Toward an understanding of how university apprenticeship programmes impact academic autonomy in the computer science discipline

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ABSTRACT

Almost twenty years prior to this research, a “chasm” was identified between the computer science academic discipline and its associated IT occupations (Denning, 2001, p23). In 2016, government commissioned reviews confirmed a mismatch between the skills and knowledge of computer science graduates and the requirements of IT workplaces (Shadbolt, 2016; Wakeham, 2016). The chasm symbolised this divide. For this thesis, it represents the academic autonomy of the computer science discipline in terms of its insulation from external influences.

While various political initiatives from the 1960s onwards resulted in a reduction of academic autonomy in Higher Education generally, academics working in the computer science discipline experienced fewer constraints related to occupational requirements than their counterparts in disciplines linked to regulated professional practice.

The 2015 English apprenticeship reform introduced university-level apprenticeship programmes which saw vocational education extended to master’s level. These apprenticeship programmes were designed to meet learning outcomes defined by employer-led groups and approved by a government department. At the time of the thesis, they were funded through a payroll levy and as such provided a fully funded, vocational route through Higher Education for would-be graduates, presenting a clear-cut alternative to the self-funded, academic route. The levy funding provided a financial incentive for employers and university managers to engage with apprenticeship programmes. However, for academics working in the computer science discipline, the pervasive involvement of employers and oversight of external regulatory bodies threatened to impact the levels of academic autonomy they had hitherto enjoyed.

At the time of this thesis, the post-2015, university-managed apprenticeship programmes were in their infancy and there was no research covering their impact on academic autonomy from the perspective of academics. This thesis is a case study of the perceptions that computer science academics in an English university had of academic autonomy in the context of apprenticeship programmes. It follows the Critical Realist paradigm (Bhaskar, 1975) and uses data from biographical narratives and semi-

structured interviews. Data was analysed using Legitimation Code Theory (Maton and Howard, 2018) to provide a visualisation of the perceptions. The theoretical lens incorporates aspects of Bourdieusian (Bourdieu, 1977), Foucauldian (Foucault, 1977a) and Bernsteinian sociologies (Bernstein, 1977), alongside Service Dominant Logic (Vargo and Lusch, 2004, 2016).

The research found that computer science academics perceived academic autonomy was reduced in university apprenticeship work. Links between perception of academic autonomy and the background of academics were tenuous, but there was a much clearer link with the perception of the value proposition offered to academics through apprenticeship work.

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GLOSSARY OF ACRONYMS

ABRC	Advisory Board for the Research Councils – A government body working with the UCG to distribute university funding
ACM	The Association for Computing Machinery was founded in 1947
BCS	British Computer Society, The Chartered Institute for IT (Royal charter given in 2004)
CNAA	The Council for National Academic Awards (CNAA) - – Government body set up in 1965 to validate their award programmes at polytechnics
CR	Critical Realism – A research Paradigm
CVCP	the Council of Vice Chancellors and Principals
FE	Further (post-16) Education
FHEQ	Framework of Further and Higher Education Qualifications
G7	A group of seven countries with advanced economies, members are Canada, France, Germany, Italy, Japan, United Kingdom, United States of America and the European Union.
HE	Higher (post-secondary) Education
HEFCE	Higher Education Funding Council for England established by the Further and Higher Education Act 1992 – government body that distributed public money for teaching and research to universities and colleges. Carried out detailed subject-level quality reviews at HEIs
HEI	Higher Education Institution – usually a university or polytechnic
HEPI	Higher Education Policy Institute – an independent think tank
HEQC	The Higher Education Quality Council established by the Further and Higher Education Act 1992. An educational body set up by the Council of Vice Chancellors and Principals (CVCP) to carry out institutional-level audits of HEIs.
HMI	Her Majesty's Inspectorate – Government body of inspectors used to assess the quality of education delivery
IfATE	Institute for Apprenticeships and Technical Education
IT	Information Technology
ITB	Industrial Training Boards) introduced the Industrial Training Act (1964)
LPP	Legitimate Peripheral Participation – an apprenticeship learning model
KEF	Knowledge Exchange Framework - designed to assess the extent to which a university engages with employers
KIS	Key Information Sets – data published on every HE institution website, giving prospective applicants information needed to inform their choice at course level
NPM	New Public Management - an umbrella term for the approach adopted for the management of public services in the Conservative government of 1979.

NSS	National Student Survey a satisfaction survey conducted independently by Ipsos MORI. It collects data from final year students about their experience at university.
NVQ	National Vocational Qualification – taken as part of apprenticeship frameworks
OfS	The Office for students – an independent regulatory body established under the Higher Education and Research Act, (2017)
Ofsted	Office for Standards in Education (Ofsted). Created in the Education Reform Act (1988) to monitor the quality of delivery of education in state-schools
PA	Positional Autonomy
CPD	Career and Professional Development
PSRB	Professional, statutory, and regulatory body
RA	Relational Autonomy
RAE	Research Evaluation Exercise – a precursor to the REF, used to determine the extent to which research at a university would be funded
REF	Research Excellence Framework. The REF was introduced in 2014 and is the system for assessing the quality of research in UK higher education institutions.
S-D Logic	Service Dominant logic – part of the theoretical framework
SLA	Service level agreement – a contract detailing expected levels of service
STEM	Science, Technology, Mathematics and Engineering
TEF	Teaching Excellence Framework introduced in 2017 to assess the quality of undergraduate teaching
TQI	Teaching Quality Information based on performance evaluation following the Dearing report
UGC	The University Grants Committee. Set up in 1919. A Parliamentary committee set up in 1919 to allocate public funds to universities
UK	United Kingdom
UKRI	United Kingdom Research Institute established under the Higher Education and Research Act, (2017) to manage the REF and the KEF
UUK	Universities UK – represents the views of universities in the United Kingdom

GLOSSARY OF TERMS

Academia	In this thesis, the term refers to the Higher Education learning environment
Academic (person)	In this thesis, the term refers to a person in a Lecturer/Senior Lecturer or Principal Lecturer role
Apprentices	In this thesis, these are employees enrolled on a University Apprenticeship Programme (see below)
Apprenticeship delivery	This is blended learning and associated with employer defined apprenticeship standards and apprenticeship quality assurance mechanisms
Apprenticeship Frameworks	These pre-dated apprenticeship standards (see below) and the framework had separately assessed workplace and knowledge components. All framework apprenticeships were retired by September 2020
Apprenticeship Standards	Employer defined apprenticeship specification documents which replaced apprenticeship frameworks starting in 2016.
Learner	A generic term covering both apprentices and students
Non-apprenticeship courses	These are courses not linked to apprenticeship that are designed by academics and validated by an HEI
Non-apprenticeship delivery	This is (usually) face to face delivery associated with non-apprenticeship courses and academic quality assurance mechanisms
Non-apprenticeship learners/students	These are students on courses not linked to apprenticeships
University Apprenticeship Programmes	Apprenticeships at university level (levels 4-7 in the FHEQ framework), delivered mapped to and/or integrated with an HE qualification

CHAPTER 1: INTRODUCTION

1.1 Overview

University managed apprenticeship programmes were the result of an English apprenticeship policy reform in 2015. My thesis aims to move toward an understanding of how university apprenticeship programmes impact academic autonomy in the computer science discipline. It is a case study of the perceptions held by computer science academics of the academic autonomy associated with digital apprenticeship programmes in a university setting following the 2015 reform. The case study was undertaken with research participants who delivered both 'non-apprenticeship' courses in computer science and digital apprenticeship programmes in a post-1992 university. For clarity, in this thesis, I use the term 'non-apprenticeship' to describe degree courses, students and university work not linked to apprenticeship. Further details relating to the case study are provided in chapter 4 which covers the research design.

To situate the thesis, in this introductory chapter, I firstly provide an outline of the 2015 apprenticeship reform which led to the specification of university-level apprenticeship programmes. I follow this with a discussion relating to the discipline of computer science and the IT workplace. I introduce the process of reflexivity, which is a central tenet of my research process. As part of this, I provide my biography and an objective definition of academic autonomy which is the object of study in my thesis. I then present my two research questions, and finally I discuss the socio-political climate at the time of the research.

1.2 The 2015 Apprenticeship Reform

Following the 2015 election in the United Kingdom (UK), the incoming Conservative Government led by David Cameron (in office from 2015 to 2016) announced a five-year apprenticeship expansion plan published in a 2020 vision document (Dept. For Business Innovation & Skills, 2015a, 2015b). In the context of the 2008 recession and subsequent period of austerity and unemployment among young people (Delebarre, 2016), English apprenticeships were geared towards providing the workforce skills needed (OECD,

2014) to improve UK productivity which stood at *circa* 20% below that of other G7 countries (Chapman, 2014).

Prior to the 2015 reform, the highest level of apprenticeship in England came in the form of Higher Apprenticeships at level 4 in the FHEQ Framework (QAA, 2014 p17), equivalent in educational level to the first year of an undergraduate degree course. The 2015 reform brought in apprenticeships at level 5, as well as bachelor and master's level apprenticeship programmes (at levels 6 and 7 respectively). Key to the implementation of the reform was the process of setting up employer-led 'trailblazer' groups to define 'apprenticeship standards' (apprenticeship specification documents) for approval by the Secretary of State for Education.

The pre-existing level 4 apprenticeship programmes had been built as frameworks comprising a workplace component, and a separate university qualification as a knowledge component, with each component having its own learning outcomes and assessment. The incoming university-level apprenticeship standards aimed to facilitate a cohesive mix of academic education integrated with workplace experience, defined by employers, managed and delivered by universities, and overseen by government bodies. Both the academic education and workplace experience in the university managed apprenticeship programmes addressed a single set of outcomes specified in the related apprenticeship standards. Apprenticeship programmes at levels 4 and 5 could be integrated with or mapped to a sub-degree university qualification such as a Foundation Degree though this was not always a requirement of the standards. Likewise, apprenticeship programmes at levels 6 and 7 could be integrated with or mapped to a bachelor's or master's degree respectively. The apprenticeship reform included the introduction of a payroll levy (Enterprise Act, 2016) to provide funding. This concept built on the experience of other European countries in terms of encouraging employer engagement (Wolf, 2015).

1.3 Computer Science and the IT Workplace

My thesis is a case study based in a university department where some academics were involved with both computer science courses and digital apprenticeship programmes. As apprenticeship brings together academic education and workplace experience, it is important to contextualise computer science both as an academic discipline and in its relationship to IT occupations.

The term 'computing' stems from the verb 'to compute', meaning to calculate. Computing in this sense has existed since antiquity when it was supported by simple mechanical aids such as the abacus. Charles Babbage designed what is generally considered to be the first analogue computer and worked on its development until his death in 1871 (Swaine and Freiberger, no date). During World Wars I and II, the term 'computer' was used to refer to an occupation associated with ballistic calculations (Light, 1999). The first electronic computer, the Electronic Numerical Integrator and Calculator (ENIAC), was built in 1945 (Light, 1999). The development of electronic computers required innovators who were typically university academics in the disciplines of engineering or mathematics. Computer science was first recognised as an academic discipline by Cambridge University in 1953 when the first computer science course (a one-year Diploma) was launched (IEEE, 1992).

The term 'Information Technology' (IT) is used to describe occupations that use and maintain computer programs and computing equipment (Denning, 2001). Initially these occupations involved operating computing machinery and the operators did not require any understanding of computer science concepts to do this. However, as computers became more complex, more erudite occupations emerged which began to require understanding of computer science concepts as well as practical expertise. Denning, (2001, p23) characterised the growing divide between the skills and knowledge developed in computer science degrees and those required in the emerging IT occupations as a "chasm".

Holmes (2010, p88) explained that technical IT occupations such as computer programming needed a 'craft' background. Competence of this type could be gained

through experience, and measured through skills demonstrated in action, for example by following an apprenticeship pathway (Denning, 2001). However, computer science graduates were developing academic knowledge and the understanding of theoretical concepts required for innovation. The emerging IT occupations required a mix of the two and the chasm developed because they were not being adequately catered for by either vocational or academic education.

In 2016, the Government commissioned two reviews relevant to computer science graduates. A review by Sir William Wakeham focussed on the skills and knowledge of **S**cience, **T**echnology, **E**ngineering and **M**athematics (STEM) graduates compared to labour market demand (Wakeham, 2016). A parallel review by Sir Nigel Shadbolt focussed specifically on computer science degrees and looked for the reasons behind the unexpectedly high levels of unemployment of computer science graduates (Shadbolt, 2016). The outcomes of these two reviews supported the findings of earlier reviews (Leitch, 2006; Wolf, 2011; Richard, 2012), in finding a mismatch between what IT occupations required and what HE supplied. The term "work-readiness" was used by both Shadbolt (2016 p9) and Wakeham (2016 p62) with reference to the need for graduates to be more adequately prepared for the workplace.

Denning, (2001) had previously recognised the importance of computer science graduates being prepared for lifelong learning noting the need for IT workers to continuously update their skills and knowledge to keep up with the innovations in hardware and software in the workplace. Both Shadbolt and Wakeham drew a distinction between the terms, 'employment' and 'employability'. Preparation for employment referred to improving the work-readiness of graduates by providing practical training in specific technical areas required by IT occupations. Improving employability meant developing transferable skills and exposing students to cutting edge research, to "enhance the students' long-term value and resilience in the workplace…[and]…their ability to achieve their best-fit career" (Rich, 2015 p12).

Denning (2001, p24) used the term "professionals" in reference to IT workers, however at the time of thesis completion, entry to and practice in IT occupations was not as

tightly regulated as for those in established professions such as Teaching, Medicine, Accounting and Law. Abbott (1988) noted that attributes commonly used to define a profession included technical knowledge and expertise, a valued contribution to society, and specified ethical and technical standards. Chien, (2017) characterised computer science as a professional discipline in terms of its alignment to these attributes. As a discipline computer science was becoming increasingly diverse, encompassing roles that met the professional attributes stated above to varying degrees. For example, roles associated with artificial intelligence were at the forefront of knowledge discovery requiring high levels of technical knowledge and expertise. Other roles such as those in forensic computing required rigorous adherence to standards to ensure that digital evidence collected would be admissible in court.

The British Computer Society (BCS) has been an accrediting body for computer science degree programmes since its royal charter in 2004 (BCS, no date). Shadbolt (2016) recognised that accreditation by professional, statutory, and regulatory bodies (PSRBs) such as the BCS, facilitated beneficial interaction of IT employers with HE. However, at the time of thesis completion there was no requirement for universities to seek BCS accreditation for their computer science courses. This allowed curricula to vary reflecting the workplace requirements of local IT employers and the research interests of university academics. Computer science graduates were at liberty to seek professional membership of the BCS or apply to become a Chartered IT Professional (CITP) but, unlike for the established professions, in IT occupations there was no absolute requirement to be a graduate, and no requirement to be registered or chartered to practice.

Academisation is the name given to the process of regulating an occupation (McEwen and Trede, 2014). It denotes the requirement of specified academic underpinning to enter and practice in a profession. This underpinning might be gained through an undergraduate or postgraduate course leading to a professional entry qualification (McEwen and Trede, 2014). In the nineteenth century, some apprenticeships were retired as the occupations they served were academised. The 'academisation' of teaching is discussed in Appendix A as an exemplar of this. Essentially, apprenticeships

in teaching were replaced by named university courses (such as the Bachelor of Education, BEd), which were mapped to national occupational standards and accredited by appropriate PSRBs. Graduates received a qualification to practice in the workplace alongside their university degree.

A result of academisation was that many vocational occupations which had previously been accessible through apprenticeship became “an integral part of Higher Education”, only accessible to those interested in, and capable of academic study up to degree level (Ek et al., 2013 p 1305). Furthermore, the need for academic study as part of a vocational programme also had implications for staff. The requirement for staff to be more actively involved in research as well as having practical expertise, meant that staff were increasingly required to hold a doctoral qualification (Ek et al., 2013). At the time of thesis completion, computer science had not undergone academisation and this permitted degree courses to retain the mix of academic and practical content chosen by individual universities, and IT employers to recruit and train would-be practitioners with or without academic qualifications. Important to my thesis was that computer science as a discipline retained a level of insulation from its associated IT occupations and its academics enjoyed greater academic autonomy than their counterparts in disciplines linked to academised professions.

1.4 Reflexivity

The theoretical framework for my thesis is covered in chapter 3, and is centred around Bourdieu’s Theory of Practice (Bourdieu, 1977, 1998; 1990). Bourdieu promotes a ‘reflexive sociology’ (Bourdieu and Wacquant, 1992) which requires that researchers recognise the biases they may have with respect to the research they conduct. Bourdieu identifies two possible biases that should be considered when designing a research project (Bourdieu and Wacquant, 1992).

The first bias is positionality, the relationship between the viewpoint of the researcher and the research. Determining positionality requires a researcher to situate themselves with respect to the subject, the research participants, and the research context (Savin-Baden and Major, 2013). Bourdieu, notes that positionality provides “a chance of seeing

the point from which you see what you see" (Bourdieu, 1989, p18-19). The process of achieving this in research is termed 'reflexivity' and is defined as "critical self-scrutiny by the researcher" (Mason 1996, pp5-6). Salö (2018 p25) described reflexivity as a "pivotal driver for yielding better research". It requires openness to the possibility that the background of the researcher could impact decisions made in all aspects of their research, and calls for researchers to continuously review their decisions and consider how these might have been affected by their positionality (Finlay, 1998). Subramani (2019) notes that to understand a researcher's positionality, it is important to understand their story. With this in mind, I provide a brief biography (section 1.4.1) to clarify my positionality and to put forward my motivation for undertaking this thesis. Holmes (2020 p2) notes that "researchers should continually be aware that their positionality is never fixed and is always situation and context dependent". I therefore revisit aspects of my positionality where appropriate throughout this thesis.

The second bias is related to the construction of the research object. Academic autonomy is the research object in my thesis and by virtue of my experience in HE, before starting the thesis I recognised that I had preconceptions around the meaning of the term. A key part of the reflexive process is to break down any pre-constructed ideas (Bourdieu and Wacquant, 1992; Salö, 2018). Prior to the development of the research questions, I undertook a preliminary review of previous studies of academic autonomy to provide a more objective definition and understanding of the term. This review is presented in section 1.4.2.

1.4.1 Researcher Biography

Having started working life as a secondary school Science teacher I left teaching to undertake a master's degree in computer science and subsequently worked in the IT industry. I later returned to a teaching role, delivering computer science courses in a post-1992 university. From 2016 to 2023, I was enrolled on a Doctor of Education Course (EdD).

In 2009, I became involved in the design and development of a Foundation Degree for use as the knowledge component in an IT apprenticeship framework. From 2012, I was

part of the Foundation Degree delivery team. Although the apprentices on the programme were essentially treated as part-time students in university terms, the experience of working with them provided me with insight into the nature of both apprentices and the level 4 higher apprenticeship programmes.

Following the apprenticeship reform in 2015, I led the development in my workplace of university managed apprenticeship programmes based on the then newly approved digital apprenticeship standards at level 4 (first year degree) and level 6 (Honours Degree). I was heavily involved in the delivery of the new programmes, and I began to suspect that some decisions that academics or university managers would usually take were potentially being influenced by external organisations or informed by external frameworks.

The difference between delivering a university course used as a standalone knowledge component of an apprenticeship framework and delivering an integrated apprenticeship programme may seem subtle. However, in practice, it became clear to me that unlike the former, being involved with the latter could have implications for the academic autonomy of those designing and delivering the programmes, and ramifications for the universities involved. While individual universities may subscribe to additional values reflecting their mission statements, academic autonomy is generally regarded as a core academic value (Aberbach and Christensen 2018; Estermann 2017). The perceived threat to this core value provided me with the impetus to undertake my thesis.

In terms of my positionality with respect to the research participants, I was an academic involved in the delivery of digital apprenticeship programmes alongside computer science courses in an English post-1992 university. I was therefore an insider in terms of having a knowledge of the programmes and the discipline. However, in the role of researcher, I was a student in an Institute of Education and endeavoured to conduct my research from an etic (external) position. This stance is further evaluated in terms of the research design in chapter 4.

1.4.2 Academic Autonomy in Higher Education

To provide an objective definition of 'academic autonomy', and its sister term 'academic freedom' this section investigates their meaning ending with a stipulation of how the terms are used in this thesis. Autonomy is the ability to act without external influence. It can be related to the rights of institutions or individuals. Earlier research used three-layer models to portray academic autonomy. Parker and Jary (1995) used a three-layer model in the context of universities while Kramer, Maquire and Schmalenberg, (2006) used a three-layer model in the context of nursing. Frostenson's three-layer model was used in the context of secondary school teaching in Sweden (Frostenson, 2015). Kligyte and Barrie (2016) also presented a three-layer model in their consideration of collegiality, the management style associated with universities that was considered important for academic autonomy. I utilise a three-layer model of academic autonomy to undepin my thesis. The three-layers of academic autonomy are depicted in Figure 1 (below). Like the previous three-layer models described above, the layers are hierarchical and for the purposes of my thesis I have named them institutional, role-based, and personal.

The 'institutional' layer denotes a macro representation of academic autonomy and is shown in Figure 1 as the top hierarchical layer. The European University Association (EUA) recognises four dimensions of institutional autonomy, namely organisational, financial, staffing and academic (Bennetot and Estermann, 2017 p7). The academic dimension of institutional autonomy covers decision making related to the purpose and values of the university. This is manifested as the extent to which decisions concerning the portfolio of courses, student selection and the role of academics are insulated from external influences. However, as Orosz (2018) notes, the dimensions of institutional autonomy are interconnected such that if one dimension is

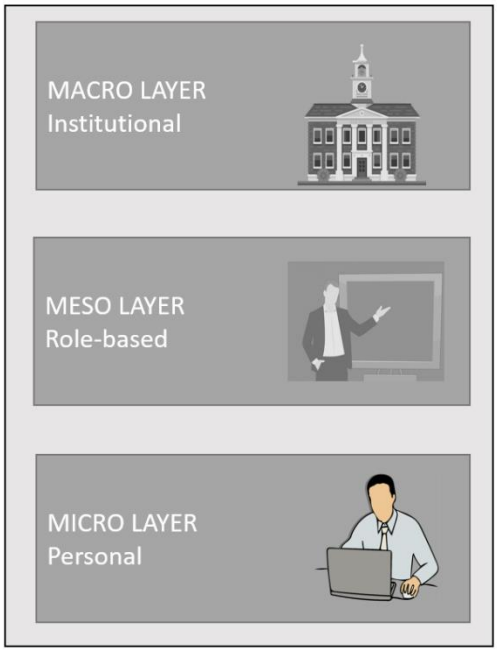


Figure 1: Layers of academic autonomy (-author's depiction based on the three-layer models discussed in this section)

compromised, other dimensions could be affected. For example, if a financial stakeholder were introduced, the stakeholder might wish to have input into decisions relating to the academic dimension, possibly as a condition of continued involvement. For this reason, the term 'academic autonomy' is generally used to denote the overall "institutional authority" of an academic institution (Guruz 2015, p1), rather than just that of its academic dimension. In the context of this thesis, institutional academic autonomy covers the extent to which the academic purpose and values of a university and its academics are perceived to be insulated from external influences.

The 'role-based' layer provides a meso representation of academic autonomy and is depicted in Figure 1 (page 9) as the middle layer. The use of the term 'academic autonomy' in this sense denotes the independence conferred on academics in their practice. This covers their decision making around curriculum content and pedagogy, and the extent to which these are insulated from external frameworks and regulatory bodies. The 'personal' layer provides a micro representation of academic autonomy and is depicted in Figure 1 as the bottom layer. Here the use of the term 'academic autonomy' reflects the level of choice that academics perceive they have regarding the their work, and the nature of the decision making processes around this (COE, 2019).

For my thesis, it was important to distinguish between the role-based autonomy of practice that applies to academics as they undertake their work, and the personal autonomy that an academic has, to determine the nature of their work. The term 'academic freedom' is often used to describe what this thesis terms role-based and/or personal academic autonomy. To avoid any confusion, particularly where there are direct quotations, in this thesis the terms 'individual academic autonomy' and 'academic freedom' should be taken to be synonymous, referring to both the role-based and personal autonomy of academics. When there is need to be more specific the terms 'role-based autonomy' or 'personal autonomy' are used for clarity. The term 'institutional autonomy' is used to reflect the academic autonomy of a university in terms of its insulation from external influence. Where the term 'academic autonomy' is used without qualification, it should be taken to refer to all aspects of academic autonomy. Table 1 (page 11) summarises the use of these terms.

Table 1: Use of the term 'academic autonomy' in this thesis

Term	**Layer of Academic Autonomy (From Figure 1 on page 9)**		**Explanation**
Academic Autonomy	Institutional Autonomy		Covers the extent to which institutional purpose and values, and the roles of staff and their relationship with students are insulated from external factors such as the need to please stakeholders and to be sustainable as businesses
	Individual Academic Autonomy/ Academic Freedom	Role-based Autonomy	Covers decision making around curriculum content and pedagogical approach, and the extent to which these are insulated from external frameworks and regulatory bodies
		Personal Autonomy	Covers the nature of management and leadership in terms of decision-making processes and the autonomy of choice that an individual has in decisions around the nature of their work.

1.5 Research Questions

My research was conducted under the critical realism (CR) research paradigm utilising a case study. CR and the reasoning behind its use in this thesis are discussed in detail in chapter 4 which covers the research design. CR is focussed on understanding the unobservable structures and mechanisms that cause observable events (Danemark et al., 1997). CR emphasises ontological questions concerned with understanding reality as it is perceived, and produces theories for understanding and explaining the underlying causal structures and mechanisms (O'Mahoney, 2016; Brönnimann, 2022). The nature and phrasing of my research questions was informed by the three-layer model of academic autonomy described above and the critical realist approach.

Perceptions are subjective and may differ for each individual (Bhaskar, 2020). They are the ways that individuals interpret and understand their experiences. While perceptions are not facts, for most individuals, perceptions become their truth; a reality they construct for themselves (Munhall, 2008). The research participants may not have been aware of the objective facts around their academic autonomy, or of the layers of autonomy under consideration, but each would have a perception of the influences and constraints on their actions in certain scenarios. In my thesis, the investigation of these perceptions allowed for theories about underlying causes to be proposed. My thesis is based around two research questions which are presented below:

Research question 1:

> How, and to what extent do computer science academics perceive that academic autonomy is impacted in the context of apprenticeship programmes compared with non-apprenticeship courses in a university setting?

Research question 2:

> How, and to what extent does the background of an academic influence their perceptions of apprenticeship work?

While research question 1 seeks to understand the impact of the post-2015 apprenticeship programmes on academic autonomy, research question 2 acknowledges that perceptions vary and seeks to understand the extent to which this could be linked to background.

1.6 Metaphors and Themes

Throughout my thesis I use the metaphor of the chasm, the term coined by Denning (2001) to describe the gap between the skills and knowledge gained by computer science graduates and those required for IT occupations. It is used throughout this thesis to symbolise the academic autonomy of the computer science discipline in terms of its insulation from external influences. The colour spectrum is another metaphor used in this thesis to illustrate key stages in the development of academic and vocational education. HE and employment are depicted as existing at opposite sides of the chasm and at opposite ends of the colour (education) spectrum. The status of the chasm in the 1960s is illustrated in Figure 2 (below). HE is depicted on the left-hand side of the chasm and the red end of the colour spectrum. This houses academic education. Employment exists on the right-hand side of the chasm and the violet end of the colour spectrum. This houses apprenticeship programmes and other vocational education.

Figure 2: The chasm between the computer science discipline and IT occupations

The literature review evaluates key stages in the development of HE towards the inclusion of vocationally oriented providers and courses and the development of apprenticeship programmes to include academic elements. The metaphors are used to illustrate this development symbolically as the two sides of the chasm extending towards each other.

1.7 The Socio-political Context of the Research

Following successful completion of the taught component of my doctoral study, I commenced my thesis in March 2020, which was a time of social and political upheaval in the UK stemming in part from a referendum on June 23rd, 2016. At this time, the electorate voted for withdrawal from the European Union (EU). The then Conservative party leader, David Cameron, who had initiated the 2015 apprenticeship policy reform, resigned as Prime Minister following the result. The UK left the EU on 31st January 2020. The two changes in party leadership that followed leaving the EU did not result in any major changes to apprenticeship policy. The long-term impact of leaving the EU on apprenticeship policy was unknown at that time both generally and specifically within the case study setting, but there did not appear be a threat to the continuation of existing programmes for the anticipated duration of the thesis.

In December 2019, COVID-19, an infectious respiratory disease caused by a novel coronavirus (SARS-CoV-2) began to spread quickly. During the data gathering phase between July and September 2020, the disease was in its pandemic phase. England along with other parts of the UK, went into a 'lockdown'. This meant complying with a number of restrictions and requirements on individuals and organisations designed to help slow the spread of COVID-19 (Brown and Kirk-wade, 2021). The so-called 'lockdown laws' were in force between March 2020 and July 2021. To comply with these laws, the campus of the case study university was closed from March 23rd, 2020, to September 18th, 2020. During the lockdown period, the case study university continued to function as an academic institution and its apprenticeship programmes, along with other courses continued, albeit without any face-to-face delivery. Some apprentices were furloughed (laid off with pay) but most were able to continue with their academic work during this time. Apprenticeship management and other management structures within the university remained unchanged and the oversight of apprenticeship regulatory bodies remained in place.

Between September and October 2022, just prior to completion of the thesis, there was further political upheaval resulting in the resignation of the prime minister (Boris Johnson) and the appointment of two others (Liz Truss followed by Rishi Sunak) in rapid

succession. At the time of submission, the new Government was settling in with a new Secretary of State for Education, the fifth in four months. The impact of these changes on university apprenticeship programmes (or indeed HE more generally) moving forward was unknown.

1.8 Layout of the Thesis

Following this introductory chapter, the thesis continues in chapter 2 with a literature review. The literature review investigates the development of academic autonomy and apprenticeship prior to the 2015 apprenticeship reform. It also includes a review of recent literature culminating in an exposition of the research gap addressed by my thesis. In chapter 3, there is a further review of literature contributing to development of the theoretical and conceptual frameworks used to analyse and interpret the research data. Chapter 4 provides the rationale for the research design and the methodological aspects of the project. Chapter 5 presents the analysis and the key findings of the project. Chapter 6 concludes the thesis by synthesising the findings from the data analyses presented in chapter 5 using the theoretical lens to move toward an overall understanding of how university managed apprenticeship has impacted academic autonomy. This is followed by a discussion around the limitations of the research and future areas of research that stem from the findings. The thesis closes with an exposition of the contribution to knowledge made through my thesis.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This literature review has three parts which together provide a comprehensive background and context for my thesis. The research object is academic autonomy, and my thesis sought to move toward an understanding of the impact that the 2015 apprenticeship reform had on academic autonomy in a university setting. My thesis was conducted under the CR paradigm with change being a central tenet (Bates, 2006). To understand the impact of the reform I use this literature review to establish a general benchmark for academic autonomy in HE prior to the 2015 reform and discover how it changed over time. I also review the development of the apprenticeship model of learning and determine how it changed in the same timescale. In doing this, I effectively explore the extent to which the two sides of the chasm grew towards each other prior to my thesis. This general background provides a foundation from which to investigate the impact of the 2015 apprenticeship reform on academic autonomy within the specific case study.

In part one of my literature review, I synthesise literature and education policy to evaluate the development of academic autonomy in HE from the early 1960s to the start of data gathering in 2020. The starting point was chosen based on an earlier review of literature that I conducted at the proposal stage of my thesis which found that policy reforms related to HE in the 1960s were widely regarded as having initiated the erosion of academic autonomy (Deem, Hillyard and Reed, 2007; Kok, Douglas and Mcclelland, 2008). Part 1 of this literature review is a narrative review (Davies, 2000) of the development of academic autonomy in HE. The narrative review identifies mechanisms that previously impacted academic autonomy with a view to determining empirically through my research the extent to which these continue to impact academic autonomy in the specific environment of the case study. This review was required to understand whether the apprenticeship reform caused an exacerbation of existing mechanisms and/or introduced additional ones. Ascertaining the nature of the trend of academic autonomy objectively in terms of its direction and gradient in HE was also important to facilitate comparison with the perceived trend in the case study environment both prior

to and following the reform. To summarise the first part of my literature review, I include a timeline of academic autonomy. This was used in the analysis of academic autonomy in the role-based (meso) layer where some participants were able to reflect on changes that they had personally experienced during their time in the case study environment. This enabled me to compare the trend of academic autonomy in the case study environment prior to the reform with the trend after it.

In part two of my literature review I evaluate the development of apprenticeship as a learning model leading up to the 2015 reform. This evaluation shows the extent to which the vocational apprenticeship learning model had moved closer to the model associated with HE. I discuss the similarities and differences between the university apprenticeship programmes and non-apprenticeship courses to provide a background to the potential challenges faced by academics involved with apprenticeship programmes. I include a summary table of the development of apprenticeship to situate the delivery timeline of each research participant with respect to this. The timeline informed the analysis relating to role-based autonomy. In part three of my literature review, I evaluate recent research directly related to post-2015 university apprenticeship programmes to expose the gap in knowledge that my thesis addresses. This review of emerging literature continued throughout the thesis to ensure currency at the time of submission.

2.1.1 Selection of Academic Literature for Review

To identify appropriate academic literature for review, I used the snowball method (Webster and Watson, 2002; Wohlin and Prikladnicki, 2013). In the context of selecting literature, snowballing refers to the practice of using the reference list of an article (backward snowballing) and citation tracking (forward snowballing) to identify source material. In terms of reflexivity and reduction of researcher bias as identified by Bourdieu and Wacquant (1992), the snowball approach provides a systematic method of identifying useful source material starting from a small number of articles in the research area. Appendix B describes the way that the snowball method was employed throughout this review to increase the amount of relevant source material for review while retaining objectivity in the selection process.

2.1.2 The Role of Policy in Education

The relationship between education and policy is described by Garratt & Forrester (2012, p.2) as an "intricately woven tapestry". In this analogy, the intricately woven threads in the tapestry represent the way that education practice is inextricably linked to underpinning policy. Ball, Maguire, and Braun (2012, p.2) define policy as "an attempt to 'solve a problem'". Since my earlier literature review had found that the erosion of academic autonomy was linked to policy changes in the 1960s (Deem, Hillyard and Reed, 2007; Kok, Douglas and Mcclelland, 2008), I wanted to understand the problems in HE that led to the introduction of policies and how they subsequently impacted academic autonomy. In addition to the review of extant literature relating to the development of academic autonomy and vocational education, a review of Education policy was also undertaken to support and provide additional context for the literature review.

The policies reviewed for use in this literature review were those initiated after 1960 based on the findings of my earlier literature review. The research case study was housed in an English university, so the review was limited geographically to policy reforms in England. However, prior to devolution of powers for education and training to the Scottish Parliament (Cabinet Office, 2013b) and the National Assembly for Wales in 1997 (Cabinet Office, 2013c), and the Northern Ireland Assembly in 1998 (Cabinet Office, 2013a), the literature review considered policy reforms related to the UK as a whole. To decide which of the education policies satisfying the above conditions proved significant in terms of their impact on academic autonomy, a structured policy evaluation was undertaken. The formulation of a policy evaluation framework for this purpose is detailed in Appendix C with Table 35 (page 250) showing the list of policies considered, and brief comments to explain their selection for or rejection from this review. To provide additional contextual information, this table also includes the Prime Ministers and Secretaries of State for Education (or similar) associated with the policies.

2.2 Part 1: The Evolution of Academic Autonomy in HE

The following evaluation of academic autonomy in HE is presented as a narrative in chronological phases starting in the 1960s and ending with the Dearing Report (Dearing, 1997). Mechanisms leading to reduction of academic autonomy are identified, and each is then considered separately in terms of its development and impact through to thesis completion. The timescale between the Dearing report and data gathering encapsulates the periods when the research participants were working in the case study setting and provides the temporal context for their perceptions to support the analyses. At the end of this section, the mechanisms leading to reduced academic autonomy are summarised in terms of the three layers of autonomy introduced in chapter 1 namely institutional (macro), role-based (meso), and personal (micro).

2.2.1 The Massification of HE

Universities in the UK have never been state-owned. Prior to 1962, they operated as fee paying institutions and at that time there were only eighteen, compared with over one hundred at the time of thesis completion. Although they received some state funding, this was small in comparison to their income from fees, endowments and charitable donations (Hillman, 2013). The overall participation in university education was less than 5% of school leavers (based on data in Bolton, 2012) and comprised those from the higher echelons of society whose families could afford the fees, or those from the working classes who were sponsored by their local authority (Hillman, 2013). Universities were considered elite, research-oriented institutions and they, and their academics were afforded a high level of academic autonomy as expounded by the Humboldtian model (Anderson, 2006, 2020). Humboldtian principles of HE include academic freedom and autonomy, the pursuit of knowledge for the benefit of society and education, and harmonised teaching and research.

In the early 1960s, it was considered that the elitist university system was not providing the equality of opportunity germane to the political ethos. In particular, the provision of local authority support was meagre and was not uniformly distributed (Hillman, 2013). Furthermore, in post-war Britain there was an urgent need for skills development to

promote the economic growth needed to compete in the global marketplace (Lapping, 1970). This provided a political warrant to widen participation in academic education at all levels for the public good.

In terms of HE, the Anderson Report of 1960 commissioned by the MacMillan Conservative government, mandated that local education authorities in the UK pay university tuition fees for all students and provide means-tested maintenance grants (Hillman, 2013). The unofficial title of the Anderson report was 'Grants for Students', which succinctly summarised its eventual outcome, enshrined in law by Act of Parliament (*Education Act*, 1962). Subsequently, the Robbins report of 1963 recommended greater participation in HE and a broadening of the student demographic, to include a greater number of students from less privileged backgrounds if they "were qualified […] by ability and attainment" (Robbins, 1963, p8). Although introduced by a Conservative government, it had the support of the Labour party as it endorsed the left-leaning aims of social equality and egalitarianism (Newsam, 2016). The *Education Act* (1944) had established secondary education for all. This meant that by the 1960s, pupils from less privileged backgrounds would have been afforded the opportunity to meet the required standard for university entrance.

The *Education Act* (1962) which brought in student grants, marked the start of the massification of HE in the UK. The University Grants Committee (UGC) had been formed in 1919 with an initial remit to channel government funding into universities where it was needed. However, by the 1960s, its remit had diverged, to include planning for the additional university places needed to meet the anticipated demand from working-class students (Williamson, 2019). With this in mind eight new universities were built as residential 'campus style' universities outside major cities. Robbins (1963, p7) had previously noted that this style of university would, for working class students "in some measure compensate for inequalities of home background". In terms of protecting academic autonomy, living on a university campus insulated working class students from heteronomous values (such as employment prospects) that might be imbibed from family and friends, hence enabling them to focus solely on their pursuit of knowledge.

This in turn insulated universities from those external influences and helped to protect their institutional academic autonomy.

2.2.2 The Binary Divide

HE was offered at Colleges of Advanced Technology (CATs) and polytechnics as well as universities. The Robbins report had favoured a move toward a unified system and had recommended that the CATs, which tended to offer vocationally oriented courses become known as 'Technological Universities' (Robbins, 1963). However, in his speech at Woolwich Polytechnic, Anthony Crosland, the then Labour Secretary of State for Education and Science, proposed to continue with the existing dual system (Crosland, 1965; Hillman, 2016). Many of the CATs became known as polytechnics at this time (Pratt, 1997). The term 'binary divide' was subsequently used to describe the continued division between the autonomous sector of universities, and the public sector of technical and FE colleges.

On one side of the binary divide were the universities, whose autonomy of governance remained intact. On the other side, public sector institutions including polytechnics were tightly controlled by the state having their programmes validated through the Council for National Academic Awards (CNAA) and overseen from a quality perspective by Her Majesty's Inspectorate (HMI). Crosland (1965 n.p.) had recognised that there was an economic need for "vocational, professional and industrially based" courses, and that it would therefore be desirable to keep a part of the HE system under state control with obligation to respond to the needs of the economy (Shattock, 2012; Hillman, 2016). The presence of the binary divide ensured that with the public sector institutions in place to cater to the demands of the economy, universities could continue to remain true to their academic purpose and values, making their own decisions around curricula and research (McNay, 1995).

By the end of the 1960s, participation in HE had increased to 8.4% (Bolton, 2012). With tuition fees now paid by local authorities the dependence of universities on state funding had increased. Shattock and Berdahl (1984, p447) noted that despite this, the UGC had established a tradition of academic autonomy and was still widely regarded as

“a committee independent of politics and not subject to ministerial direction”. It provided an effective buffer between politics and university governance which was deemed vitally important to the preservation of academic autonomy in universities (Shattock, 2008). However, Robbins (1963) had previously noted that while the increased financial dependence on state funding *should* not impair the right of universities to self-government, their development *would* start to become a matter of public interest. Furthermore, critiquing the Anderson report of 1960 that resulted in grants for all students, Hillman (2014, n.p.) suggested that it did “not sufficiently recognise the trade-off between funding and the number of places that could be afforded”. With increasing massification, state funding would become unsustainable, and different funding mechanisms would need to be investigated. This had the potential to impact academic autonomy as universities would potentially become accountable to financial stakeholders.

2.2.3 The ‘Secret Garden’ of Education

In 1962, David Eccles, the then Conservative Secretary of State for Education, had referred to the school curriculum as a ‘secret garden’ (Abbott, Rathbone and Whitehead, 2013). This phrase symbolised the academic freedom “accorded to school teachers […] to control what they taught and how they taught it” (Day, 1999). In October, 1976 James Callaghan, the then Prime Minister of the Labour government (in office from 1976 to 1979), gave a notable speech at Ruskin College, Oxford (Callaghan, 1976). The speech discussed the impenetrable "secret garden" of school curricula (Callaghan, 1976 n.p.), implying that there were issues regarding the standards and purpose of state education that needed to be resolved. The speech noted that “public interest [was] strong and legitimate and [would] be satisfied”, (Callaghan, 1976 n.p.). It also highlighted the need to relate education more closely to the needs of the economy (Shattock, 2008). While the speech and its recommendations were related to state-funded schools, it initiated what became known as the ‘Great Debate in Education’ and marked the start of political scrutiny of education more generally (Perry *et al.*, 2010).

2.2.4 New Public Management and Rationalisation

The recessions of the late 1970s culminated in the so-called 'winter of discontent' and a vote of no confidence in the Labour government. When Margaret Thatcher formed the succeeding Conservative government in 1979, participation in HE was growing and stood at around 14% (based on data in Bolton, 2012). Following the *Education Act* (1944) through to 1979, regardless of political leaning, government policy in the UK had maintained a consensus towards social democracy and egalitarianism with high public spending (Williamson, 2019). However, with the incoming Conservative government, the political ethos moved towards the 'New Right' ideology, which combined neo-conservativism with its emphasis on power structures and strong governance, and neoliberalism with its emphasis on a free market economy (Gordon and Whitchurch, 2010; Williams, 2021). New Public Management (NPM) is an umbrella term for the approach adopted for the management of public services including education (Hood, 1991; Pollitt, 1993; Deem, Hillyard and Reed, 2007). It promoted a "set of beliefs and practices […] based on the premise that better organisation leads to improvement" (Pollitt, 1993 p1).

Although my thesis is focussed on academic autonomy in an HE setting, I have evaluated the reforms in secondary education resulting from the *Education Reform Act* (1988) as this area had been identified as inadequate in the Ruskin speech (Callaghan, 1976) and was the first focus of the new reforms. As such this provided an indicator of the policy discourse that would impact the entire education sector. Quicke (1988) noted that the 'New Right' aims for secondary education were to improve standards, to improve efficiency and equip children for work. These 'New Right' aims informed the *Education Reform Act* (1988) which marked the most major change in education policy since the *Education Act* (1944). A concept known as 'parentocracy' was introduced and gave parents a choice of where their child went to school thus creating a marketplace in which schools were forced to compete for pupils, and thereby funding (Brown, 1990). The Act also introduced the national curriculum which standardised teaching content.

Following the *Education Reform Act* (1988) Leaton Gray (2007) noted that teachers became more accountable to the Government for outcomes, but had less autonomy in

terms of curriculum design and their pedagogic practice. Apple (1987) coined the term c to describe the notion of teachers being forced to implement plans designed by others and have their compliance with the plans monitored by a government body. Pollard *et al.,* (1994) noted that as scrutiny increased teaching was likely to become more instrumentalist, designed to achieve the requisite externally defined goals. Gillard, (1988) interpreted these constraints on the academic autonomy of teachers as being reflective of a government unwilling to place trust in their roles. Education at secondary level could no longer be regarded as a 'secret garden'. The mechanisms of reduced academic autonomy of teachers in secondary education at that time were identified as marketisation, quality monitoring, managerialism and standardisation (Apple, 1987; Smyth et al., 2000; Leaton Gray, 2007). These mechanisms are later evaluated (section 2.2.7) in terms of their impact on autonomy in HE.

The instigation of NPM in HE was heralded by the Jarratt Report, which had been commissioned by the Thatcher Conservative government. The report promoted a more business-like approach for HE, stressing that "universities [were] first and foremost corporate enterprises" (Jarratt, 1985). The implication of this statement and the recommendation of the report was that moving forward, universities should be managed as businesses. NPM constituted a radical and disruptive change for HE which had previously benefitted from left-leaning social democracy with high public spending. Overt manifestations of NPM in HE included an increase in the proportion of managers to academics with a shift in governance away from academics to management thereby reducing individual academic autonomy.

In discussion of their three layers of academic autonomy, Parker and Jary (1995) posited that in HE, policy in the institutional layer led to mass production and managerialism being driven through to the lower layers via Weberian rationalisation (Weber, 1930). Rationalisation is the process whereby control is gained through increased bureaucracy. Parker and Jary's work built on a contemporary adaption of Weberian rationalisation which coined the term 'McDonaldization' *(sic)* in the context of HE (Ritzer, 1993). This term describes the adoption of the market-driven management principles of fast-food restaurants as exemplified by the McDonald's chain, which contrasts starkly with the

Humboldtian model reflective of HE in the 1960s. The drivers of rationalisation were defined as efficiency, calculability, predictability, and control. Rationalisation in HE through policies associated with NPM has been linked to the reduction of academic autonomy in all three layers (Hayes and Wynyard, 2002).

Prior to NPM, leadership in HE differed from that in business because of the culture of collegiality that underpinned governance and academic practice (Burnes, Wend and By 2013; Kligyte and Barrie, 2016). However, as noted by Bleiklie and Kogan (2007, p477) this collegial style of leadership was predicated on a university being run as a "republic of scholars", rather than the "stakeholder organisation" posited in the Jarratt report. Collegiate governance was "based on the ideal of autonomous university members" (Bieletzki, 2017 p7) and "governance by peer review" (Karran, Beiter and Appiagyei-Atua, 2017 p219). Robbins (1963) had recognised that academic autonomy at both institutional and individual level stemmed from collegiality and that impacting collegiality would also impact academic autonomy. Moving forward, as with secondary education, the emphasis would be "on output rather than input, accountability not autonomy [and] quality assurance processes, not trust" (McNay 1995, p108). This would move the style of university leadership from collegial to performative (Ball, 2003).

Two key aspects of academic life namely freedom of speech and academic tenure, which relate to individual academic autonomy were directly impacted by the *Education Act* (1986) and *Education Reform Act* (1988) respectively. Academic Autonomy was covered by *section 43* of the *Education Act (No.2)* 1986, which placed a duty on universities to take reasonable measures to ensure freedom of expression within the law for their members, students, employees and visiting speakers. The right of academics to exercise it without "placing themselves in jeopardy of losing their jobs or the privileges they may have" was enshrined in law (*Education Reform Act,* 1988). Academic autonomy at individual level is often linked to freedom of expression but these terms are not synonymous (Olivias, 1993). Freedom of expression is regarded as a basic human right and as such is protected under *article 10* of the *Human Rights Act* (1998) and is applicable to society as a whole. Conversely, academic autonomy is a work-related freedom which specifically "relates to the intellectual independence of academics in

respect of their work, including the freedom to undertake research activities, express their views, organise conferences and determine course content without interference" (Equality and Human Rights Commission 2019, p15). While the *Education Act (No.2)* (1986) promoted the right to freedom of speech and academic autonomy, the right was qualified within the Act in that the rights of individuals were to be balanced with the interests of society (such as national security and public safety), which were covered by other legislation.

Section 202 of the *Education Reform Act,* (1988) removed the concept of academic tenure. This concept had meant that an academic in a permanent post (with tenure) would hold the post for life unless there was a good cause to remove them, such as gross misconduct. However, the "tenure problem" was viewed as one of the major impediments to rapid change in the university system (Jarratt, 1985 p31). The removal of tenure meant that academics could be made redundant for reasons other than gross misconduct. This could include economic reasons, for example if their research *oeuvre* was not considered to be in line with the business strategy or the perceived market of their university. Tenure was viewed as a key facilitator of individual academic autonomy (Karran and Mallinson, 2017; Barendt and Bentley, 2010), and its removal ensured that while individual academic autonomy was enshrined in university statutes, in practice it was limited by lack of job security and market forces.

2.2.5 Closing of the Binary Divide

A white paper (Parliament. House of Commons, 1991) commissioned by John Major's Conservative government (in office from 1990 to 1997) had a stated driver to enable more young people to access HE. It aimed to close the binary divide, which was seen as an "increasingly artificial distinction" between universities and polytechnics (HM Government, 1991 p1). The resulting *Further and Higher Education Act* (1992) embodied both the marketing and monitoring facets of NPM (Shattock, 2008). Enabling the existing thirty-five polytechnics to apply for university status more than doubled the number of universities competing in the HE marketplace at that time. It also stimulated competition between the more academically oriented pre-1992 universities and the more vocationally oriented post-1992 universities. The post-1992 universities increased

the diversity of university education providers by providing courses with a focus on practical scholarship. The impact of this on the insulation of HE from the influence of workplace requirements is illustrated symbolically using the chasm in Figure 3 (below). The post-1992 universities are depicted with an orange hue to indicate their increasing vocational orientation. The passage of time is noted in years at the bottom of the graphic.

Figure 3: Rationalisation, closing the binary divide, and the chasm.

In terms of monitoring, the Act introduced new performance indicators based on quantifiable measurements of quality which provided a means for the emerging student customers to make an informed choice, a key tenet of neoliberalism (Gordon and Whitchurch, 2010; Williams, 2021). Rich (2015, p4), noted "without equations to demonstrate impact, it is hard to measure the public good and, […] what is hard to measure is hard to fund". The *Further and Higher Education Act*, (1992) led to the establishment of two organisations to monitor the quality of HE and allocate funding, namely the HE Quality Council (HEQC), and the HE Funding Councils (for England, HEFCE). For the post-1992 universities, these councils and their scrutiny replaced the CNAA remit (which had previously approved programmes and assured quality of delivery in the polytechnics). Hence, the post-1992 universities saw an increase in their level of institutional academic autonomy as their programmes were no longer subject to government approval and they now had access to research funding (Hillman, 2017).

However, for the pre-1992 universities the level of external scrutiny increased as did the need to compete.

The impact on teacher autonomy of the introduction of the national curriculum and the Office for Standards in Education (Ofsted) to monitor quality of delivery (*Education (schools) Act*, 1992), can be compared to the impact on the academic autonomy particularly in the pre-1992 universities following the closure of the binary divide. In terms of institutional autonomy, universities remained legally autonomous. Unlike schools, they were not forced to offer specific programmes as part of a national curriculum, they were free to choose whatever they wished to add to their portfolio of awards and to determine the content of their curricula. However, this choice was not insulated from external forces. Just as parents were able to choose a school for their children, students were able to choose their university course based on published metrics. Rather than being designed to reflect and disseminate the knowledge built within a university, the competitive nature of the expanding HE marketplace, meant that to ensure their sustainability, university programmes would need to be designed to cater to the needs of employers to attract students (Henkel, 2007). The instigation of performance metrics replaced the "trustful", collegiate relationships needed to sustain individual academic freedom with the "transparency" of quality assurance metrics (Bleiklie and Kogan 2007, p482). As with secondary school teachers being monitored through Ofsted inspections (Gillard, 1988), there was the feeling by HE lecturers that they were no longer trusted to perform their roles (Bleiklie and Kogan 2007).

2.2.6 The Dearing Report

The Dearing report was commissioned by the Labour government led by Tony Blair (in office 1997-2007), (Dearing, 1997). Its remit was to look at sustainability of growth in HE. Blair's government termed itself 'New Labour' and had a centrist ideology based on the 'Third Way', which like the 'New Right' ideology of the previous Conservative government, supported the use of market economics to deliver economic efficiency but introduced 'left-leaning' support for social justice (Giddens, 1998). As part of this, Blair was committed to continuing the massification of HE started by the previous Conservative government. He proclaimed in a party conference speech before the election, "Our [New Labour's] top priority was, is and always will be education,

education and education" (Blair, 1996 n.p.). A goal set in a conference speech two years after election was to have fifty percent of young people participating in HE "in the next century" (Blair, 1999 n.p.).

2.2.7 Drivers and Mechanisms Leading to Autonomy

Rationalisation through policies associated with NPM is identified in the previous sections as driving reduced autonomy in HE through efficiency, calculability, predictability, and control. The previous sections identify four mechanisms leading to reduced academic autonomy in secondary schools namely marketisation, quality monitoring, standardisation and managerialism (Apple, 1987; Smyth et al., 2000; Leaton Gray, 2007). In the following sections, each of these mechanisms is discussed in the context of HE from the Dearing report in 1997 to the time of thesis completion in December 2022. The drivers of rationalisation are linked to the mechanisms leading to reduced academic autonomy alongside an evaluation of the status of academic autonomy in each layer.

2.2.7.1 Marketisation

The marketisation of HE was deemed to have started in 1980 when the Conservative government charged full tuition fees to international students (Molesworth, Scullion and Nixon, 2011; Brown and Carasso, 2013). This provided an additional and lucrative income stream for universities and re-introduced the concept of students as fee paying customers. However, when students had previously paid tuition fees prior to 1962, universities were elite institutions with high levels of autonomy. With participation rates almost tripled (from 5% in 1960 to 14%, based on data in Bolton, 2012) and with the state already established as a sizeable financial stakeholder following the introduction of student grants, the political and socioeconomic environment in the 1980s was very different. The introduction of fees at this point marked the start of the transformation of students into financial stakeholders (Molesworth, Nixon and Scullion, 2009).

To fill the expanding funding gap and encourage universities to increase their recruitment, Blair's government passed the *Teaching and Higher Education Act* (1998), which mandated means-tested tuition fee 'top-up' payments for students in England of

up to £1000 per annum. The introduction of tuition fee loans along with eligibility for loans to 'top-up' maintenance support (*Education (Student Loans) Act* of 1990) moved university funding away from the state and towards students. This marked a key turning point and moving forward, home students would progressively be transformed into customers alongside their international counterparts.

The move towards funding through tuition fee loans continued with the Higher *Education Act* (2004), and the Browne Review commissioned by Gordon Brown's Labour government (in office from 2007 to 2010) recommended that student fees should be paid in their entirety by students through government backed loans (Browne, 2010). The general election in 2010 resulted in a Conservative-Liberal coalition government led by the Conservative MP David Cameron (in office as Prime Minister of the Conservative-Liberal coalition from 2010 to 2015). Coalition policy brought the neoliberal values of choice and market competition back into focus. Tuition fees were tripled to £9000 *per annum* from 2012 onwards completing the transformation of students into paying customers. Furthermore, in 2013 a cap, which had been placed on student numbers at each institution to encourage an even distribution, was removed and by 2015 universities were free to recruit as many full-time undergraduate students as they could attract. To further encourage competition between universities, the cap on overall student numbers remained in place, ensuring that if some universities increased their share of the market, it would be at the expense of others (Hillman, 2017). In terms of participation in HE, the symbolic target set in 1999 by Sir Tony Blair, the then Prime Minister, of fifty percent was met in 2019 (Coughlan, 2019).

