the Humboldtian model into a different form. The changes are summarised below:

	<i>Humboldtian doctorate</i>	<i>Post-Humboldtian doctorate</i>
Student population	Elite	Mass
Students composition	Homogenous	Diverse
Student-supervisor relationships	Master-apprentice	Producer-consumer
Duration of studies	As long as it takes	Four years
External/institutional involvement	Laissez-faire	Multiple systems for monitoring progress and quality assurance
Outcomes	Academic reproduction	Production of human capital for knowledge economies
Awards	PhD by research	New forms of PhD and professional doctorates.

This has clearly affected supervision: as Halse and Malfoy (2010: 80) found in their recent survey, supervisors:

...testified to the changes in their work. They described doctoral supervision between the 1970s and the 1990s as an intellectual and social enterprise, where personal boundaries were sometimes blurred but the roles of supervisors and students were clear: the supervisor provided oversight and guidance; the doctoral student was responsible for producing a seminal thesis that would secure his or her place as an authority within the field...*all* supervisors...conceptualised their *current* work with doctoral students as significantly different from their former experiences.

Implications for supervisory practice

You should think about the potential implications for supervisory practice, and discuss these with colleagues in the group.

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