Naidoo and Williams, (2015, p208) noted that the application of neoliberal market principles to HE and the subsequent construction of the student customer "altered [its …] purpose and values". While retaining their institutional autonomy in principle, in practice, universities were changing from public funded academic institutions linked to the 'public good' into consumer-oriented corporations, providing a product for sale in a global marketplace (Brown, 2012, 2015; Lomer, Papatsiba and Naidoo, 2018). In the context of individual academic autonomy, research studies acknowledged that changes to management style and student expectations, required academics to adapt (Parker

and Jary, 1995; Henkel, 1997, 2000, 2005; Jary and Parker, 1998). Henkel (2005, p159) noted that the move towards fees resulted in a need for academics to review "assumptions about roles, relationships and boundaries". Other sources noted that students changed from being enthusiastic partners in the creation of knowledge within an academic community to the expectation of being passive consumers of cost-effective learning experiences geared towards providing value for money (Freedman, 2011; Naidoo, Shankar and Veer, 2011; Nilsson and Wihlborg, 2011; Naidoo and Whitty, 2014). When tuition fees were raised in 2006, this move was reflected in a 'value for money' indicator in the HEPI student experience survey of that year (Bekhradnia, Whitnall and and Sastry, 2006). The need to produce a cost effective learning experience which would be judged through survey responses as providing value for money required necessitated increases in efficiency. Efficiency is a principle of rationalisation and was identified as a driver of reduced academic autonomy in the macro (institutional) layer (Hayes and Wynyard, 2002).

The Higher Education and Research Act, (2017) established a regulatory framework with the intention of further increasing competition and student choice. It resulted in the creation of the Office for Students (OfS), an independent regulatory body for English HE providers and replaced the HE Funding Council for England (HEFCE). The Act added (in *section 2*) a clause to protect institutional autonomy and academic freedom from government intervention. A contentious issue however was the provision in the Act (*section 3*) for the OfS to allocate degree awarding powers to for-profit institutions. In terms of institutional academic autonomy, concern from university representatives was that an influx of private (for-profit) colleges or corporations into the markeplace would further commoditise HE moving its purpose further away from being a public service and reduce its benefit to society (Powell and Walsh, 2018). The Act potentially threatened institutional purpose and values through the need to compete in a larger and increasingly diverse marketplace which now included private corporations.

2.2.7.2 Quality Monitoring

The Dearing report established the Quality Assurance Agency (QAA) to replace both HEQC and HEFCE with the remit of providing assurance of standards and quality in HE.

The 2001 government review of quality assurance in HE resulted in the replacement of the subject review that involved detailed, external regulatory scrutiny of individual courses, with a less detailed institutional academic review (QAA, 2018). The year of 2001 marked the return of university autonomy in terms of quality assurance of programmes, and at this point, the link established by the UGC in 1987 between quality assurance and funding was temporarily broken. Universities, as awarding bodies, were once again fully responsible for maintaining the quality of their education delivery and programmes (Universities UK, 2008).

However, in line with marketisation and the need to provide the student customer with the information needed to make an informed choice about their university and course, the Government focus moved away from quality assurance of programmes and toward the production of Teaching Quality Information (TQI) based on performance evaluation. As part of this transition, consumer levers were introduced. Firstly in 2005, the National Student Survey (NSS) conducted independently by Ipsos MORI was established as a satisfaction survey. It collected data from final year students about their experience at university. Alongside this, a student complaints scheme was set up and operated by the Office of the Independent Adjudicator, a company funded by HE Institutions. These two initiatives were part of a government objective to "empower students" by putting them at the heart of HE (Dept. For Business Innovation & Skills, 2011 p6).

Since 2008, media outlets have used the data from the NSS to produce annual university league tables, for use by prospective students to inform their choice of university. The existence of league tables impacted the way that institutions were viewed externally and by others in the field and a high-ranking position provided competitive advantage in the HE marketplace. The league tables were constructed through algorithms based on key performance indicators (KPIs). Examples of league tables at the time of thesis completion were 'The Guardian League Table' (The Guardian, 2021) and 'The Complete University Guide' (Complete University Guide, 2021).

In 2012 universities were required to publish Key Information Sets (KISs), providing prospective applicants with course level information to better inform their choice of

course. The provision of TQI and KIS, the institutionalisation of complaints, the establishment of the NSS to collect student feedback and the resulting league tables enhanced both student choice and their ability to control aspects of their education. However, this empowerment of students came at the expense of the role-based autonomy of academics. The league table algorithms were transparent and could therefore be used by university management to focus on improving KPIs that would lead to raising their position in the league table rankings. There was a potential for academics to be disempowered by the need for universities to orient their practice towards the improvement of quality metrics (Naidoo and Williams, 2015). This move towards the production and submission of quality metrics is be linked to calculability, a principle of rationalisation and an identified driver of reduced academic autonomy in the meso (role-based) layer, (Hayes and Wynyard, 2002).

In 2014, the Research Excellence Framework (REF), (UKRI, no date) was introduced to assess the impact of research (replacing the Research Assessment Exercise of the Thatcher era). The Teaching Excellence Framework (TEF) was introduced in 2017 to assess the quality of undergraduate teaching in HE Institutions through various metrics (OFS, no date). The Knowledge Exchange Framework (KEF) was introduced in 2021 to complement the TEF and the REF, and was designed to assess the extent to which a university engages with corporate partners. In terms of autonomy, while participation in these frameworks was not a legal requirement for universities, their outcomes were used to inform league table algorithms and from 2020 universities without a TEF award were not be able to raise their tuition fees in line with inflation. Participation improved the prospect of sustainability in the highly competitive HE marketplace but promoted a managerialist culture of decision making focussed on meeting the requirements of the frameworks (Smith, Ward and House, 2011). This had the potential to erode individual autonomy in terms of both practice (meso layer) and personal development (micro layer).

In response to reported grade inflation at universities particularly over the COVID-19 period (the academic years of 2019/2020 and 2020/2021), there was discussion about the need for standardised national tests for each subject in order to ensure standards in

HE (Richmond, 2018). The intention was to move the performance monitoring of universities to independent external bodies. The performance of students at each HEI in the tests would determine the proportion of each degree classification that a particular provider could award to their cohort. Given the potential impact of the proportion of good (First Class/Upper Second Class) degrees on university league table positions and hence the ability of universities to compete in the HE marketplace, if a national test were required as discussed in Richmond (2018), academics could feel pressured to 'teach to the test', effectively resulting in a 'national curriculum' for university courses and instrumental teaching methods of the type more commonly seen in secondary schools (Ball, 2003). Research informed teaching could be threatened except in circumstances where it was aligned with the work assessed by the national test. The impact on academic autonomy would potentially be manifested at all three levels.

2.2.7.3 Standardisation

Predictability is a principle of rationalisation and a driver of reduced academic autonomy in the meso (role-based) level, (Hayes and Wynyard, 2002). It can be achieved in part through standardisation. Unlike secondary school teaching, HE was not subjected to a national curriculum following the *Education Reform Act,* (1988). However, in terms of standardisation, following the Dearing report (Dearing, 1997), the QAA facilitated the development of Subject Benchmark Statements by subject experts describing what graduates in each subject area should be expected to know, apply, and understand on completion of their programme. These were intended as general guidance rather than as a national curriculum or prescribed approaches (QAA, no date). The case study for this thesis was housed in the computer science discipline and the research participants were academics delivering computer science courses and digital apprenticeship programmes. The QAA benchmark statement for computing (QAA, 2019) was designed as a guide to universities allowing them the flexibility to provide curricula based on their research strengths, while being steered by the benchmark statements for the core requirements that give computing its "coherence and identity" (BCS, 2020 p5).

Another set of guidelines for the development of computing courses came from the British Computer Society (BCS). BCS accreditation of courses requires that two-thirds of a programme falls within the scope of the QAA Computing Benchmark statement, while

up to one-third could be completely unrelated (BCS, 2018). This provides broad scope for a range of courses covering diverse areas of specialism such as software engineering, information systems, and artifical intelligence as well as computer science combined with other unrelated disciplines (UCAS, 2022). As noted in the thesis introduction (chapter 1), computer science as a profession had not been academised at the time of thesis completion and, there was no requirement for accreditation by the BCS. However, it was a distinguishing feature and the competitive nature of the HE marketplace, ensured that most universities sought the accreditation. That said, having a course accredited by the BCS did not constrain the curricula to the same extent as curricula in disciplines linked to established professions which needed to meet national occupational standards concisely for the purpose of qualification to practice (Ek et al., 2013).

The OfS strategy for 2022 to 2025 included the objective that "all students, from all backgrounds, can progress into employment, further study, and lead fulfilling lives, in which their qualifications hold their value over time" (OfS, 2022, n.p.). Following this, came the news that one post-92 university had cancelled its English literature degree course (Weale, 2022). This apparently stemmed from the clause in the OfS strategy that universities would face penalties if fewer than 60% of graduates from a course were found to be in further study or related work fifteen months after graduating (OfS, 2022). The ability of external bodies to impact academic autonomy at institutional level by influencing the portfolio of universities is an example of the state interference in education feared following the Great Debate in Education.

2.2.7.4 Managerialism

In terms of autonomy, the production of metrics and their use to determine funding and positioning in league tables weakened the insulation of the HE from external influences such as the need to sustain themselves financially and compete for students. Naidoo and Williams (2015) noted that the need to compete re-enforced managerialist practices causing universities to steer their academic staff towards activities and practices associated with gaining funding and/or moving up university rankings. This behaviour potentially impacted the personal academic autonomy of academics as they could be

required to move their research or teaching areas to allign with business strategies driven by market forces. This is an example of an impact on institutional autonomy triggered by marketisation trickling down to impact role-based and personal autonomy by intensifying managerialist practices. Control is a principle of rationalisation and an identified driver of reduced academic autonomy in the micro (personal) layer, (Hayes and Wynyard, 2002). The following sections cover mechanisms of control supported by legislation.

2.2.7.4.1 Renegotiation of Academic Freedom

The Jarrett report had noted that universities "should be on their guard against confusing freedom with licence" (Jarratt, 1985 p31). This statement meant that while academic freedom was granted in law, it was a qualified, rather than an absolute right. Neave (1988, p43) captured this point stating that "autonomy can be exercised only on condition that the individual institute or department fulfils national or establishment norms which are continually to be renegotiated in the light of public policy". However, this renegotiation was required to be set out in law, be necessary in a democratic society for a legitimate aim, and be proportionate (*Human Rights Act,* 1998 *Article 10, 2*).

An example of the renegotiaton of academic autonomy in the UK came with the Prevent Duty that was introduced in the *Counter-Terrorism and Security Act* (2015, *section 26*), which required univesities to "have due regard to the need to prevent people from being drawn into terrorism". *Section 31* of the same act required that, institutions must have "particular regard to the importance of academic freedom". Effectively the Act upheld the right to academic freedom with qualification. Yet another qualifier of academic freedom came with the *Counter terrorism and Border Security Act* (2019 n.p.), which criminalised "any expression supporting a proscribed organisation". While both these Acts were introduced to protect society, they had the potential to lead academics researching in areas of computer science, particularly areas such as forensic computing and cyber security where some research was linked to terrorism, to self-censor their work.

The importance of being able to disseminate knowledge is cited by a number of authors as an integral part of collegiality (Thorens 1998; Becher and Trowler 2001; Kligyte and Barrie 2016; Sahlin and Eriksson-Zetterquist 2016). The fear of negative publicity, was noted as having a "chilling effect" on free speech (Young, 2021, n.p.). Legitimate debate can also be threatened by informal means. The term 'cancel culture' is used to describe the practice of withdrawing support for public figures or companies deemed to hold objectionable views. Social media is a tool frequently used to build support to 'cancel' people. At the time of thesis completion, there were recent examples of 'cancel culture' in HE. Kathleen Stock, a professor of Philosophy at the University of Sussex became the subject of a campaign for her dismissal owing to her views on gender identity. As a professor of Philosophy, this was considered by her university to be a legitimate field of study but although the university supported her right to free speech, she resigned feeling that her position was untenable (BBC, 2021). The threat of being 'cancelled' along with the negative publicity it could generate for a university is an example of external influence (alongside the REF) on academic autonomy around research decisions and by implication, curricula, and university portfolios of courses.

In recognition of the issues surrounding free speech at universities, a Bill was introduced in the House of Commons in May 2021 proposing tougher legal measures, *(Higher education: free speech and academic freedom*, 2021). If brought into law, it would result in financial penalties to institutions or students' unions found to be in breach. The Bill passed the House of Commons in June 2022 and at the time of thesis completion was awaiting scrutiny in the House of Lords. As discussed previously (section 2.2.7.4.1), striking a balance between academic freedom and rights covered by other laws presents a challenge, and there is a possibility that while appearing to support freedom of speech, the Bill could result in the opposite effect by causing institutions to introduce lengthy approval processes for research proposals and dissemination events (Burnett, 2016; THE, 2016).

2.2.7.4.2 Tenure and the 'Gig Economy' in HE

The term 'gig economy' refers to a job market where freelance work and, temporary contracts are common. There is evidence that university managers looking for

efficiencies were reducing their staffing cost by increasing the proportion of hourly paid staff (Megoran and Mason, 2020). Research by the University and College Union (UCU) found evidence that casualisation of the workforce through the use of fixed term and zero hours contracts was a significant problem (HESA, no date; University and College Union, 2019). The removal of tenure effectively cut the link between the institutional autonomy of universities and the individual autonomy of their staff. The report found that casual staff felt they were denied academic autonomy in terms of choosing what they taught and the ability to get involved in research. Regarding the casualised workforce as interchangeable resources to be swapped in and out to benefit the employer could be viewed as an expression of capitalism (Marx/Engels Library, no date). It was viewed by academics as "dehumanising" in that it did not respect their value and capabilities, their right to choose work in line with personal development goals or their wellbeing in terms of job security (Megoran and Mason, 2020, p5). Moodie, Wheelahan and Lavigne (2018) point out that workers need the capability change themselves for the better, for example by developing their knowledge and skills in line with their career goals. The loss of tenure and the subsequent casualisation of the workforce had the effect of increasing the disempowerment of those academics on zero hour or other non-permanent contracts.

2.2.8 Summary of the Evolution of Academic Autonomy

In terms of benchmarking, the general trend for academic autonomy prior to the start of data gathering was one of gradual reduction since policies supporting the massification of HE to benefit economic productivity in the 1960s led to a funding gap. Marketisation driven by the need for efficiencies was a key mechanisation behind the erosion of institutional autonomy. Three additional mechanisms leading to reduced academic autonomy were identified from literature (Apple, 1987; Smyth et al., 2000; Leaton Gray, 2007) in the role-based and personal layers. These were quality monitoring and standardisation in the role-based layer and managerialism in the personal layer. Managerialism was exacerbated by legislation leading to loss of tenure and reduced academic freedom. Figure 4 (page 39) shows the drivers of rationalisation (efficiency, calculability, predictability, and control) and the resulting mechanisms leading to reduced academic autonomy in HE prior to the 2015 apprenticeship reform.

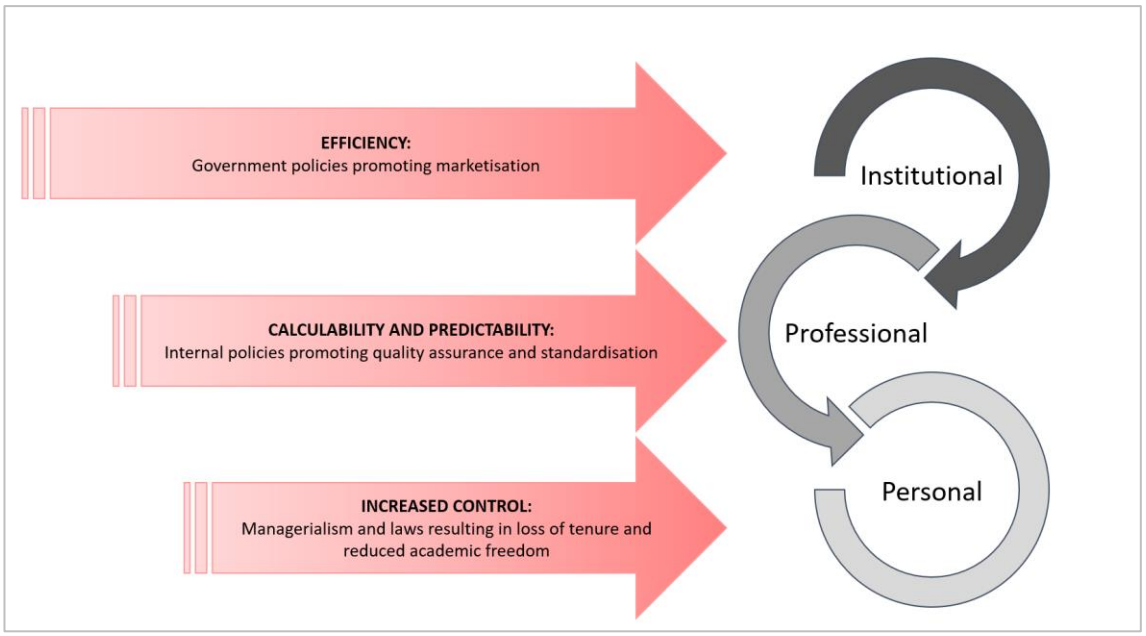


Figure 4: Depiction of the impact of rationalisation on academic autonomy

The development of reduced academic autonomy following the Dearing Report in 1997 and up to completion of the thesis in December 2022 continued despite the change in political power from the Conservative to 'New Labour' as neoliberalism was embraced by both parties. The mechanisms are shown in Table 2 (page 40) against the timeline and the layers of autonomy they are associated with. Table 3 (page 41) has been derived from this and shows the phases to be considered during the data analysis relating to the role-based (meso) layer. The period considered preceded and encompassed the period in which the academic perceptions of the research participants were developed and helped to situate them temporally.

Table 2: Key phases shown with drivers and mechanisms leading to reduced academic autonomy and layers of autonomy impacted.

Autonomy Layer	Time Period		Pre 2001	2001-2011	2012-2020
	Driver (Rationalisation)	**Mechanism**			
Institutional	**Efficiency**	**Marketisation**	No fees for home students	2001- Student fees of up to £1000 2004 - Student fees up to £3000	2012 - Student fees up to £9000 2017- Student fees up to £9250 HE Market opened to non-academic institutions
Role-based	**Calculability**	**Quality Assurance**	Quality Assurance through QAA	2001 – Quality assurance changes to production of Teaching Quality Information (TQI) 2005 Creation of National Student Survey 2008 – league tables produced by media	2012 – Key Information Sets (KIS) required on each provider website 2014 – Research Excellence Framework (REF) 2017 – Teaching Excellence Framework (TEF) 2017 – OfS established for Quality Regulation
	Predictability	**Standardisation**	No enforced standardisation	2001 – QAA Benchmark Statements established – computer science courses mapped to Computing Benchmark statements 2004 - BCS standards for Accreditation – computer science courses can be mapped to BCS outcomes for accreditation purposes	
Personal	**Control**	**Managerialism**	Loss of Tenure from 1988	Gradual increase in no-platforming of visiting academics Gradual increase in casual workers Gradual increase in qualification of academic freedom	

Table 3: Phases of autonomy in non-apprenticeship delivery to be considered in data analysis.

Phases of Traditional Delivery	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2017	2018	2019	2020
Introduction of student fees: 2001- Student fees of up to £1000 2004 - Student fees up to £3000	PHASE 1																	
Full tuition fees: 2012 - Student fees up to £9000 2017- Student fees up to £9250												PHASE 2						

2.3 Part 2: The Development of Apprenticeship

Part 1 of my literature review provides a critical overview of the policy context that the research participants were experiencing with respect to the non-apprenticeship delivery, and the entry of the vocationally oriented post-1992 universities into the HE marketplace. Part 2 evaluates apprenticeship policy and previous apprenticeship models to show the extent to which academic principles have been incorporated into vocational learning. Discipline specific details relating to the nature of the digital apprenticeship programmes delivered at the case study university are provided. This part concludes with a timeline of apprenticeship development to situate the delivery periods of the participants.

2.3.1 State Regulation of Apprenticeship

Apprenticeship was first regulated in the UK in 1563 by the Statute of Artificers (1563, 5 Eliz. 1 c. 4). In common with the apprenticeship policy reform of 2015, the statute had rules and apprentices were required to sign an indenture which was similar in function to the post-2015 apprenticeship contract. Apprenticeships were divided into three stages namely apprentice, journeyman, and master. The end of the journeyman stage was marked by the apprentice producing a 'masterpiece', an artefact deemed acceptable by their craft-guild (Epstein, 1998; Wallis, 2008; Fuller and Unwin, 2010). This can be compared to the 'End-Point Assessment' (EPA) used in post-2015 apprenticeships in that employers are required to agree that their apprentices have performed to an acceptable standard in their role. The craft-guilds formed by master-craftsmen played an important role in policing the quality of apprenticeships (Unwin, 1996; Epstein, 1998). Regulation under the Elizabethan statute brought with it a regulatory framework, quality assurance, the introduction of a training component, and payment during the journeyman phase of apprenticeship.

The division between vocational skills and academic education began in the UK at the end of the industrial revolution in the early nineteenth century when apprenticeship was deregulated in 1814 (Clarke, 1999; Mirza-Davies, 2015), and academic education was regulated under the Factory Act of 1833 (Gillard, 2017). The deregulation of

apprenticeship meant that unlike for academic education, there was no legal requirement for oversight of the quality of apprenticeships. Historically, this is regarded as the start of a period where academic education was valourised and apprenticeship demoted. However, apprenticeship as a learning model continued to remain important in workplaces.

2.3.2 New Models of Apprenticeship

Although the number of apprentices had risen in the 1960s, the massification of HE served to increase participation in academic education while contributing to an erosion of vocational education (Allais, Marock and Molebatsi, 2014). The UK saw a decline in numbers in the 1970s and 1980s (Training Standards Council, 2000). According to Fuller and Unwin (2009, p408) it was the "steep rise in youth unemployment of the late 1970s […] and the shock of young people rioting on the streets", in cities such as Brixton (London), Toxteth (Liverpool) and Handsworth (Birmingham) in the summer of 1981, that brought apprenticeship back into focus. John Major's Conservative government (in office from 1990 to 1997) reworked and rebranded apprenticeship as part of its 'Back to Basics' campaign. So called 'Modern Apprenticeships' were rolled out in 1994 (Unwin, 1996), and the first digital apprenticeships in IT became available in 1996 at levels 2 and 3, equivalent in academic level to GCSE and A-Level courses. The apprenticeship pathway remained unregulated and did not extend into HE. As there were no bridges between apprenticeship and HE at that time, taking an apprenticeship programme was viewed as a pathway for those who were not capable of going to university.

Unlike the early bi-partite examples of apprenticeship studied by Lave and Wenger (2000), Modern Apprenticeships in the 1990s involved tripartite relationships with the addition of an external training organisation such an FE college to provide a knowledge component. Employers did not work directly with training organisations, and knowledge (from the training course) and competence (from the workplace experience) were separately certified against different outcomes. Apprentices were expected to recontextualise knowledge from the training course in their workplaces. However, as Bernstein (2000, p219) noted, "knowledge and competences acquired in one context […] do not necessarily have meaning or relevance in another". The success of this form

of apprenticeship in upskilling the workforce depended on the ability of apprentices (and their workplace mentors) to recontextualise the knowledge gained on the training course for use in their workplace, and on the relevance of the chosen general training course to specific workplace settings. The knowledge component of an apprenticeship of this kind led to an assessment of practical competence (employment skills) rather than acquisition of academic (employability) skills.

Brockmann, Clarke and Winch (2010, p113) identified two distinct approaches to vocational education at this time – "a 'skill' […] model dominating in England, and an 'occupational' model prevalent in [… Europe]. Unlike English apprenticeships at this time, European apprenticeships were highly regarded and state regulated (Fürstenau, Pilz and Gonon, 2014). The German 'dual education/apprenticeship system' was viewed as a career pathway for school leavers rather than as a route only for those lacking academic skills. In 2012 'dual bachelor' programmes were introduced raising the German apprenticeship programmes to university level (Haasler, 2020). This 'occupational' model of apprenticeship ensured that there was adequate emphasis on critical thinking and reflection which provided apprentices with useful work-related skills and a holistic understanding of their occupational role. In contrast, the Modern Apprenticeships in England most closely mapped to the 'skill' model, which comprised training and assessment of competence in specific practical tasks.

Durkheim (featured in Pickering, 2005) viewed segmentation of practical tasks as a necessity to develop the practical mastery required by society. Conversley Marx viewed segmentation as an expression of capitalism as over time, segmented tasks become repetitive (Marx/Engels Library, no date). This had the potential to lead to dehumanisation of the workforce who could be regarded as replacable resources in a production process to benefit an employer. In the context of Australian apprenticeships, Wheelahan (2007, p638) notes that the 'skill' model does not provide apprentices with access to "the [academic] 'style of reasoning'" that would help them to develop a career. Although the 'skill' model of apprenticeship provides workers with the practical skills required for a functioning society as posited by Durkheim, in doing so it potentially traps them in low paid repetitive jobs as posited by Marx. Moodie and Wheelahan (2018, p12)

note that “the capacity of informed reason is usually developed in formal education […] analysed into knowledge, skill and ability in productive capabilities for employment”, the implication being that formal education provides the capabilities to develop a career and not just the skills needed to perform a set of tasks.

Fuller and Unwin, (2003) noted that opportunities for reflection in English apprenticeship varied describing an Expansive-Restrictive framework. The expansive attribute was characterised by planned time off-the-job learning whereas the restrictive attribute was characterised by learning on the job with no time for reflection. Although the Modern Apprenticeships had a training element and were at the same level (level 3) as the English ‘A’ level academic qualification, apprentices were not mandatorily given time to reflect and develop the knowledge required to move forward in a career (Fuller and Unwin, 2003). The Modern Apprenticeships were by default at the ‘restrictive’ end of the Expansive-Restrictive framework with time for reflection dependant on the generosity of the employer.

2.3.3 Apprenticeship as a Learning Model

Apprenticeship has existed conceptually since at least the twelfth century (Amin-Smith, Cribb and Sibieta, 2017). Lave and Wenger (1991) put forward the theory of legitimate peripheral participation (LPP), which conceived of learning as a social process through which a community retained and developed its skills. LPP was used as a lens to review several historical “realisations of apprenticeship” (Lave and Wenger, 2000, p167). These were craft-based with a bipartite relationship between mentor and mentee. They were geared towards mastering practice through active participation in the workplace under the guidance of a skilled master-craftsman. LPP describes ‘old timers’ training ‘newcomers’ in peripheral activities, with gradual legitimation of membership through continued participation in task-based activities. Apprenticeship, with a bipartite relationship between mentor and mentee, has continued to exist both formally and informally as a model of learning. The following sections explain the development of the apprenticeship learning model through regulation and reform.

2.3.4 Re-regulation of Apprenticeship

Apprenticeship in England was re-regulated through the *Apprenticeship, Skills, Children and Learning Act* (2009*)* during Gordon Brown's tenure as Prime Minister of the Labour government (in office from 2007 to 2010). Following this Act, Higher Apprenticeship programmes at level 4 (equivalent in level to the first year of an undergraduate degree) were introduced. They were still based on Apprenticeship Frameworks with separately certified knowledge and competence components, the difference being that the knowledge component could be gained through a sub-degree qualification such as a Higher National Certificate (level 4) or Foundation Degree (level 5). In the area of IT, a Higher Apprenticeship named IT, Software, Web and Telecoms (The Tech Partnership, 2013) was introduced in 2009 and catered for a broad range of IT professions. The Higher Apprenticeships brought apprentices into HE and in some cases into universities for the first-time, enabling apprentices to build academic knowledge and accreditation alongside their practical skills. It moved English apprenticeships, albeit only the Higher Apprenticeships towards Brockmann, Clarke and Winch's (2010) 'occupational' (European) model of apprenticeship.

Although the academic knowledge components were approved by sector skills councils to be part of apprenticeship frameworks, there were also vocational courses such as the National Vocational Qualifications (NVQs) introduced in 1987 (Young, 2011) that could be used as the knowledge component. Even if a university qualification was included, there was no requirement for an academic institution delivering to apprentices to liaise with the apprentice employer or their assessor to discuss content, although this was not precluded. While the NVQs provided access to lower level qualifications, detractors pointed out that they contributed to lowering the status of vocational education and provided little value to the labour market (Wolf, 2011; Young, 2011; Allais, Marock and Molebatsi, 2014). However, there were also issues with the academic qualifications. Given the variation between workplace environments, while university qualifications developed academic skills that were useful in employability terms (Shadbolt, 2016), there could be no guarantee that a chosen academic course would develop the employment skills required by a particular workplace.

The academic learning (knowledge) and workplace competence elements of the framework were still entirely separate. In terms of university administration, and academic delivery, apprentices were essentially part-time students. The apprenticeship programme was managed by the employer who was responsible for arranging assessment of the competence (workplace) element and claiming the apprenticeship on behalf of those apprentices who were successful in both the knowledge and competence elements. The separation of the academic learning meant that recontextualisation for integrative knowledge building remained the responsibility of the apprentices and their workplace mentors. There was no requirement for time to reflect meaning that although the Modern Apprenticeships represented a move towards Brockmann, Clarke and Winch's (2010) 'occupation' model of apprenticeship they were still by default on the 'restricted' part of the Expansive-Restrictive framework defined by Fuller and Unwin (2003).

The separation of the knowledge and workplace components ensured that the academic autonomy of universities remained intact because there was no requirement for academics or their universities to understand anything about the apprenticeship programmes or to have any relationship with employers of the apprentices. However, the development of apprenticeship programmes with significant academic components moved apprentices (though not the responsibility for the programmes) into HE. The impact of this on the chasm prior to the 2015 reform is illustrated symbolically in Figure 5 (page 48). The extension of the right-hand side of the chasm is depicted by indigo and blue segments representing an increase in the educational level of the academic components of apprenticeship programmes.

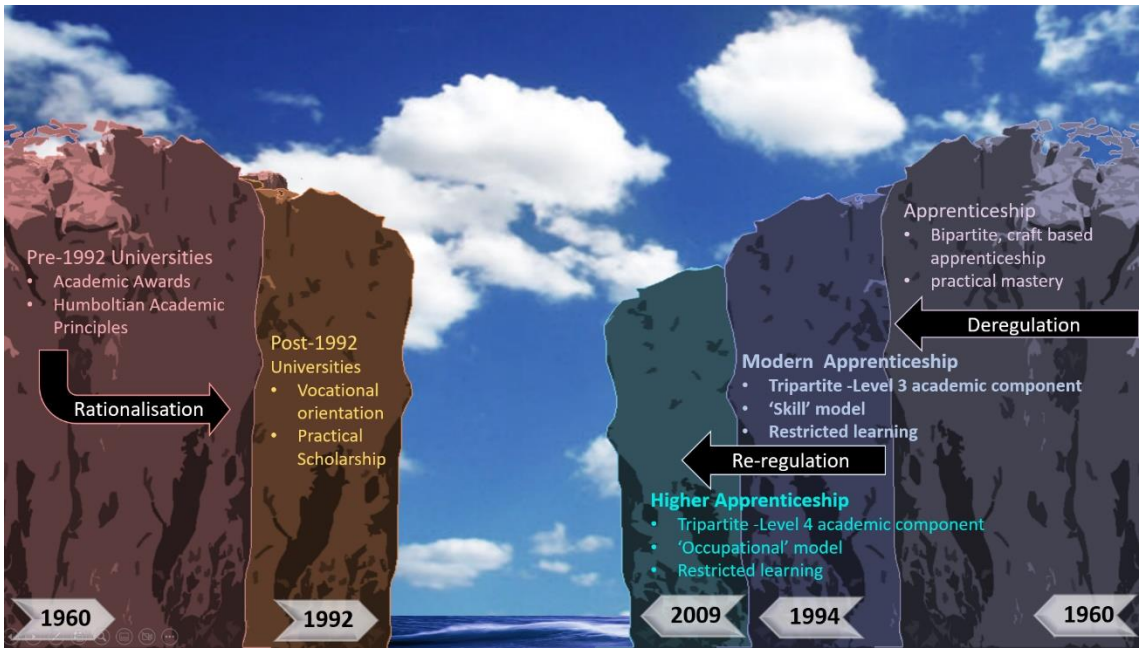


Figure 5: The development of vocational education and the chasm

2.3.5 The 2015 Apprenticeship Reform

After the general election in 2010, the newly formed coalition government led by David Cameron commissioned the Richard Review of Apprenticeships. In common with the Leitch report, the Richard review was concerned that employers were not having enough input into apprenticeship content to make apprenticeship programmes appealing to them (Richard, 2012). Both reports, together with the Wolf (2011) Review of Vocational Education, found that apprenticeship was in need of reform if it was to be used to increase productivity and reduce the skills gap in the UK workforce compared to other European countries. Prior to the 2015 reform, the highest level of apprenticeship was level 4. The reform brought in the then new concept of bachelor and master's level apprenticeships (levels 6 and 7) which could be developed and delivered by universities. In contrast to the out-going framework apprenticeships with their separately run university-level qualification as the knowledge component, the new apprenticeships were managed holistically by the HE provider. Both the academic education and workplace experience addressed a single set of outcomes agreed by employer-led trailblazer groups. They brought together vocational and academic education in a package specified by employers, delivered and managed by HEIs and overseen by government bodies (Dept. For Business Innovation & Skills, 2015a).

Integrative knowledge building involving the recontextualisation of the academic knowledge for use in apprentice workplaces became the responsibility of the HE provider. Apprentices were allocated time (20% of their working week) to devote to learning and its recontextualisation in their workplace. The allocation of this time to embed learning, moved the post-2015 apprenticeship programmes towards the expansive end of the Expansive-Restrictive framework (Fuller and Unwin, 2003). The reform brought English apprenticeships closer in nature to the 'occupational' model' of Brockmann, Clarke and Winch (2010) and to the dual system of education in European countries such as Germany by encouraging the development of broader skills related to an occupation as a whole rather than only developing those associated with specific tasks. These developments led to the apprenticeship learning model extending further towards the learning model associated with HE. The timeline of apprenticeship development is shown in Table 4 (page 51).

While the model of learning in apprenticeships had moved closer to that associated with HE, the quality assurance and funding mechanisms of the apprenticeship remained different. Quality assurance monitoring was a key part of the 2015 apprenticeship reform. The new apprenticeship programmes required the creation of new regulatory bodies and repurposing of existing ones. In 2017 following the establishment of the apprenticeship levy, the Education and Skills Funding Agency (ESFA) was created and was accountable for funding apprenticeships. It conducted regular audits on apprenticeship providers to monitor use of funds. The quality assurance landscape underwent significant changes between the roll out of the new apprenticeships in 2017 and the completion this thesis. The Office for Students (OfS), was set up in January, 2018 to act as regulator for Higher Education, (Higher Education and Research Act, 2017). From September 2018, a year after the post-2015 apprenticeship programmes started running, their quality assurance regime changed dramatically. The OfS initially kept responsibility for inspecting the apprenticeship provision at levels 6 and 7, but Ofsted became responsible for inspecting provision at Levels 4 and 5 (as part of a pilot study).

Apprenticeships (including those managed by universities) were assessed by an End-point assessment (EPA) similar in function to the masterpiece that marked the

achievement of an apprenticeship in Elizabethan times and with it, confirmation of the ability to practice the trade. The requirements for EPAs differed with each apprenticeship depending on whether the apprenticeship was integrated or not and whether a statutory regulator or PSRB was associated with the certification. In the case of the digital apprenticeships in the case study university, the level 4 apprenticeship programmes were not integrated, and the award of Foundation Degree was not linked to passing the apprenticeship. This meant that apprentices would take a separate EPA designed and implemented by an external body. The university would retain responsibility only for the academic award which was not a requirement for the apprenticeship. The level 6 apprenticeship programme at the case study university was integrated and was assessed by the university. The academic award was subject to university regulations, but award of the apprenticeship was subject to apprenticeship regulations. Overall control of the assessment process for the integrated apprenticeship was the responsibility of the case study university.

Table 4: Development of apprenticeship

	Led by	Funded by	Learning model	Assessment and Quality Assurance	Highest academic level
1563 Regulation (Elizabethan Statute)	Employer	Employer	Bipartite	Craft-guild Assessment via masterpiece	N/A
1814 Deregulation (Repeal of the 1563 statute)	Employer	Employer	Bipartite	Craft guilds oversaw quality. Trades unions monitored entry to professions.	N/A
1964 Formalised through Industrial Training Act	Employer	Payroll Levy via ITBs	Tripartite	Establishment of Industry Training Board to monitor standards of apprenticeships. Assessment via External training course	N/A
1994 Back to Basics campaign	Employer	Employer/ State	**Modern Apprenticeships** Tripartite Skill model Restrictive participation.	Standalone Training component leads to vocational qualifications at level 3. Independent assessment of work competence	3
2009 Re-regulation Apprenticeship, Skills, Children and Learning Act (2009)	Employer	Employer/ State	**Higher Apprenticeships** Tripartite Skills model moving towards occupational model. Restrictive participation.	Framework with approved Knowledge component leads to separate academic qualification at level 4. Independent assessment of work competence	4 First year of university
2015 Integrated Apprenticeship Programmes (Enterprise Act, 2016).	University	Payroll Levy via State	**Degree Apprenticeships** Tripartite Occupational model. Expansive participation	Assessment by universities but moving forwards will require an external assessment. Quality inspected by Ofsted	7 Degree and master's level

2.3.6 Summary of the Development of Apprenticeship

The post-2015 apprenticeship programmes were offered to the same educational levels as bachelor's and master's degrees, and the move towards to the 'occupational' model' of Brockmann, Clarke and Winch (2010) and the expansive end of the Expansive-Restrictive framework of Fuller and Unwin (2003) promoted a more academic style of learning similar to that in non-apprenticeship HE programmes. This was highly significant as it brought vocational education through to master's level for the first time. The reform potentially marked a turning point from whence vocational educational and academic education could be viewed as different but equally valuable routes.

However, the requirement for recontextualisation and direct relationships between the university provider and the apprentice employers brought the vocational nature of apprenticeships into focus. The different quality assurance mechanisms and the levy funding also distinguished them from their academic counterparts. My thesis investigates the impact of these and other less apparent differences between the post-2015 university apprenticeship programmes on academic autonomy. The aim is to determine the extent to which academic autonomy is retained. To situate the apprenticeship delivery timeline of research participants in terms of changes to the apprenticeship model, quality assurance and monitoring of funding, Table 5 (page 53) was created. This is referenced in the research analysis with reference to role-based academic autonomy.

Table 5: Timeline of university apprenticeship showing change to quality assurance mechanism

Phases of Apprenticeship Delivery	Sep Jan May 2017-8	Sep Jan May 2018-9	Sep Jan May 2019-20
All Apprenticeship programmes pre-Ofsted	PHASE 1		
Apprenticeships - Ofsted appointed for QA		PHASE 2	

2.4 Part 3: Exposition of the Research Gap

The body of literature reviewed so far provides a thorough evaluation of the history and current status of academic autonomy in HE as well as the transformation of the apprenticeship learning model and structure through policy reform to the point where apprenticeship programmes became part of HE. In this final part of my literature review, I evaluate literature specifically relating to post-2015 apprenticeship programmes in terms of how it relates to my thesis, and in doing so expose the research gap that the thesis addresses. The literature discussed below was found using the modified snowball method described in Appendix B with appropriate selection criteria.

One body of literature focuses on assessing the extent to which the policy drivers of reducing unemployment in young people, increasing workforce productivity, and widening participation were met (Business, 2018; Universities UK, 2018; Bradley, Newhouse and Mirza, 2019; McKnight *et al.*, 2019; Smith *et al.*, 2021). This provides background information for the conclusions drawn in chapter 6 but in terms of my thesis, this literature does not specifically relate to academic autonomy. Mulkeen et al. (2017) investigate the challenge presented by apprenticeship programme design. While this article notes the difficulties in merging academic skills with workplace learning, it does not discuss this in relation to academic autonomy which is the object of study in my thesis. Another body of literature around managing the work-based learning element of apprenticeship covers the use of separate workplace learning advisors to monitor the progress of the apprentice against apprenticeship outcomes in the workplace (Minton and Lowe, 2019; Roberts, Storm and Flynn, 2019; Hughes and Saieva, 2019). This work also does not relate specifically to academic autonomy.

The work on identity by Martin, Lord and Warren-smith, (2020) is focussed on degree apprenticeship and provides insights on how their participants felt their identity changed in their delivery of apprenticeship work, and the mechanisms involved in changing their identity. My thesis sought to uncover the unseen mechanisms behind changes in autonomy, some of which manifested as changes to roles and relationships and in decision making processes which impact identity. Sections 5.2.1.2 and 5.2.1.3 in

chapter 5 cover the analysis of role-based and personal autonomy in apprenticeship delivery and where relevant I relate my findings to aspects of this identity work.

A recent PhD thesis considers the experiences and characterisation of marketing reforms by vocational educators in Australia (Locke, 2020). It covers perceptions of academic identity and uses LCT, the conceptual framework that I have chosen. In this respect, it was very useful. However, the thesis did not compare perceptions of autonomy around vocational education with those of non-apprenticeship university work. Furthermore, it did not relate to vocational education in England, nor did it relate to the computer science discipline or IT workplaces. Apprentice perspectives of identity and learning were covered in Fabian et al. (2021), but while providing useful background information of the perceptions of the apprentice stakeholder, this work does not cover the perspective of academics.

I did not find any research investigating the impact of the 2015 English apprenticeship reform on academic autonomy in HE from the perspective of academics in any discipline. It is this research gap that my thesis addresses focussing on the academic discipline of computer science and the related IT occupations.

2.5 Summary

The review of Literature relating to the research object, academic autonomy provides an understanding of the general benchmark status and trend of academic autonomy around non-apprenticeship work. The review of apprenticeship models provides an evaluation of the transformation of the apprenticeship learning model and its move towards the academic principles associated with HE. However, it notes that the differing quality assurance mechanisms and the involvement of employers in the design highlights differences in approach. Finally, the overview of the literature specifically related to the post-2015 apprenticeship programmes exposes the research gap.

CHAPTER 3: THEORETICAL UNDERPINNING

3.1 Introduction

In this chapter, I explicate the theoretical underpinning for my thesis. Theory is important in education research to provide explanations that are "robust and replicable", as opposed to explanations characterised by "scepticism, equivocation or ambiguity" (Adams, Cochrane and Dunne, 2012 n.p.). There are two types of framework commonly used to bring theory into research, namely theoretical and conceptual (Miles & Huberman, 1994). Grant & Osanloo (2014) use a metaphor of a building to explain the relationship between the two frameworks. In their metaphor, the theoretical framework represents the blueprint for the whole building, whereas the conceptual framework comprises the plans for each floor. They note that floor plans are designed to complement each other, fitting in with the overall design of a building, and propose that that the same should be true of theoretical and conceptual frameworks with respect to the research they are developed to underpin. The purpose of this chapter is to explain how the research frameworks for this thesis were developed and how they complement each other to facilitate a comprehensive academic underpinning for the analysis and interpretation of the findings.

3.2 Development of the Theoretical Framework

In my literature review, the work of Naidoo and co-authors is cited in the consideration of the impact of marketisation on roles, purpose, values, and quality management (Naidoo, Shankar and Veer, 2011; Naidoo and Whitty, 2014; Naidoo and Williams, 2015; Lomer, Papatsiba and Naidoo, 2018). Their research was underpinned by Bourdieu's Theory of Practice (Bourdieu, 1977, 1998; 1990). It was used to understand the social mechanisms that contested the boundary of the academic field and how these were mediated by academic values and through practice. It allowed for consideration of legitimacy in the field from the subjective standpoint of the academics in the field and for consideration of underlying causal structures and mechanisms as mediating factors that would determine the perceptions of autonomy. Given that my thesis also explores the insulation of a field (in this case the field of HE) I chose Bourdieu's theory of practice as a starting point for the creation of my theoretical framework.

3.2.1 Bourdieu's Theory of Practice

Bourdieu (1977, 1998; 1990) introduced three main concepts namely field, capital and *habitus* and used these concepts to explain practice. The Bourdieusian concept of 'field' refers to a closed ecosystem where individuals (actors) interact with one another and with organisations. Fields are structured with actors competing for dominance. Each field has a set of rules (known as a *'doxa'*) which is determined by the dominant actors in the field. Bourdieu frequently used the metaphor of a game to represent practice and likened the *'doxa'* to the rules of the game (Bourdieu, 1990). The *doxa* comprises all the ideas and knowledge that both define the structure and are accepted as norms for practices in a field.

For the purpose of this thesis, the field of HE is considered to house academics, courses (including the university apprenticeship programmes), and HE institutions (HEIs). Other fields pertinent in the context of the apprenticeship policy enactment are named (for the purpose of this thesis) the 'Regulatory Field', the 'Employment Field' and the 'Political Field'. The Regulatory Field houses bodies concerned with funding, assessment, and quality assurance of apprenticeship delivery. Bodies pertinent to this thesis included the BCS, Ofsted, OfS, IfATE and ESFA. The Employment Field houses employers, employer forums and groups, which for this thesis included the Trailblazer groups that developed the new apprenticeship standards following the 2015 Apprenticeship reform (Dept. For Business Innovation & Skills, 2015b). The Political Field is where policies are developed, and laws made. In terms of this thesis, the development of the 2015 apprenticeship policy and approval of associated laws are considered to have been processes within this field. The field also houses the Government and its various cabinet committees and departments. Important to this project was the Department for Education, which was responsible for education (including HE), apprenticeships and wider skills in England. The Secretary of State for Education was the designated minister with ultimate responsibility for approving apprenticeship standards in terms of content and level.

At the time of this thesis, apprentices on university apprenticeship programmes following the 2015 reform built their knowledge across the fields of HE and Employment.

This was undertaken in an 80:20 ratio of time as decreed in the Political Field through Act of Parliament (*Enterprise Act*, 2016) and monitored through quality frameworks housed in the Regulatory Field. In the Employment Field apprentices were designated as full-time employees, and in the academic field of HE apprentices were designated as part-time students. These fields (and others) interacted within the all-encompassing social field. A key property of Bourdieusian fields, and important in this thesis is their autonomy. This measures the extent to which the practices of a field are insulated from the influence of those in neighbouring fields (Bourdieu, 1993). Bourdieu (quoted in Wacquant, 1989, p39) stated that "the limits of the field are situated at the point where the effects of the field cease". However, the boundaries between fields can be weak and contested enabling the actions of actors or institutions in one field to impact the actions of actors or institutions in another.

Research question one was designed to investigate the extent to which various actors and practices in the field of HE were being impacted by the actors and practices in other fields. This research question is concerned with the institutional, role-based, and personal autonomy experienced by academics in the field of HE as measured by the strength of its boundaries with neighbouring fields. Bourdieu recognised a hierarchy of fields in that some fields exerted dominance over others. Relevant to this thesis, the Political field where policies are developed and laws made, naturally dominates the Regulatory Field where monitoring frameworks for policy enactment are established. The HE and Employment fields in which the policy enactment takes place are thus dominated by the Regulatory Field.

As well as hierarchies of fields, there are also hierarchies within fields. The ability of a constituent (whether institutional or individual) to act is determined by their positional status relative to other constituents within the field, so within fields there is a constant struggle between constituents to achieve a more dominant status (Bourdieu, 1993). Individual status is important to the meso and micro layers of autonomy which refer to the ability of academics to act in role-based and personal capacities respectively. The ability to dominate in a field in Bourdieusian sociology depends on the possession of 'capital' The term 'capital' denotes a form of currency, and having the right type and

amount of capital enables an individual to enter, navigate and potentially transform a particular field (Chouliaraki and Fairclough, 1999). Bourdieu (1986) described three main types of capital namely economic, cultural, and social. Examples of these are shown below:

- Economic Capital: Capital in monetary form, derived from Marx (Marx/Engels Library, no date)
- Cultural Capital:
    - Institutionalised as academic or other qualifications.
    - Objectified as valuable artefacts.
    - Embodied as dispositions (ways of speaking, physical presence)
- Social Capital: Membership of influential groups or social networks

Capital is only useful to an actor if it is valourised in the field of use. A fourth term 'symbolic capital' refers to the sub-set of an actor's capital that is valourised in a particular field of practice and therefore brings advantages in terms of agency and the potential to dominate. Whereas non-apprenticeship students are considered to be positioned in the HE field, for the purposes of my thesis apprentices move between the Employment and HE fields. Capital that is of high value in the academic field such as grades representing the accrual of academic skills and facilitating progression through an academic course, may be viewed less highly in the workplace where practical skills may be considered more useful, and *vice-versa*. This tension can be linked to the discussion in the introduction (ection 1.1) of the difference between employability skills that prepare for work, and employment skills that are needed in work. This difference was important in the analysis of research question one in the macro (institutional) layer.

The need for universities to compete as businesses brought a focus to the generation of economic capital. The term 'transubstantiation' is used to describe the process of converting cultural and social capital into economic capital and *vice versa* (Bourdieu, 1986). At the time of the thesis, transubstantiation of capital took place differently for non-apprenticeship students and apprentices. Non-apprenticeship students paid (through student loans or in some cases directly) to accrue cultural capital through university which they hoped to convert to economic capital through employment after

graduation. Conversely, transubstantiation in apprenticeship was indirect and continuous. Apprentices received economic capital regularly from their employer as salaried employees. They accrued institutionalised cultural capital through their university apprenticeship (paid for indirectly by their employers through the levy) which they could then utilise in the workplace to indirectly generate economic capital for their employer. In terms of my thesis, for research question one (particularly relating to the macro layer of academic autonomy), it is important to acknowledge the difference that existed between students and apprentices at the time of the thesis in the process of transubstantiation of economic capital.

Having the right symbolic capital does not guarantee agency or dominance in a field *per se*. The actor also needs the skills and dispositions required to deploy the capital to advance their interests in a field. In Bourdieusian terminology, these skills and dispositions are collectively known as an actor's *habitus. Habitus* is closely linked to embodied cultural capital (Harvey, Press and Maclean, 2011). Bourdieu (1977, p86) noted that *habitus* is a "system of internalised structures, schemes of perception, conception, and action common to all members of the same group or class". *Habitus* has primary and secondary components. Primary *habitus* is described as "embodied history, internalized *(sic)* as second nature", and stays with an individual to some extent throughout their life (Bourdieu, 1990, p.56). Secondary *habitus* evolves through practice within social institutions such as family and employment.

Positional dominance in a field is not always achieved by following its rules. A person's *habitus* also plays a part by providing a "feel for the game" (Bourdieu, 1990a, p64). The extent to which an actor can employ their 'feel for the game' to gain dominance is determined by the extent to which an actor's *habitus* fits that of the field. Where the field is familiar and the actor is like a "fish in the water" they are more likely to have a useful 'feel for the game' (Bourdieu and Wacquant, 1992b p127). Understanding the development of *habitus* was important for the analysis relating to research question two which investigates the link between background and perception.

The autonomy of institutions or academics can be considered a power in that it promotes their agency, the ability to act and dominate in a field. The relationship between *habitus*, capital, field, and practice has been expressed as:

"[(*habitus*)(capital)] + field = practice" (Bourdieu, 1986 p101).

Effectively, autonomy (or the power to practice autonomously) arises from having a beneficial mix of *habitus* and symbolic capital with respect to that field. The mix of capital and *habitus* and its relationship with the way that academics perceive their autonomy is considered in research question two.

When discussing power, the work of Foucault is considered to be seminal (Foucault, 1977a, 1977b). Bourdieu's concept of *habitus* has similarities with the Foucauldian concept of discipline. In Foucauldian sociology, power is derived from discipline (Foucault 1972, 1977b). Foucault's notion of power was that "power is everywhere […and…comes] from everywhere" (Foucault 1998, p63). He was interested in the discipline systems that existed in institutions such as prisons and schools and the idea that power was centred around "economy of visibility" (Foucault 1991, p.187). In these systems power stemmed from the idea of a 'panopticon' where prisoners were kept under surveillance by an unseen guard who, by virtue of economy of visibility, might not actually be surveilling all the time. Whereas Foucault recognised the use of discipline, and punishment with physical violence (Foucault, 1977a) to establish power and control, Bourdieu referred to the use of symbolic violence in the construction of symbolic power in order to gain and maintain control. Symbolic violence is described as "the violence […] exercised upon a social actor with his or her complicity" (Bourdieu & Wacquant, 1992 p. 167).

Symbolic violence is linked to the Bourdieusian concept of '*illusio'.* Using the game metaphor*, illusio* can be thought of as the drive to succeed or the reason the game is worth playing. This drive can make actors prepared to be complicit in the symbolic violence exerted to boost their quest for dominance (Bourdieu, 1998; Lupu and Empson, 2015). In a university, the threat of physical or psychological violence could be viewed as harassment or bullying, however symbolic violence cannot, because the academic is complicit in its execution. For example, an academic delivering an apprenticeship

programme could be asked to comply with certain requirements to ensure a satisfactory performance record. The academic would know *what* data relating to their delivery could be collected, and *why* and *how.* The technologies in place (such as surveys and quality metrics) could be regarded as supporting *illusio* associated with the desire to succeed in their career, but equally they could serve as a disciplining mechanism. Poster (1995) referred to this as a 'superpanopticon', a digital version of Foucault's panopticon that could institute symbolic power manifested in this case as pressure on an academic to undertake whatever might be necessary at whatever cost to ensure a satisfactory record.

The concept of professions and professionals was discussed in the introductory chapter (chapter 1) in terms of IT occupations. Professionalism in Bourdieusian terms can be regarded as a form of symbolic capital accrued through legitimate "occupational behaviours and practices of workers who […] possess a clear sense of what their work is about and when it is effective" (Schinkel and Noordegraaf 2011, p68). In this example, *illusio* is the drive for success in a role (accruing the symbolic capital associated with professionalism) and symbolic violence is the pressure experienced by an academic to undertake whatever is necessary to achieve success. The concept of *illusio* was important in research question one at the micro level which considers the ability of academics to make personal choices and in question two in consideration of the reason behind those choices.

The symbolic power that an actor develops from accruing capital within a field can be used to invoke their own heteronomous ideas against the accepted norm of the field to dominate. For example, the accrual of capital within a field in the case of an academic, could be achieved through gaining outstanding performance metrics. This could result in the possession of symbolic power as the academic would be perceived by management to be valuable. This in turn could lead to the academic being bestowed with a greater amount of academic autonomy to encourage them to 'continue playing the game'. Such an actor could then contrive to 'win' the game by changing its rules to suit their strengths.

In Bourdieusian sociology, there is the concept of an overarching 'field of power', termed a "metafield of contestation" (Maclean, Harvey and Kling, 2017 p128). Actors in the field of power are considered elite, as membership to this overarching field is gained through possession of a sufficient quantity of capital to dominate in all its subordinate fields (Bourdieu, 2020). In the field of power, to use the game metaphor, the 'winner' determines the "legitimate principle of legitimation" (Bourdieu, 1996 p264). The autonomy of any field can be strengthened by elite actors acting in line with the accepted norms that uphold the autonomy of the field. However, as discussed, non-elite actors with sufficient symbolic capital could strive for dominance by acting under heteronomous influences (using the autonomy bestowed on them) against the norm to transform the *doxa* to suit their strengths. This might manifest as an academic making decisions relating to timetabling of resources to suit their personal requirements rather than considering the holistic needs of their department. Their position of dominance may be sufficient to enable this to go unchallenged by the designated decision makers which in turn would affirm their heightened positional status in the field.

The accepted norms of a field can change when new policies are implemented. Ball, Maguire, and Braun, (2012, p.3) stated that policies "cannot simply be implemented! They have to be translated from text to action". Policies entering a field are mediated by the general *habitus* of the field, by the more specific *habitus* of the institutions and by the individual actors in the field. In Bourdieusian sociology, the term 'refraction' is used to describe how fields and their actors refract policies differently depending on their *habituses* (Bourdieu, 1993). The term refraction is more commonly used in Physics to describe the deviation of waves as they pass into a medium of different density. For example, when white light hits the angled edge of a glass prism, the light is split into its seven component colours forming a spectrum because the colours have different wavelengths and are refracted to different extents when entering the glass. This is illustrated diagrammatically in Figure 6 (page 64). The different colours symbolise the notion that different fields, institutions and actors refract policy in different ways and to different extents.

Habitus mutates gradually through experience to enable actors to adapt to new requirements. The difference in refraction stems from the extent to which an actor's *habitus* must mutate through experience to enable them to adapt to new requirements. The measure of difference is termed the "refraction coefficient" (Bourdieu, 1993 p182).

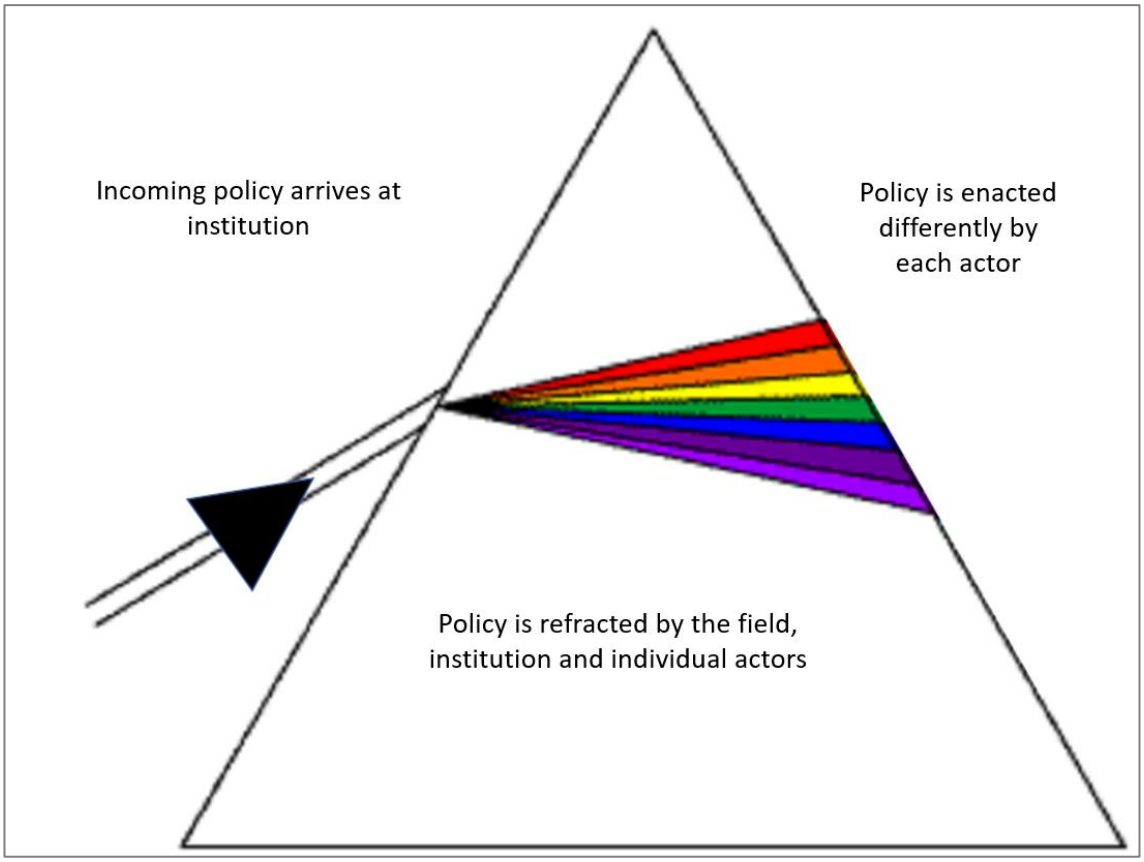


Figure 6: Depiction of policy refraction

The refraction coefficient associated with apprenticeship policy is relevant to both research questions. For research question one, it was particularly relevant at the meso and micro levels in the investigation of academic perceptions of individual academic autonomy. *Illusio* and *habitus* were important in the analyses for research question two which investigated the commonalities between background and perceptions of academic autonomy.

3.3 The Need for a Conceptual Framework

Bourdieu's theory of practice enabled the insulation of the field of HE from other fields to be considered. It also enabled the abilities of academics in the field to act and dominate, to be understood in terms of their *habitus* and symbolic capital. However, I felt there were limitations to the extent that Bourdieusian sociology could underpin my thesis. Chouliaraki and Fairclough (1999) and Christie *et al.* (2007) argued that Bourdieusian ideas did not consider the nature of the power struggles that were taking place or the extent of their success. Bourdieusian sociology can conclude that one type of *habitus* tends to lead to success in a particular field, but it cannot explain the mechanism or reason for success in that context. Bourdieu asserted that it was possible to measure symbolic power through evidence of an actor's autonomy, which could itself be measured through the presence or lack of heteronomous influences (Bourdieu, 1984). However, Speller (2011 p48) noted that "these measures seem[ed] rather inexact". For my thesis, I wanted to be able to visualise changes in academic autonomy and to gain insights into the perception of the strength of academic autonomy. This necessitated finding a means of operationalising the Bourdieusian concepts to provide the detail. An additional limitation of Bourdieusian sociology is the consideration of actors as either people or institutions (groups of people). My thesis also needed to consider the autonomy around inhuman constituents of the HE field such as curricula and roles.

Bourdieu (1984 p170) defined *habitus* as a "structuring structure" to constrain rather than determine thoughts, tastes, beliefs, interests and understanding. However using Bourdieusian sociology the structure of an actor's *habitus* could only be described in terms of the practices that resulted from the actor acting under its influence and not as an object *per se* (Bernstein, 2000; Maton, 2012). Without understanding the structure of an actor's *habitus*, any changes to it and the resulting impact of those changes on practice, could not be measured. Research question one (micro layer) and research question two required more detailed understanding of the structure of the participants' *habituses* than Bourdieusian sociology could provide.

3.4 Introducing a Conceptual Framework

Grant & Osanloo (2014, p.17) explained that a conceptual framework provides "the researcher's understanding of how the research problem will best be explored". Miles & Huberman (1994, p.18) defined conceptual frameworks as "the main things to be studied - the key factors, concepts, or variables - and the presumed relationships among them". Lester (2005, p.460) noted that conceptual frameworks may be "based on different theories and various aspects of practitioner knowledge, depending on what the researcher can argue will be relevant and important to address about a research problem". The conceptual framework chosen for this thesis is Legitimation Code Theory (LCT), which provides a "multidimensional conceptual toolkit for analysing actors' dispositions, practices and contexts within a variegated range of fields" (Maton, 2014). The use of LCT was considered appropriate as it draws on Bourdieu's Theory of Practice (Bourdieu, 1977) which had already been selected for the theoretical framework and Bernstein's Code Theory (Bernstein, 1977) which was referenced in in relation to recontextualising academic knowledge in workplace settings during apprenticeship (section 2.3.4). It also incorporates ideas from Bhaskar's CR (Bhaskar, 1975, 1994, 2020) to provide tools for incisive analysis and visualisation.

LCT was developed in the early 2000s and was first utilised in the study of knowledge, (Maton, 2000). It is a multi-dimensional toolkit but only three of its dimensions were in common use at the time of thesis completion, namely Semantics, Specialisation and Autonomy. In LCT, by convention the names of the dimensions are capitalised and, in this thesis, when used with autonomy in the context of LCT, the term 'dimension' will also be capitalised. This provides a useful distinction between the use of the terms 'autonomy' and 'dimension' in LCT and more generally in this document. The Autonomy Dimension is the most recently developed and is considered the most appropriate for this research as it is concerned with the insulation of fields and relationships between constituents in those fields. The Autonomy Dimension of LCT was previously applied to HE policy in the UK (Maton, 2005). In this article it was used in a limited way with a specific object of study. It has since been redeveloped and applied more widely, for example to classroom pedagogy (Maton and Howard, 2018; Locke and Maton, 2019), and sections of video animations (Maton and Howard, 2021). The fact that the concepts

of the renovated Autonomy Dimension can be applied in more general ways is important for my thesis where it is used, for example, to chart the development of participant *habitus* for research question two.

Both Bourdieu and Bernstein have the concept of field and in both cases, there is the concept of autonomy (known as 'framing' in Bernstein's fields). The LCT Autonomy Dimension draws on "Bourdieu's 'autonomous' and 'heteronomous' principles of hierarchization *[sic]*" […] and "Bernstein's 'external classification' and 'external framing'" (Maton and Howard, 2018 p5). The Autonomy Dimension of LCT has the premise that a practice comprises constituents that are arranged into relations. LCT derives its relational structure from CR where relational properties are termed 'essences'.

Constituents may be actors, ideas, objects, or artefacts. For example, they could be body movements or musical notes. Relations are processes, ways of working, mechanisms, or rules. In the Autonomy Dimension, the organising principles of the constituents are conceptualised as autonomy codes. These are the 'essences' of the data and can be used to map the autonomy of a field by considering the extent to which its constituents and relations are impacted by those from other fields. The analysis methodology and the novel use of LCT within it is discussed further in chapter 5 and presented as a contribution to knowledge in chapter 6.

3.5 Extending the Theoretical Framework

A top-down methodology was used in the analysis of research question 1 and for part of research question 2. Using top-down analysis, requires the analysis code structure (or at least the higher levels of it) to be created prior to analysis of the data. The code structure needs to relate directly to the designated LCT constituents and relations under examination. This necessitates the use of prior knowledge and theory. Prior knowledge was gained through the literature review. To complement this, I needed to use specific analysis pointers from theory to aid the coding process. The concepts of *habitus* and *illusio* provide specific analysis pointers for the top-down analysis using LCT with research question one (micro layer) and research question two relating to the personal

layer of autonomy and commonality between background and perceptions. However, on becoming familiar with the data, it became apparent that other theories were required to adequately support the use of LCT in the macro and meso components of research question one. Research frameworks can be made up of different theories as long as they complement each other (Lester, 2005). The theories I have chosen to strengthen the theoretical framework are Service Dominant Logic (Vargo and Lusch, 2004; 2016) and Bernstein's Code Theory (Bernstein, 1977, 1990). An exposition of these theories, the reasoning for their selection, and the way they will work together to enhance the theoretical underpinning is provided herewith.

3.5.1 Service Dominant Logic

In their review of the changing purpose and values of the university Naidoo, Shankar, and Veer (2011) characterised it as a move in the education delivery from Service-Dominant Logic (S-D logic) to Goods-Dominant Logic. Service-dominant (S-D) logic is a theoretical framework that can be used to explain value co-creation with customers through the process of service exchange 2004. It can be contrasted with Goods-Dominant logic which is product centred and associated with commodification for ease of consumption. In Goods-Dominant logic, a product has been created and is sold via a transaction at a point in time. Any value for the customer is inherent within the product. In S-D Logic, a product serves as vehicle to offer a service which is experienced by a customer with the value of that experience being co-created with the customer over time.

In this thesis, S-D logic provides specific analysis pointers for the consideration of how value is created through exchange of service among actors within a service ecosystem (Vargo & Lusch, 2004). It provides a powerful theoretical framework for understanding the nature of the underlying causal structures and mechanisms involved in the delivery of a service as well as the role of the suppliers and beneficiaries in the service delivery (Vargo and Lusch, 2016). S-D logic holds that value is co-created by multiple actors, including the beneficiary and that it unfolds over time as opposed to being created only by the supplier as a product (Vargo and Lusch, 2004; 2016).

In the thesis, the service ecosystem in which academic courses and apprenticeship programmes were delivered lay at the intersection between the fields of HE, Employment and Regulation. S-D logic was originally based on Foundational Premises which have been combined and are more recently expressed as five axioms (Vargo and Lusch, 2016). These are stated in Table 6 (below). S-D-logic can be contrasted with goods-dominant logic in terms of the differing roles of the customer and the way that value is created and experienced. The statements in this table were used to provide analysis pointers for research question one for the meso layer in consideration of the nature of the curriculum content and monitoring of pedagogic practice. The latter was supported by links to the Foucauldian concepts of panopticism (Foucault, 1977a). They were also used for the macro layer in its consideration of the legitimation of value and purpose.

Table 6: Axioms of S-D logic (based on Vargo and Lusch, 2016)

Axiom	Definition (Vargo and Lusch, 2016)	Further elaboration
Axiom 1	Service is the fundamental basis of exchange	Service is the application of knowledge and skills for the benefit of another actor.
Axiom 2	Value is cocreated by multiple actors, always including the beneficiary (in this case study, the learner)	Value is always cocreated through the interaction of actors, either directly (or indirectly through goods). It is created through use of the service and unfolds over time rather than being experienced as a single exchange
Axiom 3	All social and economic actors are resource integrators	To provide a service, actors integrate resources, from various sources (Vargo and Lusch, 2011).
Axiom 4	Value is always uniquely and phenomenologically determined by the beneficiary, (the learner)	Value is experiential. Value propositions are perceived differently by each actor hence value is subjectively experienced and determined. (Chandler and Vargo, 2011)
Axiom 5	Value cocreation is coordinated through actor-generated rules, norms, and beliefs.	Service level agreements (SLAs), student charters, learning outcomes and other tokens are used for setting expectations and agreeing the terms of service.

The S-D logic axioms were used in the analysis to discover whether the education delivery was perceived by participants to be a service, where S-D logic prevailed, and value was co-created by learners and academics during the delivery reflecting the Humboldtian model (Anderson, 2006, 2020), or whether it was perceived to be a product where Goods-Dominant logic was evoked characterising learners as customers with expectations of value for money and more reflective of 'McDonaldization' (*sic*) (Ritzer, 1993). Wheelahan, Moodie and Doughney (2022) liken this to the Marxist notion of commodity fetishism with skills construed as commodities to be bought and sold. In this analogy, universities sell skills, individuals invest in skills development and employers purchase the skills. In terms of suitability to form part of a Bourdieusian based theoretical framework, S-D logic has previously been used with Bourdieusian concepts when investigating consumerism in HE (Naidoo, Shankar and Veer, 2011; Naidoo and Whitty, 2014). Vargo et al. (2015, p.93) noted that the "activity focus [of Bourdieu's Theory of Practice] connects well with the operant resource focus of S-D logic".

In terms of the insulation of pedagogic practice considered in research question one (meso layer), Naidoo, Shankar and Veer (2011) noted that S-D logic has affinities with pedagogical models, which emphasise the learner as an active actor in, and contributor to their learning process whereas goods-dominant logic favours a more instrumental approach to delivery associated with technification of teaching (Apple, 1987) and performativity (Ball, 2003). The move to an instrumental approach of delivery was noted in the literature review both when Ofsted inspections were introduced to monitor quality of delivery in secondary schools Gillard (1988), and when tuition fees were introduced in HE turning students into paying customers (Parker and Jary, 1995). Increased quality assurance and the rise of the student customer were identified as mechanisms that negatively impacted autonomy. A move towards an instrumental approach to delivery is a useful indicator of reduced autonomy of practice in the role-based layer and S-D logic was used to frame this. In terms of performance monitoring, links to Foucauldian concepts were useful in establishing the extent to which performance monitoring was panoptic and disciplinary as opposed to collaborative and developmental.

3.5.2 Bernstein's Code Theory

This section describes Bernstein's Code Theory and explains how it strengthens the theoretical framework by providing specific analysis pointers for the analysis of research question one (meso layer). This is concerned with the insulation around academic practice, and decisions around content and pedagogy of apprenticeship programmes in terms of the extent to which these were being influenced by external requirements. As discussed above, the insulation of pedagogic practice was supported by S-D logic. In terms of the insulation of knowledge content, apprentices were building their knowledge in both the HE and Employment fields, and knowledge was being accumulated and measured differently in each field. To investigate knowledge, rather than considering it as internal mental processes of knowing, it was necessary to understand the different types of knowledge and associated processes of knowledge building (von Glasersfeld, 1995; Maton, 2013). Wheelahan (2007) discussed the need for academic knowledge to be developed in apprenticeships alongside experiential knowledge, noting that a process of recontextualisation needed to take place for academic knowledge to inform the development of work practice and *vice versa*. Her analysis used Bernsteinian concepts (Bernstein, 1977, 1990). Henkel (2000, 2005) also used Bernsteinian ideas to define what constituted valued, legitimate knowledge in the field of HE. Aspects of Bernsteinian sociology were used to underpin the knowledge content aspect of research question one (meso layer).

In the 1970s, the movement known as 'New Sociology of Education' began (Young, 1971). Bernstein's code theory was developed at this time and focussed on the "nature of knowledge and the manner of its transmission, acquisition, and evaluation in schools", (Bernstein, 1990, p116). Singh, (2002) argued that Bernstein was one of the few theorists of the New Sociology of Education movement who modelled the structure of knowledge and enabled it to be 'seen' as an object of study in a research investigation. The aspect of Bernstein's work that is important for this thesis is his classification of knowledge types. Apprentices in the case study were engaged with knowledge building resources from their workplaces and from HE which had similarities and differences. Research question one (meso layer) considers curriculum content and pedagogy and the classification and coding developed by Bernstein provides a useful theoretical lens.

In his early work in sociolinguistics, Bernstein used codes generated through discourse analysis as a means of classification (Edwards, 1987). The term ‘code’ in this sense described “a set of organizing *(sic)* principles behind the language employed by members of a social group" (Littlejohn, 2002 p178). Bernstein analysed discourse within and between social groups and defined two language codes namely, ‘elaborated’ and ‘restricted’, which could be used as a basis for either inclusion or exclusion from a social group (Bernstein, 1971). The ‘restricted’ code defined the language generally used among close family and friends whereas the ‘elaborated’ code defined the language used by these groups in communication with other groups.

Bernstein recognised that intellectual fields had structured knowledge and that knowledge practices developed their own properties and powers. He was interested in how different knowledge building practices shaped the knowledge that actors developed through them. He developed his early analysis of discourse structure and used it as a means to understand knowledge types and structures, and to explain the mechanisms behind the knowledge building practice. Like Bourdieu, Bernstein worked with the concept of ‘field’, but his fields were comparatively stable and utilised differently. He coined the term 'arena', which created “a sense of drama and struggle both inside and outside”, to describe a group of his fields (Bernstein and Soloman, 1999 p267). Arenas of Bernsteinian fields can be compared to Bourdieu’s conceptual fields, which are similarly characterised by struggles and contested boundaries (Bernstein and Soloman, 1999).

In later studies, Bernstein posited that each area of knowledge (topic) had a particular discourse associated with it. The discourse associated with a topic in a specific workplace would be different from the academic discourse in that topic, and from the discourse around that topic in other workplaces. Bernstein (1999) viewed his earlier code modalities as realisations of what he termed ‘horizontal’ and ‘vertical’ discourses. Horizontal discourse was seen as a realisation of the ‘restricted code’ directed towards “practical mastery” (Bernstein 1999, p157). Vertical discourse on the other hand was seen as a realisation of the ‘elaborated code’ and directed towards “symbolic mastery” (Bernstein 1999, p158). The relationship between these types of discourse, their

associated knowledge structures and related pedagogy will be discussed in the following sections. It is illustrated diagrammatically in Figure 7 (below).

Bernstein's horizontal knowledge is described as operational knowledge which is contextually specific and can be considered segmental, in that there can be unrelated skills developed in different contexts within a community. The segmented knowledge building depends on face to face demonstration of skill and is completed when a specific competence has been developed, much like the production of a masterpiece marking the end of a skills-based apprenticeship. Unlike the context specific segments of knowledge that result from horizontal discourse, vertical discourse comprises "specialist symbolic structures of explicit knowledge" (Bernstein 1999, p161).

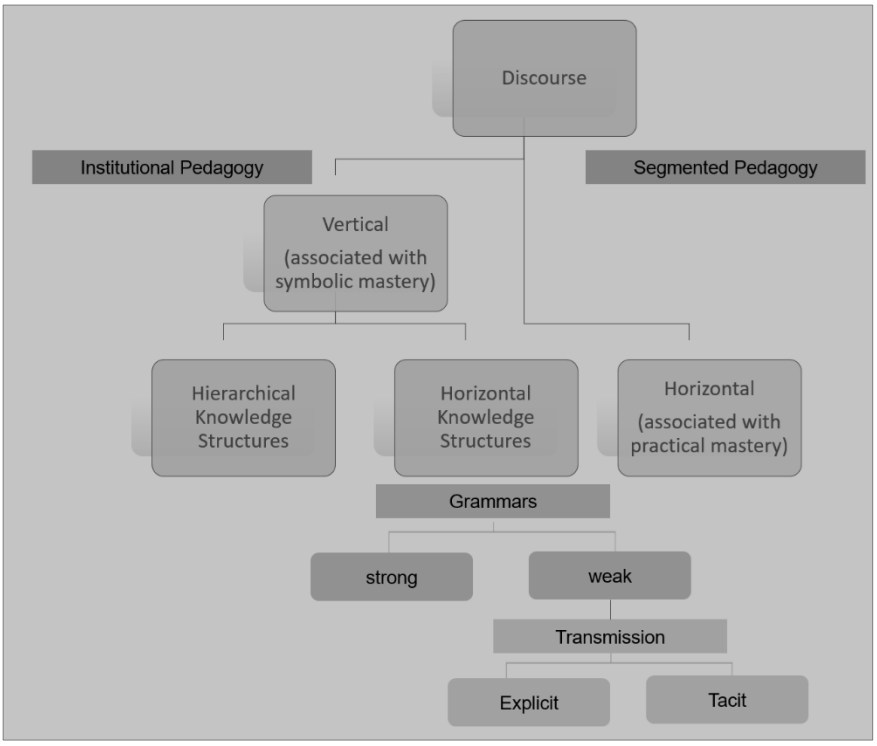


Figure 7: Vertical and horizontal discourse, adapted from Bernstein (1999 p168)

Bernstein noted that there was an "institutionalised" discourse around vertical knowledge which led to cumulative knowledge building over an extended time-period. Whereas, horizontal knowledge is assessed by gaining competence, vertical knowledge is assessed through assessments resulting in grades. Within vertical discourse Bernstein (1999 p168) described two types of knowledge structures, namely hierarchical and horizontal. Hierarchical knowledge structures develop over time by accumulating new

and more complex theories drawing on previous knowledge. Horizontal knowledge structures do not build on previous knowledge but build separate blocks of knowledge at the same level of complexity. Christie et al. (2007 p257) likened this to the difference between building a cathedral (hierarchical) and building a "suburban sprawl' […of…] low-level, largely identical buildings" (horizontal). Bernstein discussed grammar and transition in relation to horizontal knowledge structures. A discourse with weak grammar is one containing very little subject specific grammar (tending towards the 'profane'). Transmission refers to whether the discourse is transmitted explicitly (through language) or tacitly (through practice).

In the post 2015 apprenticeship programmes, apprentices were assessed in both the Employment field and the HE field. They were expected to develop academic knowledge (symbolic mastery) through university education and practical competence (practical mastery) in their workplaces. However, it would be simplistic to assume that no or practical skills are developed within the university setting and *vice versa*. In the university delivery of practical topics, the practical (horizontal knowledge) building blocks are positioned beside the academic (vertical knowledge) building blocks. Grammar associated with horizontal knowledge building may be weak (applicable across many practical areas) and transmission, tacit. Bernstein (1999, p168) noted that horizontal knowledge structures with weak grammar and tacit transmission were "the nearest to horizontal discourse".

As discussed in the literature review (chapter 2) the 2015 apprenticeship reform brought English apprenticeships closer to the 'occupational' model of Brockmann, Clarke and Winch (2010), by providing opportunities for vertical knowledge and horizontal knowledge building in the university thereby easing the process of recontextualisation through horizontal discourse in the workplace. Apprentices may undertake similar tasks as part of their university practical work, to those undertaken in their workplaces. However, while the tasks might appear to be similar, the discourse, purpose and knowledge building are different. The university task develops practical knowledge through vertical discourse demonstrating how theoretical principles and concepts taught as part of a hierarchic knowledge building process can be applied horizontally

through practice as part of a graded assessment. Conversely, the workplace task develops practical knowledge through horizontal discourse around the mastery of practical skills assessed through workplace appraisals. This distinction between horizontal knowledge structures and horizontal discourse is particularly important in research question one (meso layer). Horizontal discourse is associated with practical mastery and employment skills while horizontal knowledge structures stemming from vertical discourse are more readily linked to symbolic mastery and employability skills.

Bernstein's codes are governed by the concepts of 'classification' and 'framing'. Bernstein's concept of 'classification' is concerned with the autonomy of structures. His concept of 'framing' is concerned with the autonomy of practices. Applied to knowledge building, classification relates to the insulation of the curriculum structure whereas framing relates to the insulation of pedagogic practices of knowledge transmission (Wheelahan, 2012). Classification and framing have internal and external components with internal looking at intra- and external looking at inter-arena autonomy. It is the external components of classification and framing that are of interest in this project. Strong external classification would mean (for example) that the focus of the curriculum was on the subject discipline whereas weak external classification would mean that more external influences impact the curriculum. Strong external framing would mean internally regulated pedagogic practices whereas weak external framing would mean influence from external frameworks on pedagogic practices. This relates directly to the analysis required in research question one (meso layer).

3.6 Summary

In my thesis, I recognise a three-layer model of academic autonomy characterised by institutional values, role-based practice, and personal choice. The theoretical framework developed is based on Bourdieu's Theory of Practice which provides a vessel to envelop and reference other theories. S-D logic provides specific analysis pointers for the value proposition and purpose of HE, and roles of academics investigated by question one (micro layer). Bernstein's code theory provides specific analysis pointers for knowledge structures and is combined with S-D logic to underpin curriculum choices and pedagogic processes investigated by question one (meso layer). The analysis relating to questions

one (micro layer) and two uses Bourdieu's concepts of *habitus* and *illusio* to analyse the perceptions of personal autonomy and the relationship between autonomy and perception.

The conceptual framework uses the Autonomy Dimension of LCT to operationalise the theoretical concepts. The theoretical underpinning of the thesis is depicted by the diagram in Figure 8 (below) which uses an analogy of the relationship between the conceptual and theoretical frameworks put forward by Grant & Osanloo, (2014). The building structure depicts the theoretical framework, which is based on Bourdieu's theory of practice, augmented at levels two (meso) and three (macro) with Bernstein's Code Theory and S-D logic to inform the use of LCT. The conceptual framework (using LCT) comprises the floor plans and the roof of the building. The floors of the building represent the layers of autonomy. The writing on the walls shows the theories providing the specific analysis pointers for each layer mapping the top floor to research question one (macro layer), the middle floor to research question one (meso layer) and the bottom floor to research question one (micro layer). The overarching roof maps to research question two which seeks to open a window on the relationship between the background of academics and their perceptions of autonomy in all three layers.

Figure 8: Depiction of the theoretical underpinning of this thesis

CHAPTER 4: RESEARCH DESIGN

4.1 Introduction

The term 'research paradigm' reflects the researcher's philosophical orientation and their world view (Guba and Lincoln, 1994; Kivunja and Bawa Kuyini, 2017). The research paradigm describes the way that a researcher approaches their research (Mackenzie and Knipe, 2006). A paradigm sets out four views of the research investigation (Guba and Lincoln, 2005; Haigh *et al.*, 2019). These views are as follows:

- Ontology - The nature of reality and what can be known about it.
- Epistemology – The nature of knowledge, how it is discovered and how it is validated.
- Methodology – The approach to knowledge discovery including research and analysis tools.
- Axiology – The nature of value and the ethics of enquiry

The four views bring assumptions to the research that must both support the approach and be consistent with each other (Patterson and Williams, 1998). This chapter discusses the choice of research paradigm for this thesis and the assumptions that underpin it.

It is important to choose a paradigm that has ontological and epistemological stances that are aligned with the nature of the research questions and the data gathering process (Haigh et al., 2019). Legitimation Code Theory (Maton and Howard, 2018) was chosen as the conceptual framework for the research and is informed by the Critical Realism (CR) research paradigm (Bhaskar, 1975, 1994, 2020). CR was chosen as the research paradigm for this thesis because in addition to its relationship with the conceptual framework, its ontological stance is closely aligned to the nature of the research. The following sections cover the assumptions brought by the four views of the CR paradigm to the research design. In each section, where relevant, the way that the approach to reasoning informed the research design is discussed.

4.1.1 Ontological Assumptions

Blaikie (2010, p92) noted that ontological assumptions are "concerned with the nature of social reality […and…] make claims about what kinds of social phenomena do or can exist". CR is ontologically realist in that it acknowledges the existence of an objective reality capable of existence independently of the subjective perceptions and interactions of individuals. In terms of reality, CR recognises the 'empirical', the 'actual' and the 'real' (Bhaskar, 1975). The 'empirical' refers to the subjective perceptions of reality that are based on experiences of events. The 'actual' refers to objective, verifiable facts relating to events and experiences, which may be different to the subjective perceptions of them. The 'real' refers to unobservable, underlying structures and mechanisms that cause the events and experiences from which the 'empirical' perceptions of their reality are constructed. CR evokes an explorative approach to produce theories to explain the 'real' causal structures and mechanisms, through 'actual' perceptions (Taylor, 2018).

CR necessitates that researchers engage with in-depth understanding of historical contexts of the objective world as well as constructs from the social world that are potentially linked to causation (Reed, 2009). The Literature Review (chapter 2) presented verifiable, information about academic autonomy. In the period considered by the research, academic autonomy was enshrined in law, which institutionalises societal rules (Schiff, 1976), and as such existed as an 'actual', objective, verifiable reality. However, it may not always have been exercised to the extent provided for it in law owing to 'real', unobservable underlying structures or mechanisms that constrained it. This means that the 'empirical' subjective perceptions of the research participants based on their lived experiences with respect to academic autonomy could potentially differ from the 'actual' objective reality of what was possible.

The realist ontological stance was crucial to this thesis in that acknowledgment of the existence of an objective reality also acknowledged the existence of the 'real', causal mechanisms behind the experiences of the research participants. The research questions were focussed on the perceptions of academics. The analysis of the perceptions was integral to the thesis in terms of being able to move towards an

explanation of the structures and mechanisms that caused university apprenticeship programmes to impact academic autonomy with a view to providing recommendations for improvement.

CR holds that ontologically, the social world is a "layered, complex and open system", (Haigh *et al.*, 2019 p4). Its approach is based on a relational understanding of the layered social structures that make up the social world (Peters *et al.*, 2013). Bhaskar considered actors and organisations to be 'entities' existing in a social system. He noted that entities could be physical beings or non-physical things such as ideas, theories, or concepts. Entities (such as academics) have powers, (such as autonomy) which enable them to perform their roles in their social system (Peters *et al.*, 2013). The power that an entity has, to facilitate or constrain actions, depends on its relational properties (causal mechanisms, or in critical realist terminology, 'essences'). In the conceptual framework, LCT conceptualises entities and mechanisms as positional and relational autonomy codes. In LCT terms, the entities are known as 'constituents' and the mechanisms as 'relations'. This is discussed further with respect to analysis in chapter 5.

In each layer of a social system, different types of entities are subjected to different mechanisms, and an understanding of the structure and mechanisms in each layer and how they impact the lower layers is needed in order to understand the changes they cause (Bates, 2006). The "stratified conception of causation" offered by CR facilitates this understanding (Vincent and O'Mahoney, 2018 p205). The layered social world is reflected in the thesis in the three-layer model of autonomy which is discussed in the introduction (chapter 1) and literature review (chapter 2) and is reflected in the first research question.

My research was designed to understand the changes in academic autonomy in apprenticeship programme delivery following the 2015 apprenticeship reform. Change is a central tenet of CR and it introduces a temporal facet to analyses (Bates, 2006). The literature review (chapter 2) covered the previous development of, and the historical reasons behind, changes to academic autonomy in HE prior to the data gathering as well as the development over time of apprenticeship as a learning model in England. These

were important in providing the necessary temporal context required for the analysis of change.

4.1.2 Epistemological Assumptions

Blaikie (2010, p92) stated that epistemological assumptions are “concerned with what kinds of knowledge are possible [and] how we [come to] know”. CR is epistemologically relativist in that autonomy cannot be directly observed therefore its changing nature is constructed from the perceptions of the research participants, and a knowledge of the environment at the time. Denzin and Lincoln (2000) noted that epistemology is concerned with the relationship between the researcher and the research, in other words, the positionality of the researcher. Also important is the process of validating claims to new knowledge (Wynn and Williams, 2012). My positionality and the means of validation for the knowledge discovered through this thesis are covered in the following sections.

4.1.3 Positionality

Researcher positionality is an ”essential and ever-present aspect of the investigation” (Dwyer and Buckle, 2009 p55). The terms ‘emic’ and ‘etic’ denote insider and outsider positionality respectively of the researcher to the research. The participants in this thesis were chosen against criteria related to the case study, the main ones being their role (academic) and their experience (delivering on both non-apprenticeship and apprenticeship programmes in a department of computing). Emic (insider) positionality means that the researcher would have these characteristics in common with the research participants, whereas etic (outsider) positionality would mean that these characteristics were not shared. Given my background (covered in section 1.4.1) as an academic in a department of computing, I could have been considered an insider. However, in my role as researcher, I was a student enrolled on a doctoral course in an Institute of Education and from this perspective I could have been considered an outsider. While I shared key areas of commonality with the research participants, each participant also possessed characteristics and circumstances relevant to the thesis that I did not share.

Another dimension of positionality is the power dynamic between the researcher and participant (Merriam et al., 2001; Savvides et al., 2014). If a researcher is perceived to be in a position of power, this might impact the willingness of research participants to discuss certain topics. While I was not in a position of power with respect to the participants in terms of managerial hierarchy, there may have been other factors such as my age, culture or gender which could have been perceived as bestowing power. Additionally, as a researcher, in the context of my research I was in charge of the research agenda which could also have led to perceptions of power inequality.

Mercer (2007) presented positionality as a continuum with multiple dimensions and explained that it was subject to change over time and with different aspects of the research. It has been argued that researcher stance emerges and changes through interaction with research participants (Angrosino and Mays De Pérez, 2000; Kusow, 2003). Supporting this, Dwyer and Buckle (2009, p59) suggest that representing the experiences of participants "accurately and adequately" was more important than the justification of a particular stance. Given its dynamic nature it has been suggested that researchers should seek to negotiate their positionality, emphasising appropriate insider or outsider characteristics with each participant to ensure that they can work together comfortably to co-construct accurate knowledge (Hammersley, 1993; Merriam et al., 2001). Bearing this in mind, for my thesis, rather than trying to justify a particular positional stance, my goal was to negotiate positionality such that I could exploit the benefits of insider knowledge while remaining detached from the research. The importance of epistemic reflexivity in the negotiation of positionality during the data gathering process will be discussed in the methodology section of this chapter.

4.1.4 Credibility

Credibility is often put forward as an indicator of quality in qualitative research (Patton, 2002; Lavrakas, 2008). Silverman (2006, p281) noted that "central concepts in any discussion of the credibility of scientific research are validity and reliability". Validity refers to the generalisability of the research outcomes to other settings. The relativist epistemological position of CR holds that knowledge is transitive (subjective and bound to context). Any resulting theories can therefore only be validated relative to the context

giving rise to them (Siedel, 2014). Claims to knowledge are based on providing causal explanations for the structures and mechanisms underpinning change (Bhaskar, 1975). New claims are "at best approximations of reality" (O'Mahoney, 2016 p7). Theories are open to challenge and over time they may be developed, or rejected as new perspectives are discovered (Olsen, 2010; Haigh *et al.*, 2019). Bassey (1981, p85) stated that "'relatability' is more important than generalisability". While the findings of this thesis may not be widely generalisable, they may be useful to similar universities and academics offering (or considering whether to offer) similar programmes. To improve the ability of readers to judge how relatable the findings of my thesis are to their environment, I provide rich detail around all aspects of the case study. Hammersley (1990, p57) defined 'reliability' as "the extent to which an account accurately represents the social phenomena to which it refers". Reliability can be measured as the "degree of consistency" within all aspects of the research (Hammersley 1992, p67). The steps taken throughout the research process to improve the overall credibility of the research outcomes are discussed in the methodology section of this chapter with reference to chapter 5 where more detail relating to the analysis process is provided.

4.1.5 Judgemental Rationality

CR emphasises abductive reasoning to find regularities or themes followed by retroduction to identify explanatory mechanisms (Olsen, 2010; Fletcher, 2017; Vincent and O'Mahoney, 2018). Abductive reasoning requires the researcher to use their prior experience, and theoretical knowledge to inform the analysis (Saunders, Lewis and Thornhill, 2012). This and the combination of ontological realism and epistemic relativism, necessitates the use of judgemental rationality (Bhaskar, 1975, 1979, 2009). Judgemental rationality is the practice of making judgements about differing perceptions of reality to provide accurate accounts of phenomena. In my thesis, judgemental rationality is supported by the construction of translation devices to aid coding of the data. The design and use of translation devices is explained further in chapter 5. In terms of judgemental rationality, translation devices call for evaluation criteria which evolve through the analysis process to provide usable mapping tools. Judgemental rationality becomes a process of creating the criteria and rating the data against them. The criteria evolve during the analysis process and final translations of

data to code are undertaken against the same criteria thus ensuring that coding judgements are consistent. Quraishi et al., (2022) put forward that reflexivity and triangulation can assist in the practice of judgemental rationality. The use of reflexivity and standardisation of processes to improve reliability and validity of the research findings have been discussed previously. Triangulation will be discussed in the following section.

4.1.6 Triangulation

Triangulation is a term borrowed from surveying that uses trigonometry to determine the distance between two lines emanating from a point. In research the term refers to the use of more than one data source, data gathering method, theoretical perspective, investigator or environment to overcome bias and provide a more holistic account of the research phenomenon (Denzin, 1978; Patton, 2002). It has been suggested that triangulation can also improve the reliability and validity of the research (Yin, 1994; Blaikie, 2010). The extent and the reasoning behind the use of different types of triangulation in my thesis are discussed in the following paragraphs.

Data source triangulation involves triangulating data taken from different times, spaces, and people (Denzin, 1978). My thesis was a case study bounded by discipline, time, and location. The sample of participants was selected against given criteria reflecting periods of delivery and variables of interest. However, it was recognised that some variables were unknown, and the sample of participants was therefore allowed to be larger than the minimum required to consider known variables, while retaining balanced composition. The impact of bias was addressed by ensuring that the composition called for least two perspectives for each variable under consideration. While the participants had the selection criteria in common, there were a host of other attributes and experiences that were not shared (e.g., length of involvement with academic or apprenticeship delivery, length of time in HE, type of contract). These differences in perspective were investigated through research question two which sought to determine whether there was any relationship between the background of an academic and their perception of academic autonomy. In terms of the extent of data source

triangulation, for each instance there were multiple perspectives (a minimum of four from the nine participants).

However, these perspectives were all from academics delivering on both apprenticeship programmes and non-apprenticeship courses. External controls were not used, as the ability to compare academic autonomy between delivery types was integral to the thesis. Different perspectives could have been gained from other stakeholders, for example, management. However, the thesis was predicated on the perception that academics had of their autonomy. A management perception of academic autonomy would potentially have leaned ontologically towards the 'actual' rather than the 'empirical'. The 'actual' was investigated through the literature review to determine phases and identify variables during the timeframe of interest in the case study, meaning that the management perspective would at best confirm these findings and was unlikely to add value in terms of understanding the academic perspective. In terms of triangulation of data across time, while the case study was bounded by a timeframe, this was divided into two distinct phases for each delivery type. Variation (or lack of it) in the perceptions of autonomy through the phases was considered as part of the thesis. The aggregation of perceptions during analysis allowed for triangulation across the whole timeframe for each delivery type and was used to confirm whether variation between phases existed or not.

Methodological triangulation requires the use of two or more sets of data using the same methodology (e.g., from qualitative methods) or from different methodologies, e.g., one qualitative and one quantitative (Denzin, 1978; Boyd, 2000). This type of triangulation allows the advantages of each method to be exploited while overcoming any weaknesses (Denzin, 1978). For the thesis, I selected the qualitative data gathering methods that I considered the most appropriate for the research questions and in line with the research paradigm. The use of a quantitative questionnaire for triangulation purposes was considered but would have been contrary to the paradigm. The value of questionnaires is that they can reach a larger group with minimal overhead in time or cost, (Boyd, 2000). Although it would potentially have added breadth, the use of quantitative data gathering would not have provided the rich data required.

Additionally, given the small number of available participants within the case study, the boundedness of the case study would need to be breached if more participants were to be added to exploit the advantage offered. Triangulation of methods was therefore not considered appropriate for the thesis.

The boundedness of the case study also precluded the use of environmental triangulation which would have considered data from different contexts (Patton, 2002). Investigator triangulation requires the involvement of more than one investigator, (Denzin, 1978; Denzin and Lincoln, 2000). This was not employed during the data gathering phase but was used for validation during the analysis. The use of investigator triangulation in the analysis phase will be explained further in chapter 5. Early ideas about causal structures and mechanisms were tested through retroduction, against a theoretical framework composed of three theories. Theoretical triangulation was therefore a key part of the retroductive analysis process. A summary of the triangulation considerations can be found in Table 7 (below).

Table 7: Summary of triangulation considerations

Method of triangulation	**Comment**
Data source	Limited to the multiple perspectives within the criterion-based sample.
Data gathering method	Precluded by the number of available participants within the case study
Environmental	Not considered appropriate in a bounded case study
Investigator	Used for validation of coding
Theoretical	Used as an integral part of coding and retroductive analysis

4.1.7 Methodological Considerations

The aim of critical realist research is to create new theories to explain phenomena from the understanding of causal structures and mechanisms. CR therefore emphasises ontologically based research questions concerned with understanding reality, (O'Mahoney, 2016). As critical realist research questions are not concerned with how knowledge is gained, critical realist research is not tied to particular methodological approaches (O'Mahoney, 2016). Vincent and O'Mahoney (2018 p11) stated that case studies were the "most common, and arguably most useful, form of critical realist research". Ackroyd and Karlsson (2015) noted that in critical realist research, case studies were well suited to intensive research, where the context was clearly defined, but the mechanism unknown. Stake (1995) defined a form of case study where the focus was on an issue within the case, for example in the thesis, the perceived reduction in academic autonomy, rather than the context. Kumar (2005) noted that the case study approach facilitated the development of holistic in-depth understanding from multiple perspectives. This was in line with the requirements of the thesis and the data gathering methods, which are discussed later in this section. Case study research is compatible with abductive reasoning as it supports regular interaction between the researcher, the data and theory (Conaty, 2021). The thesis will be presented as an explanatory case study.

Yin (2003) discussed three potential issues with case studies. Firstly, they produce "sloppy research and biased findings", (Yin 2003, p10). This refers to the view that social life can only be reliably and validly described by quantitative research (Blaikie and Priest, 2019). There is the danger that participants may be consciously or subconsciously misrepresent their experiences (Vincent and O'Mahoney, 2018). In this thesis, the commitment to negotiating positionality, working with the research participants to co-produce accurate data, and the use of epistemic reflexivity during the data gathering process was geared towards mitigating the impact of this issue. The second potential issue is whether case studies can be used to provide generalisations. Critical realist research aims to provide generalisations from several subjective perceptions to produce theories about causal structures and mechanisms. CR recognises that "the constancy of change […] means that a 'settled' theory […] cannot be formulated" (Haigh *et al.*, 2019

p12). If further empirical evidence later emerges and contradicts a theory, it can be expanded or adjusted. Hence, the aim of this thesis was to produce an initial theory which could evolve over time rather than one that would be immediately generalisable. The third potential issue is that case studies can take too long and produce unmanageable amounts of data. The following sections cover the selection of the context, the participants for the case study, and the research tools. I discuss how the research investigation was designed along with the steps I took to mitigate against the issues raised by Yin (2003).

Following the decision to use a case study, the following methodological steps were followed:

- Methodology Step 1: Selection of the case study
- Methodology Step 2: Selection of the research participants
- Methodology Step 3: Design of the research tool including a pilot study.
- Methodology Step 4: Data gathering.

These steps and the reasoning behind any decisions made are described in the following sections.

4.1.7.1 Methodology Step 1: Selection of the Case Study

The defining characteristic of a case study is that it is a bounded entity (Schwandt, 1997; Yin, 2003; Hodge and Sharp, 2016). The entity could be a person, a group of people or an institution (Hamilton, 2011). The thesis investigated the impact on academic autonomy of university apprenticeship programmes. The case study entity was a group of academics working in a university context and with experience of delivering apprenticeship programmes and (for comparison purposes), non-apprenticeship university courses. For this case study, the entity was bounded by discipline, time, and location.

In terms of discipline, the degree level apprenticeship standards available at the time of the data gathering phase were in the discipline areas of Health, Engineering, Business, Law and Digital. As a lecturer in computer science , I had been involved in the design of and was part of the delivery team for the BSc (Hons) Digital and Technology Solutions Integrated Apprenticeship Programme (Skills Funding Agency, 2015) at my workplace. I

also had previous experiences with framework apprenticeship delivery in the discipline. This involvement provided the impetus for the thesis. I chose computer science as the discipline because I had extensive knowledge of the discipline, IT occupations, and the university level apprenticeship programmes. Having a depth of knowledge is key to the abductive approach and was exploited during the data gathering phase as it enabled me to focus on gaining understanding of the mechanisms behind reduction of academic autonomy in apprenticeship delivery, rather than trying to understand the wider disciplinary context that was necessary to underpin the analysis.

The identified timeframe of importance for apprenticeship was summarised in the literature review (chapter 2) in in terms of changes to the apprenticeship model, quality assurance and monitoring of funding started in 2017 when levy funding for university managed apprenticeship programmes was introduced and delivery started (*Enterprise Act*, 2016). It was of interest to analyse the impact of the Ofsted quality assurance mechanism which was introduced from September 2019. As discussed in the literature review, apprenticeship delivery was considered as having two phases, pre- and post-Ofsted. For non-apprenticeship delivery, the changes to funding and quality assurance following the Dearing Report in 1997, culminated in 2012 with students paying full tuition fees. It was of interest to understand how the impact of the fee change and quality assurance mechanisms impacted academic autonomy in non-apprenticeship delivery prior to the introduction of apprenticeships. Therefore, with support from the literature review (chapter 2), non-apprenticeship delivery was also considered in two phases, pre- and post- introduction of full fees. Data gathering began in July 2020 which marks the end of the timeframe of consideration. In terms of location, the thesis was focussed on English apprenticeships, therefore the research participants needed to be based at a university in England that offered both digital apprenticeship programmes and non-apprenticeship courses in the chosen discipline of computer science. Table 8 (page 89) summarises this process.

Table 8: Finding the Case study institution.

Criterion	Application	Resource
Universities who offered accredited Level 6 Digital Degree and Level 4 Apprenticeship Programmes	Investigated to establish which universities had embraced the new apprenticeship standards	TechSkills website (TechSkills, no date).
Universities satisfying the above who also offered computer science courses	Confirmatory check to ensure that universities also offered non-apprenticeship courses in the computer science discipline	University and College Application System website, (UCAS, 2020).
Universities satisfying the above and also having a suitable sample of academic staff at the university willing to participate in the research.	Candidate universities were assessed in order of convenience as defined by their proximity to my location.	Participant selection process covered in the section below.

4.1.7.2 Methodology Step 2: Selecting the Research Participants

The initial criterion for eligibility was that prospective participants were academics who had experience of delivery on both non-apprenticeship courses and apprenticeship programmes for a period during one or both identified phases of interest. The university apprenticeship programmes based on the 2015 apprenticeship reform commenced in September 2017 following the introduction of the levy in April of that year. Therefore, the maximum length of time that any university could have been running the reformed apprenticeship programmes prior to data gathering was thirty-three months.

This short timescale meant that in any given university the number of eligible and willing participants was unlikely to exceed the maximum number that could be managed in terms of data gathering and processing. Purposive (or judgemental sampling) describes a sampling process whereby a sample is chosen using the judgement of the researcher to discern its fitness for purpose (Lavrakas, 2008; Blaikie, 2010). This type of sampling

can be based on a set of criteria and it allows for the effective use of limited resources (Patton, 2002). Purposive sampling was considered fit for purpose in the thesis as the number of candidate participants was likely to be small. Rather than using probability sampling to find a smaller subset of a large population, given the likelihood of a small number of candidate participants, it was more important to determine the smallest sample that could adequately represent each of the instances of delivery (Emmel, 2012). An instance of delivery refers to a type of delivery (non-apprenticeship or apprenticeship) in a particular phase. As such there are four instances of delivery relating to the two defined phases of each delivery type. The identified variables are shown with reasoning in Table 9 (page 91).

Table 9: Identified research variables showing requirement and reasoning.

Variable	Requirement and reasoning
Role	Employed in the role of Academic
Type of contract	Candidate participants were asked to choose the nature of their contract from 'permanent' or 'non-permanent (hourly paid/fixed term/probationary)' as this had been identified as important to academic autonomy
Phases of non-apprenticeship delivery	Candidate participants were asked to state the dates of their involvement in non-apprenticeship delivery. These were then mapped to the key phases of delivery identified in the literature review.
Phases of apprenticeship delivery	Candidate participants were asked to state the dates of involvement in apprenticeship delivery and the type of apprenticeship programme. This was necessary to understand whether Ofsted was involved. These were them mapped to the phases of delivery identified in the literature review.
Length of experience	Given the potential for low numbers, to provide as many candidate participants as possible, the length of experience that participants must have had of each type of delivery was set to the minimum time required to deliver one complete modular unit at the candidate institution, to ensure that the participant would have experienced all aspects of the delivery cycle for at least one modular unit. The shortest period possible was chosen to provide the maximum number of potential candidates from a given institution.

All academics involved in delivery within a given candidate university department of courses in computer science were sent a participant information form which provided details of the proposed research investigation. Those academics who expressed an interest in taking part were subsequently invited to complete a professional profile form, which was used to assess their suitability for the sample based on additional criteria derived from the variables above. The completed professional profile forms were analysed once all forms had been received, and decisions on the sample composition made based on the identified variables. Once the sample had been composed and judged to be of satisfactory composition, the participants in the sample were asked to sign a consent form. Templates of the participant information form, consent form and professional profile form are included in Appendix D.

I considered the possibility of gathering data from a group of participants who had never delivered on apprenticeship programmes as an external control group. For comparison, there could have been another group of participants who had only delivered on apprenticeship programmes. Control groups are a feature of research projects where a single variable is changed for the group of research participants and kept constant for another group known as the 'control' group (Lloyd-Jones, 2003). This allows for differences resulting from the change to the variable (in this thesis, academic autonomy) to be identified. However, the thesis was a qualitative study using the perceptions that the participants had of their academic autonomy to describe and explain the underlying, unobservable causal structures and mechanisms. As these could not be directly observed, the difference in academic autonomy was to be discerned through comparison made by participants of autonomy in apprenticeship programmes in different phases and relative to that in non-apprenticeship course delivery. Academics who had not had the experience of delivering on both would not have been able to make these comparisons and it was therefore not considered appropriate to have an external control group for this research. It was however of interest to note that some participants had been involved in delivery of both non-apprenticeship courses and apprenticeship throughout the phases of interest. These participants could compare their perceptions of autonomy across different instances both within and between, non-apprenticeship and apprenticeship delivery providing useful markers for comparison.

In terms of sample size, for purposive sampling, the researcher determines the appropriate size. To do this, I followed guidance from literature (Emmel, 2012; Lavrakas, 2008; Blaikie, 2010) and considered the number of available participants and the known variables. To be of adequate composition considering the known variables, the minimum sample size for the case study entity would be four participants in total, two academics on permanent contracts and two on temporary contracts. Within this group, there would need to be at least two participants representing each delivery instance to provide more than one perception for each instance. Given that the variables considered were based on research prior to the 2015 apprenticeship reform, it was reasonable to posit that there could be additional unknown variables stemming from the reform. For this reason, the sample size was not restricted to the minimum size. Once a sample of adequate composition was reached, it was important to ensure that the introduction of further participants did not impact the composition of the sample (Vasileiou et al., 2018). To ensure this, the following conditions were added:

- In terms distribution, the aim was for the spread of participants across the phases to be as even as possible.
- Where more than two participants on non-permanent contracts were available, these participants should not be the only representatives in any of the phases to maintain the balance of views.

4.1.7.2.1 Chosen Case Study Details

Ethical considerations will be discussed in detail later in this chapter, but to protect the anonymity of the participants, I have withheld the name of their university. However, it is necessary to provide some detail about the case study university so that readers are able decide whether the findings are relatable to their own context as recommended by Bassey (1981). The case study was conducted in a university based close to a provincial, industrial city. Prior to 1992, when the 'binary divide' was closed (*Further and Higher Education Act*, 1992b) the university was known as a Polytechnic. As a post-1992 university, there was a focus on vocational learning and practical scholarship placing it at the edge of the academic side of the chasm. Computer science had existed as a discipline at the university for over fifty years at the time of the thesis and was well established. The university offered courses in cyber security, networking, software

engineering and computer games programming alongside a computer science course. The Digital and Technology Solutions Professional (Integrated Degree) apprenticeship programme (IfATE, no date) had been offered at the university from September 2017. This was the only approved level 6 apprenticeship standard in the digital area at the time of data gathering. The university also offered two of the available level 4 apprenticeship programmes in the digital area. These will not be named to preserve the anonymity of the university and the participants. The academic year was divided into three, four-month terms, two of which ran alongside the non-apprenticeship courses with the third running through the summer. The smallest modular units ran over a single term which meant that the minimum delivery time for a participant on each type of delivery was four months.

The university offered a Foundation Degree which was used to underpin the level 4 apprenticeship programmes. The Foundation Degree structure incorporated the first two years of the Integrated Degree Apprenticeship programme, and all apprentices (level 4 standard, and level 6) were taught together in the modular units. Apprentices were not taught alongside non-apprenticeship students meaning that academic autonomy on the delivery of non-apprenticeship courses could be compared with delivery on apprenticeship programmes. However, as all apprentices taking a modular unit were taught together, any differences between academic autonomy that might have existed in different types of apprenticeship programmes could not be discerned.

A potential difference would have been that only the level 4 standard programmes were subject to quality assurance from Ofsted in the phase 2 delivery instance (from September 2019). Ofsted was being piloted for quality assurance. Given that all apprentices were taught together in the case study university, the academics involved in phase 2 apprenticeship delivery were all impacted by the change. Ofsted became responsible for the inspection of apprenticeship programmes at all levels from April 2021. While phase 2 conditions did not apply to all apprenticeship programmes at the time of data gathering, by the time of thesis completion, all apprenticeship programmes through to level 7 were subject to the Ofsted inspections. This makes the findings of the

thesis of wider interest as they provide an early indication of the impact of the change on academic autonomy in apprenticeship delivery more generally.

Within the case study university, a total of nine staff were eligible and willing to be research participants. With respect to the composition of the sample, the research participants (identified by pseudonyms) are listed in Tables 10 (below) and 11 (page 96) showing when they delivered. Two participants (Lee and Sam) were not on permanent contracts at the time of data gathering and in line with the composition requirements, they were not the only participants in any phase. The distribution of participants in apprenticeship delivery was evenly spread in line with the composition requirement. However, for apprenticeship delivery, there were fewer participants delivering in phase 1 than in the other phases giving an uneven spread. The representation was considered to be adequate given that there were more than two participants. Each participant was given a pseudonym and a colour which is used to identify them for analysis purposes. The pseudonyms were chosen to be gender neutral.

Table 10: Distribution of participants across apprenticeship delivery phases

id	Sep 2017-8	Jan	May	Sep 2018-9	Jan	May	Sep 2019-20	Jan	May
Alex									
Ashley									
Aubrey									
Charlie									
Riley									
Jordan									
Lee									
Pat									
Sam									
PHASE 1									
PHASE 2									

Table 11: Distribution of participants across non-apprenticeship delivery phases

id	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2017	2018	2019	2020
Alex																		
Ashley																		
Aubrey																		
Charlie																		
Riley																		
Jordan																		
Lee																		
Pat																		
Sam																		
PHASE 1																		
PHASE 2																		

4.1.7.3 Methodology Step 3: Design of the Research Tool

Critical realist research aims to gather in-depth information to explain phenomena (Bhaskar, 1975). The phenomenon under investigation was the change in academic autonomy experienced in apprenticeship delivery. While not tied to approaches, critical realist research methods necessitate the collection of information-rich data which points to use of qualitative research methods. Observation would not have been be appropriate as the causal structures and mechanisms under investigation were unobservable. Blaikie (2010, p91) noted that the "basic access to any social world is the accounts that people can give of their own actions and the actions of others". In-depth interviews (as opposed to qualitative questionnaires) are considered to be the preferred method for realists of gathering the rich data required (Wynn and Williams, 2012; Brönnimann, 2022).

For the thesis, semi-structured interviews were chosen as the research tool as these, struck a compromise between a tightly structured interview and asking the participant to provide an account with no constraints. A tightly structured interview would potentially have taken less time to conduct and transcribe. However, participants might have felt restricted to answering the set questions which may have reduced the richness of the data. On the other hand, asking the participants to give an account without

direction might have resulted in lengthy sessions leading to unmanageable amounts of unstructured data. It would also mean that only themes known to be important would be explored.

The purpose of having a semi-structured interview was to steer the academic account without constraining it. Silverman, (2006) suggested that to improve reliability, there should be standardisation of all processes used in the research. For this purpose, the interview had a standardised structure and a set of standard questions. The semi-structured nature meant that additional probing questions could be used to facilitate dialogue and uncover further insights (Conaty, 2021). The use of open questions was considered imperative and careful consideration was given to their content to ensure that while key themes were explored, there was opportunity for broader exploration of ideas. With this in mind, the stance which Blaikie (2010, p52) calls "dialogic facilitator" was taken. In this stance, although I guided the dialogue, my "authorial bias [was minimised] by letting the natives speak for themselves" Fontana (1994, p214). This stance supported the involvement of research participants in the creation of knowledge while providing a level of standardisation to improve reliability.

Unlike positivist approaches, CR does not seek explanations based on empirical data relating to events. Instead, critical realist researchers aim to gather perceptions from participants relating to their real experiences (Wynn and Williams, 2012). Brönnimann (2022) suggested the use of 'Why?' and 'How?' questions to encourage participants to evaluate why things happened and how they as academics were impacted, rather than using a 'What?' question which would potentially lead to an empirical description of an event. The interview was structured by taking each of the research questions in turn (considering each layer of autonomy separately for question one) and crafting interview questions related to each research question for each delivery mode.

I initially intended to use semi-structured interviews for both research questions. However, research question 2 involved gaining an impression of the *habitus* and capital accrued by each academic on their journey to their current position. With this in mind and given the many different pathways that could lead to academia, the Biographical

Narrative Interview Method (BNIM) was used to gather data pertaining to research question 2. This involved the researcher becoming a listener rather than a questioner (Wengraf, 2001). Whereas, the semi-structured interview posed the same questions of all participants, albeit with space for clarification and probing, the biographical narrative invoked a greater level of subjectivity and reduced the possibility of a hegemonic response (Ross and Moore, 2016). The BNIM accounts were not constrained through standard questions, however guidance as to what might be included was provided to ensure a level of commonality for analysis purposes. Owing to the Covid-19 virus, participants were offered the option of virtual or in person interview. This had been previously approved by the university ethics committee.

The research tool was piloted with an academic who had experience of both apprenticeship and non-apprenticeship delivery but who would not be a research participant. The pilot was used to test the proposed format of the session, the efficacy of the questions in gathering the requisite data, and the technology used. The interview was undertaken online using the online communication platform in the environment that was to be used for the research participants who chose an online forum. The dictaphone used to record face to face sessions was also trialled to test the quality of the audio and its functionality. The following were the outcomes of the pilot:

- The technology worked well throughout, with both the online platform and dictaphone providing clear audio.
- I started off the session with a few conversational items designed to create a convivial atmosphere, and to break down any barriers to minimise the perception of threat or judgement. Following discussion with the pilot participant, this had appeared natural and had achieved its aim, The idea was therefore carried forward to the participant data gathering sessions.
- While the biographical narrative was used to gather data for the final question, it had seemed out of place at the end. It provided rich insight into the perception each academic had of their journey and the social factors that shaped it. This would have been useful in setting the scene and it was therefore positioned prior

to the semi-structured interview in the actual participant data gathering sessions.

- The semi-structured interview used in the pilot session had two sets of similar questions, one set for each delivery mode. The intention had been to enable the participants to focus on each delivery mode and to provide separate data relating to apprenticeship and non-apprenticeship delivery. However, in practice, the pilot participant compared the delivery types throughout during the questions relating to the apprenticeship delivery which rendered the second set of questions superfluous. The comparison was useful in terms of the data gathered, and for the research participant interviews, the questions were reworked to produce a single set encouraging participants to make comparisons.
- The biographical narrative and semi-structured interview together were completed in 49 minutes. I felt that I had not probed sufficiently and on listening to the audio file, the data was not as rich as I had hoped. I therefore noted down some probing questions that could be used to improve the data gathering. Discussion is central to the abductive approach and probing would serve to promote this (Conaty, 2021).
- To allow for potential overrun with the addition of probing questions, I decided that it would be prudent to schedule in 90-minute slots for each interview.

The final interview format is shown in Table 12 (page 100) with links to the research questions and layers of autonomy discussed in chapter 1. The full set of interview questions is provided in Appendix E.

Table 12 : Interview format

Background	In this section, you are encouraged to provide a biographical narrative covering your background and what brought you to academia – you will be provided with some loose pointers at the start. **Research question 2**
Your role	There are five questions relating to perceptions of how decisions are made around your role and your development as an academic **Research question 1 (micro layer).**
Management relating to non-apprenticeship and apprenticeship work	There are six questions on your perceptions of award management decisions. For each question, you are asked to consider first your experiences with non-apprenticeship university work and then your experiences with apprenticeship work. **Research question 1 (macro layer).**
Academic practice relating to non-apprenticeship and apprenticeship work	There are six questions on your perceptions of aspects of your academic practice. For each question, you are asked to consider first your experiences with non-apprenticeship university work and then your experiences with apprenticeship work. **Research question (meso layer)**
Summary	There are two final summary questions

4.1.7.4 Methodology Step 4: Data Gathering

As critical realist research requires rich data, the participants were provided with the set of questions at least one week in advance so that they had time to consider their response. By the time of the interviews, academics had been involved in virtual meetings and delivery to the extent that it had become *de rigueur,* and many of the research participants chose this mode for convenience. Virtual interviews enabled participants to choose surroundings where they felt comfortable rather than surroundings chosen by me, which might have contributed to the establishment of an unhelpful hierarchical relationship. The duration of the data gathering sessions ranged from 55 to 92 minutes.

4.1.7.4.1 Epistemic Reflexivity

Epistemic reflexivity supports the abductive process in the development of insight (Oliver, Serovich and Mason, 2005) and is considered vital where researchers are a part of the group being researched (Salö, 2018). While I aimed to negotiate an outsider dimension to my positionality in order to remain detached in the role of dialogic facilitator, the insider dimension inherent in my role could have led to confirmation bias (Kusow, 2003). While the use of standard questions in the semi-structured interview helped to guard against this, I endeavoured to ensure that when probing for further detail, my questioning did not lean towards confirmation of my own views. Four mechanisms impacting academic autonomy were identified in the literature review and their manifestations discussed. To reduce the possibility of confirmation bias relating to these mechanisms and their manifestations, questions relating to these were not asked directly. Instead, the standard questions focussed on decision making and choice in the three layers of autonomy. Probing questions focussed on teasing out comparisons between the two delivery types which was required for analysis.

Throughout the data-collection process, I maintained a reflexive journal. Reflexive journal entries were made immediately following each participant session to chart the complex issues that arose during interviews and to document insights that could be used to provide context and meaning to data during the analysis process. Strengths and weaknesses of the process were considered with a view to improving future sessions. The journal was extensive, and the following presents a particular reflexive moment I

experienced early in the data gathering phase as an example of the usefulness of the reflexive process. Interviewing peers raises the possibility of the lines between researcher and peer becoming blurred during interviews, and has the potential to influence the extent to which the participants are willing to share their views (Hewitt, 2007). This reflexive moment reflects on a scenario noted by Karnieli-Miller, Strier and Pessach (2009), where in the knowledge that the researcher is a peer, research participants bring their own agenda into their session.

During the interview the research participant began to discuss in detail their role of external examiner at another university and how it had changed throughout the last ten years, becoming gradually more onerous. The ensuing discussion though interesting, moved the focus away from the interview question which had sought to probe into the role of regulatory bodies in apprenticeship recruitment decisions. As noted by Karnieli-Miller, Strier and Pessach (2009), there can be a therapeutic dimension to research interviews which offer opportunities for research participants to unload views to a willing listener. The difficulty I experienced during the interview was in deciding whether to interrupt the account and bring the interview back to the focus. I decided not to, but later reviewed this decision reflexively. I concluded that allowing the participant to share their story had proved important in the development of rapport and trust, which in turn was important in the negotiation of positionality. I considered it important to note the strength of the emotion and feeling that had underpinned the story along with any further insights. The story shared presented information which although during the interview appeared unrelated, with the benefit of hindsight provided contextual support for arguments I developed during the analysis phase.

This moment of reflexivity was important as both unloading, and storytelling proved to be recurring features of my research interviews. I acknowledged through the reflexive process that the useful insights that participants might have could not all be predicted in advance and could therefore come from the processes of unloading and storytelling, as well as through probing questions. Reflexivity meant that with each interview, I felt more in control of the unloading and storytelling situations when they reoccurred. Instead of resenting them as time consuming and defocussing activities, I engaged with

them as valued contributions and used the discussions to develop rapport. This understanding potentially improved the richness of the data and its validity through the establishment of trust and illustrates the exploitation of insider knowledge. I recognised the tension between maintaining standardisation for validity purposes and allowing side-tracking in the interests of gathering information-rich data as a risk in terms of producing unmanageable amounts of unstructured data, one of the issues with case studies identified by Yin, (2003). It was countered in the following ways:

- Notes were made during the interview process which could be used if necessary to inform transcription decisions.
- Care was taken with timings to ensure adequate coverage of each question.

The impact of the interview mode (online or fact to face) was considered following each interview and after completion of the data gathering phase. In most cases, participants had chosen to be interviewed in an office, either in their workplace or elsewhere. This helped to retain a level of formality. Where participants were clearly in their home environment, thankfully there were no major interruptions, though this had been anticipated as a risk. Poor connectivity was only an issue in one interview, but the connection was only completely lost once, and the interview restarted with no loss of focus. One interview was conducted face-to-face on request and the nature of this interview matched the online interviews in terms of duration and the richness of data.

4.1.8 Axiology

Axiology defines the ethical framework for the research enquiry including the philosophical approach behind decisions relating to value or worth (Finnis, 1980). The ethical framework design for my thesis was informed by the ethical guidelines for education research published by the British Education Research Association (BERA, 2018) and the university research ethics (Staffordshire University, no date). Adhering to these guidelines ensured that my research practices reflected relevant values and legislation. My thesis involved conducting semi-structured interviews (including a biographical narrative component) with all participants who worked at an English post-1992 university. An ethical consideration in this research was ensuring that the participants understood how their information would be used and disseminated before giving consent. All participants were provided with a participant information form, the

purpose of which was to ensure that the participation had enough information to be able to give their informed consent. Specifically, the form detailed the extent to which anonymity and confidentiality would be afforded and that they could withdraw up to the point when data was aggregated for analysis purposes. Participants were required to sign a consent form agreeing to participate in the research, which would involve the recording of a biographical narrative and semi-structured interview.

A key ethical consideration was ensuring the anonymity of the research participants in line with the statements to this effect on the consent form. For this purpose, the identity of the case study university is not revealed in my thesis, and no information is provided regarding its precise location. Pseudonyms were used for all participants both in their transcript and throughout the report. My thesis is not concerned with personal attributes and relies only on *habitus* and capital which were gleaned from the biographical narrative. I chose gender-neutral pseudonyms and they are not intended to indicate nationality, personality, culture or age. The transcript was cleansed of personal detail that could lead to identification of the participants within quotations. In line with this, whenever a participant pronoun was needed in the analysis chapter, the pronouns 'they, their, them' were used for all participants. These were intended to reflect the gender neutrality of the names rather than a non-binary gender.

Axiology also considers decisions around value, which were important in the analysis and evaluation aspects of critical realist research as it is value laden (Haigh et al., 2019). CR uses abductive reasoning to arrive at explanations based on prior knowledge which can then be retroductively tested to determine the most applicable (Kemp and Holmwood, 2003). The use of abductive reasoning is explained in chapter 5. In my role of researcher, I negotiated an etic stance, though as a lecturer with experience of both academic and apprenticeship work, I had knowledge which could have led to unconscious bias. Throughout the research, I attempted to be objective by placing value on and deriving knowledge from the perceptions of the research participants rather than my own. I used the literature review to provide a more objective view of the status and trend of academic autonomy in HE rather than relying on my own preconceptions. The

processes I used to proactively maintain objectivity are referred to throughout this research.

4.2 Summary

This chapter covered my choice of research paradigm, the approach to reasoning that I employed throughout the research and the assumptions brought by the four views that made up the paradigm. It discussed the use of judgemental rationality necessitated by the combination of ontological realism and epistemological relativism in CR. The role of judgemental rationality was evaluated along with the roles of standardisation, reflexivity, and triangulation in improving credibility.

CHAPTER 5: ANALYSIS AND FINDINGS

5.1 Introduction

In this chapter I discuss the analysis methods used for my thesis and present the findings. The analysis was conducted with a view to answering each of the two research questions separately prior to bringing the findings together in chapter 6. Thematic analysis was used to find patterns in the raw data and derive meaningful themes (Braun et al., 2019; Campbell et al., 2021). LCT was used to support the some of the analyses associated with research question 1 and part of question 2. I developed a top-down methodology for use in the analyses that incorporated LCT. This methodology uses ideas derived from the literature review to determine the codes in conjunction with the theoretical framework to inform the data coding. The top-down analysis methodology is explained below and is followed by the analysis and findings for research question 1. A bottom-up inductive methodology was used to analyse data relating to the parts of research question 2 where codes could not be preordained. Instead, in these analyses, the data codes were allowed to emerge from the data during the analysis process. The bottom-up analysis methodology is explained prior to the analysis and findings associated with research question 2.

5.2 Preparing the Data - Transcription and Familiarisation

Regardless of the analysis methodology, data needs to be prepared. Wellard and McKenna, (2001) noted that the process of transcription has the potential to impact the integrity of the data. As the analyses were based on the perceptions of participants it was vital to ensure that the transcripts accurately represented the dialogue from the participant sessions. I considered using a software package or organisation to provide the transcripts. However, on experimenting with a transcription package, various errors were found. For example, the term 'KSBs' (a commonly used apprenticeship acronym for Knowledge, Skills, and Behaviours) was transcribed as "chaos bees". This error demonstrated the possibility of inaccuracy, and the importance of the transcriber having knowledge of the terminology associated with the research. I therefore opted to

transcribe the participant sessions myself. Transcript headers were created with the following detail:

- Participant pseudonym
- Date and time
- Duration of the session
- Context (Online/Face to face)

The audio recordings were found to be of high quality, however, there was a tendency for some participants to mumble. On the occasions where words were initially unclear, the recording was replayed as many times as required to interpret jumbled speech. Once a session had been fully transcribed, it was then replayed in full for verification purposes. I used my reflexive journal during the verification process to add further annotation to the transcript where necessary. This attention to detail added time to the transcription process, but it brought with it an accuracy and elaboration that could not be guaranteed if the transcription had been outsourced. An unexpected benefit was that the process of transcribing brought me closer to the data.

Poland, (2002, p270) points out that “the concept of ‘sentence’ does not translate well into oral tradition”. I found that judgement was required in terms of punctuation but being the only transcriber, I was able to standardise representation using conventions suggested by other researchers (Altheide and Johnson, 1994; Poland, 2002). Commas and ellipses were used to indicate pauses, and full stops to indicate breaks. Additionally, where it was felt that the underlying emotion or tone was important to the meaning of the phrase (for example, strength of feeling, irony, mimicking or comedic intent), the transcript was annotated using square brackets. Where participants were quoting others, speech marks were used. Laughing was transcribed phonetically as “hahaha” and ‘pausing for thought’ noises such as “uh” or “mmm” were also written phonetically. Words were transcribed verbatim with grammatical errors, contractions and dialect left unchanged. This detail added to the authenticity of the transcript (Altheide and Johnson, 1994).

In addition to the transcribed content, the speaker (either myself as the interviewer or the participant) was indicated prior to what was spoken. Following verification, for analysis purposes, I created a copy of each transcript in which I modified data that could

potentially have identified the participant. For example, where participants mentioned the university from which they graduated, this was replaced by the type of university e.g., Russell Group or post-1992. These descriptions were put in square brackets to indicate that they were annotations rather than transcribed speech. This ensured that annotations would not be included accidently as participant quotations.

5.3 The Top-Down Analysis Methodology

CR emphasises abductive reasoning to generate themes followed by retroduction to (Danemark *et al.*, 1997; Olsen, 2010; Fletcher, 2017; Vincent and O'Mahoney, 2018). Retroduction involves consideration of the generated themes together with theory to determine the most likely explanation of the findings. My top-down analysis methodology uses three steps adapted from Thompson (2022) which are supported by detail from other sources (Timmermans and Tavory 2012; Tavory and Timmermans 2014; Rinehart 2021). Steps 1 and 2 are associated with abduction while step 3 is associated with retroduction. The three steps are as follows and are explained in detail in the sections below:

- Analysis step 1: Coding
- Analysis step 2: Theme Development
- Analysis step 3: Theorising

Top-Down Analysis Step 1: Coding

Saldaña (2015, p3-4) defines the term 'code' as "a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data". The unit of analysis for this thesis was either a single participant statement or a group of related statements. The data coding process in my top-down analysis methodology involved integrating the research question, findings from the literature review and my theoretical framework to create a hierarchical coding structure.

NVivo, a software package for qualitative data analysis, was used to support the coding process. I chose to use NVivo rather than coding by hand as it provides a digital version

of what could be achieved in hard copy. The added benefits of this were that data could be electronically searched, aggregated and represented in many different ways. In line with the top-down approach to analysis, the data coding structure was pre-ordained based on the requirements of the research question. Research question 1 was stated as follows:

> How, and to what extent do computer science academics perceive that academic autonomy is impacted in the context of apprenticeship programmes compared with non-apprenticeship courses in a university setting?

The research question above was tailored to each of the three layers of autonomy identified in chapter 1. For example, for the Institutional (macro) layer the tailored version of the question was:

> How, and to what extent do computer science academics perceive that academic autonomy in the institutional layer is impacted in the context of apprenticeship programmes compared with non-apprenticeship courses in a university setting?

For each of the three layers of autonomy identified in chapter 1, hierarchic coding structures were established in NVivo with the overarching codes reflecting the layers of autonomy under consideration, institutional (macro), role-based (meso) and personal (micro). Each delivery type (apprenticeship and non-apprenticeship) would be considered for each layer. Therefore, beneath each overarching layer code, higher-order codes, for delivery types were added to represent apprenticeship and non-apprenticeship delivery.

The LCT Autonomy Dimension was introduced in chapter 3 and considers the autonomy of fields in terms of constituents and relations. Constituents can be actors, ideas, objects, or artefacts. Relations are processes, ways of working, mechanisms, or rules. Constituents are linked to an aspect of autonomy termed positional autonomy (PA) and relations are linked to relational autonomy (RA), (Maton and Howard, 2018, 2021). These terms are defined below:

- **Positional Autonomy** (PA) is concerned with the level of insulation between constituents positioned within the field of consideration and those in other fields.

- **Relational Autonomy** (RA) is concerned with the strength of the relations among constituents within the field of consideration compared with relations with constituents of another field.

The field of consideration in my thesis is HE. The 'chasm' is a metaphor introduced in chapter 1 to represent the extent to which the field of HE is isolated from other fields, notably the Employment field and the Regulatory field. Figure 9 (below) symbolises the researcher taking the participants into the chasm to determine their perceptions of the impact of the post-2015 apprenticeship programmes on the layers of academic autonomy through their perceptions of PA and RA in apprenticeship delivery compared with non-apprenticeship delivery within the field of HE. The PARAchute (deliberate capitalisation) provides an *aide memoire* for the LCT terms positional (PA) and relational autonomy (RA).The potential for diversity of perception owing to the difference in refraction coefficient (Bourdieu, 1993), is symbolised by the different colours in the chute.

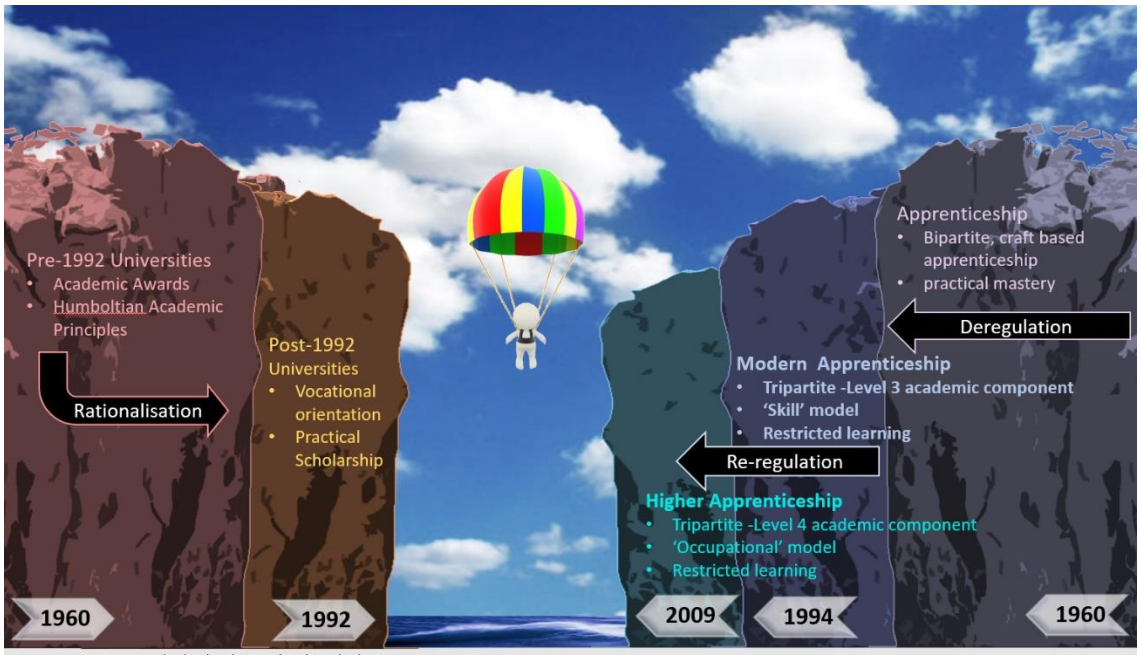


Figure 9: A symbolic representation - The researcher PARAchutes the participants into the chasm.

Constituents (PA) and relations (RA) for each layer of academic autonomy relating to HE were derived from the research in the introductory chapter together with the literature review. These reflect the identified manifestations of reduced autonomy in each layer. While recognising that the causes and mechanisms resulting in these phenomena may have changed, they provide a primary focus for the analysis. PA and RA are shown for each layer in Table 13 (page 111).

Table 13: Showing the constituents and relations identified for each layer (see also Table 1)

Autonomy layer	PA Constituents	RA Relations
Institutional	Purpose and value	Roles and relationships
Role-based	Curriculum content	Pedagogy and monitoring processes
Personal	Management style and decision-making processes	Personal choice

For each layer, PA and RA can be translated into autonomy codes using a translation device to bridge the discursive gap between the empirical data from the transcripts and autonomy codes. This process is described in the following paragraphs.

Figure 10 (below) shows the format of a generic translation device. The levels in the translation device facilitate an "infinite capacity for gradation" (Maton and Howard, 2018, p8). The translation device used in this thesis is taken to three levels with each level allowing for more precise definitions of strength or weakness for PA and RA in the data against accepted (*target*) values in the field of consideration. The measure of strength or weakness in PA and RA is called an 'autonomy code'. Each autonomy code may be stronger (+) or weaker (−) along a continuum, in this case from +4 to -4, where stronger indicates greater insulation of the target and weaker indicates lesser insulation. The cells of the generic translation device can be populated with descriptions that enable a researcher to systematically translate participant statements from transcribed interviews into autonomy codes. Separate devices are needed for PA and RA. The use of italics for the names of the different positions at each level is an LCT convention that I also use in this thesis.

PA/RA	1st level	2nd level	3rd level
+ ▲	*target*	*core*	*inner*
			outer
		ancillary	*inner*
			outer
	non-target	*associated*	*near*
			remote
		unassociated	*near*
▼ −			*remote*

Figure 10: Generic translation device for positional or relational autonomy (Maton and Howard, 2018 p10)

The first level of the translation device is split into two sections namely *target* and *non-target* with the *target* values representing stronger insulation. In creating each translation device for this thesis, the first step was to define the *target* values for PA and RA for each layer of autonomy. The thesis was looking for reductions in academic autonomy when working on apprenticeship programmes. Therefore, to facilitate comparison, the *target* values were those associated with non-apprenticeship university values. A broad specification of the *target* in each layer was derived from literature. However, the interpretation of these non-apprenticeship values is unique to an individual university context. To ascertain the reductions in academic autonomy in the case study, the *target* values needed to reflect the academic values in that specific context rather than generally. The specific nature of the *target* was determined using participant data in conjunction with the findings of the literature review. As discussed in chapter 4 all participants were involved with both non-apprenticeship courses and apprenticeship programmes, and during their interviews they frequently made comparisons between their delivery experiences. From these comparisons, it was possible to determine for each layer of autonomy, what type of values for the constituents and relations, the participants generally considered to be associated with HE in the context of non-apprenticeship university work and other values that were considered to be alien to this.

Firstly, the comparison statements relating to a specific autonomy layer were identified by iteratively moving back and forth between the comparison statements and the values for PA and RA chosen to underpin the analysis in that layer. The comparison statements identified from all participant transcripts were then placed under both higher order codes (*target* and *non-target*). Each statement was then pruned to take off the opposing element (i.e., by removing the *non-target* element of comparison statements under the *target* delivery code and *vice-versa*). Using these statements, the *target* and *non-target* values were contextualised for each layer of autonomy.

Once the *target* was identified, analysis questions for PA and RA were crafted using the designated constituents and relations. For example, for the institutional layer of autonomy, the PA analysis question would be:

Do the participants perceive that their purpose and the value proposition of their learners is in line with the target or non-target position?

The constituents and relations, and their associated analysis questions for PA and RA in each layer of autonomy are documented in this chapter prior to the presentation of the analysis and findings for each layer. To aid the allocation of Autonomy codes to statements, specific analysis pointers were derived from the theoretical framework. For example, for the PA Analysis question in the institutional layer (see above) one of the specific analysis pointers was:

Specific analysis pointers		***Target (PA+)***	***Non-target (PA-)***
SD-Logic	**Axiom 1**	Education is viewed as an experience	Education is viewed as a product

This was derived from S-D logic as part of the theoretical framework. The specific analysis pointers including the above were used to underpin the analysis of PA in the institutional layer by providing examples of the types of statements that could be considered target or non-target PA for the translation device.

The translation devices were extended to three levels using the analysis questions and specific analysis pointers with the transcribed data and modified iteratively throughout the coding process. The final translation devices for PA and RA in each layer of autonomy contain example statements from transcripts for each Autonomy code. Once the coding was considered complete, I reviewed all autonomy codes for all participants against the final versions of the translation devices to ensure consistency and improve the reliability of the findings (Maton & Chen, 2016). Alongside the coding process, as the translation devices developed, their structure was reflected through further depth of coding in NVivo. A section of NVivo code structure is shown on page 116. The coding is related to the levels of the translation device for PA in the institutional layer (see Table 16 on p123). The link is shown in the example below with the prefix TDL1 for translation device level 1 and so on. Using NVivo it was possible to review all units of analysis that were ascribed a particular higher-order sub-code (Level 1) and where possible move them to appropriate medium-order-codes (Level 2) and then potentially to medium-order sub-

codes (Level 3). The example descriptions in square brackets are taken from the translation device for the Institutional layer in Table 16 (page 123).

OVERARCHING CODE: [AUTONOMY LAYER: Institutional]
HIGHER-ORDER CODE: [DELIVERY TYPE: Apprenticeship]
TDL1: HIGHER-ORDER SUB-CODE: [HIGHER-ORDER CODE: Academic values]
TDL2: MEDIUM-ORDER-CODE: [PA: Providing an educational experience …]
TDL3: MEDIUM-ORDER SUB-CODE: [+4 Lifelong learning/Research.]
TDL3: MEDIUM-ORDER SUB-CODE: [+3 Academic skills]
TDL2: MEDIUM-ORDER -CODE: [PA: Providing skills that increase employ...]
TDL3: MEDIUM-ORDER SUB-CODE: [+2 Employability and academic…]
TDL3: MEDIUM-ORDER SUB-CODE [+1 Practical application…]

Top-Down Analysis Step 2: Theme development

The purpose of themes is to bring related codes together and, LCT was used to facilitate this through the visualisations it provided of the data. Using LCT, PA and RA are drawn as perpendicular axes to form an autonomy plane with four named quadrants as shown in Figure 11 (page 115). There are four sets of generic autonomy codes, one for each of the four quadrants on the plane. Like the constituents and relations for each layer of autonomy, the meaning of the quadrants is specific to each layer of autonomy and as such will be explained with the findings in each layer. The generic meaning of the quadrants is described below.

- *Sovereign* codes (PA+, RA+): This quadrant denotes strong insulation of the HE field in terms of both its constituents and relations.
- *Exotic* codes (PA-, RA-): This quadrant denotes week insulation of the HE field in terms of both its constituents and relations.
- *Projected* codes (PA+, RA-): This quadrant denotes strong insulation of the HE field in terms of its constituents but weak insulation in terms of its relations.
- *Introjected* codes (PA-, RA+): This quadrant denotes weak insulation of the HE field in terms of its constituents but strong insulation in terms of its relations.

The italics used in the names of the quadrants are an LCT convention that is also used in this thesis.

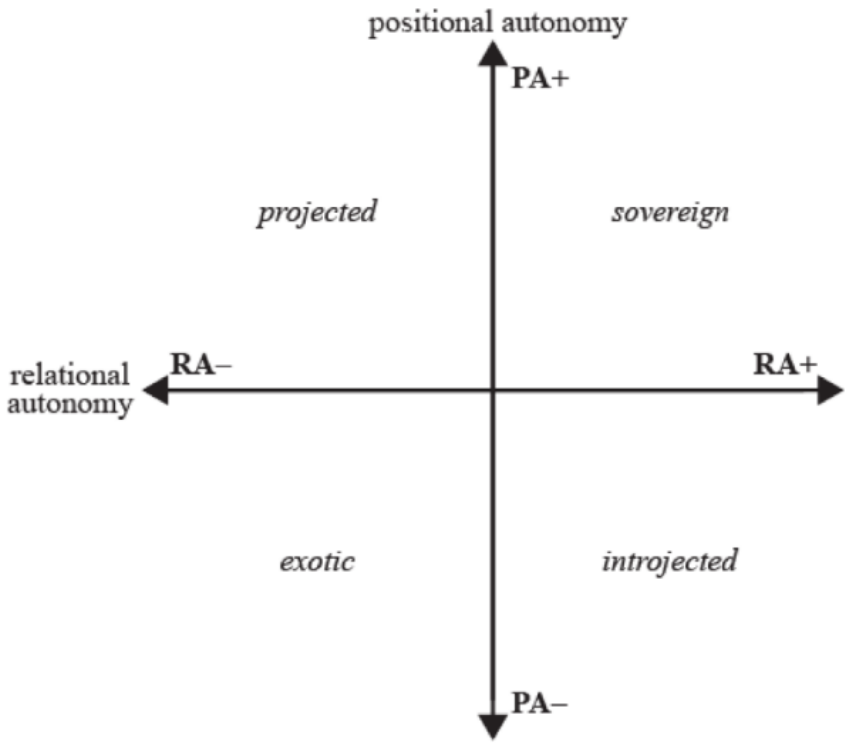


Figure 11: The autonomy plane (taken from Maton and Howard, 2018, p6)

The relationship between the Chasm and the autonomy plane is depicted loosely in Figure 12 (below).

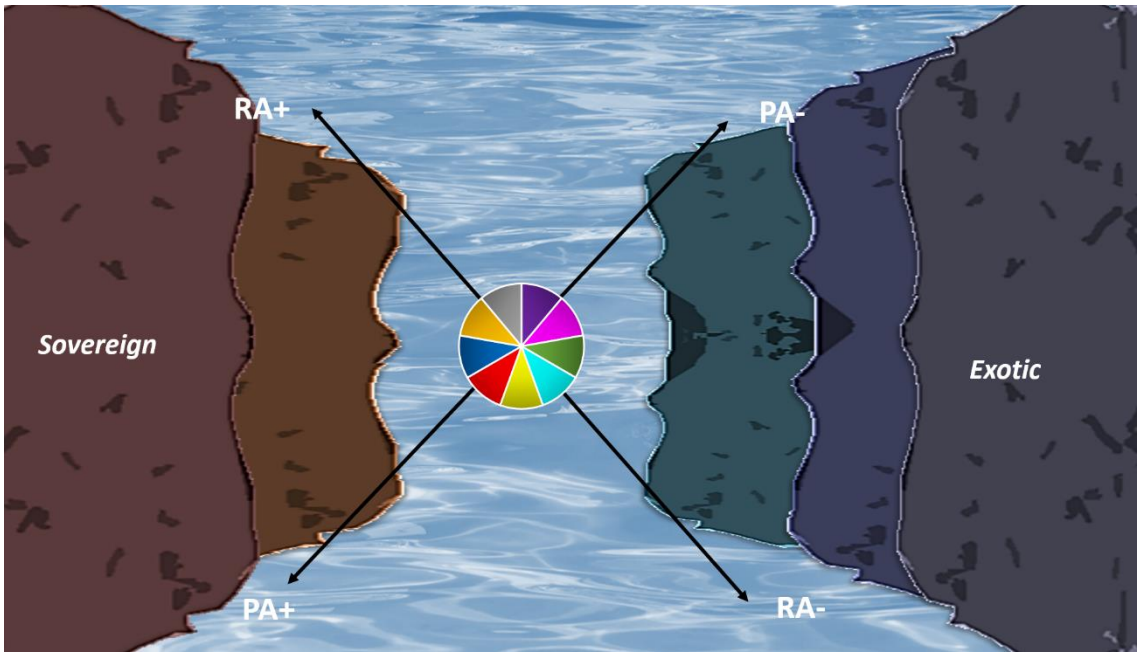


Figure 12: Symbolic representation of the chasm with the autonomy plane

In the transcripts there were several statements relating to PA and/or RA for a given participant and, in some cases, these statements reflected different strengths of opinion. In these cases, it was necessary to choose a statement to represent the view of the participant to derive the autonomy code. Statements relating to PA and RA were used to broadly placed a participant in a quadrant and from there it was necessary to review the statements to determine where in the quadrant to place the participant. I decided to use the statements reflecting the greatest degree of strength or weakness for the visualisations to reflect the most polarised viewpoint of each participant. The reasoning behind this is as follows. Firstly, there would be consistency in approach. Secondly, on reviewing transcripts, in many cases I had annotated these polarised statements with comments reflecting that importance had been placed on them by the participant during the interview. Where this was not the case, there were a number of statements underpinning the polarised view and more than one statement aligned to it. While an algorithm could have been designed to calculate an average autonomy code a participant, this may not have been reflected in any of the actual statements made by for the participant making it difficult to interpret the reasons behind their position.

Decisions made during the abductive coding were based solely on my views and were therefore subject to researcher bias (Bourdieu and Wacquant, 1992). Silverman, (2006, p288) noted that reliability could be improved by “comparing analysis of the same data by several observers”. To mitigate against researcher bias, the coding was reviewed by a fellow researcher with knowledge of the conceptual framework. This validation process involved firstly providing the researcher with highlighted excerpts from the transcripts together with the translation devices and inviting them to allocate codes. Where there was a difference of opinion, there was a discussion leading to agreement. Secondly, the researcher was asked to verify whether the highlighted excerpts were supported by other statements within the transcripts to prevent inappropriate code allocations resulting from phrases being taken out of context (Guest, MacQueen and Namey, 2012).

The translation devices used for the thesis each were taken to three levels meaning that there were sixteen possible positions within each quadrant and a total of sixty-four

positions on the autonomy plane of four quadrants as shown in Figure 13 (below). Having sixteen possible positions within each quadrant meant that differences in perceptions of academic autonomy within the quadrant can be discerned. The code positions are shown as dots; however, it should be noted that each dot represents the whole of the square that it is placed in. The labels in Figure 13 provide examples of autonomy codes for PA and RA and the resulting positioning on the plane. LCT uses specific terminology to discuss the change in participant positioning within and between quadrants. This terminology is presented below and as with other LCT terms is written in italics.

- *Autonomy drift* – movement within a quadrant
- *Autonomy shift* – movement between quadrants
- *Autonomy tour* – a movement back and forth or between several quadrants (Maton and Howard, 2018)

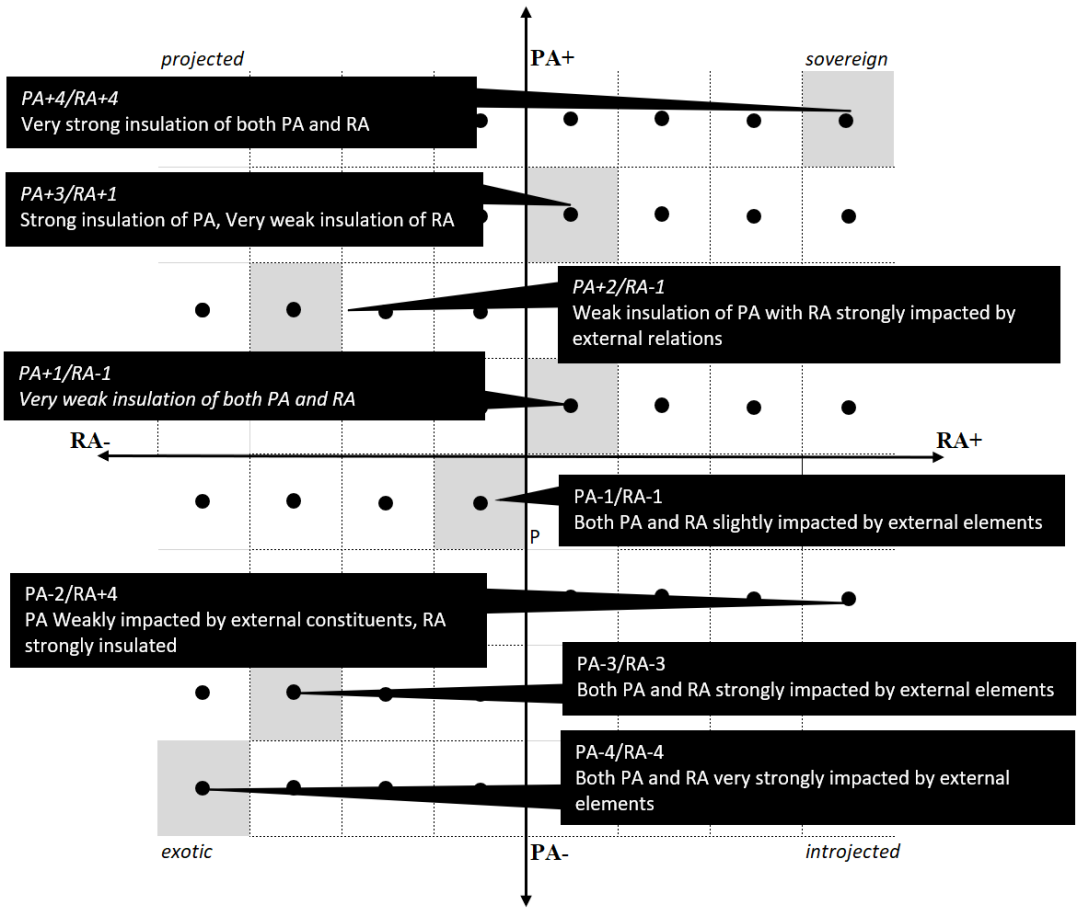


Figure 13: Showing possible code positions and meaning.

The analysis steps described incorporating the use of analysis questions, the abductive method used to create the translation devices and the use of the autonomy plane to provide a thematic visualisation of the data were piloted for research question one (meso layer) with data from the pilot study. The meso layer was chosen for the pilot as it was the area where I was most comfortable with the underlying theory and my own experience in the field. The initial findings were presented at an online roundtable event on April 1st 2021, (LCTCentre, no date) hosted by the LCT centre for Knowledge Building on and chaired by Karl Maton, the creator of LCT. The pilot was useful as it helped to me to familiarise myself with all aspects of the analysis and resulted in useful feedback on the translation device.

Top-Down Analysis Step 3: Theorising

The visualisations provided insights into perceived changes of autonomy from which potential mechanisms could be derived. The visualisations were reviewed alongside the transcribed data. Retroductive reasoning was used to "discover underlying mechanisms that, in particular contexts, explain observed regularities", (Blaikie ,2010 p87). Meyer and Lunnay (2012) state that retroduction "provokes the researcher to identify the circumstance without which (the hypothesised mechanism) cannot exist". The aim is to put forward the most likely mechanism given the context and data. To this end, counterfactual thinking was used to inform the analyses by seeking to answer questions such as:

> "Why do the data suggest that this structure/mechanism exists?
> Why do the data suggest it has these qualities?
> Can the assumptions about the structure/mechanism be reformed to make additional or more detailed claims that are still consistent with the experiences that informed the data? ", (Based on wording in Olsen, 2007)

The retroductive process triangulated the abductive findings with the theoretical framework and used the objective reality presented in the literature review for comparison where appropriate. Figure 14 (page 119) shows how abduction and retroduction worked together to fully explore each research question.

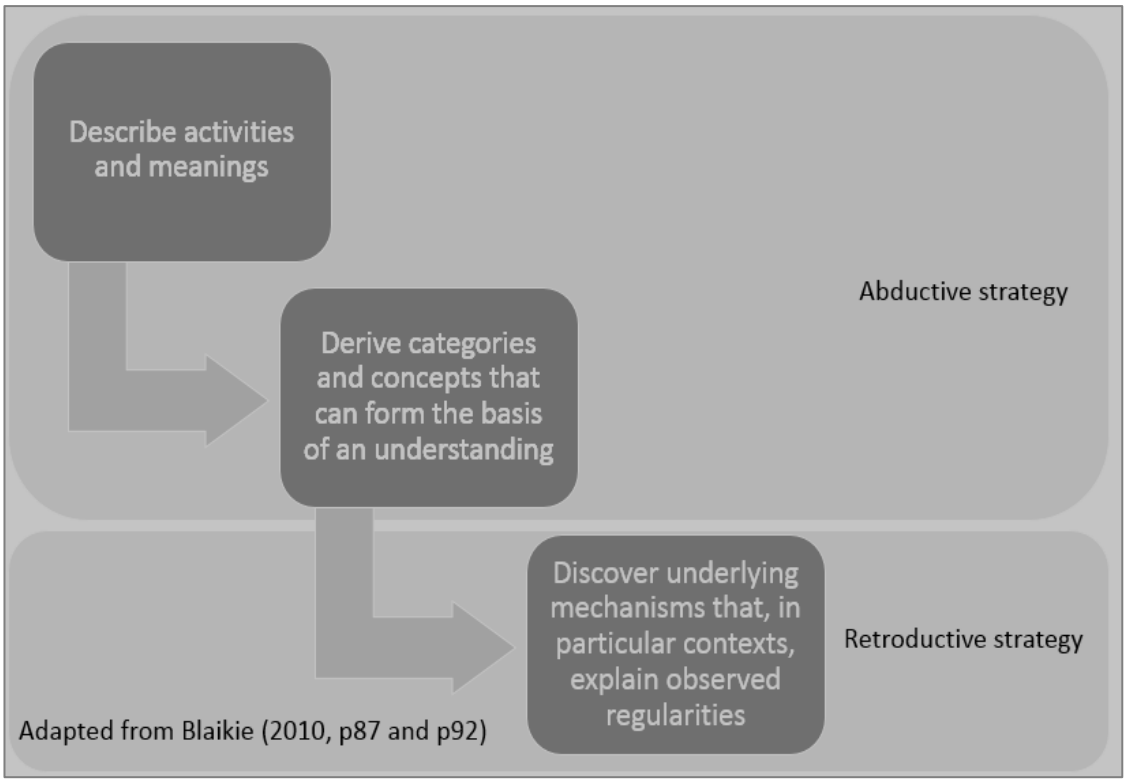


Figure 14: How abduction and retroduction work together to answer the research questions.

5.4 Analysis and Findings: Research Question One

Research Question 1: How, and to what extent do computer science academics perceive that academic autonomy is impacted in the context of apprenticeship programmes compared with non-apprenticeship courses in a university setting?

The analysis relating to this question was split into three separate analyses in order to investigate academic autonomy in the macro, meso and micro layers individually. The three analyses are presented separately and are then brought together to provide an overall answer to research question 1.

5.4.1 Perceptions of Academic Autonomy in the Macro Layer

This section explores the perceptions of academic autonomy at the macro level by discerning the extent to which the HE field is insulated from the influence of other fields in the context of the case study. Prior to the introduction of university apprenticeship programmes, the literature review found that autonomy in this layer had been reduced. The findings from the literature review suggested that this reduction was driven by a need for efficiency leading to government policies that promoted massification of the HE provision. Marketisation was the mechanism through which massification was achieved. In terms of academic autonomy, marketisation was found to have impacted the purpose and values of universities and the roles and relationships experienced by their academics. The mechanisms leading to reduced academic autonomy in each level and the timeline of these are summarised in Table 2 (page 40).

Based on the findings of the literature review, and thematic analysis of the transcribed data, the development of the translation device for the institutional layer of autonomy was informed by S-D logic which was presented as part of the theoretical framework (chapter 3). When reviewing the transcripts of the semi-structured interviews, it became clear that the participants had very little direct experience of the strength or weakness of the insulation around the HE field at the case study university. Their experience was therefore based on their interactions with their learners as well as what they directly experienced. Their activities in endeavouring to provide value for the learners, and the relationships they developed with the learners reflected the learner expectations of

their course and of the participants in terms of their role. This was reflected through the participants' perceptions. PA and RA for the macro layer from table 13 (page 111) are:

- PA constituents – Purpose and value.
- RA relations: Roles and relationships

Analysis questions for PA and RA were derived from research question one relating to the macro layer. The theoretical framework was used to provide specific analysis pointers for recognising statements relating to PA and RA in the transcripts. Table 14 (below) shows the constituents discerned from literature, the PA analysis question, and specific analysis pointers drawn from the theoretical framework showing the perspectives that were considered to be *target* and *non-target.* It should be noted that throughout this chapter for ease of reference I use the following colours in table headers to denote PA and RA.

PA -Positional Autonomy

RA -Relational Autonomy

Table 14: Analysis information for positional autonomy in the institutional layer.

Constituents: Purpose and Values **PA Analysis question**: Do the participants perceive that their purpose and the value proposition of their learners is in line with the target or non-target position?			
Specific analysis pointers		***Target (PA+)***	***Non-target (PA-)***
SD-Logic	**Axiom 1**	Education is viewed as an experience	Education is viewed as a product
	Axiom 4	Value proposition emanates from academic values	Value Proposition emanates from workplace requirements and employer values
	Axiom 2	Value is placed in knowledge discovery and lifelong learning	Value is placed in current/niche technical certification

Table 15 (page 122) shows the relations, the RA analysis question based on the relations, and specific analysis pointers drawn from the theoretical framework showing the perspectives that were considered to be *target* and *non-target* based on literature and comparison data from the participant transcripts. These details informed the development of the translation devices for PA and RA in tables 16 and 17 (pages 123

and 124 respectively). The translation devices show the guidance from the theoretical framework used to translate statements in the participant transcripts into autonomy codes together with sample statements from the transcripts aligned to each code. Links between this translation device and the NVivo coding structure are explained on pages 113 and 114.

Table 15: Analysis information for relational autonomy in the institutional layer

Relations: Roles and Relationships **RA Analysis question**: Do the participants perceive that the roles and relationships developed with learners are in line with or outside of those germane to a university lecturer?			
Specific analysis pointers		***Target (RA+)***	***Non-target (RA-)***
SD-Logic	**Axiom 2**	Learners and academics are co-creators of the learning experience with academics as learning facilitators	Academics find themselves acting as teachers and/or trainers of practical competences

Table 16:Translation Device - Institutional Layer: Positional Autonomy (PA)

	1st Level	For this thesis	2nd Level	Characterised by lecturer	3rd Level	Elaborated by value in	Sample participant statements
PA + -	***Target***	Academic Values	***Core* (++)**	Providing an educational experience valuing lifelong learning skills	***Inner* (+4)**	Lifelong learning/Research	*"In a traditional role inspiring students to find out more is part of that process"*
					***Outer* (+3)**	Academic skills	*"I love trying to help people make the most of and improve the academic skills they've got ".*
			***Ancillary* (+)**	Providing skills that increase employability	***Inner* (+2)**	Employability and academic qualifications	*"We should be trying to get the students to work independently self- time manage, self-regulate - building up graduate skills, employability skills, all this type of stuff"*
					***Outer* (+1)**	Practical application of academic knowledge in class	*"I recommend [to my learners] … that practical application is important – I see it as important to develop academic skills"*
	Non-target	Other Values	***Associated* (-)**	Providing industry knowledge and skills	***Near* (-1)**	Empathy with learners' work commitments and help to recontextualise the academic work	*"I talked to them really, and linked up with them in a work sense...I think they feel that you've got more empathy"*
					***Remote* (-2)**	Technical skills and industry knowledge	*"I've got an understanding of the technical skills required in the commercial sector… they learn by doing as opposed to researching"*
			***Unassociated* (--)**	Providing niche skills related to specific employment contexts	***Near* (-3)**	Up-to-date technical experience	*"You get people on the award that potentially know quite a bit about the subject matter when they start and so the person delivering it has got to be on their toes"*
					***Remote* (-4)**	Niche technical skills for technical certification	*"I recommend [to my learners] … that technical certification is important"*

Table 17: Translation Device - Institutional Layer: Relational Autonomy (RA)

	1st Level	For this thesis	2nd Level	Characterised by	3rd Level	Elaborated by	Sample participant statements
RA **+** ↕ **-**	***Target***	Motivated by academic purpose	***Core*** **(++)**	Learning facilitators of academic activities	***Inner*** ***(+4)***	Providing inspiration to learners to become co-creators of their learning experience	*"It's a joy for me, so […] inspiring students is part of that process"*
					Outer ***(+3)***	Pushing learners to learn for themselves	*".... students may not like having to think for themselves but it's a necessary part of their learning,"*
			Ancillary **(+)**	Lecturers providing guidance and support for learning	***Inner*** ***(+2)***	Providing academic guidance	*"I coax them into doing reflection and analysis – these are important academic skills"*
					Outer ***(+1)***	Providing mentoring (pastoral) support expected/required	*"So… that's how I saw my role… trying to support people".*
	Non-target	Motivated by customer/ consumer purpose	***Associated*** **(-)**	Lectures teaching – emphasis on journey	***Near*** ***(-1)***	Using formal teaching methods, 1-2-1 support, formative reviews/plan of action expected/needed	*"...the apprenticeship teacher… and I'm using that word 'teacher' specifically …"*
					Remote ***(-2)***	Receiving complaints about service	*"... [a senior manager] has heard something from a student of mine and […] people who are looking after the programs and courses said … listen to our customers i.e., …take their orders"*
			Unassociated ***(--)***	Lecturers coaching to assessment – emphasis on end result	***Near*** ***(-3)***	Coaching to assessment expected	*"You need to be a bit more handholding […] and a bit more supportive when it comes to assignments"*
					Remote ***(-4)***	Receiving complaints about outcome	*"They got 50% [...] and they want to improve it and to try to complain!*

From the translation devices, autonomy codes located in the *sovereign* quadrant (PA+, RA+), would reflect perceptions that learners valourised knowledge discovery and lifelong learning, and expected to be actively involved in the co-creation of value during their learning experience. Participants whose autonomy codes are positioned here characterised their role in delivery as that of learning facilitator. Conversely, code values located in the *exotic* quadrant (PA-, RA-) would represent ideals that are more aligned with external values, characterising learners as consumers of a learning product. Participants whose autonomy codes are positioned here found they were expected to teach material required to pass a modular unit and noted consumer behaviour and/or expectations in learners such as complaints relating to expectations around service or outcome. The *projected* quadrant (PA+, RA-) would house codes where education was viewed as a service, but academics found their role tended towards teaching while codes located in the *introjected* quadrant (PA-, RA+) would represent perceptions that learning was considered a product with academics required to facilitate its consumption. In colloquial terms, this is known as 'spoon feeding'.

Figure 15 (page 126) shows the autonomy codes for non-apprenticeship course and apprenticeship programme delivery plotted on the autonomy plane depicting the locations of participant codes based on their perceptions. Each participant was allocated a colour during the research design, (chapter 4) and a key is provided to distinguish the participant code positions. The distribution of the participant code locations indicates the spread of perceptions providing data source triangulation. The possible reasons behind the difference in participant code locations are considered in the analysis relating to research question two which looks for commonalities in academic background and perception and any link between background and perception of autonomy.

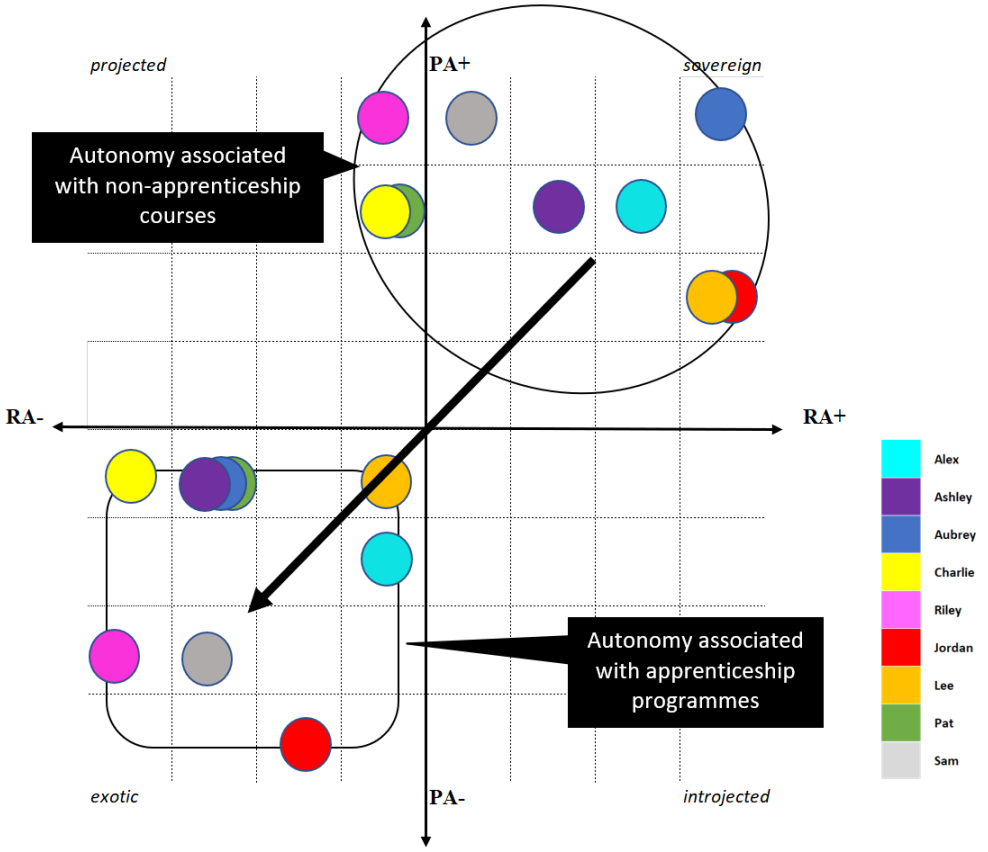


Figure 15: Visualisation* of changes *to institutional academic autonomy

5.4.1.1 Institutional Autonomy Associated with Non-apprenticeship Work.

While six participants' codes are positioned in the *sovereign* quadrant, one (Sam) is positioned close to the *projected* quadrant (RA+1) and the three remaining (Riley, Pat and Charlie) are positioned just inside the *projected* quadrant (RA-1). No participants were located in the introjected or exotic quadrants (all had PA+ codes). This indicates that taken as a whole, the perception of the participants was that at the institutional layer, academic autonomy was insulated from external influences during non-apprenticeship delivery but that the insulation was weak. This is discussed in more depth in the following sections and augmented with participant quotations.

5.4.1.1.1 Positional Autonomy: Purpose and Values (Non-apprenticeship)

Naidoo and Williams, (2015) noted that the application of neoliberal market principles to HE had the potential to alter its purpose and values. In their non-apprenticeship work, taken superficially, all nine participants perceived that academic values were insulated

from external influences (*target* PA). However, on refining the analysis and utilising the second and third levels of the translation device, two of the nine participants (Lee and Jordan), had lower values of PA (PA+2) indicating perceptions of weaker positional autonomy. Lee (PA+2) noted that:

> "full-time [non-apprenticeship] students […], more so in recent years have come into the university to do a university course but actually want the university to give them a piece of paper".

This suggests that non-apprenticeship learners appeared to be placing value in their academic qualification rather than the journey. This could be interpreted as the learners increasingly recognising the value of academic qualifications in employability terms. While discussing the value proposition for non-apprentices, Jordan (PA+2) recognised that the perception of value of the qualification could be relayed from parents. They explained:

> "The traditional students, 18 years old, they're just there because their parents want them to …to get a degree at a university […]".

5.4.1.1.2 Relational Autonomy: Roles and Relationships (Non-apprenticeship)

In terms of academic roles and the relationship with learners (RA), perceptions varied with some (Pat, Charlie, and Riley) experiencing weaker insulation from external influences.

Lee (RA+4, target) commented:

> "they're mature adults who can make their own decisions and learn for themselves ... I need to give them freedom in the non-apprenticeship university classroom to self-empower".

This emphasises that Lee's perception of their role in teaching non-apprenticeship learners was that of learning facilitator (*target* RA). Aubrey (RA+4, target) also supported this view commenting:

> "… students may not like having to think for themselves but it's a necessary part of their learning".

However, Riley (RA-1, *non-target*) characterised themselves as a teacher in their delivery of non-apprenticeship courses stating:

> "a [non-apprenticeship] student … they ask and then I answer so it's just like … so it's more like a teacher [role]"

Charlie (RA-1, *non-target*) found it necessary to chase students who did not turn up to class in a similar fashion to secondary school stating:

> "… if you told me that so and so hasn't turned up for a couple of weeks, they'll get an email from me saying buck your ideas up or there will be ramifications".

These statements suggest that while some academics perceived their role as facilitators of learning and were able to enact this, others found themselves adopting a more teacher-oriented role owing to the institutional expectations and requirements such as attendance monitoring. In terms of underlying structures and mechanisms, this could have resulted from changes that began in phase 1 of the non-apprenticeship delivery timeline (pre-2012) becoming fully established by phase 2 (post 2012). The changes included the establishment of student loans for full tuition fees in 2012, and the start of the NSS together with the institutionalisation of complaints which gave students an anonymous voice and access to an institutionalised complaints process. These changes were in response to the increasingly competitive nature of the HE marketplace that resulted from the move towards a business approach to university management and rationalisation through NPM following the Jarratt report (Jarratt, 1985).

5.4.1.2 Institutional Autonomy in Apprenticeship Programme Delivery

From the autonomy codes for apprenticeship delivery plotted on the autonomy plane, it is immediately noticeable that in terms of both PA and RA, participants perceived that external influences were apparent (*non-target* values), with all locating themselves in the *exotic* quadrant. While some participants are positioned at borders of that quadrant indicating lesser strength of feeling, the movement for each participant's perception in terms of their autonomy codes from their location in non-apprenticeship delivery to apprenticeship delivery (shown by the black arrow in Figure 15) was in the same direction – towards the *exotic* quadrant.

5.4.1.2.1 Positional Autonomy: Purpose and Value (apprenticeship)

In terms of the value proposition, Jordan (PA-4, non-target) stated:

> "…they [apprentices] were not too much concerned about passing the [academic] modules, but they kept asking me questions about how to get certification, CCNA [technical accreditation] out of the whole experience... ".

This suggests that the participants perceived that apprentices placed value in the accreditation of niche technical skills (*non-target* PA) that would be useful in their work context rather than in developing transferable and academic skills needed for lifelong learning (*target* PA). Apprentices move between the two fields of Employment and HE, each with their own requirements. Jordan's statement captures the point that the Employment and HE fields valourise different types of Bourdieusian capital. Apprentices benefit directly and regularly from tangible, economic capital in the form of monthly pay from their employer. By comparison, the institutionalised cultural capital to be gained by passing academic modules in pursuit of a university degree could seem more distant and less tangible leading them to place more value in the technical accreditation valourised in the workplace. Sam (PA-3, non-target) noted:

> "I think apprenticeship work's got validity from the employers' perspective because what we're trying to do is to make people [apprentices] useful in the workplace, and apprenticeships tend to be focused on what is useful now whereas academia focuses on what might be useful in the future".

Sam's comment suggests that in their delivery to apprentices, they (Sam) felt the need to focus on developing skills that employers would find immediately valuable (*non-target* PA) rather than those that would prepare the apprentices for a career in IT or for

computer science research (*target* PA). The apprenticeship approach, led by employers rather than informed by latest research encourages this which suggests that the chasm between what universities provided and what and employers require, could potentially have narrowed as a result of the post-2015 apprenticeship programmes.

Employer influence was also perceived to have extended to admission decisions for apprenticeship programmes. While at the time of this thesis, universities suggested the entry qualifications required to enter an apprenticeship program, employers were able to put forward apprentices employed based on their workplace capital and who did not have a typical undergraduate entry profile. Although universities were not compelled to admit a particular apprentice to their programme, symbolic violence manifested as the possibility of damaging a profitable relationship, could be exerted by a large or prestigious employer and result in a university reluctantly admitting an apprentice they deemed unsuitable. Whereas university academics were routinely involved in student recruitment and influence admission decisions, participants recognised the employer influence in apprenticeship recruitment with Ashley (PA-1, non-target) stating:

> "[Apprenticeship recruitment is] totally different [from non-apprenticeship recruitment]. It's a different market really, I suppose it's trying to reach the people who would like to go to university but don't go to university and want to do it… I think the employer has a lot of say…".

Sam (PA-3, non-target) also felt the power of employers in the recruitment process stating:

> "… so, we are at the mercy of an employer rocking up and saying I've got one apprentice, two apprentices, three apprentices I'd like to have … and us just being grateful that they've chosen our institution".

Apprentice employers (particularly large ones) could wield symbolic power over delivery institutions. Additionally, as they were paying for the apprenticeship (albeit indirectly through the levy (*Enterprise Act*, 2016)), employers could also exert symbolic violence on their apprentices. Riley (PA-3, non-target) had experienced the manifestation of the latter point and when discussing the grades awarded to students, stated:

> "They [an apprentice] got 50% [...] and they want to improve it and try to complain because they want to report to [their] employer...because the employer only checks the final mark and that's what they [the apprentices] are worried about".

Unlike students, apprentices could not be characterised as paying customers. Their apprenticeship was paid for albeit indirectly by their employer through the payroll levy (*Enterprise Act*, 2016). Employers were therefore the customers, with apprentices more accurately characterised as consumers. The apprentice could be viewed as a form of human capital by their employer who could require them to demonstrate return on investment. The apprentices, as illustrated in Riley's quotation felt pressure (*illusio)* to do whatever it took to demonstrate return on employer investment. The emphasis that employers appear to place on the outcome rather than the experience gained through learning is the antithesis of the co-creation of value that characterises SD-Logic. This comment alongside the previous comments from Sam and Jordan reflects the 'skill' approach to apprenticeship which calls for training and assessment of competence in specific tasks required in the workplace rather than the development of transferable, lifelong learning skills associated with the 'occupational' approach favoured in Europe (Brockmann, Clarke and Winch, 2010).

Some apprentices may have been working in areas requiring niche technical skills making it difficult for their managers to recognise the long-term value of an academic education compared with the benefits that more focussed technical training would bring in the shorter term. Staff shortages prevalent during the data gathering period owing to the COVID-19 pandemic, may have exacerbated the need for apprentices to be immediately useful in their workplace. Taken as a whole, this could have led to some apprentices experiencing symbolic violence by being torn between the pressing requirement to be productive in the workplace (possibly by forfeiting the 20% of the job learning time), and the less urgent but equally important requirement to succeed as an apprentice and attain their apprenticeship. The participant statements point to the powerful position of the employer in apprenticeship programmes, and it is possible that this powerful position contributed to the perceived weakening of the positional autonomy around apprenticeship programmes at institutional level.

5.4.1.2.2 Relational Autonomy: Roles and Relationships (apprenticeship)

Lee (RA-1, non-target) captured the difference between the two types of delivery in the following excerpt:

> "The [non-apprenticeship] lecturer I would argue, really delivers their content and supports and guides learners through the learning process, whereas in many respects, the apprenticeship teacher… and I'm using that word 'teacher' specifically … it's about micro tracking and action planning every single student".

Sam (RA-3, non-target) also noted that:

> "… people involved in apprenticeships are being squeezed into the mould of secondary school teachers and college lecturers".

Ashley (RA-3, non-target) used a consumption metaphor when describing their delivery to apprentices stating:

> "… they want it when they want it – they wanted it shrink wrapped – something they could easily digest…".

The implication of the above statements is that academics felt they were delivering a product rather than facilitating learning and their role and the relationships they were able to develop with apprentices reflected this.

5.4.1.3 Summary of Academic Autonomy Perceptions for the Macro Layer

Based on the perceptions of academics there was a greater reduction of academic autonomy in the institutional layer associated with apprenticeship programmes compared with that associated with non-apprenticeship courses. In LCT terminology, although most participants were positioned in the *sovereign* quadrant for non-apprenticeship work, the insulation of the field was not strong, particularly in terms of the academic role (PA). In apprenticeship delivery, all participant codes were positioned in the *exotic* quadrant. This represents an autonomy *shift* from *sovereign* to *exotic* and is shown by the black arrow on the visualisation in Figure 15 (page 126). This is extreme as it represents a move for universities from their *target* academic purpose and values (including that of academic autonomy) to unfamiliar *exotic* purposes and values associated with external fields, notably the Employment field.

There was no evidence in the data of participant code locations in the *introjected* quadrant. This would have represented the facilitation of consumption, which is

analogous to ‘spoon feeding’. Even when using consumption metaphors in the context of apprenticeship delivery, academics still appeared to perceive they were promoting a level of independent thought with respect to learning and assessment rather than just ‘teaching to the test’. However, in comparisons with academic course delivery, they felt that they were not promoting learner autonomy and the development of lifelong learning skills which would enhance the employability skills deemed important by Shadbolt (2016) and Wakeham (2016) for work in IT. They felt they were expected to focus on work-readiness and helping apprentices to provide value for their employers. The overall perception was that the purpose and values around university managed apprenticeship programmes provided the antithesis of what they promised both for academics and apprentices. In terms of roles and relationships, these were more akin to secondary school teaching than the autonomous learning normally associated with HE.

5.4.2 Perceptions of Academic Autonomy in the Meso Layer

This section explores the perceptions of academic autonomy at the meso level by discerning the extent to which the academic practice and academic roles are insulated from the influence of other fields in the context of the case study. Prior to the introduction of university apprenticeship programmes, the literature review found that there had been a reduction of academic autonomy in this layer. The findings suggested that this reduction was driven by a need for calculability leading to government policies promoting further quality assurance processes. This was found to have impacted pedagogy and the monitoring of academic performance. Additionality a desire for predictability led to the development of the QAA Benchmark statements to guide the content of degree courses. The mechanisms leading to a reduction in academic autonomy in each level and the timeline of these are summarised in Table 2 (page 40).

For the role-based (meso) layer, participants were able to base their perceptions on their direct experience of academic autonomy as all had been recently involved delivering both academic courses and apprenticeship programmes. The statements made in the semi-structured interviews in this regard were either reflective of their values or their practice. For both non-apprenticeship and apprenticeship delivery, some participants had been active in delivery phases 1 and 2 and reflected on the changes in their academic autonomy across the two phases. These phases were defined in the literature review (chapter 2) and the participation of participants in delivery was mapped to the phases in the research design (chapter 4). The analysis provides insights into the trend of academic autonomy at the case study university within each delivery type across the phases. For this analysis, three visualisations are provided, one comparing the two phases of academic delivery around non-apprenticeship courses, one comparing the two phases of apprenticeship programmes and a final one comparing the academic autonomy associated with non-apprenticeship and apprenticeship delivery for phase 2, the current phase at the time of data gathering. The latter is used for comparison with the single visualisations provided for the macro and micro layers.

The development of the translation devices for the role-based layer of autonomy was informed by Bernsteinian sociology and in particular the concepts of classification and

framing which were presented as part of the theoretical framework in chapter 3. Axiom 5 of S-D logic was also referenced in the development of the RA device. Positional autonomy (PA) was used to discern whether the participants perceived the content to be legitimised internally or externally. Relational autonomy (RA) was used to explore pedagogy and the rules and regulations used to monitor the delivery process. Analysis questions for PA and RA were derived from research question one relating to the meso layer and the theoretical framework was used to provide specific analysis pointers for recognising statements relating to PA and RA in the transcripts. Table 18 (below) shows the constituents, the PA analysis question based on the constituents and derived from the research question, and specific analysis pointers drawn from the theoretical framework and literature showing the perspectives that were considered to be *target* and *non-target*.

Table 18: Analysis Information for Positional Autonomy in the role-based Layer.

Constituents: Course content **PA Analysis question***:* Do the participants perceive that the legitimation of the content and purpose of their delivery emanates from within or outside *target (university) values?*			
Specific analysis pointers		***Target (PA+)***	***Non-target (PA-)***
Bernstein	**Classification**	Material linked to academic knowledge	Material linked to external requirements
SD-Logic	**Axiom 3**	Computing resources used by learners to put academic knowledge into practice	Computer resources used for training on technical skills

Table 19 (page 136) shows the relations, the RA analysis question based on the relations and derived from the research question, and specific analysis pointers drawn from the theoretical framework and literature showing the perspectives that were considered to be *target* and *non-target*. These details informed the development of translation devices for PA and RA.

Table 19: Analysis Information for Relational Autonomy in the role-based Layer.

Relations: Pedagogic practice **RA Analysis question**: Do the participants perceive that the rules and factors that influence the ways of working emanate from within or outside of the target (university) values?			
Specific analysis pointers		***Target (RA+)***	***Non-target (RA-)***
Bernstein	**Framing**	Content presentation aligned to cumulative knowledge building	Content presentation aligned to segmented knowledge building
SD- Logic	**Axiom 5**	Expectations agreed and monitored academically	Expectations agreed and monitored externally

Participant code locations in the *sovereign* quadrant (PA+, RA+), would reflect perceptions that delivery content emanated from an academic framework and that pedagogy was informed by academic values and governed by academic rules and regulations. Conversely, participant code locations in the *exotic* quadrant (PA-, RA-) would represent perceptions that content influenced by external value and the rules and regulations used to monitor delivery were subject to external influences. The *projected* quadrant (PA+, RA-) would house positions where the curriculum is defined by academics, but pedagogy is monitored and/or constrained by external frameworks while positions located in the *introjected* quadrant (PA-, RA+) would represent perceptions that the curriculum is influenced by external requirements but that academics determine pedagogic practice. Final translation devices can be found in Tables 20 and 21 (pages 137 and 138 respectively).

Table 20: Translation Device – role-based Layer: Positional Autonomy (PA)

	1st Level	Constituents legitimated by	2nd Level	Constituents legitimated by	3rd Level	Constituents legitimated by	Sample participant statements
PA **+** ↕ **-**	***Target***	Academic subject experts or university managers adhering to academic subject benchmarks and/or academic skills and values.	***Core*** **(++)**	Academic subject experts or academic managers	***Inner*** ***(+4)***	Academic/Award teams	*"it was really left to the award manager to really be the award manager and look after it. ."*
					Outer ***(+3)***	Academic Management	*"If I had an idea about something that was perhaps missing from the portfolio, I could've talked about that with my immediate manager"*
			Ancillary **(+)**	University management	***Inner*** ***(+2)***	School/Faculty Management	*"I don't think we have as much autonomy as we used to have in terms of curriculum design ...now I'd have to appease at least two or three people and at least one committee just to get permission to look into it..."*
					Outer ***(+1)***	University Management	*I think it comes from university management it's like a waterfall it comes down and down and down this is … the way that we approach things in the University from the very top*
	Non-target	External bodies working with external frameworks and values.	***Associated*** **(-)**	External bodies (e.g., Discipline Related/Employer or PSRB)	***Near*** ***(-1)***	Collaboration/some influence	*"Would I be allowed to change things yes - am I limited by KSBs written by employers and awarding bodies -yes I am."*
					Remote ***(-2)***	No collaboration/imposed	*"it all ends up with the EPA …have we actually met all those KSBs….*
			Unassociated ***(--)***	External bodies (Government bodies, non-discipline related)	***Near*** ***(-3)***	Collaboration/some influence	No example: Ofsted was the only non-discipline related body mentioned and it was felt that there was no collaboration
					Remote ***(-4)***	No collaboration/imposed	*"I can mention many examples for that like teaching British values [Ofsted imposed] to a computing network Security student - 100% technical subject it's just nonsense"*

Table 21: Translation Device – role-based Layer: Relational Autonomy (RA)

	1st Level	Relations legitimated by	2nd Level	Relations legitimated by	3rd Level	Relations legitimated by/with	Sample participant statements
RA **+** ↕ **-**	***Target***	Academics following academic processes and values	***Core*** **(++)**	Academics and academic managers	***Inner*** ***(+4)***	Academic Award teams	*"... I felt that the responsibility for the quality of the learning experience that the students were able to have was down to me [as lecture] and I had the autonomy and the freedom...*
					Outer ***(+3)***	Academic Line Management	*"Every year my line manager conducted an appraisal really, not linked to anything, not linked to remuneration - just how are you getting on? is there any CPD that we can give you -a training course you can go on?"*
			Ancillary **(+)**	University non-subject management	***Inner*** ***(+2)***	School/Faculty Management	*"…there is department management team okay …and they shape the way you should deliver and the way you should assess it and the way things should be done"*
					Outer ***(+1)***	University Management (Educational frameworks)	*"...the University judges you on your pass rate and number of good degrees on the results per module. It's all to do with marketing of HE "*
	Non-target	External bodies complying with external value frameworks	***Associated*** **(-)**	External bodies (e.g., Discipline Related PSRB)	***Near*** ***(-1)***	Collaboration/ monitored internally	*"That guy - he came from the company, he knew the company requirement, he was present in the sessions so he knew how the delivery was dealt with, so in that way he could monitor the delivery from the University, the requirement from the company …he worked like a bridge".*
					Remote ***(-2)***	No collaboration/ monitored externally	*"…for apprentices as … it's the employers have a bigger role yeah…they have the bigger part in terms of the apprentices … controlling what they're actually doing at the University"*
			Unassociated ***(--)***	External bodies (Government bodies, non-discipline related)	***Near*** ***(-3)***	Collaboration/monitored internally	No example: people did not recognise collaboration with non-discipline external bodies
					Remote ***(-4)***	No collaboration/monitored externally	*"I'm petrified that if I don't record something in the right place for, you know a mitigating circumstance and OFSTED reappear that I can lose the license for the university and there's an awful lot of pressure on staff"*

5.4.2.1 Role-based Autonomy in Non-apprenticeship Course Delivery

5.4.2.1.1 Delivery Phase 1: Positional and Relational Autonomy

Participants Alex, Ashley, and Aubrey had taught in both phase 1 and phase 2 of non-apprenticeship delivery and were able to reflect on that time and the changes they experienced between then and the time of data gathering. This provided insights as to how their perceptions of role-based autonomy had changed between the phases. Figure 16 (below) shows the autonomy codes for non-apprenticeship course delivery plotted on the autonomy plane. Phase 1 and 2 locations are encased in ellipses to aid clarity.

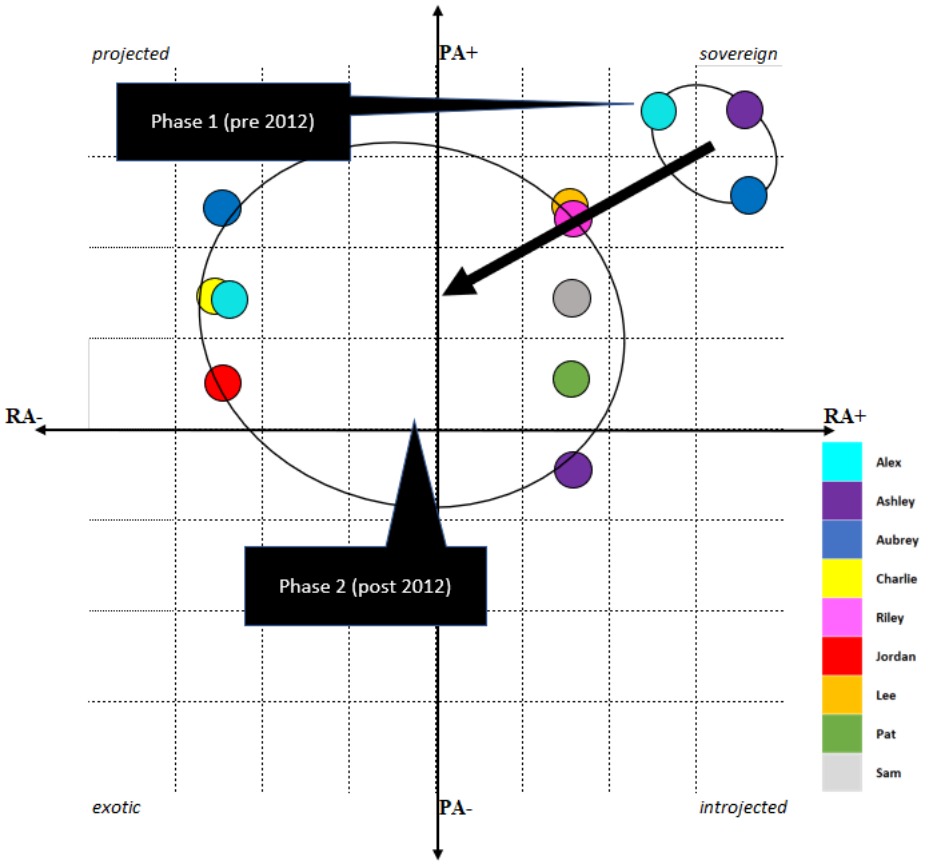


Figure 16: Visualisation of role-based autonomy in non-apprenticeship delivery, phases 1 and 2

The autonomy codes for phase 1 show clearly that in this phase, academic content, pedagogic practice and the academic rules and regulations were highly insulated from external influences. Ashley (PA+4/RA+4, *sovereign quadrant*) related this to curricula stating:

> "…it was quite autonomous to introduce new modules develop new schemes and so on".

Regarding pedagogic practice Aubrey (PA+3/RA+4, *sovereign quadrant*) noted that:

> "I felt that the responsibility for the quality of the learning experience that the

> students were able to have, was down to me [as lecturer] and I had the autonomy and the freedom [needed]".

The monitoring processes (rules and regulations) around academic performance were, in Ashley's (PA+4/RA+4, *sovereign quadrant*) words:

> "…not linked to anything, not linked to remuneration - just how are you getting on? is there any CPD that we can give you - a training course you can go on?".

These comments imply that academics reflecting on phase 1 delivery (pre-2012) perceived they had the autonomy to decide what content was taught (*target* PA) and how it was delivered (*target* RA) and monitoring was not perceived as panoptical, but more as a framework for career and professional development (CPD) pointing to a strong sense of role-based academic autonomy.

5.4.2.1.2 Comparison with Phase 2

The visualisation in Figure 15 (page 126) shows that perception of the level of autonomy was reduced in phase 2 as depicted by the black arrow showing *shifts* into the *projected* and *introjected* quadrants. The following statement made by Alex (PA+3/RA+4, *sovereign quadrant*) captures this:

> "I don't think there's as much flexibility or autonomy [at the time of data gathering] as we used to have 10-20 years ago".

Taken as a whole, both positional and relational autonomy were perceived to be weaker in phase 2, with only four of the participant code locations in the *sovereign* quadrant. In terms of the insulation of pedagogic practice (RA), four participants' codes are positioned well inside the *projected* quadrant). Interestingly, those participants who were involved in HE in phase 1 experienced an *autonomy shift* to the *projected* or *introjected* quadrants whereas those only involved in phase 2 are positioned in the *sovereign* quadrant albeit in *ancillary* positions denoting weakened autonomy. This suggests that the participants who were not involved in phase 1 perhaps perceived their experiences in phase 2 to be aligned with *target* values because they had not experienced the heightened academic autonomy afforded to academics in phase 1 and were therefore not able to compare the two.

5.4.2.1.3 Delivery Phase 2: Positional Autonomy: Curriculum Content (non-apprenticeship)

Standardisation in secondary education following the introduction of the national curriculum is discussed in the literature review, (chapter 2) as having negatively impacted academic autonomy in secondary schools with respect to curriculum content. There was no national curriculum for non-apprenticeship university courses at the time of thesis completion. However, there were QAA benchmark statements and the requirement that required that two-thirds of a programme should fall within the scope of the QAA Computing Benchmark statement to attain BCS accreditation. This was countered by the fact that as an emerging profession, unlike the more established and academised professions such as Teaching, there was no requirement for those wishing to follow a career in IT, to graduate from an accredited course. Also, the BCS requirement for two-thirds of a programme to be mapped to the benchmark statement left one-third of the programme entirely open for academic determination. This meant that computer science courses could (for example) include a foreign language or other unrelated subject. In the case study, only one participant (Ashley PA-1, non-target), discussed the importance of the BCS accredition and their codes are positioned in the *introjected* quadrant

> "… computing of course is a service for industry so that's always been a joy for me of computing and that's what hopefully the BCS is all about…"

The fact that only one of the participants mentioned the BCS in discussions around curricula could imply that this was not generally considered to be a significant constraint on the autonomy around curriculum design.

5.4.2.1.4 Delivery Phase 2: Relational Autonomy: Pedagogy (non-apprenticeship)

The influence of external frameworks on the monitoring of pedagogic practice (RA) was perceived to be much greater than that of the QAA benchmark statements and BCS accreditation criteria on the curriculum (PA). Four of the nine participants (Alex, Aubrey, Jordan and Charlie), noted the impact of the external measures of performance (*non-target* RA) with participants highlighting the impact of the NSS in particular. Alex noted that:

> "the university judges you on your pass rate, number of good degrees and the results per module. It's all to do with marketing of HE isn't it? - and obviously we get grilled on our [NSS] survey results".

The four participants' codes are positioned in the *projected* quadrant (non-target RA) recognising the NSS and the measures put in place to improve its results as having had an impact on their autonomy.

5.4.2.2 Role-based Autonomy in Apprenticeship Programme Delivery

Participants Jordan, Lee, Ashley, and Pat had taught in both phase 1 and phase 2 of apprenticeship delivery and were able to reflect on changes they had experienced. This provided insights as to how their perceptions of role-based autonomy had changed between the phases of apprenticeship delivery. Figure 17 (below) shows the autonomy codes for apprenticeship course delivery depicting the participant positions on the autonomy plane. Phase 1 and phase 2 locations are encased in separate ellipses to aid clarity.

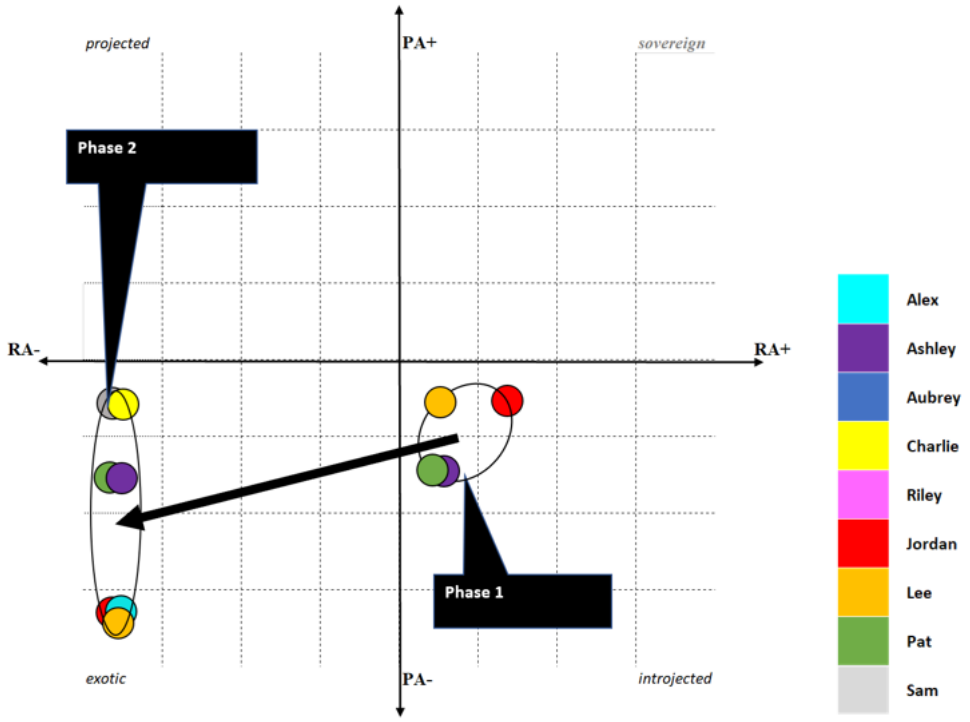


Figure 17: Visualisation of role-based autonomy in apprenticeship delivery, phases 1 and 2

5.4.2.2.1 Delivery Phase 1: Positional and Relational Autonomy (apprenticeship)

The Autonomy codes for phase 1 of apprenticeship delivery show that all four participants' codes are positioned in the *introjected* quadrant. This indicates that they noted some external influence on the curriculum content (reduced PA), though this was not extreme. However, the positions of all participants in phase 1 suggest they felt that while RA for phase 1 of apprenticeship delivery was weaker compared to phase 1 of non-apprenticeship delivery (comparing phase 1 in Figures 16 and 17, pages 139 and 142 respectively) the rules and regulations were still aligned to academic values (*target* RA).

5.4.2.2.2 Delivery Phase 2: Positional Autonomy: Curriculum Content (apprenticeship)

Regardless of whether they were involved with apprenticeship delivery in phase 1, all participants' codes are positioned inside the *exotic* quadrant for phase 2 (as shown in Figure 18 below) recognising external influences around apprenticeship delivery that negatively impacted both RA and PA.

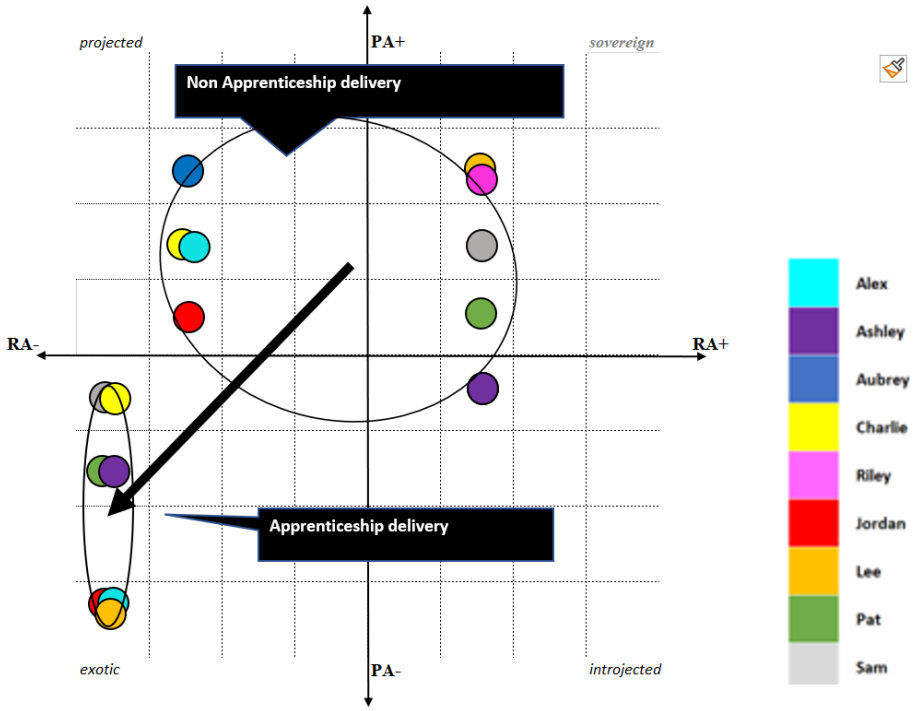


Figure 18: Visualisation of changes to role-based academic autonomy in phase 2

In terms of positional autonomy, four of the seven participants involved in phase 2 discussed the impact of employer-led outcomes, KSBs (knowledge skills, and behaviour) on the content (*non-target* PA). Sam (PA-1) captured the influence of the employer on the curriculum in the following statement:

> "you've got to think about what's the employer going to want because […] they're interested in what you're doing to [the apprentice] … making them [apprentices] work ready is a different thing from making [non-apprentices] knowledgeable about something".

Sam's comments draw attention to the powerful position of the employer (particularly large or prestigious employers) in apprenticeship programmes compared to the university provider and the apprentice. Employers selected their delivery institution from a list of potential providers. A large employer could place large numbers of apprentices with a particular university provider which would translate into substantial economic capital for that university alongside the social capital that partnering with a large, or prestigious employer could bring. In Bourdieusian terms, this created the potential for such employers to exert symbolic power over a delivery institution. An example of how this might have manifested itself at the meso layer is by an employer prescribing the way that the curriculum should be constructed to meet the apprenticeship KSBs in ways that would benefit their business. This might have included the selection of a programming language or database package used in their workplace. Pat (PA-2, non-target) noted this stating:

> "… the companies themselves […] might impose something to say that it's …'oh if you teach this one, we'll send our students to that', 'if you include this, we'll send our student to that'."

The employer representatives on the trailblazer groups that agreed the apprenticeship outcomes on the apprenticeship standards tended to be from large organisations (those who had an annual pay bill of at least three million pounds, *Enterprise Act*, 2016) who paid towards the apprenticeship levy. These large employers were not necessarily representative of all employer organisations that sent apprentices on university apprenticeship programmes. The powerful position of larger employers is illustrative of Bourdieusian dominance in the Employment field. Smaller employers did not contribute to the apprenticeship levy, and as they most likely did not have large numbers of apprentices to send on apprenticeship programmes, they could not wield the same level of symbolic power as larger organisations over the specification of apprenticeship

standards, or on delivery institutions to tailor the curriculum in their favour. This suggests that apprenticeship standards were effectively a national curriculum for their programmes with academics having less freedom to include aspects of their research or to meet smaller employer requirements.

Another manifestation of employer influence was the perceived need to be up to date with technology suitable for workplace use. Riley (PA-1, non-target) mentioned this stating:

> "… teaching in [a practical subject] I believe that we should update daily because sometimes in the class the students ask: 'I've read, or I've seen this […] what was the [cause]?'".

Sam (PA-1, non-target) noted that apprentices:

> "… potentially know quite a bit about the subject matter when they start and so the person delivering it has got to be on their toes".

This need to be up to date in terms of knowledge associated with workplace technologies (*non-target* PA) as an academic was perceived as challenging and concurs with the work of Martin, Lord and Warren-smith, (2020, p531) who found that academics delivering apprenticeship programmes "were uneasy about having the right skill set and knowledge base […] for working with employers". It stood in contrast to the need to undertake research in order to deliver research informed teaching on non-apprenticeship courses (*target* PA). This illustrates the difference between vertical and horizontal knowledge building described by Bernstein (1999). Non-apprenticeship university learning facilitates cumulative knowledge development through vertical discourse Bernstein (1999, p161). Practical work is used to demonstrate how theoretical principles and concepts could be applied through practice (*target* PA). In apprenticeship programmes, Riley and Sam noted that the expectation was that both taught and practical sessions would focus on mastering practical knowledge which exemplifies segmented knowledge building (*non-target* PA).

The impact of the employer led apprenticeship standards on content was expected, given the practical nature of apprenticeship. However, the location of three participants' codes at the PA-4/RA-4 position in the *exotic* quadrant was because these participants felt that they had to deliver certain content to fully conform with all regulatory

requirements which was unexpected. In particular, the requisite delivery of material concerning the Prevent agenda (*Counter-Terrorism and Security Act*, 2015) and British Values were discussed. Alex (PA-4, non-target) provided an example of a situation where Ofsted questioning of apprentices around safeguarding during a regulatory visit had led to an outburst from an apprentice. Alex (PA-4, non-target) recounted:

> "… one of the guys [apprentices] I supervised – he's ex-military, late 30s and he said, 'they were talking to me about safeguarding me like a 16-year-old - I'm a grown man with children for God's sake'".

Lee (PA-4, non-target) made the point that the time used up in conforming to the requirements was at the expense of delivering subject matter stating:

> "… you need to stand up at the start of the lecture or tutorial and say these are the outcomes, these are the objectives and … […] … these are British values, this is the prevent agenda, this is this, this is this and twenty minutes later you actually start to deliver".

This is a literal interpretation of Ofsted requirements and characterises academics as docile bodies (Foucault, 1977a), receptive to the application of power rather than autonomous beings, free to make their own decision. Martin, Lord and Warren-smith, (2020, p531) also found that academics involved in apprenticeship work noted "ambiguity in power relations since so many people were involved internally and externally who felt able to pass comment on their work".

5.4.2.2.3 Delivery Phase 2: Relational Autonomy: Pedagogy (apprenticeship)

In terms of relational autonomy, every participant mentioned the deleterious effects of the involvement of the regulatory body Ofsted on their academic autonomy, with Charlie (RA-4, non-target) capturing the sentiment stating:

> "it's not exactly a secret is it that if you cock(*sic*) it up Ofsted will pull the plug".

The reference to external bodies and their lack of flexibility reflected in Charlie's statement (and those of other participants) meant that in LCT terminology, participants perceived that the regulatory frameworks and monitoring were *unassociated* with the values of the field of HE.

Ofsted was installed as the quality standards body for level 4 apprenticeship programmes at the time of data gathering (from September 2019). The case study

university was involved in level 4 apprenticeship programmes and apprentices on these programmes were taught alongside learners enrolled on the degree apprenticeship programmes. This meant that in terms of regulation and monitoring processes, all participants were required to comply with Ofsted regulations. Ofsted as the monitoring body wielded symbolic power over university managers. This was manifested as symbolic violence on academics, who felt pressure (*illusio)* to do whatever was required to avoid being responsible for the university losing the right to deliver apprenticeship programmes. This point is captured by Charlie (RA-4, *non-target*) as follows:

> **"…** if they're dissatisfied with the way a module's been run … in general, I found the [non-apprenticeship] students would come to me first and I'll deal with it in a way that they are happy with. With these apprentices …they just complain straightaway …straightaway …straightaway to the apprenticeship award leader and they are not afraid to threaten to take it higher straightaway"

In Bourdieusian terms it illustrates how the symbolic power exerted by Ofsted as the regulatory body impacts the delivery process. Martin, Lord and Warren-smith, (2020) found that apprenticeship delivery was associated with stress resulting from anxeity around task fulfillment in line with expectations. Alex (RA-4, *non-target*) spoke of a 'climate of fear' around apprenticeship delivery stating:

> "I feel a bit of a climate of fear about [apprenticeship programmes] because I'm petrified that if I don't record something in the right place […] and Ofsted reappear that I can lose the license for the university".

This notion was reflected by other participants with Pat stating:

> "I don't like teaching with the fear as such".

Lee (RA-4, non-target) elaborated further on the consequences of non-compliance stating:

> "…if you don't do what a regulator wants, they give you […] unsatisfactory and then nobody wants to come".

while Pat (RA-4, non-target) pointed out:

> "…the truth is, everybody, especially the management…whatever they are doing - they are doing it for the Ofsted purposes".

Several participants noted the unforgiving approach taken by Ofsted personnel during visits which possibly contributed to the 'climate of fear' and Ashley (RA-4, non-target) discussed this stating that they (Ashley) would …

> "… like to see a more collaborative approach from them [Ofsted personnel] on this, not like …you need to show us this otherwise you're guilty of something … [Ofsted could be] a bit more positive rather than just being a checking body".

Ashley (RA-4, *non-target*) compared this with the more collegiate approach taken by external examiners with reference to their own role as an external examiner for another institution stating:

> "… as an external examiner – […] my role is not to go and intimidate [the staff] …I work as a colleague - I collaborate with them".

Some participants expressed the feeling that they were not being trusted to carry out their role, which resembles the feelings of schoolteachers in response to Ofsted monitoring in secondary schools (Gillard, 1988; Ball, 2003) with Ashley (RA-4, *non-target*) stating:

> "If I think about the last round of [Ofsted] we [participants] went through and we weren't involved – I just can't condone that – we weren't there at all. We didn't see them we were kept away [from Ofsted inspectors] – [management asked] 'do that, provide this, what's this *et cetera*'".

The above statements illustrate the perception of reduced academic autonomy resulting from the difference between the collaborative monitoring of non-apprenticeship courses undertaken by external academics, and the non-collaborative approach taken by Ofsted as the external apprenticeship regulatory body. The statements once again describe a performative approach with academics behaving as docile bodies (Foucault, 1977a) under the application of power.

5.4.2.3 Comparisons for Delivery Phase 2 Meso Layer

The visualisations in Figures 16 and 17 (pages 139 and 142 respectively) depict a similar weakening of academic autonomy in delivery of both academic courses and apprenticeship programmes between the delivery phases 1 and 2. This is useful in showing the trendlines for academic autonomy in the context of non-apprenticeship and apprenticeship delivery noting that the downward trend is comparable with the findings of the literature review. Figure 18 (page 143) shows the comparison of academic autonomy between non-apprenticeship courses and apprenticeship programmes for phase 2, the phase at the time of data gathering. In answer to research question two there was a reduction in the academic autonomy associated with practice in apprenticeship programmes compared with that associated with non-apprenticeship

courses, as depicted by the black arrow in Figure 16. From the analysis, this stemmed from a reduction in both PA, (the field autonomy associated with curriculum content) and RA (the field autonomy around pedagogy). Twin mechanisms, the powerful position of employers in terms of the curriculum and the non-collaborative approach of the regulatory body prescribing non-subject oriented additions to the curriculum and creating a 'climate of fear' around delivery, appeared to be at work. These mechanisms created symbolic violence on managers which manifested itself as panoptical monitoring of performance that impacted academic autonomy in the role-based layer. Figure 18 (page 143) shows that some participants' codes are positioned in the *projected* quadrant for non-apprenticeship delivery illustrating that they perceived very little difference in the impact of the quality assurance measures between non-apprenticeship (RA-3) and apprenticeship (RA-4) delivery. For these participants, the key difference in autonomy between non-apprenticeship and apprenticeship delivery lay in the nature of the quality assurance measures and the focus on practical mastery (segmented pedagogy) rather than the pedagogy.

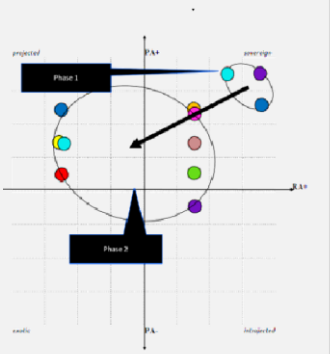
5.4.2.4 Autonomy Tours in the Meso Layer

As discussed in the literature review, the general erosion of the academic autonomy around non-apprenticeship university work began in the 1960s with the Education Act (1962) and the Robbins Report (Robbins, 1963). It continued with various policy reforms and gained momentum following the Dearing Report (Dearing, 1997) and the Teaching and HE Act (1998). This marked the start of phase 1 of non-apprenticeship course delivery in this thesis. Figure 19 (page 151) shows the autonomy *tours* taken in the meso layer.

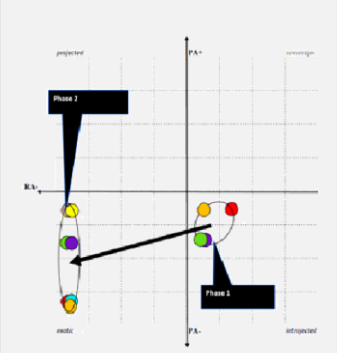
The visualisation in Figure 16 (page 139) depicts a small autonomy *drift* for non-apprenticeship delivery from the *core* of the *sovereign* quadrant towards the *projected* quadrant in the role-based layer from phase 1 (1998-2012) to phase 2 (post 2012). This *drift* is transferred to Figure 19 as the black arrow labelled 1. Figure 17 (page 142) depicts a comparatively large autonomy *shift* for apprenticeship delivery from the *introjected* quadrant to the *exotic* quadrant in the role-based layer from phase 1 (2017-2018) to phase 2 (post 2018). This *shift* is transferred to Figure 19 as the black arrow labelled 3.

The introduction of apprenticeship in 2017 marked a sudden autonomy *shift* to the *introjected* quadrant within the first term of delivery for those required to deliver the then new university apprenticeship programmes as well as the existing non-apprenticeship courses in that period. This is shown as a black arrow in Figure 18 (page 143). These participants would have experienced this autonomy *shift* back and forth regularly as they moved between their non-apprenticeship and apprenticeship work, constituting an ongoing autonomy *tour* (shown in Figure 19 on page 151 as the red arrow labelled 1). From 2018, for participants delivering on both non-apprenticeship courses and apprenticeship programmes this autonomy *shift* increased as a result of the installation of Ofsted as the apprenticeship regulator. This time this time the move back and forth was between the *sovereign* and outer edge of *exotic* quadrant (shown on Figure 19 as the red arrow labelled 2). The autonomy *tour* from *sovereign* to *exotic* is the most extreme of all autonomy *tours*. For the participants it represented a move from the relative comfort of the *target* values when delivering non-apprenticeship courses to the potentially unknown or poorly understood *non-target* values for both PA and RA when delivering apprenticeship programmes (shown in Figure 19 as the red arrow labelled 2).

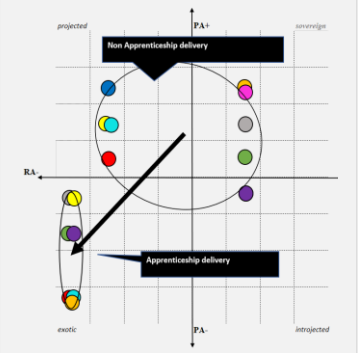
The small autonomy *drift* away from the *sovereign* towards the *projected* quadrant between delivery phases 1 and 2 for non-apprenticeship delivery evolved over a period of more than ten years. However, for apprenticeship delivery, the *shift* between phases to the *exotic* quadrant took only one year. Compared to the slow autonomy *drift* in non-apprenticeship work, this represented a revolutionary step change for the participants. The black arrows 1, 2and 3 depict the *autonomy* tour from the *core* of the *sovereign* quadrant to the *exotic* quadrant which would have been experienced by participants Ashley and Alex in the case study whose delivery spanned both phases for non-apprenticeship and apprenticeship delivery.



Thumbnail Figure 16



Thumbnail Figure 17



Thumbnail Figure 18

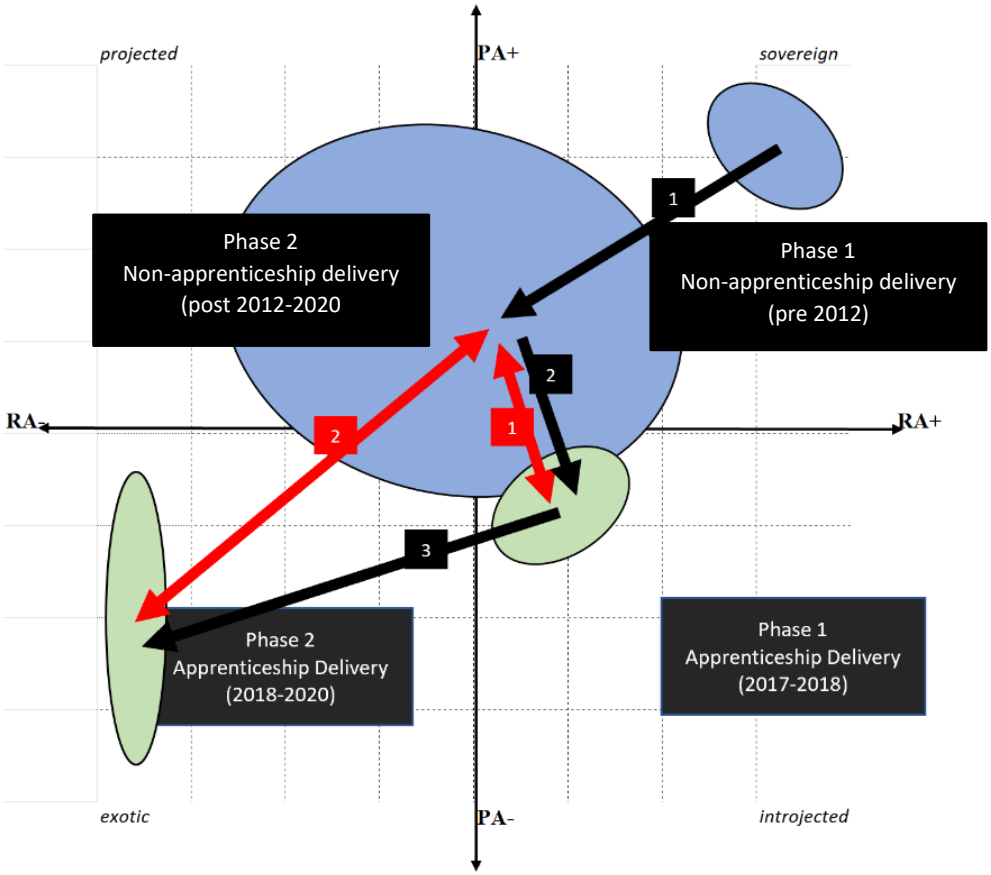


Figure 19: Depicting the timescales of autonomy shift (black arrows) for non-apprenticeship (blue) and apprenticeship (green) and the autonomy tours (red arrows) taken by participants in the role-based (meso) layer.

5.4.3 Perceptions of Academic Autonomy in the Micro Layer

This section explores the perceptions of academic autonomy in the micro layer by discerning the extent to which academic freedom and decision making are insulated from the influence of other fields in the context of the case study. Prior to the introduction of university apprenticeship programmes, the literature review found that autonomy in this layer had been reduced. The findings suggested that this reduction was driven by the need to ensure that quality standards were met and led to increased managerialism and a reduction in collegiality. The mechanisms impacting academic autonomy in each layer as determined by the literature review are summarised in Table 2 (page 40).

To determine the extent to which these mechanisms persist, this analysis explores the insulation of autonomy around personal choice and decisions relating to academic and apprenticeship work for academics involved in apprenticeship delivery. It considers the management processes involved in decision making. Collegiality is a style of management that is considered to promote academic autonomy (Kligyte and Barrie, 2016). This was contrasted in the literature review with managerialism which emerged as part of NPM following the Jarratt report (Jarratt, 1985). The literature review found that quality monitoring and standardisation in the role-based layer, were experienced as increased managerialism in the personal layer. While the management structures and personnel at the case study university oversaw both academic courses and apprenticeship programmes, as was seen in the analysis relating to the role-based (meso) layer, quality monitoring and standardisation were perceived to be less restrictive in academic courses than apprenticeship programmes. The development of the translation device for the personal layer of academic autonomy was informed by Bourdieusian sociology and in particular, the concepts of *habitus* and *illusio* which were introduced as part of the theoretical framework in chapter 3.

Positional autonomy (PA) was used to discern whether participants felt that they were able to make decisions based on free choice or whether elements of *illusio* and/or symbolic violence were apparent. Relational autonomy (RA) was used to explore the decision-making processes involved and whether these were perceived to stem from a

collegial (bottom-up) style of management or a managerial (top-down) approach. Analysis questions for PA and RA were derived from research question 1 relating to the micro layer and the theoretical framework was used to provide specific analysis pointers for recognising statements relating to PA and RA in the transcripts. Table 22 (below) shows the constituents, the analysis question based on the constituents and derived from the research question, and specific analysis pointers drawn from the theoretical framework showing the perspectives that are considered to be *target* and *non-target.*

Table 22: Analysis information for positional autonomy in the personal layer.

Constituents: Decisions and goals **PA Analysis question**: Do the participants perceive they are afforded autonomy in choosing their path?			
Specific analysis pointers		***Target (PA+)***	***Non-target (PA-)***
Bourdieu	***Illusio***	Decisions are autonomous and in line with personal goals	Decisions are influenced by other considerations such as loyalty (*illusio)* and do not align with personal goals

Table 23 (below) shows the relations, the analysis question based on the relations and derived from the research question, and specific analysis pointers drawn from the theoretical framework and literature showing the perspectives that are considered to be *target* and *non-target*. These details informed the development of the translation devices for PA and RA that can be found below in Tables 24 and 25 (pages 154 and 155 respectively).

Table 23: Analysis information for relational autonomy in the personal layer.

Relations: Decision making process **RA Analysis question**: Do the participants perceive that the decision-making processes reflect the target or external values in terms of outcome and/or style?			
Specific analysis pointers		***Target (RA+)***	***Non-target (RA-)***
Bourdieu	***Field autonomy***	Decision making mechanisms stem from collegial processes and reflect internal values (bottom-up)	Decision making mechanisms stem from a culture of managerialism and reflect external values (top-down)

Table 24: Translation Device - Personal Layer: Positional Autonomy (PA)

	1st Level	For this thesis	2nd Level	Characterised by	3rd Level	Elaborated by	Sample participant statements
PA + ↕ -	***Target***	Activities align with aspirations	***Core* (++)**	Academics choose to undertake activity to develop themselves or because they enjoy it	***Inner* (+4)**	Free choice in extent and nature of involvement	*I love teaching any student who wants to learn. It's a joy for me*
					***Outer* (+3)**	Some constraint in extent or nature of involvement	*When I first joined academia… it was fair to say there was more space for thinking and research time and now it's been compressed into you know you have your allocation ...*
			***Ancillary* (+)**	Academics choose to undertake activity to progress in role	***Inner* (+2)**	Free choice in extent and nature of involvement	*I decided to take on an award leadership role … it was my choice, but I knew that it would be useful if I wanted to move up the tree*
					***Outer* (+1)**	Some constraint in extent or nature of involvement	*I came [to this role] predominantly to do research to move forward in my career… unfortunately- it became apparent very quickly that research in our institution is like a Fabergé egg -extremely rare and only available to the privileged …and literally the battles that went on*
	Non-target	Activities are outside aspirations	***Associated* (-)**	Academics would not choose to focus on activities associated with their role but comply out of professional obligation	***Near* (-1)**	Opportunities for skills development/use of skills/enjoyment	*I'm being forcefully encouraged to do [a research degree…] would I like a different I like focus? - I like research … I've always liked the research aspect of it … being made to do [it]isn't a bad thing in the sense that it's something that I've said I've looked at before*
					***Remote* (-2)**	Few opportunities for relevant skills development/no enjoyment	*I think […] we end up being I don't know 30 to 40% of our time being administrators and I don't think we have as much autonomy as we used to have …*
			***Unassociated* (--)**	Academics would not choose to undertake activities required for compliance with external requirements but comply out of professional obligation	***Near* (-3)**	Opportunities for relevant skills development/use of skills/enjoyment	*I think as a senior lecturer we end up being I don't know 30 to 40% of our time being administrators and I don't think we have as much autonomy as we used to have …*
					***Remote* (-4)**	Few opportunities for relevant skills development/no enjoyment	*I was never asked … I didn't volunteer [to be involved in apprenticeships].*

Table 25: Translation Device - Personal Layer: Relational Autonomy (RA)

	1st Level	For this thesis	2nd Level	Characterised by	3rd Level	Elaborated by	Sample participant statements
RA **+** ↕ **-**	***Target***	Academics engaging in collegial practices	***Core*** **(++)**	Decision processes are collegiate with team discussion.	***Inner*** ***(+4)***	Agreement	*There is a feeling of a team there in certain people. I speak to other people - I feel like I know them relatively well, occasional conversations with them, et cetera*
					Outer ***(+3)***	Acceptance	*… there are groupings, and some groups tend to isolate you… you feel outside from that …and whatever they're doing it's us and them and you feel completely disconnected*
			Ancillary **(+)**	Decisions are made by academic managers following discussions with academics	***Inner*** ***(+2)***	Greater influence	*For the non-apprenticeship awards I still do get consulted by people quite a lot higher up than me especially in my specialist area...the majority of my work*
					Outer ***(+1)***	Cursory involvement	*I think we get [top-down management with non-apprenticeship awards]*
	Non-target	Academics engaging in managerialist practices	***Associated*** **(-)**	Decisions are made by managers and presented to academics	***Near*** ***(-1)***	Collaboration/some freedom	*Decisions are made by [managers] but I have challenged them successfully on at least one occasion*
					Remote ***(-2)***	No collaboration/no freedom	*...in apprenticeships some decisions come from [very senior people outside the department] some decisions come from the Computing manager, some come from [another senior manager] manager so it's kind of a top-down sort of waterfall system in apprenticeships*
			Unassociated ***(--)***	Decisions are influenced by external bodies and enforced by management	***Near*** ***(-3)***	Collaboration/some freedom	*With the BCS, there is some discussion… an acceptance that there are different ways of achieving the same goal*
					Remote ***(-4)***	No collaboration/no freedom	*… so, it is something that is done to me rather than something that I've participated in. There is an apprenticeship team and there is a hierarchy within that team ... authoritarian, if you will dictatorial*

Autonomy codes positioned in the *sovereign* quadrant (PA+, RA+) would reflect perceptions that decisions reflect academic values (of which academic autonomy is one), and that the decision-making process was collegial. Conversely Autonomy codes positioned in the *exotic* quadrant (PA-, RA-) would represent perceptions that decisions were subject to external influences and were made for academics rather than with them. The *projected* quadrant (PA+, RA-) would house positions where decisions align with personal goals but were made by management while positions located in the *introjected* quadrant (PA-, RA+) would represent decisions that were made by the academic but influenced by external factors such as loyalty.

Participants were able to use their direct experience of autonomy in the personal (micro) layer. The position of participant codes in terms of their perceptions of their autonomy associated with non-apprenticeship university work and their work with apprenticeship programmes is shown in Figure 20 (below).

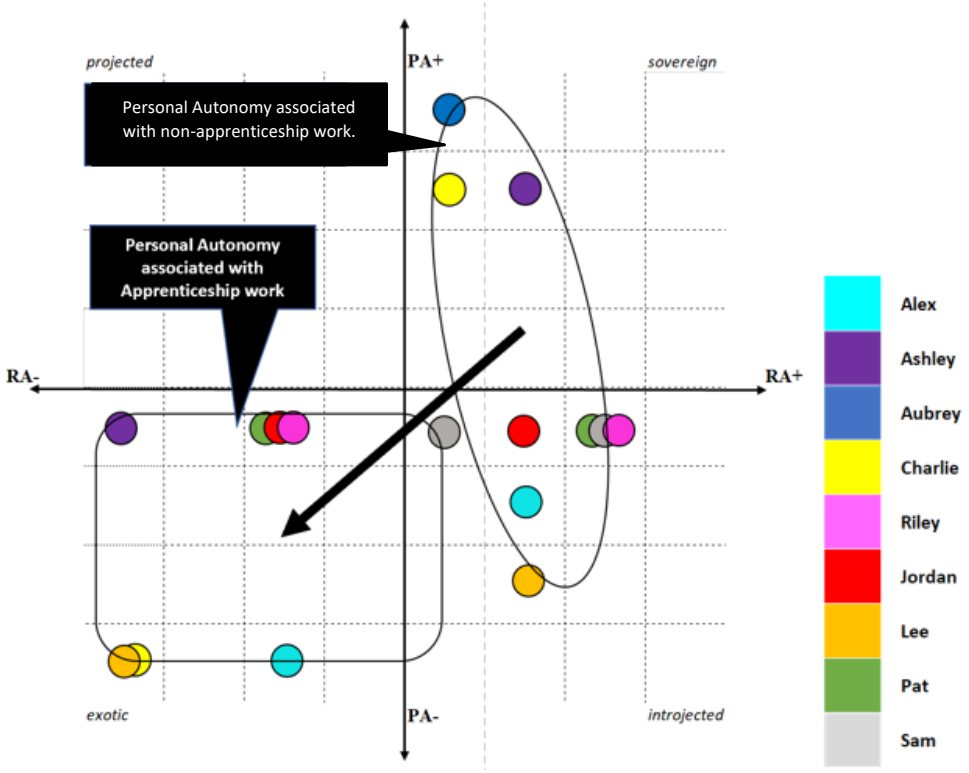


Figure 20: Visualisation of Changes to Personal Academic Autonomy

5.4.3.1 Personal Autonomy Associated with Non-apprenticeship Work

The visualisation shows that when considering their academic autonomy associated with non-apprenticeship work, participants' codes are positioned in the *sovereign* and *introjected* quadrants (RA+). The distribution of positions between the quadrants results from the differing perceptions of participants as to whether their decisions were based on *sovereign* ideals of choice or obligation (*target* PA+), or the need to comply with external requirements (*non-target* PA).

5.4.3.1.1 Positional Autonomy: Decisions and Goals (non-apprenticeship)

Aside from Ashley and Aubrey, all other participants had goals related to involvement in research but had varying degrees of success in being able to meet these. Jordan (PA-1. *non-target*) noted that the type of university (post-1992) was not oriented towards research, but that involvement in research was important to academics in terms of their career stating:

> "… the choice between research, teaching and consultancy is limited...you are restricted in that you will do teaching mainly, however in an academic role for your job progression you definitely need research".

Sam (PA-1, *non-target*) was, in their words:

> "… forcefully encouraged to do [a research degree]"

Although they (Sam) were not completely averse to this they explained that they felt pushed towards a subject related PhD rather than an Educational Doctorate (EdD) which they would have preferred.

The mechanism behind the perceived autonomy *shift* into the introjected quadrant was *illusio* induced by the perceived need for participants to work towards university targets, for research (REF) and teaching (TEF) (*non-target* RA) to progress their career or simply to keep their job (*non-target* PA). These frameworks contributed to league table algorithms and were valorised by university management in the interest of remaining competitive.

Charlie (PA+3, *target*) however, had succeeded in being able to do the research they (Charlie) wanted to do but only following a struggle stating:

> "...research in our institution is like a Fabergé egg - extremely rare and only available to the privileged ... and I had to fight very hard to do the [research degree] that I wanted to do".

These statements suggest that research in the case study institution is restricted in terms of who is allowed to research and what is to be researched.

5.4.3.1.2 Relational Autonomy: Decision Making Process (non-apprenticeship)

Pat, Jordan, Alex and Lee all noted that the levels of preparation and other administration (particularly in relation to their apprenticeship work) were high and felt that this impacted their ability to be as productive in academic research as they would like to be. However, in terms of underlying structures and mechanisms all felt that they were at least consulted about their academic work and in some cases actively encouraged to undertake research. The feeling of collegiality for most was strong. However, research areas aligned to the discipline REF were valourised more than others.

5.4.3.2 Personal Autonomy Associated with Apprenticeship Work

From the visualisation in Figure 20 (page 156), except for Sam, all participants perceived an autonomy *shift* from their location for academic work to the exotic quadrant. Sam remained positioned in the introjected quadrant but experienced an autonomy drift indicating a slight reduction in perceived choice with respect to apprenticeship work. This difference could be related to background and is considered in the analysis of research question two. The positioning of most participant codes in the *exotic* quadrant indicates a perception of lack of choice and increased managerialism with, in some cases, management decisions related to compliance with external regulations (RA-4).

5.4.3.2.1 Positional Autonomy: Decisions and Goals (apprenticeship)

When discussing decisions and goals in the context of apprenticeship and the level of choice around being involved. Charlie (PA-4, *non-target*) stated:

> "I was never asked - I didn't volunteer [to be involved in apprenticeships]".

The feeling of being pushed into apprenticeship work rather than being asked to undertake it was also mentioned by Pat and Jordan. In terms of research, participants who felt that they had come to academia to undertake research found that in addition

to being pushed towards research areas aligned to the REF (*non-target* RA and PA), they did not have the time to be as involved as they would like. Jordan, Pat and Riley felt that teaching commitments had got in the way of research with Riley (PA-1, *non-target*) stating:

> "I had quite a lot of courses to be involved with and not much time for research".

The need to remain up to date with practical knowledge was discussed by both Sam and Riley in the context of institutional autonomy but this time consuming and continuous requirement also had the potential to impact personal autonomy. Others discussed the amount of administration involved with the quality assurance measures around apprenticeship delivery as having an impact. Alex (PA-4, *non-target*) stated:

> "I think with the amount of extra administration reporting and recording that you do on top I think it's an awful lot".

Lee (PA-4, *non-target*) also noted the increased workload associated with apprenticeship work stating:

> "… for the modules I do within the apprenticeship scheme, I probably do more administration than I do teaching".

5.4.3.2.2 Relational Autonomy: Decision Making Process (apprenticeship)

The 'climate of fear' is, in Bourdieusian terms, a culture of symbolic violence and has been discussed in terms of its impact on role-based autonomy. From the data, it appears that it has also impacted the decision-making culture. Noting the impact on management behaviour, Jordan (RA-2, *non-target*) explained:

> "…it was more stress - have you done this, have you done that, please do that - if you don't do this next visit of Ofsted, we going to be …".

Charlie (RA-4, *non-target*) alluded to the transfer of pressure through the levels of management declaring:

> "… our internal management (above the head of department … have one mode of operation …which is attack …and savage attack -not just attack but savage attack. I can appreciate a lot of pressure comes from somebody that's even more a Rottweiler than they are …I've got no doubt that it's coming down from above … so that's what's happening it's raining down on them and they are transferring it".

Participants noted that there was an apprenticeship team but there was the perception that team meetings were used to disseminate requirements rather than for discussion. Pat (RA-1, *non-target*) stated:

> "… even though we're in a team we don't have a voice …we are told what we should be doing … I don't have much influence …sometimes you get frustrated".

Lee (RA-4, *non-target*) also discussed the lack of collegiality of the apprenticeship team stating:

> "… decisions are made and then transferred down to me in terms of the digital apprenticeship schemes… so it is something that is done to me rather than something that I've participated in. There is an apprenticeship team and there is a hierarchy within that team ... authoritarian, if you will dictatorial…"

Martin, Lord and Warren-smith, (2020, p529) noted that their research participants described this lack of choice as being "drafted in" or "being compelled" and my participants appeared to support this. While, as employees, academics can expect to be required to undertake some tasks that do not necessarily allign completely with their desires, my data suggests that compared with academic courses, the culture around decision-making associated with apprenticeship programmes appears to have moved further towards managerialism perpetrated by the 'climate of fear' exerted by the regulatory bodies.

5.4.3.3 Summary for the Micro Layer

The autonomy around personal choice relating to apprenticeship work appeared reduced when compared to decision making around academic work. While there was an apprenticeship team, there is no evidence of collegial decision making. Instead, the terms 'dictatorial' and 'authoritarian' were used by participants to describe style adopted by management around apprenticeship programmes. However, this was attributed to interference from the regulatory field which generated a 'climate of fear'. This contrasts with the management style around non-apprenticeship courses which was perceived to be more collegiate. However, it appeared that the greater amount of administration associated with the quality assurance and other necessary tasks around apprenticeship work was also a key factor in reducing the time for participants to follow their goals in terms of both apprenticeship and academic work. Even when goals were supported or encouraged by management, time was a constraining factor and many

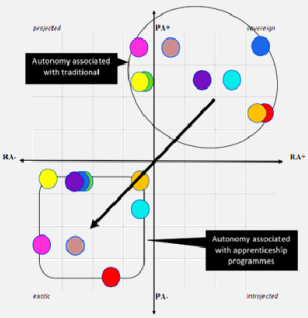
participants felt that the time allocated by them to apprenticeship administration exceeded the time allowed for it in workload models.

5.4.4 Summary of Analyses for Research Question One

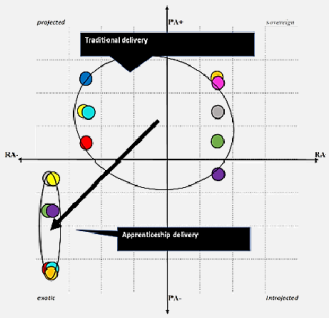
The analyses relating to the three layers of academic autonomy were based on the perceptions of nine academics with visualisations showing the spread of academic autonomy in the institutional (macro), role-based (meso) and personal (micro) layers through the position of participant autonomy codes in each layer. Figure 21 (below) shows the variation in academic autonomy in the institutional (macro), role-based (meso) and personal (micro) layers and was built from the following visualisations in the previous chapter.

- Macro layer (institutional) Figure 15 (page 126)
- Meso Layer (role-based) Figure 18 (page 143)
- Micro layer (personal) Figure 20 (page 156)

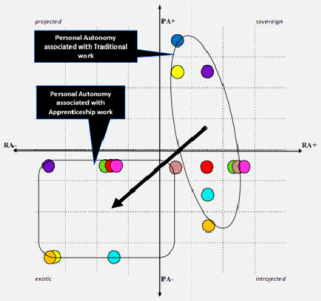
In Figure 21 (page 162), the distribution patterns of participant autonomy code positions representing the perception of academic autonomy around non-apprenticeship university work in each of the three layers intersect almost in the centre of the *sovereign* quadrant. This was to be expected as the *sovereign* values represent those of HE in the context of the case study. The distribution patterns in each layer represent the variation in perception and the locus of the intersection centrally in the *sovereign* quadrant illustrates that the *target* was set appropriately in the translation devices. The analysis found that the distribution of participant locations representing academic autonomy associated with apprenticeship work (green ellipses in Figure 21) demonstrated that this was reduced compared with that associated with non-apprenticeship university work (blue ellipses in Figure 21) in all three layers.



Thumbnail Figure 15



Thumbnail Figure 18



Thumbnail Figure 20

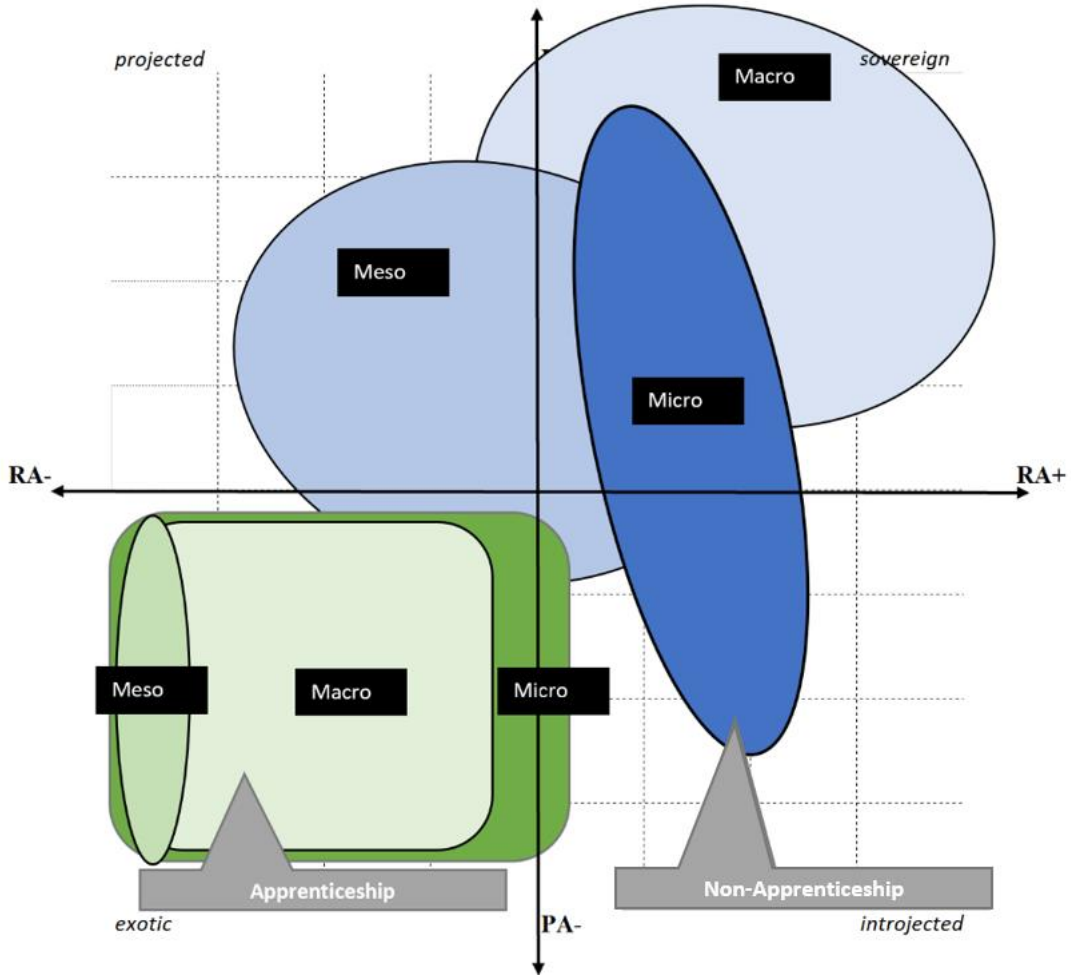


Figure 21: Showing perceptions of academic autonomy at macro, meso and micro levels for apprenticeship (blue) and non-apprenticeship work (green)

The visualisation in Figure 21 (above) shows clearly that the insulation of the HE field in the context of apprenticeship is weak, and is weaker in each layer than it is in the context of non-apprenticeship work. While for non-apprenticeship work, some participants' autonomy codes are positioned in the *projected* quadrant for role-based autonomy, and the *introjected* quadrant for personal autonomy, no participant codes are positioned in

the *exotic* quadrant. By contrast, most participants' codes are positioned in the *exotic* quadrant in the context of apprenticeship in all layers. This clearly implies that while the HE field around non-apprenticeship university work was considered to be weakened for some participants, compared to that of apprenticeship it remained relatively intact.

Section 2.2.7 identifies marketisation, quality monitoring, managerialism and standardisation as mechanisms resulting from NPM that contributed to reduced academic autonomy in secondary schools and later in HE prior to the introduction of university apprenticeship programmes. These are summarised for each layer of autonomy in Table 2 on page 40. My thesis set out to discover whether university apprenticeship resulted in an exacerbation of these and/or introduced others. To summarise the commentary above, the additional impact on autonomy around apprenticeship programmes resulted from the following:

Exacerbation of existing mechanisms:

- Marketisation and massification were exacerbated through the increase in diversity within the HE marketplace including the introduction of for-profit companies with purposes and values extending beyond those traditionally associated with HE.
- Quality monitoring has increased, and the non-collaborative approach taken by Ofsted has been noted as a mechanism of reduced autonomy (section 5.4.2.2).
- Managerialism has increased as a response to the need to ensure compliance owing to the devastating consequences for the university of non-compliance. This was captured in the term 'climate of fear' (section 5.4.3.3).
- Standardisation has increased owing to the employer led design and Ofsted requirements constraining the curriculum and resulting in reduced potential for diversity between universities in curricula for apprenticeship programmes compared with that in computer science courses (section 5.4.3).

New mechanisms:

- The powerful position of employers, particularly large employers has impacted the design of the apprenticeship standards and the interpretation of the KSBs at institutions (section 5.4.2.3). This stems from the difference in financing whereby

employers are characterised as customers and larger employers in particular have a greater a say in curriculum design to meet their requirements.

- The change in value proposition, with education being valued for its outcome rather than as an experience. Like non-apprentices, apprentices are consumers, though unlike non-apprenticeship learners, they are consuming on behalf of their employer (the customer) which leads to different expectations and impacts the role of the academic in terms of pedagogical approach and monitoring of progress.

5.5 Analysis and Findings: Research Question Two

How, and to what extent does the background of an academic influence their perceptions of apprenticeship work?

This question endeavoured to find out if there were any commonalities in perceptions that academics have of their apprenticeship work that could be linked to their background. This firstly required an analysis of the background of each research participant. This was then used to group the participants into typologies based on similarities in their backgrounds. In the search for commonalities, two approaches were taken. The first was linked to research question one and sought to find commonalities relating to the participants' perception of the reduction in academic autonomy around apprenticeship programmes. The second related to other commonalities relating to experiences with apprenticeship work.

5.5.1 Analysis of Participant Background

This analysis draws on the Bourdieusian concept of *habitus.* Bourdieu (1977, p86) noted *habitus* is a "system of internalised structures, schemes of perception, conception, and action common to all members of the same group or class". As discussed in chapter 3, *habitus* can be regarded as having two components, primary *habitus* which stems from family circumstances and upbringing, and secondary *habitus* which develops from and evolves through practice (Bourdieu, 1990). *Habitus* is collective and can be shared by individuals with similar backgrounds (Bourdieu, 1977, 1984, 1989, 1990a). In terms of looking for links between background and perception, it was useful to seek out similarities in the *habituses* of the participants "according to their shared or similar positions in the wider social space" (Schneider and Lang, 2014 p92).

5.5.1.1 Exploring Primary *Habitus*

For research question 1, a top-down approach to analysis was utilised whereby analysis pointers were drawn from the understanding gained in the literature review that related to the interview questions and the theoretical framework to aid the coding phase. This approach was fitting for research question 1 as the data was gained through semi-structured interview questions and could be related to theory. By contrast, the backgrounds of the participants were unknown and collected via a biographical narrative. A more open, bottom-up approach was required for the analysis of primary *habitus* in order to allow codes to emerge from the transcribed data (Bingham and Witkowski, 2022). As new codes emerged, transcripts were revisited to take account of these. Codes were then grouped together hierarchically to form themes. The themes are noted in Table 26 (below).

Table 26: Themes from biographical narratives that impact primary habitus.

Theme	Evidence
Family background	Determining the job role of parent(s) and whether they were graduates. This provided an idea of whether there were academic role models available to shape the *habitus*
Academic encouragement	An indication of whether academic excellence was promoted and valued in the household. An indication of the approach to learning, achievement, and learning experience An indication of when the participant went to university – straight after school or later
Development of capital	An indication of whether there were financial advantages or difficulties that could impact on decision making and *habitus.* An indication of whether there was encouragement in terms of extra-curricular activities that could develop a capital that would prove advantageous in terms of academic or career progression

The 'Family background' and 'Academic encouragement' themes were set as overarching codes in NVivo, two types of primary habitus were identified as higher-order codes and named PH1 and PH2.

- **PH1** - represents participants from backgrounds where academic education was valued and supported in the home. The *habitus* of the home was in line with the *habitus* of the school. The school was a familiar environment and the participants in PH1 were like "fish in the water", (Bourdieu & Wacquant, 1992b, p127). Participants Pat, Jordan, Ashley, Aubrey, and Riley were found to hold this type of primary *habitus*. These participants were encouraged to excel at school and were expected to go to university, which they did straight after school.
- **PH2** - represents participants from backgrounds where the *habitus* of the home was not aligned with the *habitus* of school and as such they were "condemned to experience that culture as unreal", like fish out of water, (Bourdieu & Passeron, 1979 p53). Participants Charlie, Lee, Sam and Alex were found to hold this type of primary habitus.

Economic capital is recognised as being important in the acquisition of social and cultural capital (Bourdieu and Wacquant, 1992b). The possession of these types of capital is recognised as being useful in facilitating progression through a field (Bourdieu, 1990). The 'Development of capitals' theme was represented as two sub-codes based on differences in evidence of economic capital. While these sub-codes could be applied to all participants, there was no implied shortage of economic (or other) capital in the PH1 code.

- **HIGH CAPITAL (H):** Participants (Sam and Alex) were from households where a parent was successful in business and there was evidence of them accruing high levels of social and cultural capital as part of primary *habitus*.
- **LOW CAPITAL (L):** Participants (Lee and Charlie) referred to their modest economic circumstances as part of single-parent families which constrained capital development.

A section of the resulting NVivo code structure is shown below:

```
OVERARCHING CODE: [Family Background and Academic Encouragement]
        HIGHER-ORDER CODE: [PH1]
                HIGHER-ORDER SUB-CODE: [High Capital (L)]
                HIGHER-ORDER SUB-CODE: [Low Capital (H)]
        HIGHER-ORDER CODE: [PH2]
                HIGHER-ORDER SUB-CODE: [High Capital (L)]
                HIGHER-ORDER SUB-CODE: [Low Capital (H)]
```

5.5.1.1 Exploring Secondary *Habitus*

Secondary *habitus* develops from and evolves through practice (Bourdieu, 1990). To explore secondary habitus, the same four-stage 'top-down' approach to analysis used for question one was utilised. Using the transcribed data from both the biographical narratives and the semi-structured interviews, coding was facilitated through the development of a translation device. It was recognised that the activities discussed in the biographical narratives and interviews might not be a complete list of activities undertaken during the journey to academia, however I felt that the fact that they were presented meant that they were considered relevant by the participant to their journey.

The development of the translation device for was informed by Bourdieusian sociology and in particular, the concepts of *habitus* and *illusio.* Positional autonomy (PA) was used to discern the activities of the participants at various points in their lives. This was based on institutional activities (for example in educational or workplace organisations) that were discussed in the biographical narrative and the semi-structured interview. Analysis questions specific to PA and RA were derived from research question two and the theoretical framework was used to provide specific analysis pointers for recognising statements relating to PA and RA in the transcripts Table 27 (below) shows the constituents, the analysis question based on the constituents and derived from the research question and the specific analysis pointers showing the perspectives that were considered to be *target* and *non-target*.

Table 27*: *Analysis information for positional autonomy in academic background.

Constituents: Activities **PA Analysis question**: Do the participants goals, and activities at various points in their history reflect academic or external value and purpose?			
Specific analysis pointers		***Target (PA+)***	***Non-target (PA-)***
Bourdieu	***Illusio* and *Habitus***	Activities are classified as education or training	Activities are not classified as education or training

Table 28 (page 169) shows the relations, the analysis question based on the relations and derived from the research question, and specific analysis pointers drawn from the

theoretical framework showing the perspectives that were considered to be *target* and *non-target.* These details informed the development of the translation devices for PA and RA that can be found below in Tables 29 and 30 (pages 170 and 171 respectively).

Table 28: Analysis information for relational autonomy in academic background.

Relations: Drivers **RA Analysis question**: Are the participants activities at various points in their history driven by their personal choice or external factors?			
Specific analysis pointers		***Target (RA+)***	***Non-target (RA-)***
Bourdieu	***Illusio* and *Habitus***	Decisions are in line with personal choice (autonomous)	Decisions are influenced by other considerations such as need to work, need for flexibility (*illusio*)

Autonomy codes at the *inner core* of the *sovereign* quadrant (PA4+, RA4+), would reflect academic activities undertaken out of personal choice. Conversely code values in the *remote, unassociated* position of the *exotic* quadrant (PA4-, RA4-) would represent perceptions that non-academic activities were undertaken for other reasons based on external influences. The *projected* quadrant (PA+, RA-) would house positions where the activities are educational but the choice to undertake them was influenced by external factors, while positions located in the *introjected* quadrant (PA-, RA+) would represent non-educational activities chosen by the academic.

Table 29: Translation Device – Autonomy tour – the journey to academia (PA)

	1st Level	For this thesis	2nd Level	Characterised by	3rd Level	Elaborated by	Sample participant statements
PA + ↕ -	*Target*	Academic/ Educational Activity Cultural/Social capital	*Core* (++)	Academic (HE) with lifelong learning opportunities	*Inner (+4)*	Full-time student	*I went to university to do my BSc.*
					Outer (+3)	Some external obligation/responsibility eg. Sponsorship or paid work	*I did a degree as a student and was sponsored by an employer*
			Ancillary (+)	Educational (FE/School)/cultural activity leading to or using recognised educational qualification	*Inner (+2)*	Full-time student	*I did a BTEC National [Diploma]*
					Outer (+1)	Some external obligation/responsibility eg. Sponsorship or paid work	*I got an HNC which was equivalent to A levels whilst working and whilst bringing up a family as well…*
	Non-target	Non-academic/ Employment Activity Social/Economic capital	*Associated* (-)	Professional or occupational activity leading to career relevant skill	*Near (-1)*	Apprenticeship/volunteering or recognised professional accreditation	*I managed to get a technical apprenticeship where they put me through an HNC part time on day release*
					Remote (-2)	Career relevant role/business owner. Economic capital with social and/or cultural capital	*I gave some commercial training courses when I worked in industry*
			Unassociated (--)	Work activity	*Near (-3)*	Skilled labour	*I was teaching adventure education*
					Remote (-4)	Unskilled labour/no work	*I drifted from one job to another – manual labour… unskilled*

Table 30: Translation Device – Autonomy tour – the journey to academia (RA)

	1st Level	For this thesis	2nd Level	Characterised by	3rd Level	Elaborated by	Sample participant statements
RA + -	***Target***	Academic/ cultural influences	***Core (++)***	Academic drivers	***Inner (+4)***	Following own desire/enjoyment	*I had a year out and I went back and studied [another subject]. Which was my choice"*
					Outer (+3)	Some coercion/obligation	*t was always assumed that I would go to university"*
			Ancillary (+)	Cultural drivers	***Inner (+2)***	Following own desire/enjoyment	*I did a YTS – I was interested in [the subject] and it was what people in my situation were doing*
					Outer (+1)	Some coercion/obligation	*I ended up on a YTS because my mother thought it was a good idea*
	Non-target	External/socioeconomic influence	***Associated (-)***	Emotional/professional drivers	***Near (-1)***	Following own desire/enjoyment	*because I know the education in university and what I learnt it's not really suited to industry … so I just tried to get some [technical] certification*
					Remote (-2)	Some coercion/obligation	*I'd be in my late 30s… I think I was travelled out …and I was getting married that year …so things as they do often coincide …so it suited me to go back to in [my home county]*
			Unassociated (--)	Economic drivers	***Near (-3)***	Some freedom of choice	*So, then I sat down, and I worked out not how much can I earn, but how much do I need, and it was about half of what I was being paid …*
					Remote (-4)	Absolute necessity	*…we needed the money… staying on at school was not an option for me…*

5.5.1.1.1 Participant Profiles

The *autonomy tour* visualisations of the development of secondary habitus for Jordan, Aubrey and Charlie are provided in Figures 22, 23 and 24 along with a brief participant profile to illustrate the journey. In the visualisations, the stages of the journey are marked with circles shaded with the participant's allocated colour and numbered to show the order. The starting circle is outlined in green, and the final circle is outlined in red. The circles are joined by grey arrows depicting the *autonomy tour*. In the participant profiles below, the reasoning behind the positioning of the *autonomy codes* is given and this provides narrative that elucidates the stages of the journey to academia for each participant.

Participant Profile: Jordan

Secondary Habitus Autonomy Tour

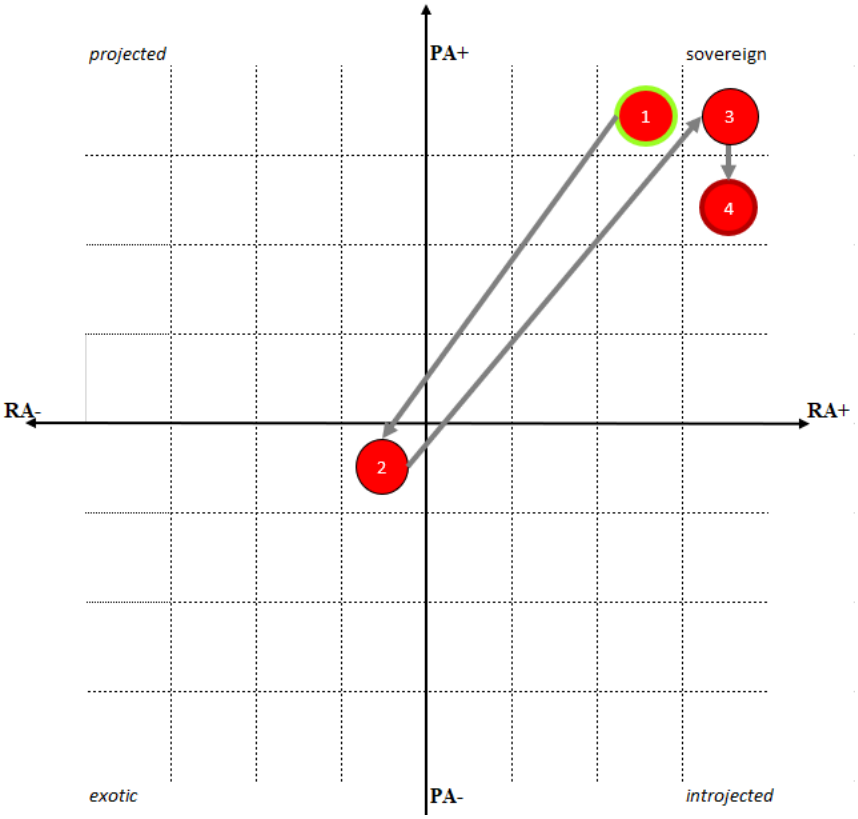


Figure 22: Secondary habitus autonomy tour: Jordan

Journey to Academia

1 Jordan went to university straight after school (PA +4). This was a family expectation (RA 3+) as both parents were university lectures as captured in the statement:

> "An academic role, academic job was kind of in the family".

They were able to choose the subject (computing).

2 However, after graduating, they recognised the need to have technical skills that could be used in industry (RA-1) and would be needed by students intending to pursue careers in computing. They therefore enrolled on some technical courses leading to recognised technical qualifications (PA-1):

> "… because I know the education in university and what I learnt it's not really suited to industry … so I just tried to get some [technical] certification "(RA-1)

3 Having completed technical qualifications, they focused on their interest in pursuing a career in academia:

> "I was thinking about research or a teaching future for myself" (RA +4)

They returned to university to undertake the necessary post graduate qualifications for this stating:

> "I continued the academic path with MSc in the relevant subject and also later with a PhD." (PA +4)

The academic path had become a chosen career.

4 To provide further experience relevant to an academic career alongside the PhD with financial reward which meant some external obligations (PA+3, RA+4).

> "… towards the end of my PhD I also did two years research lead on a research project… that also was more related to my research kind of background".

Jordan perceived this as the start of an academic career which led to lectureship at a different university and continued at the case study university.

Participant Profile: Aubrey

Secondary Habitus Autonomy Tour

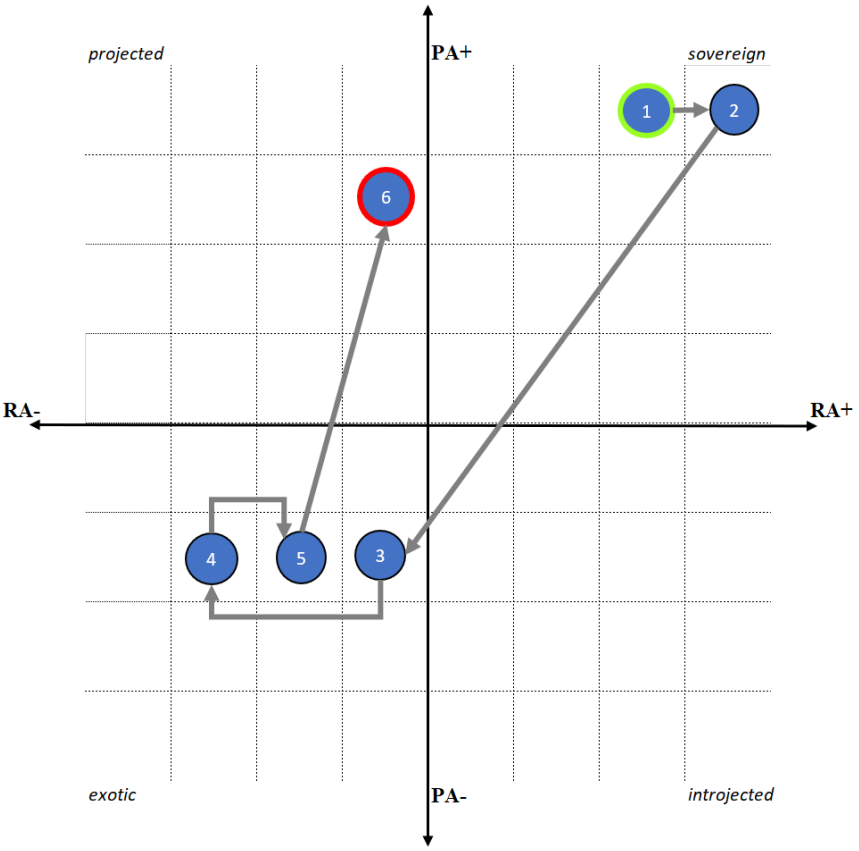


Figure 23: Secondary habitus autonomy tour: Aubrey

Journey to Academia

1

Aubrey went to university straight after school (PA +4). This was a family and school expectation (RA 3+) which they captured in their statement:

> "It was always assumed that I would go to university".

They also found they had little choice in the subject studied.

2

Ultimately, they found the subject was not to their liking and made a personal choice to leave university and return the following year stating:

> "I chose to go back to university (PA+4) and studied [a subject which was] more up my street ", (RA +4)

The second time around was more their choice both in terms of the decision to return and in the subject choice.

3 After graduating they spent some time in industry. This was driven by an interest in career development moving around to different roles to increase professional standing and remuneration.

> "20 years or something working in various areas of big businesses in computing and information systems and business systems generally both with and without computers."

The driver appeared to be professional career development (RA-1).

4 However, after 20 years, this changed.

> "I got to the point where I was doing a pan-European project manager role. I didn't like being away from my family …[so]…I sat down and I worked out not how much can I earn, but how much do I need and it was about half of what I was being paid … so I then looked at jobs that paid slightly more than half of what I was being paid at the time and there was one at the School of Computing at [a post 1992 university] - Enterprise Manager - they wanted somebody to sell academic expertise in the outside world and deliver to projects for which they had massive funding".

This was still a business role (PA-2), though Aubrey recognised it as a step away from the business career. There was a desire to be closer to home and an economic obligation to provide for the family (RA-3). The choice of role was not a professionally motivated decision - the role was taken to provide the necessary economic capital using skills developed in industry.

5 However, Aubrey found working in a business role in academia challenging as they were not in control of the academic factors (such as marking) that could prevent an academic providing their expertise to industry clients in a timely fashion.

> "So… I left the University, did a project [in industry] for a couple of years".

This was motivated by a desire to return to their career in industry and away from a challenging situation. However, this time, there was an obligation to provide for the family (RA-2).

Ultimately, the return to academia to a teaching role was driven by a desire to return to the academic environment but this time working with academics as an academic (PA+3). Aubrey recognised this as their vocation stating:

> "The first time I stood in front of 250 students to deliver a module that was taken by all the computing students in the first year - we tell them what's happening - it was my epiphany moment, because that's when I realised it was what I wanted to do when I grew up".

As an academic, Aubrey had an interest in employer related activities stemming from their time in industry (RA-1)

Participant Profile: Aubrey

Secondary Habitus Autonomy Tour

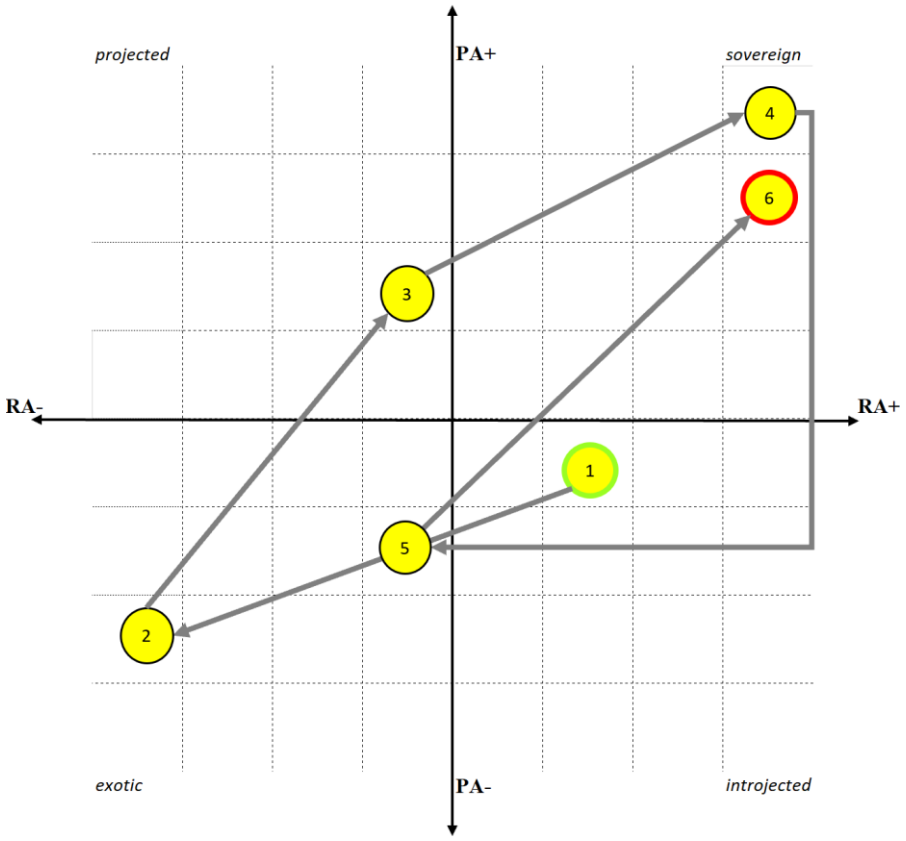


Figure 24: Secondary habitus autonomy tour: Charlie

Journey to Academia

1. Charlie left school or in their words:

> "Drifted out of school with three O levels".

They came from a single-parent family and needed to work. They got onto a government sponsored youth opportunities programme (YTS), (PA-1).

> "I did a YTS – I was interested in [the subject] and it was what people in my situation were doing" (RA+2)

2 After this, Charlie moved through various organisations - the driver was economic as they strived to move up in the organisations to more lucrative positions (RA -4), gaining experience and skills (PA-3).

3 The move back to education was initially professionally driven (RA-1) as exemplified in the statement below:

> "I kept hitting this glass ceiling no qualifications… no qualifications ...can't go any further

Charlie worked through level 2, 3 and 4 (HNC) qualifications (PA+2)

4 However, the move to HE as a full-time student PA+4, RA+4 was more of a personal choice:

> "… one of the lecturers changed my life back in 1997 and talked me into coming to university … So that's how I ended up doing a degree".

Charlie reflected positively on their experience of education as follows:

> "You get this perception of academic qualification as just a piece of paper. Having been through the process myself …as we know now …it's much more than that now… it's a life building experience".

5 After graduating, Charlie chose to back into industry, into a graduate job (PA-2). There was potentially an obligation to make money but there was a choice of career and Charlie chose one that interested them as the following statement suggests.

> "I worked in mobile technology … […] … and I was fascinated" (RA-1)

6 The motivation to return to university as an academic (PA+3) was personal choice fuelled by a desire to research (RA+4) as the statement below indicates:

> "I was reading about [mobile technology]one lunchtime in my own time and my boss went …'what are you doing' …and I said 'researching' …and he said 'I don't pay you to do research'…and it was like an icy chill …and you know what… it's true …[…] industry isn't really that interested in research- it wants biscuits at the end of the day -get the biscuits off the end of the production line- and I missed research and I was enjoying reading and learning…[so]… I came into academia, and I've been in academia ever since".

To explore commonalities in secondary habitus the *autonomy tours* were compared, and higher order codes were derived as shown in in Table 31 (below).

Table 31: Factors from autonomy tours that impact secondary habitus

Higher Order Code	Explanation
The starting point	An indication of the initial goal after leaving school
The quadrants visited	An indication of the journey taken and the reasons for the journey (academic or otherwise). This provided an idea of breadth of experience gained outside academia.
The end point	An indication of the motivation (vocational or career based) and career pathway chosen (teaching or research)

Using the start and end points, the following secondary habitus possibilities existed and were added as sub-codes in NVivo:

- **SH1 –** The autonomy tour starts and ends in the sovereign quadrant.
- **SH2 -** The autonomy tour starts elsewhere but ends in the sovereign quadrant.
- **SH3 -** The autonomy tour starts and ends outside the sovereign quadrant.
- **SH4 -** The autonomy tour starts in the sovereign quadrant but ends elsewhere.

Participants had varying length and breadth of experience outside the sovereign code which was considered through medium-order sub-codes in NVivo. The following Lower-order codes were used to denote each quadrant outside the sovereign quadrant to capture breadth of experience:

- **PROJECTED (P):** Time in the projected quadrant.
- **INTROJECTED (I):** Time in the introjected quadrant
- **EXOTIC (E):** Time in the exotic quadrant

Participants had varying length of experience outside the sovereign quadrant and from the biographical narrative data it was not always possible to be precise about the length of time that participants spent in each quadrant. Three lower-order codes were used to denote the length of experience outside the sovereign quadrant as follows:

- **LONG:** Time outside the sovereign quadrant was ten years or longer
- **MEDIUM:** Time outside the sovereign quadrant was less than ten years but greater than two years
- **SHORT:** Time outside the sovereign quadrant was less than two years

In addition to the codes above, a further medium-order code and sub-codes were derived from the professional profile forms. The **profile factors** used and the reason for consideration are discussed below:

- **Type of contract (permanent/non-permanent, Full-time/Part-time):** The increase in part-time contracts was noted in the literature review as having resulted in part from loss of tenure following the Education Reform Act, (1988). Lack of job security was found to negatively impact personal academic autonomy, (Megoran and Mason, 2020).
- **Length of time in Sovereign:** The maximum length of time that a participant in the case study could have been involved with an apprenticeship at the time of data gathering was three years compared with the length of participation in HE which for some participants was more than twenty years. For participants relatively new to HE, the time of involvement in apprenticeship may be similar to their involvement in HE and their habitus may be adjusting to both simultaneously. Also, they would only have experienced the reduced state of academic autonomy towards the end of phase 2 of the HE delivery timescale. Those with a longer involvement in HE experienced the gradual erosion of academic autonomy between phases 1 and 2 of the non-apprenticeship university delivery. They may be in a better position to judge whether the reduction in autonomy after the 2015 apprenticeship reform constituted a continuation of the gradual erosion that was already happening in HE or a step change.

A section of the resulting NVivo code structure is shown on the following page.

OVERARCHING CODE: [Secondary habitus]

HIGHER-ORDER CODE: [Starting Point]

HIGHER-ORDER SUB-CODE: [SH1]

MEDIUM-ORDER CODE: [Experience outside sovereign]

MEDIUM-ORDER SUB-CODE-[Length of time outside sovereign]

LOWER-ORDER-CODE: [Long]

LOWER-ORDER-CODE: [Medium]

LOWER-ORDER-CODE: [Short]

MEDIUM-ORDER SUB-CODE: [Quadrants Visited]

LOWER-ORDER-CODE: [Projected]

LOWER-ORDER-CODE: [Introjected]

LOWER-ORDER-CODE: [Exotic]

MEDIUM-ORDER CODE: [Profile factors]

MEDIUM-ORDER SUB CODE: [Length of time in sovereign]

MEDIUM-ORDER SUB CODE-[Contract]

LOWER-ORDER-CODE: [Permanent]

LOWER-ORDER SUB-CODE: [FT]

LOWER-ORDER SUB-CODE: [PT]

LOWER-ORDER-CODE: [Non-Permanent]

LOWER-ORDER SUB-CODE: [FT]

LOWER-ORDER SUB-CODE: [PT]

HIGHER-ORDER SUB-CODE: [SH2]

…

HIGHER-ORDER SUB-CODE: [SH3]

…

HIGHER-ORDER SUB-CODE: [SH4]

…

5.5.1.1 Defining Overall Typologies

The idea of primary habitus was derived from Durkheim who wrote that “In each one of us, in differing degrees, is contained the person we were yesterday” (in Pickering, 2005, p11). Bourdieu describes this as “Embodied history, internalized(*sic*) as second nature” (Bourdieu, 1990, p.56). As primary habitus tends to persist and hence underpins secondary habitus, I chose secondary habitus to form the basis for classification into typologies. Table 32 (page 183) shows the background profiles of all participants including the base typology and the primary and secondary habitus coding from NVivo. I named the overall typologies CAREERIST, ACADEMIC, VOCATIONAL and CORPORATE after the motivation for staying in or returning to HE. I will use capitals for the typologies throughout to distinguish use of these words in this context from their general usage.

Table 32: Background Profiles and Typologies

id	Typology	Primary *Habitus*	Secondary *Habitus*						
			Base	Experience outside Sovereign				Profile factors	
				Length	Breadth			Contract at time of data gathering	Years as an academic in Sovereign
					Quadrant				
					I	P	E		
Riley	ACADEMIC	P1 (H)	SH1	Short		a	a	Permanent	<5
Jordan	ACADEMIC	P1 (H)	SH1	Short		a		Permanent	>=5
Ashley	VOCATIONAL	P1 (H)	SH2	Long		a	a	Permanent	>=15
Aubrey	VOCATIONAL	P1 (H)	SH2	Long		a	a	Permanent	>=15
Charlie	CAREERIST	P2 (L)	SH3	Medium	a	a	a	Permanent	>=15
Lee	CAREERIST	P2 (L)	SH3	Medium		a	a	Non-permanent PT	>=5
Pat	CAREERIST	P1 (H)	SH1	Medium		a	a	Permanent	>=5
Alex	CAREERIST	P2 (H)	SH3	Long		a	a	Permanent	>=10
Sam	CAREERIST	P2 (H)	SH3	Long	a	a		Non-permanent FT	<5

From Table 32, aside from Aubrey and Ashley who have exactly the same background profile, all other participants within typologies have differences in the augmentations with these differences being most pronounced in the CAREERIST typology.

Descriptions of the typologies related to the participants assigned to them are as follows:

5.5.1.1.1 The ACADEMIC Typology

Participants Jordan and Riley are assigned to this typology. Participants assigned to this typology have PH1 primary *habitus* classification and went straight to university after school. They have experience outside the *sovereign* quadrant, hold doctoral qualifications and undertake research. Jordan's *autonomy tour* was shown alongside a profile of their journey to academia and exemplifies this typology. The *autonomy tours* for Riley and Jordan are shown together are shown together for comparison in Figure 25 (below).

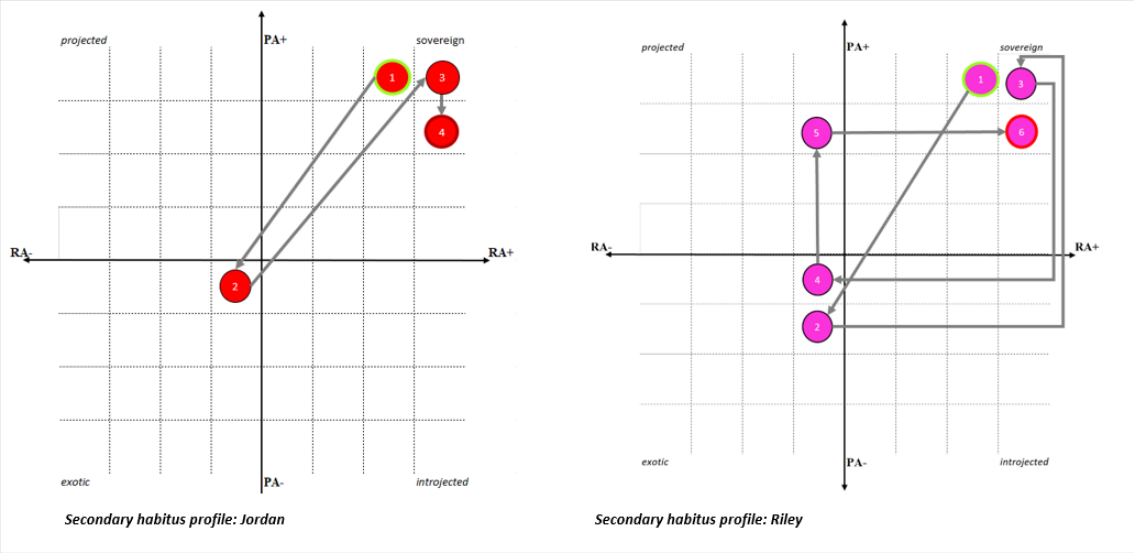


Figure 25: Secondary habitus tours - ACADEMIC typology

5.5.1.1.2 The VOCATIONAL Typology

Participants Ashley and Aubrey are assigned to this typology. Participants assigned to this typology have had PH1 primary *habitus* classification and went straight to university after school. They spent a long time in the *exotic* quadrant and developed graduate careers. Their motivation to return to HE was vocational and as academics they perceived themselves as teachers rather than researchers. They had an interest in employer related activities stemming from their time in industry hence their final position in the *projected* quadrant. A brief profile of Aubrey's journey to academia is

provided with links to their *autonomy tour* and exemplifies this typology. The autonomy tours for Ashley and Aubrey are shown in Figure (page 186) below for comparison.

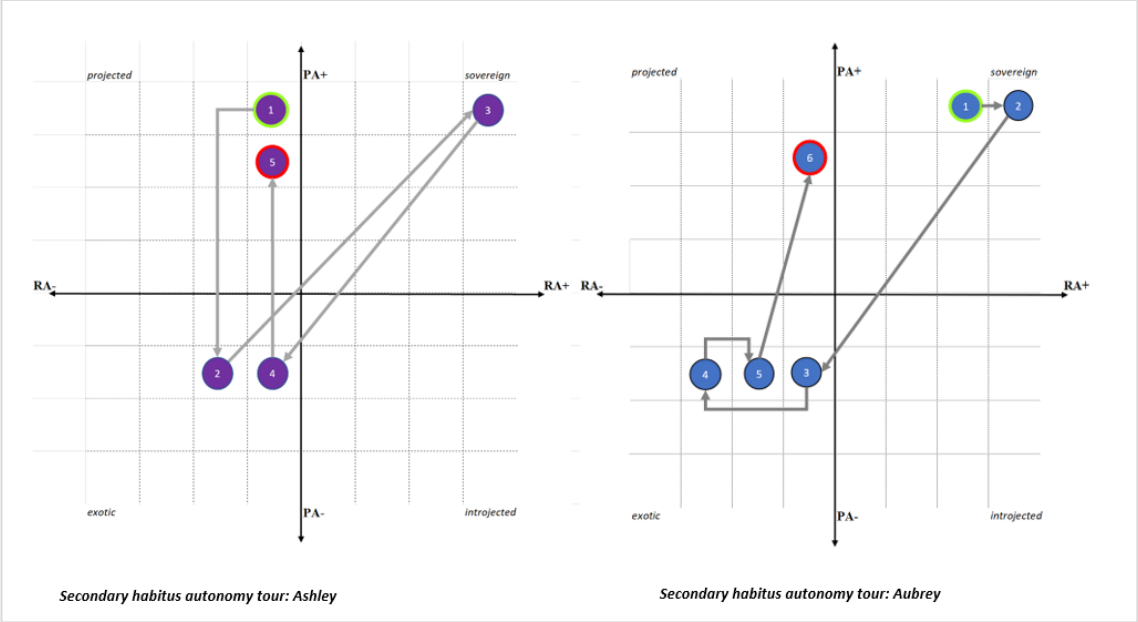


Figure 26: Secondary habitus tours - VOCATIONAL typology

5.5.1.1.3 The CAREERIST Typology

Participants assigned to this typology did not go directly to university after school and had external experience starting in non-academic fields prior to entering HE. The motivation for entering HE to take a higher-level qualification was career progression and having decided to stay in HE they all embarked on doctoral qualifications to aid career progression. Participants Lee, Charlie, Sam, Alex and Pat are assigned to this typology. It was difficult to assign a typology to Pat as in common with Jordan and Riley, they had PH1 (H) primary *habitus* and went straight to university after school. However, they had spent a medium amount of time outside the sovereign quadrant and like the others in this typology, returning to HE was motivated by career opportunities rather than personal desire. Also like the others in this classification, they were pursuing a doctoral qualification, again with an academic career in mind. It should be noted that Lee and Charlie were assigned the PH2 (L) type as both noted challenging economic circumstances in their upbringing. A brief profile of Charlie's journey to academia is provided with links to their *autonomy tour* and exemplifies the CAREERIST (L) typology. The autonomy tours for Lee and Charlie are shown in Figure 27 (page 187) for

comparison. The difficulty in assigning typology is to be expected as *habitus* has been described as a "slippery concept" (Davey, 2009 p282).

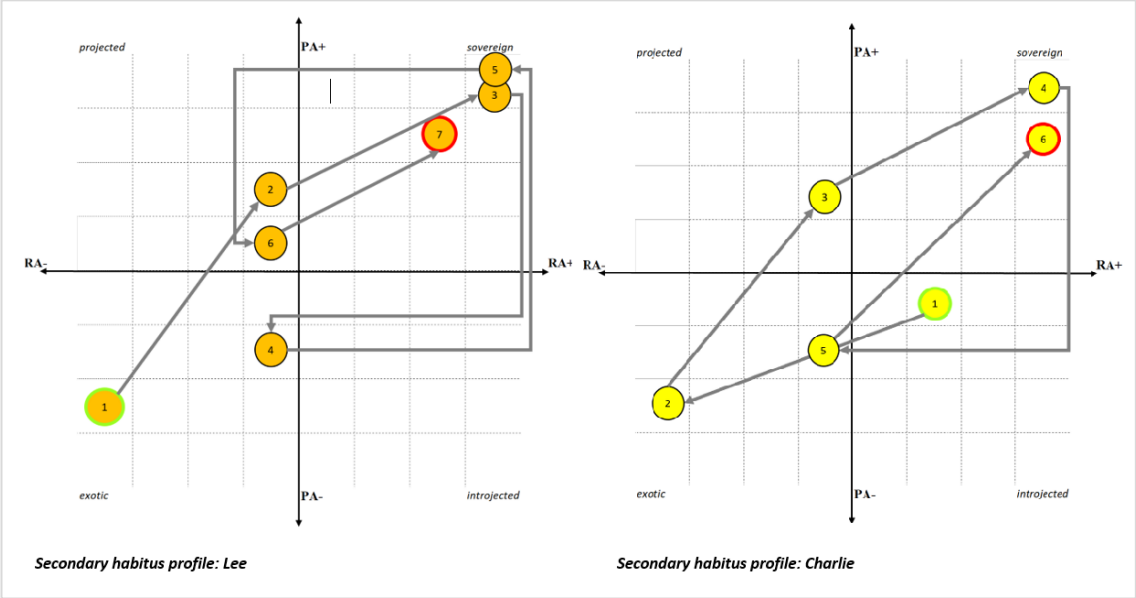


Figure 27: Secondary habitus tours - CAREERIST (L) typology

Pat, Sam and Alex were assigned PH2 (H). Their autonomy tours are shown in Figure 28 on the next page for comparison.

5.5.1.1.4 The CORPORATE Typology

Participants assigned to this typology would have gone straight to university after school but while remaining as academics, they would be more inclined towards externally oriented activities such as Knowledge Transfer Programmes and perhaps management, rather than either teaching or research. No participants in the case study were assigned to this typology. As the research participants needed to be teaching on both apprenticeship and non-apprenticeship programmes, academics with this typology would have been unlikely to meet the criteria for selection and therefore the lack of participants in this typology was to be expected.

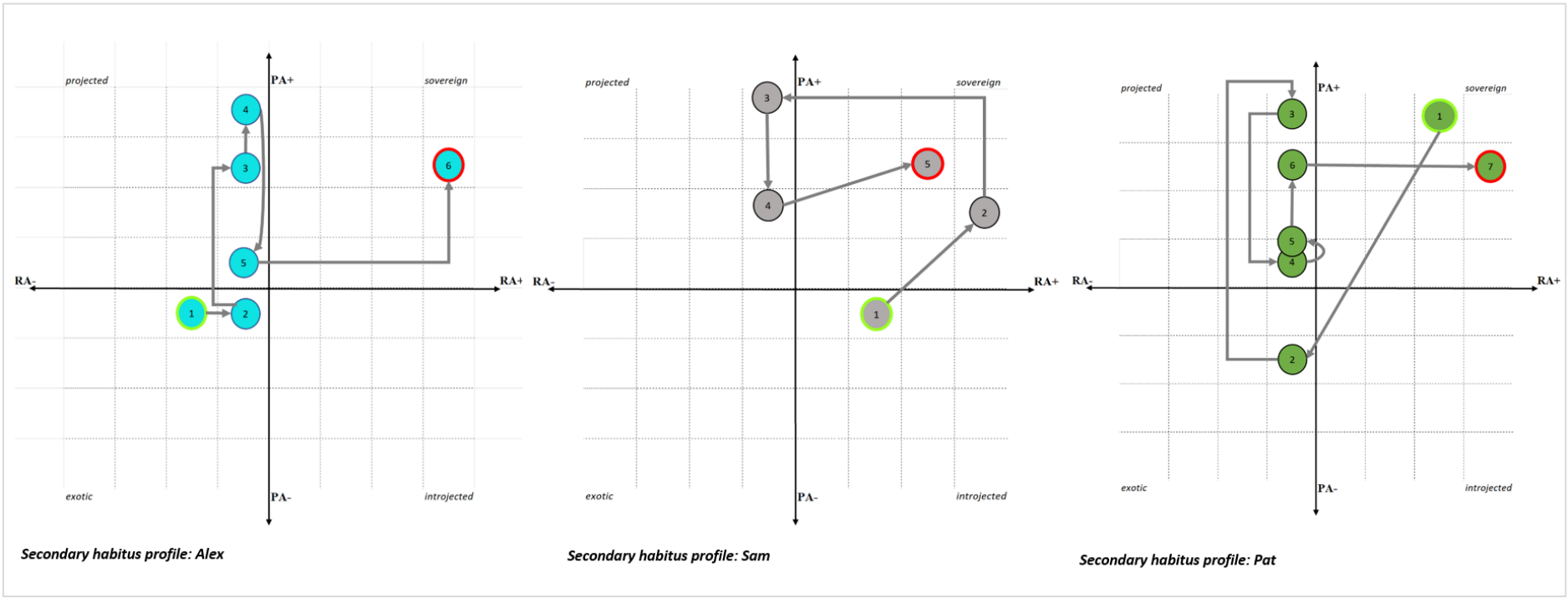


Figure 28: Secondary habitus tours - CAREERIST (H) typology

5.5.2 Commonalities Relating to Perceptions of Academic Autonomy

For research question one, locations were plotted for academic and non-apprenticeship work for each layer of academic autonomy. The resulting visualisations show the distribution of perceptions of nine academics providing data source triangulation. These visualisations can be found as follows and are shown as thumbnails for ease of reference:

- Macro layer (institutional) Figure 15 (page 126)
- Meso Layer (role-based) Figure 18 (page 143)
- Micro layer (personal) Figure 20 (page 156)

To answer research question two, the measures below were considered to gauge commonality within typologies for each layer.

- **Benchmark position:** The position where participants located themselves on the autonomy plane for non-apprenticeship university work (used as a benchmark).
- **Difference:** The difference between the perception of autonomy around non-apprenticeship courses and apprenticeship programmes was measured for each participant in each layer. This was a direct measure of the autonomy *shift*, between a participant's code location for academic work and that for apprenticeship work. It was measured by drawing a straight line between the two locations for each participant on the autonomy plane and standing the lines vertically against a numeric scale. In bourdieusian terminology, the difference metric provides a crude measure of the "refraction coefficient" (Bourdieu, 1993 p182). The refraction coefficient indicates the extent to which an individual's *habitus* must mutate to fit in when moving between delivery types. For reference purposes, the greatest measure for the distance metric would be from the *inner core* cell to the *unassociated remote cell* which measures 9.5 units. The smallest measurable *shift* would be 1 unit.

In addition to the above, the profile factors were also considered, and any commonality noted. Specific note was made of whether the commonality was based on primary *habitus*, secondary *habitus* developed *en route* to academia or the other profile factors.

5.5.2.1 Commonality in Perceptions of Autonomy in the Institutional Layer

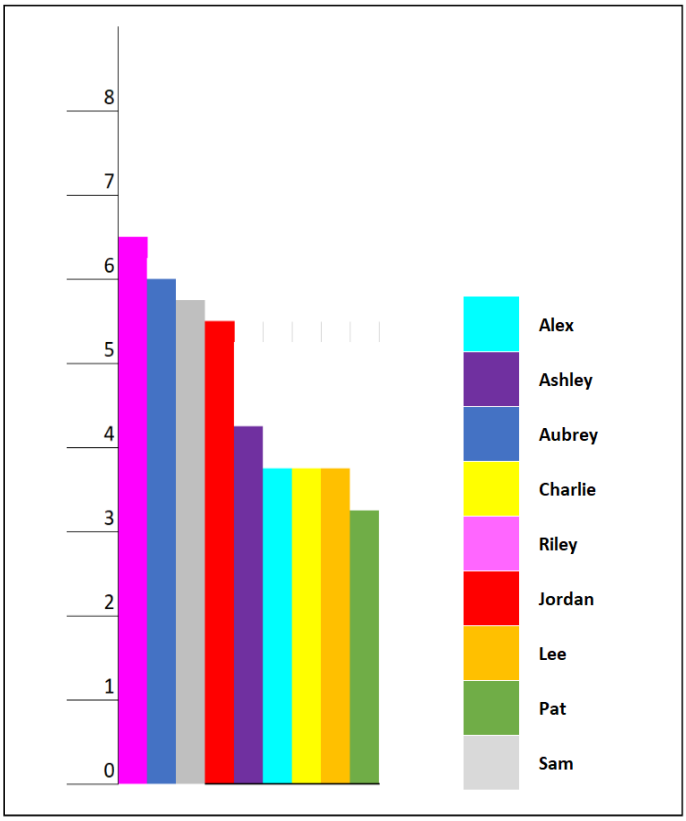
In terms of benchmark position, there did not seem to be any commonality within background typologies in the distribution pattern in Figure 15 (see thumbnail on page 191). The graph in Figure 29 (page 190) shows the measure of difference between location for non-apprenticeship and apprenticeship work for each participant based on Figure 15. The difference measure for institutional autonomy reflects the perceived difference in the purpose and values (PA), and the roles taken, and relationships developed with learners (RA) in apprenticeship compared with academic contexts. The greatest measures of difference (>5 units on the numeric scale) were held by Riley, Aubrey, Sam and Jordan. Riley, Aubrey and Jordan have the PH1 Primary *habitus* demonstrating some commonality between primary habitus and perception of difference. Riley and Jordan are in the ACADEMIC typology with Sam as CAREERIST (H). Jordan (quoted earlier) recognised the importance of research to career progression and Riley was keen to embed it in their teaching stating:

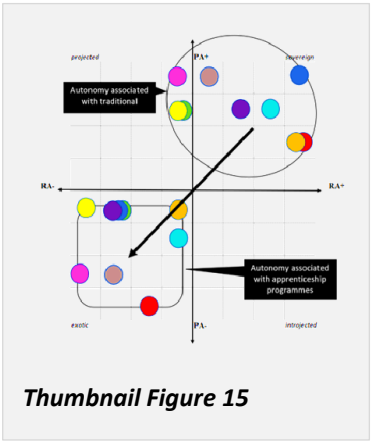
> "I spent five years on research - I should […] embed it into to my teaching as well!".

Jordan (quoted earlier) noted that the case study university did not prioritise research as an institution and perhaps this lack of priority explains the large difference measure for those assigned a CAREERIST and ACADEMIC typology.

The large perception of difference for Ashley, Aubrey and Sam could stem from the relative time associated with each context as gleaned from their professional profiles. Ashley and Aubrey had a long experience in academia compared to their work in apprenticeship. It could be that their *habituses* had gradually adjusted to the slow erosion of academic autonomy over time within their academic work but having grown accustomed to the 'rules of the game' in academic work, they suffered from what Schneider and Lang (2014, p91) termed "habitual unsettledness" around apprenticeship with its very different *doxa*. Conversely, Sam had only recent experience of academia but much longer experience in apprenticeship. Given Sam's relatively recent introduction to the delivery of academic work compared with their experience of apprenticeship programmes, they were most probably accustomed to apprenticeship

work and found the academic values slightly alien also leading to the perception of a large difference between the two.





Thumbnail Figure 15

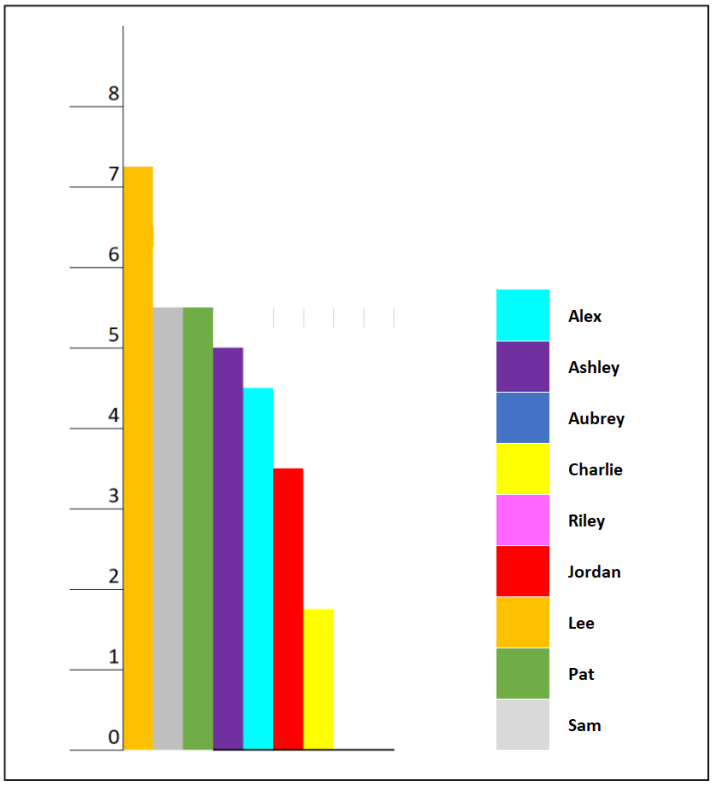
Figure 29: Comparison of autonomy shift in institutional autonomy

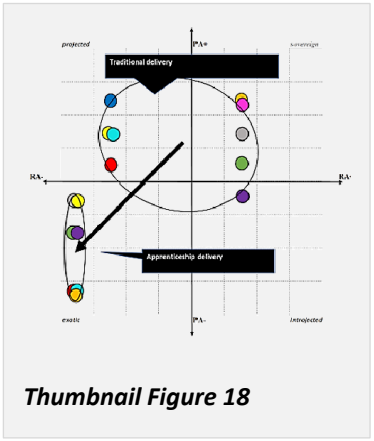
Charlie, Lee, Alex and Pat are all perceived between 3 and 4 units on the scale of difference. Charlie, Lee, Pat and Alex are classified under CAREERIST typology. For Lee, Alex and Pat, their route to academia included time teaching in pre-HE education (P). This similarity in secondary *habitus* could provide a potential explanation for the lower perception of difference as the analysis in this layer found that some participants (including Pat and Charlie) adopted a teaching role when working with apprentices. The fact that the lowest difference was perceived by those who had taught in pre-HE institutions on their route to academia could be significant as perhaps they were able to draw on this skill set when working with apprentices and retained a memory of the quality assurance monitoring regime of Ofsted making it easier for their *habituses* to adapt. Ashley is measured at just over 4 units – between the two groups. From their *habitus*, and the analysis above, a slightly larger shift would have been predicted but there may have been other factors involved that were not under investigation. These factors could have been specific to the type of modules generally delivered by a

participant or could have related to a specific experience with a particular delivery that stood out.

5.5.2.2 Commonality of Perceptions of Autonomy in the Role-based Layer

Based on Figure 18 (see the thumbnail shown next to the graph below), the participants were located in two discrete distributions, one containing Lee, Riley, Sam, Pat and Ashley positioned in or close to the *sovereign* quadrant and the other containing Aubrey, Charlie, Alex and Jordan in the *projected* quadrant. Those in the projected quadrant felt that while the curriculum content associated with non-apprenticeship delivery was largely under their control, the pedagogy was monitored against external frameworks. There was a spread of participants of each typology across both distributions indicating that this the benchmark perceptions did not appear to be related to typologies. The graph in Figure 30 below shows the measure of difference between location for non-apprenticeship and apprenticeship work for each participant based on Figure 18. The difference measure for role-based autonomy reflects the perceived difference in autonomy around curricula (PA) and monitoring of performance (RA).





Thumbnail Figure 18

Figure 30: Comparison of autonomy shift in role-based autonomy

To note, participants Riley and Aubrey are not included in this analysis as it was not possible to locate Riley for apprenticeship delivery or Aubrey for non-apprenticeship delivery meaning that difference could not be calculated. Role-based autonomy was particularly impacted by quality assurance measures which were less collaborative for apprenticeship and had greater consequences creating a 'climate of fear' around apprenticeship delivery. In the role-based layer, the difference in location represents an autonomy *tour* back and forth between the two different delivery environments. It is a measure of the level of disruption experienced to their comfort level.

The perception of greatest difference was for Lee (>7 units) who was employed under a part-time, non-permanent contract. Sam also perceived a high difference (5.5 units) and was also employed under a non-permanent contract, albeit full-time. The 'climate of fear' created around apprenticeship delivery could have had an exacerbated impact for these participants on their comfort level, given their lack of job security which could have led to their perception of greater distance between the two deliveries. Lee captured the additional pressure felt by non-permanent staff stating:

> "… additional administration demand [in apprenticeship work] is something I have to engage with otherwise I will lose work, and that way I don't get paid, and in the future, I don't get offered more work".

While the feeling of insecurity may explain the reasons behind the large difference measure for Sam and Lee, other participants employed under permanent contracts, in particular Pat, also perceived a higher difference which appears anomalous (>5). In Figure 18, Charlie, Jordan and Alex were all positioned in the *projected* quadrant for non-apprenticeship delivery and (as noted earlier) perceived very little difference in terms of impact between the quality assurance measures relating to non-apprenticeship and apprenticeship delivery. The measures came from different sources - university management in response to the NSS for non-apprenticeship delivery and Ofsted as the regulatory body for apprenticeship delivery - but the impact on their academic autonomy was clearly perceived to be similar. Ashley perceived a difference of 5 units. Ashley was in the VOCATIONAL typology and felt an affinity with both academia and apprenticeship stating:

> "I come in from that [industry] route and I was a mixture of the two things really between academia …. […] but I … felt I was in a sort of piggy in the middle, and I could bridge those two things".

Given the statement, I might have expected a smaller distance measure though Ashley had worked for over twenty years in Academia and had therefore experienced the gradual decline in academic autonomy and, as previously discussed, perhaps found the sharp reduction associated with apprenticeship unsettling.

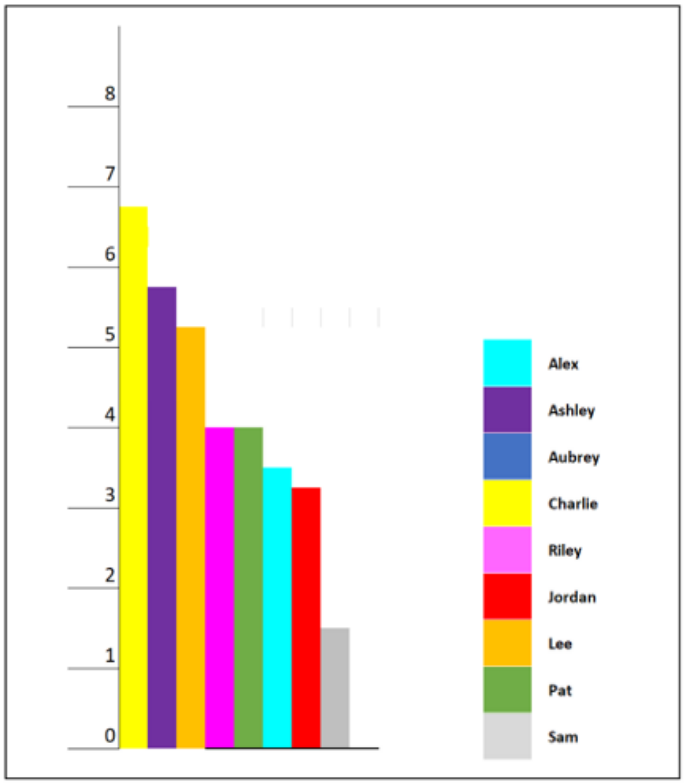
5.5.2.3 Commonality of Perceptions of Autonomy in the Personal Layer

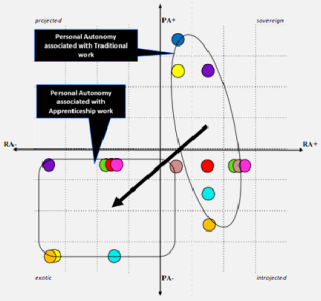
Figure 20 (thumbnail page 194) shows the benchmark measure for personal autonomy. Unlike for the institutional and role-based layers of autonomy, at the personal layer, there appears to be a high degree of commonality in the autonomy code positions within typologies. The graph in Figure 31 (page 194) shows the measure of difference between positions for non-apprenticeship and apprenticeship work for each participant based on Figure 20. The difference measure for personal autonomy reflects the perceived difference in autonomy around decision making (PA) and the nature of the decision-making process (RA).

Those in the CAREERIST typology (apart from Charlie) wished to move forward in their careers. They would therefore have needed to play by the 'rules of the game' and to succumb to the *illusio* of the field by undertaking work aligned to the rules (Bourdieu, 2000). The rules of the game are determined by the quality assurance frameworks in the context. In terms of academic goals, this might involve choosing research that is in line with the requirements of the REF or conforming to the quality assurance measures of the TEF. In terms of apprenticeship, it might have meant undertaking the related administration to ensure compliance. Decision making may have been perceived as managerial where it resulted in undertaking work that was not in line with choice.

The participants (Aubrey and Ashley) with the VOCATIONAL typology are positioned in the *sovereign* quadrant. Those assigned to this typology are more interested in pursuing links with employers than research which makes them less likely to succumb to the *illusio* of the HE field. To note, participant Aubrey was not included in this comparison analysis as it was not possible to position Aubrey for apprenticeship delivery so distance could not be measured.

There appear to be commonalities within typologies. *Illusio* results from symbolic violence and for the CAREERIST and ACADEMIC typologies where participants are interested in pursuing a career, the need to comply with external frameworks may be perceived as similar to complying with apprenticeship requirements albeit without the excessive managerialism associated with apprenticeship programmes. This perhaps explains the participants in these typologies perceiving less of a distance between the two environments. Those assigned VOCATIONAL typology (Ashley) who had a career prior to joining academia were less likely to succumb to *illusio* around the non-apprenticeship field which would have led to a greater distance measure as the symbolic violence around the apprenticeship programmes would have been perceived to be much greater than in non-apprenticeship work. The large shift (>5 units) shown for Ashley perhaps demonstrates this.





Thumbnail Figure 20

Figure 31: Comparison of autonomy shift in personal autonomy

Both Lee and Charlie also show large shifts (>5 units) and they both had the CAREERIST (L) typology. The need to remain valuable to the university appeared to facilitate symbolic violence in both types of work but particularly with apprenticeship owing to the consequences for the university (and thereby their potential to work) of non-

compliance. The drive to succeed and remain in work stemming from primary *habitus* may have resulted in a greater sense of the symbolic violence around apprenticeships. Lee was employed as a non-permanent, part time member of staff and it is possible that this profile factor also contributed to the difference measure. Lee (5.5 units) explained the extent to which being hourly paid impacted their perceptions in the following statement:

> "I feel that as an hourly paid lecturer the choices are not made by me, they are made by the people around me … do I feel like an academic? That doesn't make me feel like an academic - it doesn't make me feel like I'm empowered in that decision-making".

While there was a choice, it was not a free choice given there was a need to work. This is an illustration of the reduced autonomy and disempowerment brought about by the loss of tenure as a result of rationalisation through NPM and the impact of other factors on perception.

5.5.2.4 Summary of Commonalities in Perception of Autonomy

The creation of base and augmented background typologies was helpful in determining commonality in perceptions and providing explanations for these. Using typologies with their augmentations, there appeared to be some relationship between the background of an academic (as represented by their background typology and profile factors) and their perceptions of academic autonomy, particularly in the institutional and personal layers. Background did not appear to overtly influence the benchmark position in the institutional and role-based layers, but its influence was more evident in the personal layer. In terms of the difference measure, at institutional level both primary and secondary *habitus* were important. In the role-based layer, profile factors (in particular, contract type) appeared to play a part though there was a lack of data for Aubrey and Riley for the difference measure which precluded deeper insights. At the personal level, primary and secondary *habitus* and profile factors all played their part in establishing commonalities and it is at this level that background appeared to have most influence on perception.

5.5.3 Other Commonalities

At the end of each semi-structured interview, two summary questions were asked of participants which were not specifically linked to academic autonomy. Their purpose was to provide participants with an opportunity to summarise their experience in apprenticeship work more generally. The summary questions were as follows:

- SUMMARY QUESTION 1: Which do you prefer and why – your non-apprenticeship work or your apprenticeship work?
- SUMMARY QUESTION 2: Do you feel that your involvement with apprenticeships has been positive for your professional development? Why/Why not

The output from these questions was used to determine whether the overall experience of apprenticeship delivery was positive or negative for each participant and whether there were any background typology related commonalities in perception that were not related to autonomy. To start off with, two overarching codes were set up to group the comparisons into positive and negative statements relating to apprenticeship work when compared to non-apprenticeship work. However, on examination, statements under the negative code were all found to be linked to perceptions of reduced autonomy. As this had already been considered extensively in the analysis of research question 1, sub-coding was only undertaken for the positive overarching code. As the sub-codes could not be preordained the bottom-up analysis method previously used for the analysis of the biographical narratives was also used for this analysis to enable these to emerge. A section of the resulting NVivo code structure is shown below (noting that the codes have been given a numeric identifier for ease of reference):

1. OVERARCHING CODE: [Positive statements relating to work with apprentices vs non-apprentices]
    1.1. HIGHER-ORDER CODE: [CPD RELATED]
        1.1.1 HIGHER-ORDER SUB-CODE: [Utilising previous work experience to inform apprenticeship work]
            1.1.1.1 MEDIUM-ORDER CODE: [To build relationships]
            1.1.1.2 MEDIUM-ORDER CODE: [To inform curriculum/assessment]
        1.1.2 HIGHER-ORDER SUB-CODE: [Utilising previous life experience to inform apprenticeship work]
            1.1.2.1 MEDIUM-ORDER CODE: [To build relationships]
        1.1.3 HIGHER-ORDER SUB-CODE: [Using experience in apprenticeship delivery to inform non-apprenticeship work]
            1.1.3.1 MEDIUM-ORDER CODE: [Pedagogic considerations]
            1.1.3.2 MEDIUM-ORDER CODE: [To inform curriculum/assessment]
    1.2 HIGHER-ORDER CODE: [EXPERIENCE RELATED]
        1.2.1 HIGHER-ORDER SUB-CODE: [General Apprentice Attributes]
            1.2.1.1 MEDIUM-ORDER CODE: [More commitment and discipline]
            1.2.1.2 MEDIUM-ORDER CODE: [More interest and motivation to learn]
            1.2.1.3 MEDIUM-ORDER CODE: [Greater respect and appreciation]
        1.2.3 HIGHER-ORDER SUB-CODE: [Curriculum delivery]
            1.2.3.1 MEDIUM-ORDER CODE: [Enjoy work-related teaching]
            1.2.3.2 MEDIUM-ORDER CODE: [Enjoy exposure to workplace technologies]

In answer to summary question 1, all participants found that despite the perceived reduction in academic autonomy, their work with apprentices had virtues. Perhaps surprisingly, with the exception of Lee and Alex, all stated that they preferred working with apprentices to non-apprentices. While Lee and Alex also enjoyed working with apprentices, the issues around reduced autonomy appeared to be more keenly felt. Across typologies participants cited general apprenticeship attributes contributing to their positive delivery experience, in particular the apprentices' motivation (1.2.1.2)

For example, Ashley (VOCATIONAL typology) stated:

> "I liked the apprentices… the majority of them were self-motivated, wanted to get somewhere, interested …prepared to assimilate what you gave them but within their own context."

Jordan (ACADEMIC typology) was in agreement confirming:

> "[In terms of preference] I might choose apprentices to be honest …the reason being that they see the need to learn… when it comes to apprentices, they see motivation".

Lee (CAREERIST typology) concurred noting:

> "I do enjoy working with the apprentices. Students on apprenticeships are often … very different to students on full-time courses. The apprenticeship scheme students have that drive…"

The following sections present the typology-based commonalities.

5.5.3.1 Commonalities in the ACADEMIC Typology

In terms of the ACADEMIC typology, the participants found the opportunity to connect with the practical side of the discipline during apprenticeship work useful and enjoyable. On their journey to academia both Riley and Jordan, had taken time out from academic study and research to undertake technical certifications. Both recognised the importance of these technical certifications and practical knowledge to complement and add value to their (and the apprentices') academic knowledge. Both also saw the value of providing real-life scenarios experienced by the apprentices to non-apprentice students (1.1.2.2). For both participants, the practical component contributed to the enjoyment of apprenticeship programme delivery (1.2.3.2). Jordan stated:

> "I was lucky that the course […] was related to my expertise - when it's related to your expertise and your experience, then you enjoy teaching it …".

Riley commented that:

> "… the person [apprentice] is sometimes talking about the real-world scenario that he or she was involved with so I could get that real case study to my other classes."

Both Riley and Jordan felt that apprenticeship delivery both complemented and informed their non-apprenticeship work.

5.5.3.2 Commonalities in the VOCATIONAL Typology

In consideration of the VOCATIONAL typology both Aubrey and Ashley pointed to their previous experience in the workplace as the reason. This came across in Ashley's statement as helping to build relationships (1.1.1.1), and as an enjoyment of work-related teaching (1.2.3.1) along with an interest in how technologies were being used in industry (1.2.3.2). Ashley stated:

> "I love the work context and what they're doing at work… that's always been there with me, and it continues now. I love the challenge with what they faced with and how the employees are working with a product and fascinated with that. I immersed myself in that [in industry] so to be involved with an employee of a firm I am genuinely interested in how they are getting on …what we do in supporting industry really …and that's the raison *d'etre* for me."

Aubrey also found that their previous experience in the workplace helped them to empathise and enjoy the apprenticeship delivery noting:

> "…apprentices generally wanted to learn, and they came from the outside world that I understood and had been in for many years…, there was an easiness of the relationship because we both realised, we were there for particular purposes. I felt as though I was reconnecting with my time in that [industry] sort of world".

5.5.3.3 Commonalities in the CAREERIST Typology

Those in the CAREERIST (PH1-H) typology also found the experiences of apprentices useful for Career and Professional Development (CPD) in terms of pedagogy (1.1.2.1) with Alex noting:

> "I think getting that input from people [apprentices] who are studying and working in a commercial sector has changed some of the examples, ideas and philosophies I use with the non-apprenticeship students so it's actually to my benefit to be honest".

Adding to this, Alex felt that working with apprentices would be a valuable CPD activity for those academics who had never worked in commercial environments noting,

> "... I think that to have to work with apprentices, it would be a steep learning curve for them, but I think it would be really good for their personal progression".

Sam also felt that some of the more teaching-oriented practices and tracking required in apprenticeship could be useful in non-apprenticeship work explaining:

> "… I think it's a challenging thing for anybody to be involved in because of the different styles of delivery and the number of stakeholders involved in quality

> control mechanisms … regular feedback *et cetera…* we therefore have to put a lot of admin. into it, … and those sorts of things are a bit cumbersome, but on the other hand you're forced into the view that you do measure learners as individuals… I feel like there's some things that you learnt on your PGCE that you shouldn't forget."

Pat supported this stating:

> "We probably should be monitoring students most of the time - we have been relaxed …so apprenticeship has been a wake-up call to some of the practices we should be doing."

This typology, unlike the others felt that the monitoring of students, though 'cumbersome' (in Sam's words), was important and could be transferred over to non-apprenticeship delivery. Lee drew a link with the increasing monitoring that takes place through mechanisms such as the NSS and suggested that appeared to be increasing and that apprenticeship delivery helped to prepare staff for this. Alex felt that other colleagues would benefit from teaching apprentices in terms of the delivery informing future curriculum development of non-apprenticeship courses and in terms of the monitoring of students.

Lee, Alex and Pat noted that apprentices tended to be more respectful with Lee stating:

> "Apprenticeship students are much more respectful of the pressures and dynamics around that [lecturer-student] relationship."

While not explicitly apparent in this statement, there was a general feeling from other statements that this respect stemmed from workplace discipline, with Pat providing an example:

> "…they tend to watch their attendance. If they know that they're going to be absent they would try to tell you"

Both Lee and Charlie in the CAREERIST (PH1-L) typology felt they could relate to the apprentices, based on their own experiences (1.1.1.1) outside the classroom. In the following excerpt, Charlie described seeing their own experience mirrored in some of the apprentices:

> " …it was very critical period in my life all those years ago when I was back at school … because if you haven't got that kind of input [encouragement to do well academically] coming in predominantly from people around you - your

> peer group, your family, your friends - you don't get that vibe coming in at all, and I think you end up in the situation that you come out from school short […] and we see in our apprentices … there are some very talented people there …and it's interesting because some of them have […] retained what must've been their classroom persona which is, 'don't care …I don't give a monkeys…' hard ass attitude you know, but when you speak to them off-line, away from the other students they are keen to achieve, and they're extremely committed to what they're doing. So, it's very interesting that they retain this classroom persona in what they're doing. "

Charlie recognised themselves in the some of the apprentices in that they presented a brash 'don't care' attitude possibly stemming from their previous *habitus* as a 'fish out of water' at school. Charlie was able to empathise, feeling that this attitude was a means of hiding the fact that in their apprenticeship, they did care a lot but did not feel like a "fish in the water" (Bourdieu and Wacquant, 1992b p127) . Lave & Wenger (1991) noted that the process of learning brings about change for apprentices and contributes to their identity construction. *Habitus clivé* (or cleft habitus) occurs when a person moves to a field where the *habitus,* they acquire in the field is so dramatically different to their previous *habitus* that the two cannot be reconciled. This is experienced as sense internal division (Bourdieu, 2004). Both Charlie and Lee discussed poverty and lack of achievement in school in their biographical narratives. Having found the motivation to succeed in the HE field, both appeared drawn to helping apprentices with similar starts in life to succeed.

Participants in the CAREERIST typology did not go straight to university and appreciated the second chance at HE and their career in academia Having had to work hard at becoming academics, juggling their learning with other obligations such as parenting and/or work they appeared to empathise with apprentices as non-traditional learners as they themselves had been.

5.5.4 Summary of Other Commonalities

The analysis found that in spite of their perception of reduced autonomy, participants in all three typologies found their work with apprentices had value and this could be linked to their typology. The typology-based commonality in value proposition was more striking than the commonality in perception of autonomy.

The typology-based commonalities can be summarised as follows:

ACADEMIC

- CPD RELATED: Using experience in apprenticeship delivery to inform non-apprenticeship work - Curriculum/assessment.
- EXPERIENCE RELATED: Curriculum delivery – Enjoy exposure to workplace technologies.

VOCATIONAL

- CPD RELATED: Using previous work experience to inform relationship building.
- EXPERIENCE RELATED: Curriculum delivery – Enjoy exposure to workplace technologies.
- EXPERIENCE RELATED: Curriculum delivery – Enjoy work-related teaching.

CAREERIST

- CPD RELATED: Using previous life experience to inform relationship building.
- CPD RELATED: Using experience in apprenticeship delivery to inform non-apprenticeship work in terms of pedagogy/monitoring of students.

There is some overlap in that participants in both the ACADEMIC and CAREERIST typologies placed exposure to workplace technologies in their value propositions. Participants in both the VOCATIONAL AND CAREERIST drew on different types of previous experience (work and life experiences respectively) to inform relationship building in their apprenticeship work.

5.6 Summary

The analyses in this chapter provide findings relating to each of the research questions. Chapter 6 discusses these findings in the context of the overall aim, to move toward an understanding of the impact that apprenticeship programmes have on academic autonomy in a university setting following the 2015 apprenticeship reform.

CHAPTER 6: DISCUSSION AND CONCLUSION

6.1 Introduction

In this chapter, I reflect on my findings to interpret and explain the results presented in chapter 5. The aim of my thesis was to move toward an understanding of the impact that apprenticeship programmes had on academic autonomy in a university setting following the 2015 reform. This was approached through two research questions which were each explored through separate analyses in chapter 5.

Research question 1:

> How, and to what extent do computer science academics perceive that academic autonomy is impacted in the context of apprenticeship programmes compared with non-apprenticeship courses in a university setting?

Research question 2:

> How, and to what extent does the background of an academic influence their perceptions of apprenticeship work?

The two research questions have been linked to metaphorical themes throughout this thesis. I develop these themes in the context of my findings presenting the wider implications and my future vision. I then reflect on the limitations of my thesis and future research opportunities. Finally, I present my contribution to knowledge.

6.2 Themes

My first research question sought to understand the difference in academic autonomy in the context of non-apprenticeship and apprenticeship work and the mechanisms behind this. The insulation of the HE field from external influence was symbolised by the chasm, (Denning, 2001). Academic and vocational education were depicted as two ends of the colour spectrum with academic education depicted towards the red end of the spectrum at the left-hand side of the chasm and vocational education towards the violet end of the spectrum on the right-hand side of the chasm. The literature review found that following the closure of the binary divide in 1992, the HE field had expanded to included vocationally oriented institutions. Alongside this, the apprenticeship model of workplace learning had begun to include academic components and by 2006, the

educational level had reached level 4, the same level as the first year of a university degree. My literature review found that the post-2015 digital apprenticeship programme designs reflected the 'occupational' model' of apprenticeship (Brockmann, Clarke and Winch, 2010) and included mandatory off the job learning to facilitate expansive learning (Fuller and Unwin, 2003). This brought the apprenticeship mode of learning close to that associated with HE. The two sides of the chasm appeared to be moving together. Indeed, with the introduction of the post-2015 level 6 and 7 apprenticeship programmes, an IT employer might have perceived the chasm as having closed. However, my research clearly suggests that this was not the perception of the computer science academics who participated in the case study.

My second research question sought to identify any commonalities between the background of academics and their perceptions of apprenticeship programmes. The differing perceptions were symbolised using different colours for each research participant. The colour spectrum was used to represent the growing diversity of institutions within the HE field, and with this the widening range of academic and vocational programmes offered. The binary nature of the chasm contrasts with the diverse nature of the colour spectrum. My discussion considers how the two themes intertwine and explores the extent to which the chasm was narrowed (and with it how academic autonomy in the case study was impacted) in the context of the post-2015 university apprenticeship programmes.

6.3 Discussion

The analysis relating to research question 1, identified that across all three layers of academic autonomy there was no overlap in the autonomy code positions on the autonomy plane for participants when considering their practice in non-apprenticeship and apprenticeship work. While positions for non-apprenticeship work were centred in the *sovereign* quadrant, for apprenticeship programmes they were mostly in the *exotic* quadrant. This is summarised in Figure 21 on page 162. The graphs (in Figures 29, 30 and 31 on pages 190, 191 and 194 respectively) show the measure of difference in participant autonomy code positions between non-apprenticeship and apprenticeship work depicted LCT as an autonomy *shift* from the *sovereign* to *exotic* quadrants. In

Bourdieusian terminology, this metric provides a crude measure of the "refraction coefficient" (Bourdieu, 1993 p182) and is symbolised as the perceived width of the chasm. The perceived width of the chasm varied with each participant, but the graphs indicate that all participants recognised a reduction in their academic autonomy. This suggested that although the post-2015 apprenticeship programmes were managed by an HE provider, they were perceived by all the research participants to reside on the vocational side of a still present, though much narrowed chasm. This is shown symbolically in Figure 32 (below). The digital apprenticeship programmes are depicted with a green hue and as an extension of the right-hand (vocational) end of the education spectrum.

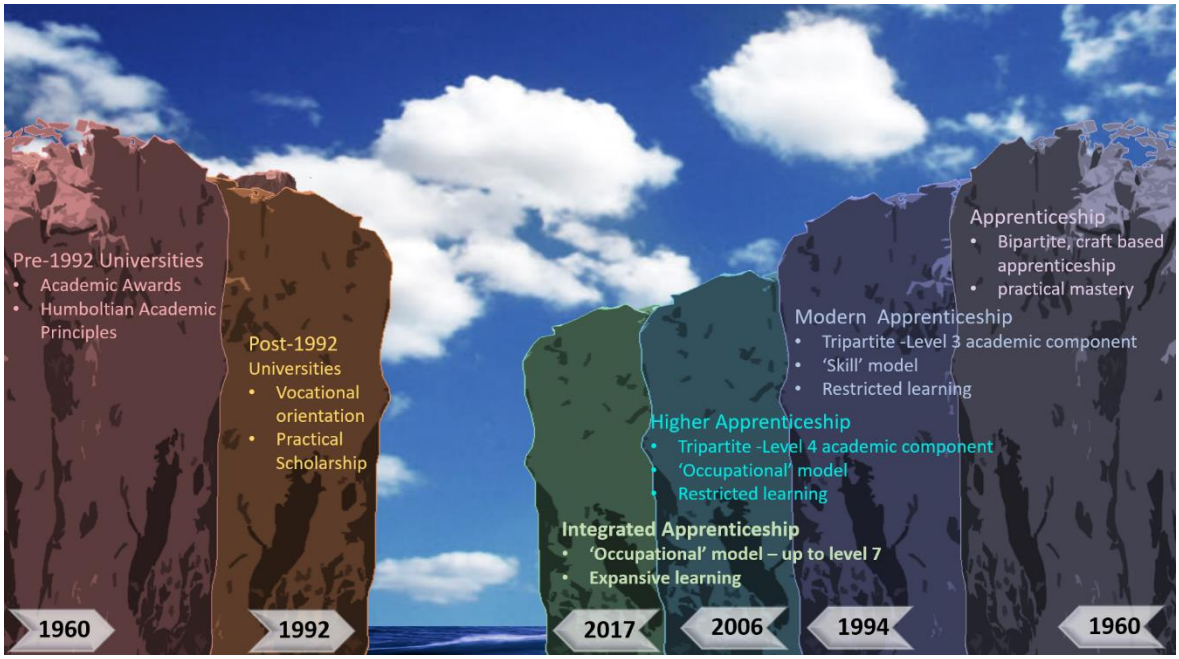


Figure 32: Post-2015 Apprenticeship programmes and the chasm

The findings from my Literature review suggested that the perceived width of the chasm for an academic would be influenced by the type of provider as well as the discipline. Digital apprenticeship providers were diverse in nature. By 2021 (at the time of data analysis for this thesis) there were *circa* five thousand apprentices taking the Digital and Technology Solutions Professional programme across forty-three providers including pre- and post-1992 universities alongside other types of HEIs (Camden, 2021). The provider with the largest number of digital apprentices enrolled at that time (over 20% of the total number), was a private (for-profit) training organisation in partnership with a university. In this arrangement, apprentices were being taught by staff at the training

provider premises with the university as the awarding body for the degree. Another of the top five providers was a for-profit HEI that had obtained taught degree awarding powers through registration with the OfS following the *Higher Education and Research Act* (2017). This provider specialised in offering vocational education and training including degree apprenticeships. Also represented in the top five (by number of apprentices) providers were a Russell Group (pre-1992) university and a post-1992 university.

While the post-2015 apprenticeship policy permitted expansive learning and a holistic, occupational approach, policy is refracted by the *habitus* of the provider. Whereas the more research-oriented Russell group universities might be based further towards the left of the chasm, post 1992 universities including the HE provider in the case study would likely hold positions towards the vocational edge of the HE side of the chasm. However, importantly in terms of academic autonomy, although their courses might vary in terms of academic *versus* practical content, all universities would be placed symbolically on the left-hand side of the chasm.

My findings suggest that participants in the case study research detected "academic drift" in their apprenticeship programmes similar to that detected in German apprenticeship programmes (Fürstenau et al. 2014, p451). At the time of thesis completion, Germany had a dual system in place such that apprentices were educated at separate 'technical universities' known as universities of Applied Sciences or universities of cooperative education, (DAAD, no date). In consideration of the dual system in Germany, Fürstenau et al. (2014, p451) noted that there was a perceived lack of parity between academic degrees from universities and vocational degrees from other institutions. My research indicated that the case study participants recognised 'academic drift' and felt that their apprenticeship curricula were being overly influenced by the needs of employers (particularly large employers) and the requirements of Ofsted as the regulator.

The willingness of the OfS to bestow degree awarding powers on for-profit, organisations suggested increasing encroachment of the private sector into HE

(traditionally considered part of the public sector). Symbolically, this type of provider would be positioned on the right-hand side of the chasm, with little or no connection to research. Although the outcomes from the apprenticeship would be met, the focus of a non-academic provider would likely be on employment skills and work readiness, rather than employability skills and other graduate attributes more usually developed by academic providers. In September 2022 just prior to thesis completion, a private for-profit organisation solely providing Higher and Degree level apprenticeship programmes was the first of its kind to be granted degree awarding powers by the OfS. One of the stated aims of the 2015 apprenticeship policy was to increase workforce productivity and economic growth. Using a focussed for-profit specialist apprenticeship provider could be viewed by the OfS as a more efficient means of achieving this aim than using a university provider with a research agenda and other non-vocational goals. However, while focussing on practical skills at a non-university provider could be perceived by some employers as closing the chasm by producing work-ready, skills-rich graduates, it could potentially lead to under-developed transferable skills which the Shadbolt (2016) and Wakeham (2016) reviews identified as important in terms of occupational employability. Furthermore, reduced academic focus would reduce parity with academic awards and could preclude direct progression to research which was considered important for innovation in the computer science discipline (Denning, 2001).

At the time of thesis completion, The OfS strategy for HE 2022-2025 (0fS, 2022) was released and had an emphasis on employment potential which called for graduates to be work-ready. In particular, condition B3 states “The provider must deliver successful outcomes for all of its students, which are recognised and valued by employers, and/or enable further study” (0fS, 2022, n.p.). Funding for courses that did not lead to high employment in related graduate roles would be impacted. Sustainability of computer science (and other non-apprenticeship courses) would necessitate the incorporation of employment skills to ensure the work-readiness of graduates. The process of setting specified academic underpinning to enter and practice a profession is termed ‘academisation’ (McEwen and Trede, 2014). Established professions such as Teaching were linked to academic awards meeting outcomes approved by their professional association but at the time of thesis completions, IT occupations had not been

academised. While in earlier instances of academisation, apprenticeship programmes were replaced, following the 2015 reform in some disciplines, the academic and vocational routes to registration were designed to complement each other. An example of this is in the teaching profession linked to the academic discipline of education. The post-2015 PGTA programme (a level 7 apprenticeship programme) and the existing PGCE (a level 7 academic programme with assessed work placements) co-exist in some universities (UCAS, 2022).

IT occupations have become more diverse with each area of computer science requiring specific, sophisticated technical knowledge and awareness of legislation and quality standards. Academisation would lead to computer science degrees in selected areas being accredited by a PSRB such as the BCS for their graduates to be registered for practice in named professions e.g., 'Software Engineer' or 'Cyber Security Analyst'. Having an apprenticeship programme and an academic course both leading to professional registration and running side by side would provide opportunities for shared ideas. The university award would retain an academic orientation thus providing a choice for prospective learners as well as setting and maintaining the status of the profession and those qualified to practice. In earlier instances of academisation there were concerns that the process led to the resulting professions being inaccessible by those not willing or able to attend university on a full-time basis (Ek et al., 2013). Keeping sub-degree apprenticeship programmes but having degree apprenticeship programmes as vocational alternatives to the academic route to registration would provide different entry levels to IT professions and help to allay such concerns.

In addition to providing a revenue stream, post 2015 apprenticeship programmes also provided universities with a means of strengthening employer relationships which provided benefits in terms of the KEF metric. Research participants Alex and Riley both discussed drawing on their experiences with apprentices to inform their teaching and create authentic assignments. This would be particularly valuable to universities in the light of the B3 requirement discussed above (OfS, 2022). In addition to difficulties for students requiring finance, universities not meeting the OfS conditions could face fines which could lead to them deciding to remove courses not leading directly to

employment from their portfolios based on the external requirements (Weale, 2022). This threat to institutional academic autonomy would be potentially ameliorated through the continuous cross-fertilisation of ideas from a related apprenticeship programme. Academisation would be a longer-term strategy and not within the gift of HEIs. However, given the OfS strategy, an informal movement to design academic awards against outcomes closer to those of the post-2015 apprenticeship programmes would be prudent. For these awards, there could also be assessment of a mandatory industrial placement to judge work-readiness in specific areas. While common on computer science awards, placements are not always mandatory and not always assessed as part of the award. Having an assessed placement would mirror current practice in registered professions such as social work, nursing and teaching.

My research suggests that movement towards employer defined outcomes could threaten the role-based academic autonomy around non-apprenticeship programmes owing to the necessary mapping to national occupational skills and potentially the involvement of a regulator. Given the potential threat to sustainability of the institution that could be mitigated by the cross-fertilisation of ideas, it may be prudent to accept the reduction in role-based autonomy around non-apprenticeship work in order to ensure a sustainable future for the academic discipline of computer science. This would represent symbolic closure of the chasm between the computer science discipline and the IT workplace through a continuous spectrum of academic and vocational learning opportunities. This is illustrated symbolically in Figure 33 (page 210). The yellow block depicts non-apprenticeship university awards meeting occupational standards alongside graduate attributes with assessed placements to judge work readiness.

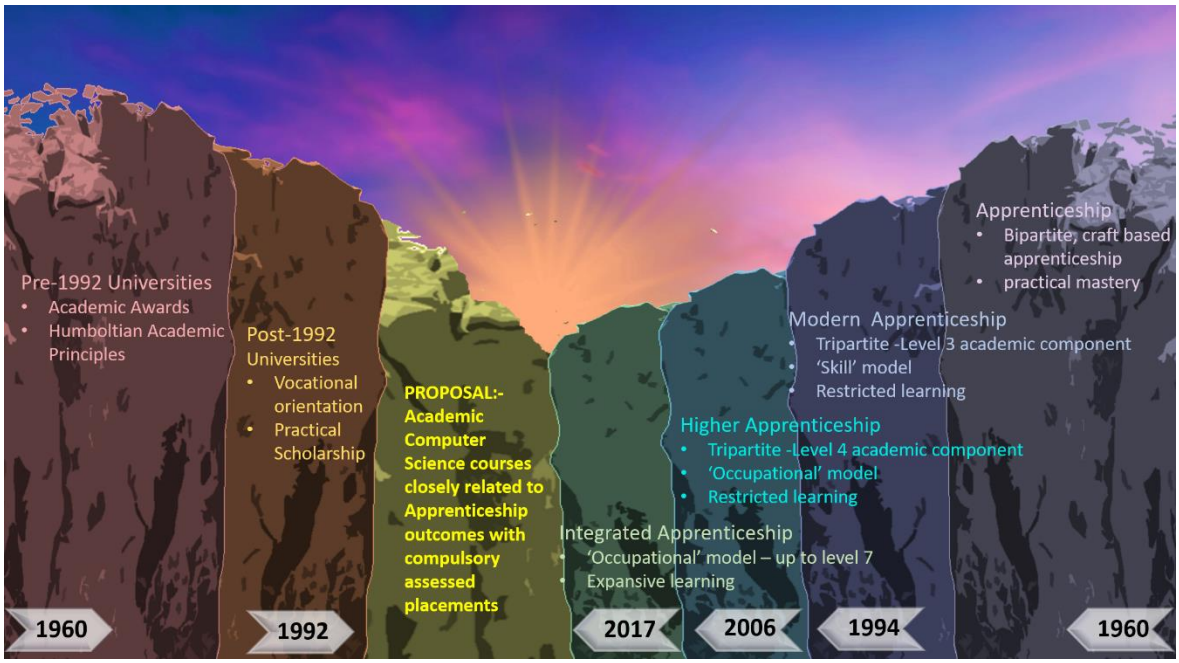


Figure 33: Symbolic closure of the Chasm

There was acknowledgement from research participants, that there were degrees of freedom within the constraints on apprenticeship design which reduced the manifestation of 'McDonaldization' by enabling the increasingly diverse range of providers to add their own distinctive hue to their apprenticeship programmes. More degrees of freedom would allow employers (and indirectly their apprentices) to select an apprenticeship provider based on the extent to which its programme would meet their specific requirements. On the HE side, potential students would be able to choose between academic courses offering the opportunity of assessed placements leading to enhanced work readiness, and an apprenticeship with a chosen employer.

Research question 2 investigated commonality between identified typologies and their perception of the chasm. Education policy is refracted by the *habitus* of the HE field, institutions within the field, disciplines within the institutions and finally the *habitus* of individuals based on their personal and role-based experiences. For academics in disciplines such as computer science which are not linked to academised professions, the chasm between HE and workplace requirements may generally appear wider than for those in disciplines linked to academised professions. As an individual's *habitus* adapts to a situation, an individual feels more like a "fish in the water" than a fish out of water (Bourdieu and Wacquant, 1992b p127). The refraction coefficient provides an

indication of the extent to which an individual perceives their *habitus* must adapt when moving between delivery types. The distance metric was used to gauge the refraction coefficient.

The identification of background typologies in research question 2 led to the discovery of commonalities. However, while some commonality was found between typology and refraction coefficient, it was not as clear as I had expected. I had anticipated that those assigned to the VOCATIONAL typology would perceive the difference measure to be less owing to their extensive workplace experience which meant that their *habitus* had developed through long and broad experience in the *exotic* quadrant. However, it appeared from the analysis that the commonality was unclear perhaps because the *exotic* experience had been usurped by their more recent experience in the *sovereign* quadrant. A far greater and potentially more useful commonality was found to exist between typology and the value proposition that involvement in apprenticeship work held. Navarro, (2006 p16) noted that *habitus* "is not fixed or permanent and can be changed under unexpected situations or over a long historical period". I realised that another measure was important, namely the malleability of an individual's *habitus,* which measures the ease of adaption to a new environment. While the refraction coefficient is symbolised by the perceived width of the chasm, the malleability is symbolised by the perception around the ease of the jump across. Lupu & Empson (2015) discussed the idea that the malleability of an individual's *habitus* could be an indicator of how susceptible that person is to symbolic violence. For example, the participants assigned to the CAREERIST and ACADEMIC typologies who appeared to be more motivated by career progression than those in the VOCATIONAL typology, could be expected to be more susceptible to the *illusio* of the HE field than those assigned to the VOCATIONAL typology, and this would accelerate the adaptation of their *habitus*.

My data and research suggest that reliance on symbolic violence to force *habitus* to adapt quickly led to participants feeling disempowered in terms of their individual academic autonomy (personal choice and role-based practice) around apprenticeship work, especially with regard to the monitoring of their performance. In particular, the larger measures of difference appeared to relate to factors such as being on a temporary

contract or wishing to develop their career which would leave such participants more vulnerable to symbolic violence. The link between typology and value proposition provides the means to improve the malleability of an individual's *habitus* by focussing on the value of the experience and providing guidance and support. Symbolically while acknowledging the presence of the chasm, this would provide encouragement and support for the leap across. This could be achieved through finely tuned personal development rather than using the blunt instrument of symbolic violence. Building on this idea, the development of a framework for CPD **T**hrough **A**pprenticeship **W**ork (CPDTAW) will be suggested as future research.

6.4 Reflections, Limitations and Further Research Opportunities

6.4.1 Research Question 1

In terms of research question 1, my thesis provided a visualisation of the extent to which, and an explanation of the means by which apprenticeship programmes impact academic autonomy in a university setting. The Autonomy Dimension of LCT provided the toolkit for this analysis. As a scientist, I was interested in using LCT for the conceptual framework as it facilitated the quantitative representation of qualitative data through the creation of a translation device. I had not intended to use a separate translation device for each layer of academic autonomy as I did not feel that it would be possible to isolate the perceptions of the participants for each layer. However, in practice, it proved more difficult to work with a single device as different facets of academic autonomy covered in the literature review were clearly identifiable in my data and some participants had different perceptions related to each facet. While the different facets of academic autonomy may not in reality be completely confined to the layers to which they were assigned in my analyses, the assignation was made in line with the findings of my literature review and supported an effective analysis of the data.

My analysis was supported by sophisticated theoretical framework that facilitated the use of LCT alongside other theories. This was useful in differentiating between the layers of autonomy by providing analysis questions and specific analysis pointers for each of the dichotomous autonomy planes. For example, for RA in the institutional layer, S-D logic provided five axioms (defining statements) that could be tailored to represent HE as a service. Participants generally regarded this as the *target* viewpoint. This could be contrasted with Goods-Dominant logic to represent the consumption of HE as a product, which was regarded as *non-target*. The use of S-D logic provided a sound basis for the construction of the translation device. The analysis of RA focussed on the S-D logic *versus* Goods-Dominant logic dichotomy rather than being clouded by consideration other facets of autonomy such as collegiality *versus* managerialism which were considered separately for RA at the personal layer.

This approach provided three detailed analyses of academic autonomy, one for each layer, which enabled me to identify the extent to which academic autonomy was reduced and mechanisms which caused the reduction in each layer. Comparison with my findings in the literature review enabled me to identify where existing mechanisms had been exacerbated by the introduction of the post-2015 apprenticeship programmes and to identify new mechanisms acting in each layer. Additionally, from the data it was possible to plot the trend of role-based academic autonomy for both apprenticeship and non-apprenticeship delivery across two time periods. This enabled me to compare the gradient of the trends in the two time periods hence quantifying the impact of the 2015 reform in terms of timescale as well as manifestation. The comparison illustrated that while academic autonomy around non-apprenticeship courses had been very gradually reduced across a period of at least ten years, for work on the post-2015 apprenticeship programme there had been a similar perception of reduction over a single year.

My thesis was conducted as a case study and while I feel that I have thoroughly addressed research question 1, as a case study the findings were limited in terms of generalisability as they were bound to the context. My findings are therefore offered as a foundational theory (Olsen, 2010; Haigh et al., 2019) that may be developed, or rejected as new perspectives are discovered with further research. The following are further research projects which would be helpful both in understanding the generalisability of my findings and developing further understanding of the status and evolution of academic autonomy in HE.

- **An investigation into the nature of the chasm for computer science in HE institutions of different types.**

  This broader study could include participants in HE institutions similar to that in the case study (post 1992 'new' university) and different (for example, universities in the Russell Group). This would test the extent to which the findings of the case study could be generalised.

- **An investigation of how the chasm has evolved in the computer science discipline since the data gathering in 2020.**

  My findings show that for RA in the role-based layer, some research participants perceived very little difference in the measure of RA between apprenticeship and non-apprenticeship work. This was the autonomy around their pedagogic practice. On the apprenticeship side, this was influenced by Ofsted requirements. On the non-apprenticeship side, this was influenced by quality assurance processes and institutionalised complaints procedures put in place to improve the NSS results. The data gathering for my thesis took place when apprenticeship programmes were in their infancy and there had been no graduation from post-2015 programmes and apprentices had not taken part in the NSS. As the apprenticeship programmes become embedded, and apprentices begin to take part in the NSS, it would be interesting to add a longitudinal dimension to my thesis to understand whether the perceptions of autonomy in apprenticeship programmes and non-apprenticeship courses have changed within the case study and/or if other mechanisms have been brought in to play.

- **An investigation into the nature of the chasm for different disciplines**

  As IT occupations were not academised at the time of my thesis, the influence of the Employment field was perhaps more keenly felt than within other disciplines linked to regulated professions. The same analytical framework could be used to understand how academic autonomy around apprenticeship programmes varies with discipline.

- **An investigation into the nature of the chasm for IT employers following introduction of the post-2015 apprenticeship programmes.**

  My findings show that for computer science academics, the chasm remains, albeit to a lesser extent. This was reflected in their perceptions of reduced autonomy around apprenticeship programmes. It would be interesting to gain insight into the employer perspective. Research could be undertaken with larger employers who operate both apprenticeship and graduate schemes to gain their

perceptions of differences in performance between graduates from academic awards and graduates from apprenticeship programmes.

6.4.2 Research Question 2

In terms of research question 2, I was able to identify four base background typologies derived from primary and secondary *habitus* components and augmented with sub-codes. While I am confident that the base typologies represent commonalities the backgrounds of participants in the case study, working with only nine participants led to no representation in the CORPORATE typology and small numbers in the ACADEMIC and VOCATIONAL typologies. Aside from the two participants assigned to the VOCATIONAL typology whose background profiles were identical, for the participants assigned to other typologies the sub-codes differed within the base classifications meaning that within the typologies, each individual had a unique profile. Analyses relating to commonality between typology and perception of academic autonomy (the refraction coefficient) appeared inconclusive. My research suggested that factors such as contract type and length of service were more important in some analyses than typology, but the differences in perception could equally be related to the differing sub-codes, particularly in the CAREERIST typology where these were most prevalent. Alternatively, they could be related to other factors not recorded, such as experiences in particular subject areas within computer science or recent experiences with particular groups of learners. As Davey pointed out, *habitus* is a "slippery concept" (Davey, 2009 p282) and it is therefore unwise to be too deterministic. However, the commonality between typology and the value proposition offered by apprenticeship involvement was clearer and as suggested previously, could be useful in terms of professional development. The following research project would be helpful in understanding the generalisability of my findings and how they could be used.

- **An investigation of how background typologies could be used in Career and Professional Development and Recruitment.**

  In response to my second research question, I identified four background typologies, three of which could be assigned to research participants in the case study university. My research illustrates that while participants in different

typologies had found value in apprenticeship work, they had not necessarily expected to find value prior to their involvement which led to perceptions of reduced academic autonomy and feelings of disempowerment. A professional development framework (CPDTAW) could be developed to complement the output from research question 1 by providing a means of supporting academics who are to be involved in apprenticeship delivery. The aim would be to aid *habitus* malleability in the delivery team and reduce feelings of disempowerment which could lead to disenchantment. The proposed 4-step methodology for the CPDTAW framework is illustrated in Figure 37 (below).

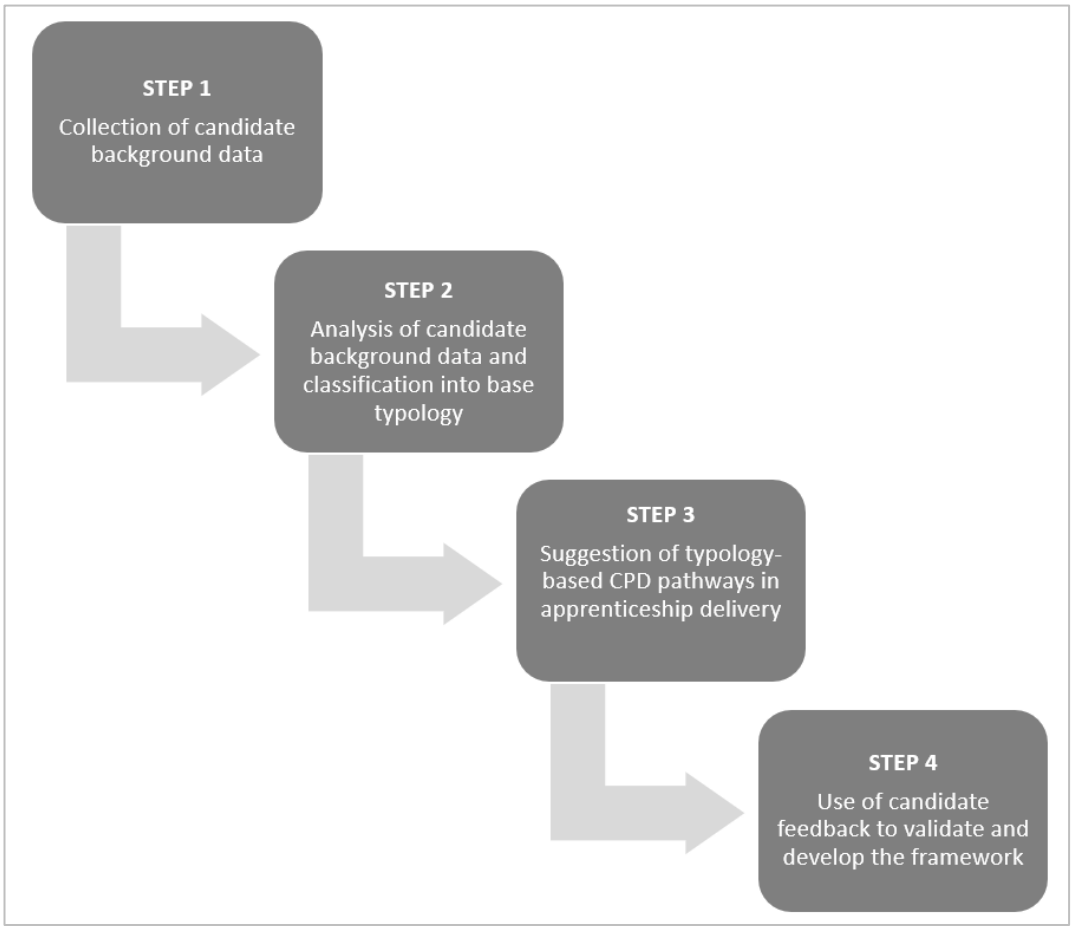


Figure 37: Illustrating the framework for development and use of a CPD tool.

The steps illustrated above are described in the following sections: -

STEP 1:

The first step would require collection of background data from the CPD candidates in order to determine their background typology. While useful in the case study, the collection and analysis of biographical narrative data would prove

lengthy if larger numbers of academics were candidates for use of the CPDTAW framework. The themes that emerged from the biographical narratives, the translation devices and the profile factors could however be used to inform the creation of a participant questionnaire with Likert scales to collect quantitative data. This would reduce the amount of time required for data gathering with larger numbers. The use of quantitative analysis would make it possible for answers to individual questions to remain confidential by making only the aggregated data available to the CPDTAW progress. In this way, the use of questionnaires and the level of data abstraction provided may also facilitate more focussed and comprehensive data gathering. CPDTAW candidates would be required to complete a questionnaire to collect their data. The questionnaire could be placed online to automate the data gathering.

STEP 2:

The questionnaire data would be analysed, and the academic assigned a base typology using the methods documented in this thesis. There is scope for the automation of these processes for example by using spreadsheet macros.

STEP 3:

The characterisation of how participants of this thesis in each typology perceived apprenticeship work, would provide starting data for the CPDTAW framework. The CPDTAW framework methodology defined above would suggest development opportunities relating to apprenticeship work that would facilitate value co-creation. For example, if a participant was assigned to the ACADEMIC typology, then based on the findings from this research, the framework would suggest involvement with workplace technologies relating to their subject area as this was valued by that typology in my research. If this were undertaken as a practical laboratory session with apprentices there would be the potential for discussion relating to the use of that technology in the workplace and the ongoing research in that area facilitating co-creation of value. Depending on the practical abilities of candidate with the selected technology, support could be provided by a colleague.

STEP 4:

Feedback from the apprentices and candidates involved in this process could be used to validate the usefulness of the framework in that context and to improve it based on suggestions.

As an output of this proposed research, the CPDTAW framework would need to be trialled in a university similar in nature to the case study university to test its validity in a similar context.

The CPDTAW framework would promote the use of academics with different background typologies in ways that make use of their strengths enabling them to co-create value in different ways within the apprenticeship ecosystem. This might for example mean a refreshed service encounter such as a researcher leading a practical class. In this example, the researcher could gain value from knowing how technologies are currently used in the workplace, the apprentices could learn about innovations within the technology which could benefit their workplace in the future. This knowledge could be taken back into the apprentices' workplaces providing value and insight to their employers potentially leading to research partnerships which could strengthen the university's performance against the KEF. Meanwhile, the academic would have gained knowledge that could help in the design of authentic assessments for non-apprentice learners.

6.5 Contribution to Knowledge

This section concludes my thesis by explaining its contribution to knowledge.

6.5.1 Understanding of the impact of the post-2015 apprenticeship policy on academic autonomy in a university setting.

In response to my first research question, I provided detailed visualisations and explanations of the impact of the post-2015 apprenticeship policy on academic autonomy from the perception of academics. My findings include identification of

existing mechanisms relating to the reduction in academic autonomy that appear to have been exacerbated, and new mechanisms specific to the post-2015 apprenticeship programmes. This was underpinned by a literature review covering developments in academic and vocational education to benchmark the status of academic autonomy prior to the data gathering.

The visualisations illustrate the value of the translation devices in providing insights into the perceptions of individual academics on the development of academic autonomy. They demonstrate that while the post-2015 apprenticeship programmes are managed by universities, they are positioned firmly on the vocational side of the chasm. Their presence in universities reduces the insulation between HE and the IT workplace and shows how the policy impacted different facets of autonomy in different ways.

While the specific findings relate to my case study, I have provided details relating to the institution and discipline such that the readership can determine the extent to which the findings might apply to their own context. This contribution adds to the body of knowledge of academic autonomy in HE generally and specifically that associated with the introduction of university managed apprenticeship programmes.

6.5.2 Use of Legitimation Code Theory (Autonomy Dimension)

My thesis contributes to the application of theory adding to existing literature in Legitimation Code Theory (Autonomy Dimension). The Autonomy Dimension was introduced in 2005 (Maton, 2005) but was reworked in 2018 (just prior to the start of this thesis) to be more generally applicable. At the time of thesis completion, much of the literature using the reworked Autonomy Dimension was based on classroom teaching as in Maton & Howard (2018; 2021).

My thesis applies the concepts of the Autonomy Dimension in different areas demonstrating its wider applicability. For the first research question, autonomy codes are used to conceptualise academic autonomy. Three sets of translation devices for PA

and RA are used to investigate the perceptions of academics of autonomy at the macro, meso and micro layers. For the second research question, autonomy codes are used to provide a visualisation of the development of *habitus*. These applications demonstrate use of the reworked Autonomy Dimension in new contexts. The translation devices produced relate to the data collected but the principles behind their development are fully documented and could be used to inform the development of translation devices for use with other data sets.

6.5.3 The Top-Down Analysis Methodology.

Prior articles using LCT have tended to use inductive approaches to coding whereby the codes emerge from the data. The novel methodological contribution of my thesis is the top-down approach to coding which encompasses abduction and retroduction. It utilises knowledge gained from my literature review and my theoretical framework along with LCT to provide a coding structure.

I decided to use LCT to operationalise theoretical concepts and this led to the use of CR as my research paradigm. Abduction and retroduction are commonly used in in critical realist research as they seek the best explanation for underlying causal mechanisms based on based on incomplete information (Danemark *et al.*, 1997; Olsen, 2010; Fletcher, 2017; Vincent and O'Mahoney, 2018). Thompson (2022) notes that guides to abductive approaches to thematic analysis are lacking and I did not find any studies which utilised LCT to with abduction and retroduction. To mitigate this, I worked with existing material (Timmermans and Tavory, 2012; Tavory and Timmermans, 2014; Rinehart, 2021; Thompson, 2022) to develop a top-down analysis methodology which incorporated LCT. In my top-down analysis methodology, following the transcription process, LCT is used in the coding process, the development of themes and in theorising.

Abductive reasoning requires the researcher to use theoretical knowledge to inform the analysis (Saunders, Lewis and Thornhill, 2012). I had found through literature (Parker and Jary, 1995; Kramer, Maquire and Schmalenberg, 2006; Frostenson, 2015) that autonomy can be considered to have three layers with different drivers, mechanisms and manifestations loosely associated with reduced academic autonomy in each.

Consideration of the three layers provided the basis for my research tool in that the semi-structured interview format focused on each layer separately. However, although my interview questions were organised by layer, the participants did not recognise autonomy as having layers and their answers were not structured in the way that I had hoped. Faced with a sea of data I needed to isolate specific features of known importance for each layer and focus on their inter-relatedness. This is where LCT was useful. The values of PA and RA for each layer took on the phenomena representing reduced academic autonomy in the layer prior to the introduction of apprenticeship programmes. This focussed the analysis providing a means to gain insight into the extent to which those or other phenomena were still evident and potentially uncover their causal structures and mechanisms. Having a strong theoretical framework to underpin a top-down analysis is paramount. Chapter 3 covers the theoretical underpinnings for the thesis and explains how Bourdieusian and Bernsteinian concepts along with S-D logic are utilised with LCT to provide specific analysis pointers for the top-down analysis.

The top-down analysis methodology is described in detail in chapter 5, section 5.3 pages 108 to 119. It is then used in four separate analyses which provide illustrations of its use with different theoretical concepts. There is a growing community of researchers using LCT as an analytical toolkit. The autonomy dimension of LCT was reworked in 2018 an as an early researcher in the area I present this methodology as an alternative approach to thematic analysis using LCT.

6.5.4 Use of Legitimation Code Theory in Service Innovation.

In using the top-down analysis methodology explained above, my thesis also contributes to the application of theory in SD-Logic. For the LCT translation devices at the macro and meso levels, LCT and S-D logic were used in a complementary way. While S-D logic has previously been used to support the Bourdieusian concepts (Naidoo, Shankar and Veer, 2011; Naidoo and Whitty, 2014) from which LCT was built, it has not previously been used with LCT. My thesis used LCT to operationalise the axioms of SD-Logic. For each analysis I used relevant S-D logic axiom(s) to construct specific analysis pointers for the analysis based on what would be demonstrative of S-D logic (regarded as *target*) and Goods-Dominant logic (regarded as *non-target*) that were pertinent to the case study.

These were then used together with the data to create translation devices. This novel approach enabled visualisations to be produced using LCT concepts to show the extent to which S-D logic was prevalent.

In earlier research (Uden and Francis, 2008), I had attempted to operationalise the foundational premises of S-D logic using Actor Network Theory. However, this previous research was explanatory rather than providing visualisation representations. I feel that my use of LCT with S-D logic has provided a useful model of an apprenticeship and non-apprenticeship HE service eco-system which facilitates a holistic understanding of the co-creation of value possible within it and points to the factors contributing to value for academics. Issues of tension and conflict were uncovered, specifically the wish of academics to retain academic autonomy and the need to meet the employer-defined outcomes of apprenticeship programmes. The identification of background typologies with commonalities in the value proposition offered by involvement in apprenticeship programmes provides the basis for the development of a CPDTAW framework. The understanding of how value can be co-created within apprenticeship work can be used to ensure that it is.

Using S-D logic and LCT together has provided new insights and potential resolutions to the tension between the preservation of academic autonomy which is valued by academics and the provision of an apprenticeship programme that allows co-creation of value for all stakeholders including apprentices and employers. Like LCT, S-D logic has an international, interdisciplinary research community. Having worked with S-D logic previously, I feel that this contribution is a valuable addition to the existing research.

"Every creator painfully experiences the chasm between his inner vision and its ultimate expression. The chasm is never completely bridged. We all have the conviction, perhaps illusory, that we have much more to say than appears on the paper".

Isaac Bashevis Singer

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APPENDICES

Appendix A: The Academisation of Teaching

In the nineteenth century, apprenticeships in some fields gave way to 'academisation' of vocational occupations. The 'academisation' of teaching is presented as an exemplar of this process. In 1846 a national teaching apprenticeship scheme was launched for school pupils, aged at least thirteen who were deemed suitable for a teaching role by their teachers. They would be apprenticed to headteachers for a five-year period, (Maguire, 2000). The pupil-teachers would be taught but also teach at their school and at the end of the five-year period they would become fully qualified teachers. The Elementary Education Act (1870) led to the establishment of pupil-teacher centres where teacher training could take place, with organised teaching practice at elementary schools. By 1888, university colleges were set up and trainee teachers were able study for a degree if they wished, (Maguire, 2000).

The Education Act (1899) led to the establishment of the Teachers' Registration Council. The Education Act (1944, n.p.) reserved the term 'Qualified Teacher' for people who had "satisfactorily completed an approved course of education and training". By 1970, teaching had become a graduate-entry profession with two established routes – a Bachelor of Education, or a Post Graduate Certificate of Education. Mcewen and Trede, (2014, p147) characterised academisation as transformation of a vocational occupation into profession through the establishment of formal qualifications and a regulatory body, noting that the "prestige and legitimacy" of a profession increased with the level of its entry requirement. In terms of HE, Teaching moved from being a vocational occupation associated with apprenticeship to a graduate-entry profession with its university degree, giving it a higher level of prestige.

Appendix B: The Literature Selection Process

Snowballing The process of snowballing was used to select literature for review. This term refers to using the reference list of a paper (backward snowballing) and citation tracking to find citations to the paper (forward snowballing) to identify additional papers in a particular area. (Webster and Watson, 2002; Wohlin and Prikladnicki, 2013). The general principles described above were modified for use as described below to increase the number of relevant articles for inclusion in a systematic way. The research questions are focused on comparing academic autonomy associated with apprenticeship programmes with that associated with non-apprenticeship courses. The object of study is academic autonomy in HE and the first section of the literature review was dedicated to evaluating this. The following steps were taken.

Step 1: A start set of literature was found using the search terms in Table 33 (below). Google Scholar was used for the search to avoid the bias that might result from searching a set of databases curated by a particular university (Wohlin and Prikladnicki, 2013). The advanced search function was used to search for articles relating to academic autonomy in HE. Search terms used in separate searches are shown in Table 33.

Table 33: Searches items used in snowball step 1.

Search criteria	Reasoning
academic* autonom*	asterisks used as wildcards to include terms such as: • 'autonomy', 'autonomous', 'autonomously' • 'academics'
academic* freedom	As a synonym for academic autonomy
university academic* autonom*	asterisk used to include terms such as: • 'university', 'universities'
higher education polic*	asterisk used to include terms such as: • policy', 'policies'
universit* polic*	

Note, the settings on the search engine were adjusted so that all words were needed but could appear in any order and not necessarily together in the title. Case sensitivity was not used. Duplicates (where articles matched more than one of the above searches) were discarded.

Secondary inclusion criteria required the sources to be:

- Written in English (or translated)
- Peer reviewed research articles, review papers or books to ensure a level of quality.
- Be published between 1960 and the end of 2020, which reflects the period for the policies selected.

17 sources were found.

Tertiary inclusion criteria: Sources were reviewed (abstracts or forewords) to ascertain that they

- Discussed factors that influenced the development of academic autonomy at institutional, role-based, or personal level.
- Referenced policy.

Stage 2: Forward and backward snowballing processes were then undertaken selecting sources that were judged to be of interest in based their title which: -

- need not match the primary inclusion search criteria (in order to bring in additional material)
- must match the secondary inclusion criteria.
- must match the tertiary inclusion criteria.

This generated a further 27 sources which along with the original 13 were used to create a first draft of the literature review. Not all sources were eventually cited as some information was repeated or superseded.

Stage 3: Prevalent researchers in the field (in this search, Hillman, Henkel, Estermann) who had been frequently cited by other authors were identified. Further sources authored by these researchers were identified

This generated 5 additional sources.

The snowball method described above was repeated with additional search criteria based on information derived from the first draft (and then subsequent drafts) in order to provide more literature with detail in specific areas or time frames.

Examples of additional search criteria used are shown in Table 34 (below).

Table 34: Additional search criteria used in snowball method.

Search criteria	Reasoning
higher education manag*	asterisk used to include terms such as: • 'manager', 'managerialism', 'management'
universit* manag*	
universit* governance	
universit* corporat*	asterisk used to include terms such as: • 'corporate', 'corporation'

Appendix C: The Policy evaluation process

The formulation of a structured policy evaluation framework for this purpose was informed by approaches that have previously been developed by key authors in the field (Hill, 2006; Perry et al., 2010; Garratt and Forrester, 2012; Hyatt 2013). Hill proposed a process-based approach informed by three groups of questions around aims, context and impact (Hill, 2006). This approach can be used to support Garratt and Forrester's (2012) idea of policy being introduced to solve a problem by switching around the aims and context phases of Hill's process so that the context (problem situation) is considered prior to the aims (means to a solution). Hyatt (2013) developed a critical policy discourse analysis frame that has a contextualisation phase looking at policy levers, drivers and warrant followed by a deconstruction phase involving discourse analysis (Hyatt, 2013). While the discourse analysis would provide too much specific detail for the purposes of an initial evaluation, the contextualisation phase will add useful structure to the consideration of the aims and context of the policies. Perry et al., (2010, p4) provided a list of potential policy drivers and this will be used to inform the drivers stage of the proposed framework. These process-based approaches to policy analysis have been combined as shown in Figure 34 (page 250) and followed by an evaluation phase which specifically considers their impact on academic autonomy in Higher Education. This framework provides a structured, question led means of evaluating each policy efficiently, and effectively for selection.

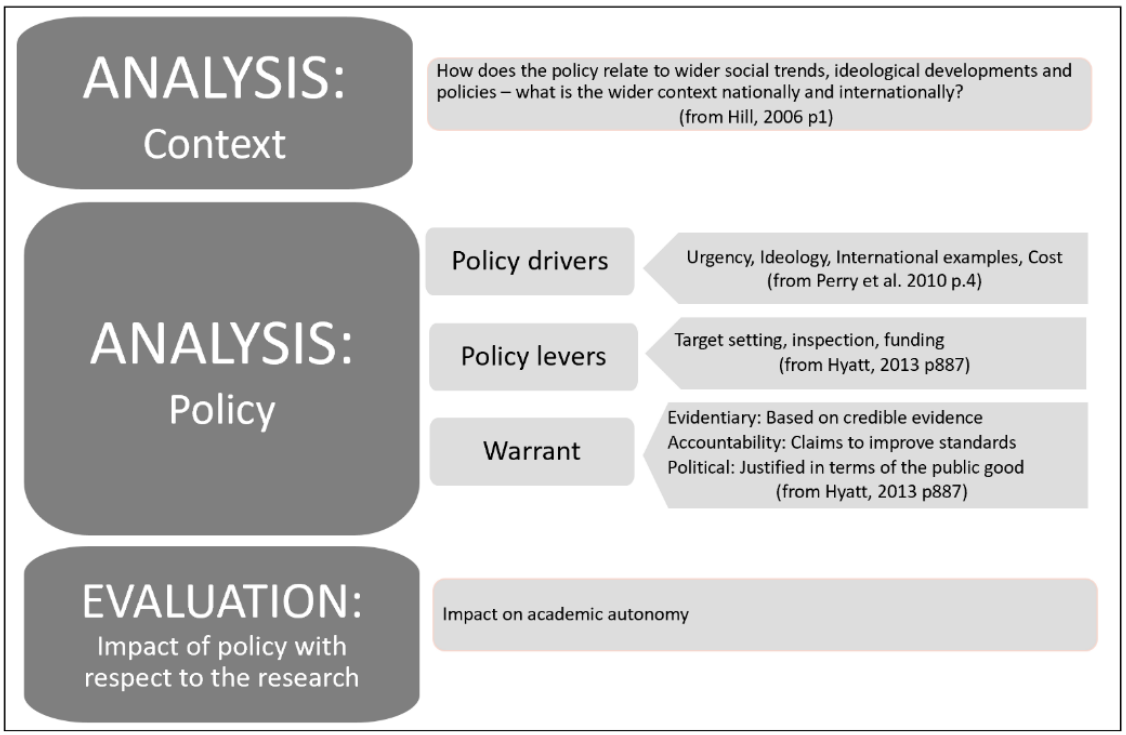

Figure 34: Policy evaluation framework

The list of policies relating to Higher Education in England from the 1960s onwards with brief comments to explain the selection or rejection of policies based on the policy evaluation framework in Figure 34 (above) is included in Table 35 (page 251).

To note:

- Policies/Reports explicitly NOT relating to England are not included.
- Policies/Reports explicitly NOT relating to HE/FE or Vocational education are not included with the exception of some Acts notably the Education Reform Act 1988 and Education (Schools) Act 1992. These relate to secondary education. These were included at a later date as they instigated the changes in secondary education following the Ruskin Speech which were important precursors to changes in HE.

Key:

Conservative Government, Prime Minister
Conservative Government, Secretary of State, Education
Labour Government, Prime Minister
Labour Government, Secretary of State, Education
Conservative/Liberal Coalition Government, Prime Minister
Conservative/Liberal Coalition Government, Secretary of State, Education
Policy selected for inclusion in literature review

Table 35: Policy evaluation outcome table
Based on information from Chitty, (2009) and supported by information from (HM Government, no date)

Prime Minister	Education Secretary	Review/Policy/Paper/Act	Covering Autonomy in HE?
Harold Macmillan		**1960** Anderson Report	**YES –** recommended grants for students
	13 July 1962 Sir Edward Boyle Minister of Education	**1962** 1962 Education Act (29 March)	**YES –** grants for students
		1963 The Years of Crisis: Report of the Labour Party's Study Group on Higher Education.	**NO –** useful as background
Alec Douglas-Home		**1963** Robbins Report Higher education	**YES -** recommended a massive expansion of higher education to cater for all who had the necessary ability. Warned of threat to autonomy with greater dependence on state funding
	1 April 1964 Quintin Hogg secretary of state, Department of Education and Science	**1964** 1964 Universities and College Estates Act (16 July): amended previous legislation relating to property held by or on behalf of universities and colleges.	**NO –** No reference to, or implications for autonomy
		1964 1964 Education Act (31 July): the 'Boyle Act' allowed the creation of middle schools.	**NO –** Not HE
16 October 1964 Harold Wilson (Labour)	22 January 1965 Anthony Crosland	**1965** Speech Anthony Crosland Woolwich Polytechnic	**YES** – supported the binary divide – state sector of polytechnics and autonomous sector of universities (as opposed to the unitary system proposed by the Robbins report) (27 April).

		1967 1967 Education Act (16 February): Gave the Secretary of State greater powers in relation to grants and loans for aided and special agreement schools etc.	**NO –** Not HE
	6 April 1968 Edward Short	**1968** 1968 Education Act (10 April): amended previous legislation relating to procedures for making changes in the character, size or situation of county and voluntary schools.	**NO –** Not HE
		1968 1968 Education (No. 2) Act (3 July): made further provision for the government of colleges of education, other further education institutions and special schools maintained by local education authorities.	**NO –** Not HE
		1968 Dainton Report Enquiry into the Flow of Candidates in Science and Technology into Higher Education: prompted by the falling number of science students.	**NO –** No reference to, or implications for autonomy
		1969 Haslegrave Report: promoted technical and business education.	**NO –** No reference to, or implications for autonomy
19 June 1970 Ted Heath (Conservative)	**June 1970 Margaret Thatcher**	**1972** White Paper Education: A Framework for Expansion (announced planned increases in nursery provision but mainly focused on the expansion of Higher and further education.	**NO –** Not significant for autonomy
		1973 DES Circular Development of higher education in the non-university sector (26 March): advised local authorities about how they could meet the government's targets for non-university higher education up to 1981.	**NO –** No reference to universities or autonomy but background interest
		1973 1973 Education Act (18 April): amended previous legislation relating to certain educational trusts and local education authority awards to higher education students.	**NO –** Not HE
		1973 1973 Employment and Training Act (25 July): amended the 1964 Industrial Training Act; provided for the establishment of the Manpower Services Commission (MSC), the Employment Service Agency, and the Training Services Agency; and required local education authorities to provide careers advice for pupils.	**NO –** No reference to universities or autonomy but background interest as it covers vocational training

		The MSC would later oversee the Technical and Vocational Initiative (TVEI) (see below).	
5 April 1976 Jim Callaghan (Labour)	**10 Sept 1976 Shirley Williams**	**1976** Jim Callaghan Ruskin College speech (18 October) (text): called for a 'Great Debate' about education.	**YES** – Not HE but turning point in state interference with autonomy starting with schools.
		1976 1976 Education Act (22 November): gave the Secretary of State the power to ask local education authorities to plan for non-selective (comprehensive) secondary education.	**NO –** Not HE
		1978 Oakes Report The Management of Higher Education in the Maintained Sector (March):	**NO –** not relevant to universities
4 May 1979 Margaret Thatcher (Conservative)	**5 May 1979 Mark Carlisle**	**1979** 1979 Education Act (26 July): allowed local education authorities to retain selective secondary schools by repealing sections 1-3 of the 1976 Education Act.	**NO –** Not HE
		1980 1980 Education Act (3 April): removed LEAs' obligation to provide school milk and meals.	**NO –** Not HE
	14 Sept 1981 Sir Keith Joseph	**1981** 1981 Education Act (30 October): gave effect to some of the proposals of the 1978 Warnock Report Special Educational Needs.	**NO –** Not HE
		1983 1983 Education (Fees and Awards) Act (13 May): empowered the Secretary of State to require universities and further education establishments to charge foreign students higher fees.	**YES –** Introduced fees to overseas students - Marketisation
		1985 Jarratt Report Report of the Steering Committee for Efficiency Studies in Universities (March): a report commissioned by the Committee of Vice Chancellors and Principals.	**YES –** Stated that universities should be run as businesses
		1986 1986 Education (Amendment) Act (17 February): amended the 1984 Education (Grants and Awards) Act to double the limit on funding for education support grants to 1 per cent of local authority budgets, and removed payment for lunch duties from the 1965 Remuneration of Teachers Act.	**NO -** No reference to universities or autonomy

	21 May 1986 Kenneth Baker	**1986** 1986 Education Act (18 July): empowered the Secretary of State to make grants to the Fellowship of Engineering and the Further Education Unit and amended the provisions of the 1980 Local Government, Planning and Land Act relating to the pooling of expenditure by local authorities.	**NO -** No reference to universities or autonomy
		1986 1986 Education (No. 2) Act (7 November): required local education authorities to formulate and publish their curriculum policies, and governors to publish annual reports and hold parents' meetings; laid down rules on pupil admissions, political indoctrination and sex education; abolished corporal punishment; and ended the Secretary of State's duty to make annual reports to Parliament.	**YES –** Freedom of speech included
		1986 National Council for Vocational Qualifications (NCVQ) established as the accreditation body for National Vocational Qualifications (NVQs).	**NO -** No reference to universities or autonomy but background interest
		1987 The Queen's Speech (25 June): included the government's plans for reforming education.	**NO –** Interest re New Programme Management
		1988 1988 Education Reform Act (29 July): arguably the most important education act since 1944	**YES –** Important turning point - Abolition of Tenure and impact on secondary education
		1989 Speech at Lancaster university Kenneth Baker – American model private resources	**NO –** Interest only
	24 July 1989 John MacGregor	**1990** 1990 Education (Student Loans) Act (26 April): introduced 'top-up' loans for higher education students and so began the diminution of student grants.	**YES –** student fees – rise of the student customer
28 November 1990 John Major (Conservative)		**1991** White Paper Education and Training for the 21st century (May): its proposals were included in the 1992 Further and Higher Education Act.	YES – with reference to QA and closing binary divide
		1991 White Paper Higher Education: A New Framework (May): its proposals were included in the 1992 Further and Higher Education Act.	

		1992 1992 Further and Higher Education Act (6 March): removed further education and sixth form colleges from LEA control and established Further Education Funding Councils (FEFCs); allowed polytechnics to apply for university status; unified the funding of higher education under the Higher Education Funding Councils (HEFCs); introduced competition for funding between institutions; abolished the Council for National Academic Awards (CNAA).	
		1992 Education (Schools) Act 1992 Introduced Ofsted to schools	**YES –** Ofsted inspects apprenticeships and similarities with introduction to schools
	10 April 1992 John Patten	**1993** 1993 Education Act (27 July): a huge and wide-ranging Act which sought to make it easier for schools to become grant-maintained, laid down rules for pupil exclusions and for 'failing' schools, replaced the National Curriculum Council (NCC) and the School Examinations and Assessment Council (SEAC) with the School Curriculum and Assessment Authority (SCAA), and defined special educational needs.	**YES -** Interesting background information re National Curriculum
	20 July 1994 Gillian Shephard	**1994** 1994 Education Act (21 July): provided for the establishment of the Teacher Training Authority (TTA) and made new regulations relating to student unions.	**NO –** No reference to autonomy
		1994 Higher Education Quality Committee (HEQC) established by the bodies representing the universities and colleges to contribute to the maintenance and improvement of quality in UK institutions.	**YES –** Quality assurance proposals
		1995 Modern Apprenticeships launched.	**YES** – launch of new apprenticeship model
		1996 Dearing Review Review of Qualifications for 16-19 Year Olds (March): commissioned by Gillian Shepherd, this was the second review produced by Sir Ron Dearing.	**YES –** Key turning point

		1996 1996 Education (Student Loans) Act (29 April): allowed the Secretary of State to subsidise private sector student loans.	**YES** - Student loans
		1996 1996 Education Act (24 July): a huge Act consolidating previous legislation from the 1944 Education Act onwards.	**YES –** Interest and background
2 May 1997 Tony Blair ('New Labour')	**2 May 1997 David Blunkett**	**1997** Dearing Report Higher Education in the learning society (July): commissioned by the previous Conservative government with the support of the Labour Party, Ron Dearing's third review recommended wider participation in higher education.	**YES** – key turning point
		1997 Quality Assurance Agency for Higher Education (QAA) established to take over from HEFC - independent assessment of how UK higher education institutions maintain their academic standards and teaching quality.	**YES** – QAA established
		1998 1998 Education (Student Loans) Act (27 January): amended the 1990 Education (Student Loans) Act to allow public sector student loans to be transferred to the private sector.	**NO –** interest – student loans
		1998 Green Paper The Learning Age: a renaissance for a new Britain: set out government proposals for lifelong learning which formed the basis of the 1999 White Paper Learning to Succeed..	**YES** - Interest
		1998 1998 Teaching and Higher Education Act (16 July): a wide-ranging Act which included provision for the establishment of General Teaching Councils for England and Wales; arrangements for the registration and training of teachers; and provisions relating to students in higher and further education and the funding of	**YES** - Interest
	8 June 2001 Estelle Morris secetary of state Department for Education and Skills (DfES) (8 June).	**2002** Green Paper 14-19: extending opportunities, raising standards (February): set out proposals for the 14-19 curriculum.	
		2002 2002 Education Act (24 July): wide ranging Act which implemented the proposals in the 2001 White Paper Schools: achieving success.	

	24 October 2002 Charles Clarke	**2003** White Paper The future of higher education (January): controversially proposed allowing universities to charge variable top-up fees; formed the basis of the 2004 Higher Education Act.	**YES –** University fees
		2003 Green Paper 14-19: opportunity and excellence (January): set out proposals for the 14-19 curriculum taking into account responses to the 2002 Green Paper.	**YES** - Apprenticeships
		2003 Green Paper Widening participation in higher education (April): set out the government's proposals for the creation and remit of the Office for Fair Access.	**YES –** HE strategy
		2003 Policy Paper The future of Higher Education – intention to offer variable tuition fees(July): set out the government's Skills Strategy.	**YES –** HE strategy
		2004 Modern Apprenticeships: Charles Clarke announced an overhaul of the programme in May.	**YES –** Apprenticeship reform
		2004 2004 Higher Education Act (1 July): made provisions relating to grants and loans to students in higher and further education. Foundation Degrees awarding powers to FE colleges	**YES –** Mentions grants for HE – rise in tuition fees to £3000
	15 December 2004 Ruth Kelly	**2005** White Paper 14-19 Education and Skills (February): rejected most of the 2004 Tomlinson Report's recommendations.	
	5 May 2006 Alan Johnson	**2006** University top-up fees: the Universities and Colleges Admissions Service (UCAS) revealed in October that 15,000 fewer students had started university compared with the previous year.	YES - interest
		2006 2020 Vision (December): report of the Teaching and Learning in 2020 Review Group, chaired by Christine Gilbert.	**NO –** Schools not universities
		2007 Green Paper Raising Expectations: staying in education and training post-16 (March): proposed that all young people should stay in education or training up to the age of 18.	**YES –** mentions apprenticeship
27 June 2007 Gordon Brown (Labour	**John Denham (DIUS) Department of**	**2008** Ofqual (Office of the Qualifications and Examinations Regulator): launched on 16 May, led by Kathleen Tattersall.	**YES –** Ofqual set up - interest

	Innovation, Universities and Skills – DfES split in two	**2008** 2008 Sale of Student Loans Act (21 July): allowed the government to sell student loans to private companies.	**YES** - Interest
		2008 CPAC Preparing to deliver the 14-19 education reforms in England (7 October): report by the Commons Public Accounts Committee expressed reservations about aspects of the government's diploma proposals.	**YES** -vocational Education
		2009 Higher Ambitions - The future of universities in a knowledge economy (2 November): the Department for Business, Innovation and Skills set out its 10- to 15-year strategy.	**YES** - Interest
		2009 2009 Apprenticeships, Skills, Children and Learning Act (12 November): created a statutory framework for apprenticeships, and established the Young People's Learning Agency for England (YPLA), the office of Chief Executive of Skills Funding, the Office of Qualifications and Examinations Regulation (Ofqual)	**YES** – REREGULATION OF Apprenticeships
		Leitch Review	
11 May 2010 David Cameron (Conservative) - Conservative/Liberal Democrat coalition	**12 May 2010 Michael Gove**	**2010** Browne Review Securing a Sustainable Future for Higher Education (12 October): recommendations mostly ignored. (See also Robbins 1963, Oakes 1978 and Dearing 1997.)	**YES** – Recommended students pay full tuition fees
		2010 Higher education: Vince Cable announced the tripling of university tuition fees (9 December).	**YES** – tripling of tuition fees from 2012 to £9000
		2011 Wolf Report Vocational Education (March): made wide-ranging recommendations.	**YES** – Vocational Education
		2011 White Paper Higher Education: Students at the Heart of the System (June): published by Department for Business, Innovation and Skills.	**YES –** student consumerism
		2012 Richard Review	
	15 July 2014 Nicky Morgan	**2015** Green Paper of 2015 (*Teaching excellence, social mobility and student choice*),	Following the Green Paper proposal that universities which demonstrate 'teaching excellence' - Can raise their fees – more managerialism

		2015 - 2020 Vision document outlining 5-year plan for apprenticeships	**YES**
		2016 Shadbolt report – Looked into computer science accreditation	**YES**
		2016 Wakeham Report – Looked into employability in STEM areas	**YES**
		2016 - Enterprise Act – Implemented 2015 Policy reform	
13 July 2016 Theresa May (Conservative)	**August 2016 Damian Hinds**	**2017** 2017 Higher Education and Research Act (27 April): provided for the establishment of the Office for Students (OfS) and United Kingdom Research and Innovation (UKRI) and abolished the Higher Education Funding Council for England (HEFCE) and the office of Director of Fair Access to Higher Education (DFA).	**YES -** Established OFS – Tuition fees to £9250 with inflation
May 2019 Boris Johnson (Conservative)	**July 2019 Gavin Williamson**	Higher education: Free speech and academic freedom, 2021 under consideration	**YES –** Free speech Bill
	September 15, 2021, Nadim Zahawi	OFS Strategy 2022-2025 approved	**YES –** B4 indicators
	July 5, 2022, Michelle Donelan		
	July 7, 2022, James Cleverly		
September 2022 Liz Truss	**September 6, 2022, Kit Malthouse**		
October 2022 Rishi Sunak	**October 2022 Gillian Keagan**		

Appendix D: Ethics Documentation

This Appendix contains:

- Participant Information Sheet
- Consent Form
- Professional Profile Form

Participant Information Sheet

Title of Research Project: Toward an understanding of how university-level apprenticeship programs impact academic autonomy using Legitimation Code Theory

You are invited to take part in a research study. Before you decide whether or not you are happy to take part, it is important that you understand what the project is about, why I am inviting you to take part, and exactly what is involved. Please take the time to read the following information carefully.

What is the project about?

The aim of this research is to conduct a comparative study of the perceptions academics have of their autonomy in apprenticeship and non-apprenticeship programmes

I want to investigate three strands of academic autonomy as follows:

- Autonomy in governance
- Autonomy in the curriculum and academic practice
- Autonomy in professional development and role identity

My research will analyse the perceptions of academic staff with varying degrees of involvement in apprenticeship delivery. The intention is to provide insight into the extent to which autonomy persists and whether there are correlations between autonomy, level of involvement in apprenticeship delivery and/or background. The findings will be considered in terms of their implications for apprenticeship policy enactment in a university setting.

Why am I being invited?

You are being invited to take part in this research because you are an academic who is (or has been) involved in university-level apprenticeship programme delivery.

What does the study involve?

Taking part would involve you completing a short professional profile form and setting aside one hour of your time for an interview. The interview will last for between 30 minutes and 1 hour and will take place at a time and location that is convenient for you. It may be conducted using a telephone or online tool if this is preferable or necessary.

Interviews will be recorded for transcription – details of data storage are given later in this document. In the interview, you will be asked a series of questions designed to facilitate a discussion about your apprenticeship and other academic work. The format of the interview and the questions will be provided prior to the interview to allow time for you to reflect on your experiences.

Your participation is completely voluntary and confidential. Your employer, manager and the apprenticeship cohorts will not be told that you are taking part. If you change your mind at any point, you can withdraw up to the point at which the data becomes aggregated for analysis purposes (October 31st 2020) and you do not have to give a reason for doing so. If there are any questions in the interview that you would prefer not to answer, you do not have to answer them or provide any reason for not doing so.

Are there any risks or benefits?

The data gathered as part of this research will not feed into any academic or quality assurance processes. If you decide to go ahead, you will be asked to sign a consent form to make sure that you fully understand what you are agreeing to. The research has been approved by the Ethics Committee at Staffordshire University.

There are no personal benefits for the people who take part, but any knowledge that is gained as a result of the research will be made available to the development teams involved with apprenticeship programmes running at the university, to consider how we might do things differently in future to improve the value of apprenticeships to all stakeholders moving forwards.

It is recognised that participation in research projects may cause emotional distress and anxiety in some individuals. If you feel that your psychological wellbeing has been affected, the university has a free counselling service which you can access at by telephone on 01782 294977 or at: http://www.staffs.ac.uk/study/disabled/mental_wellbeing/index.jsp

Will I be identified in the report?

No. None of the information that you provide will identify you, or your organisation or be attributed directly to you in the final report. Any information which could lead to your identification will be omitted. Identification codes will be used during analysis and pseudonyms will be used for you and your employer throughout the final report. If you would like to choose the pseudonym for use when quotations are taken from your transcript, please do so by October 31st, 2020.

Any personal information that you provide will be confidential and accessed only by the researcher. Recordings, professional profile forms and transcripts of the interviews will be stored securely whilst the research is being undertaken and will be destroyed in accordance with university procedures that are in force when the project is completed.

General Data Protection Regulation 2016 (GDPR) and subsequent amendments.

Your data will be processed in accordance with the General Data Protection Regulation 2016 (GDPR). The data controller for this project will be Staffordshire University. The University will process your personal data for the purpose of the research outlined in this information sheet. The legal basis for processing your personal data for research purposes under GDPR is a 'task in the public interest'. You can provide your consent for the use of your personal data in this study by completing the consent form that has been provided to you. You have the right to access information held about you. Your right of access can be exercised in accordance with the GDPR. You also have other rights including rights of correction, erasure, objection, and data portability. Questions, comments and requests about your personal data can also be sent to the Staffordshire University Data Protection Officer. If you wish to lodge a complaint with the Information Commissioner's Office, please visit www.ico.org.uk.

How will the research data be stored?

Paper documents will be scanned and the original paper copies destroyed. Signed consent forms and professional profiles will be stored electronically on a laptop protected with the BitLocker Drive Encryption System (or similar) and backed up to both cloud storage and an encrypted memory stick. Interviews will be recorded and subsequently transcribed by the author. Recordings and transccript files will be stored on a protected laptop and backed up as above. Data will be destroyed in the timescale and manner previously described. Transcript and professional profile files will be referenced by an identification number and the file linking participants to identification numbers will be held on a separate secure device which is not connected to the internet.

FOR FURTHER INFORMATION

This research is being undertaken for the purpose of completing a professional Doctorate in Education at Staffordshire University. If you have any queries or questions related to this research, please contact me on 07762 057107 or by email at janetsfrancis@gmail.com . If you have any concerns about this research, please feel free to contact my supervisor, Dr. Duncan Hindmarch. His email address is d.n.hindmarch@staffs.ac.uk .

Thank you for taking the time to read this information sheet.

Participant Consent Form

Title of Research Project: Toward an understanding of how university-level apprenticeship programs impact academic autonomy

Please read each statement, and put a mark in the box next to it to indicate that you are in agreement with the statements

I have read and understood the participant information sheet and the nature and purpose of this research has been explained to me.	□
I understand that my participation in this project is voluntary, and that if I change my mind, I can withdraw up until the date that the data is aggregated for analysis purposes (November 30th, 2020). I can do this without prejudice and without giving a reason.	□
I understand that I do not have to answer every question if I do not wish to and I don't have to give any explanation.	□
I understand that confidentiality will be maintained throughout this project, and that neither I nor the organisation that I work for will be identified in the final report. I understand that pseudonyms will be used in the final report.	□
I confirm that quotations may be used in the report, provided that the quotations are anonymised and do not reveal my identity.	□
I confirm I have been given the opportunity to ask questions about the project and my participation in it.	□
I understand that my data will be securely stored in accordance with Staffordshire University protocols and current data protection guidelines.	□
I confirm that I agree to take part in this research project.	□
I agree that any interview that I take part in may be recorded.	□
I confirm that I have read and understood the information sheet regarding the General Data Protection Regulation 2016 (GDPR) and I give my consent for my data to be processed in accordance with the GDPR.	□
I understand that in addition to the current research project, my data may be used in teaching, further research publications and other research activities such as conferences.	□

Should I wish to receive a copy of a summary of the study findings I will provide my contact email in the address box below	
Participant Name (please print)	
Signature	
Date	
Participant Email Address * optional	

Professional Profile Form

Title of Research Project: Toward an understanding of how university-level apprenticeship programs impact academic autonomy.

I would be grateful if you would complete the professional profile form below. The information on the form will be used to understand whether your profile fits the requirement for the research investigation. If you consent to take, the information will be used to provide context for the information gained through an interview. Whereas the interview will seek to draw out your perceptions of autonomy, this form requires factual information about you and your role **at your current institution**.

Please reference the consent form and participant information form or contact janetsfrancis@gmail.com for details on the terms of consent and how this and other information you provide will be managed and used.

Please indicate the contract you have:	Permanent Fixed term/Probationary	Full Time Part-time (Hourly paid)	
Please indicate in which timeframe(s) you were teaching non-apprenticeship courses*: *Please provide month/year for start and end dates. If there were gaps, please indicate this.*			
Please indicate when you were teaching on apprenticeship programmes and which programmes: *Please provide month/year for start and end dates. If there were gaps, please indicate this.*			
Please indicate the type of apprenticeships you have delivered on *Indicate all relevant boxes*	Framework – Apprentices on a Foundation Degree/HNC.	Level 4 standard	Level 6 standard

* Non-apprenticeship courses are under-graduate and post-graduate courses offered full-time to full-time students by the institution

Thank you for taking the time to complete this form

Appendix E: Interview Questions

The interview is expected to last between 30 and 90 minutes and is organised as follows:

Background	In this section, you are encouraged to provide a biographical narrative covering your background and what brought you to academia – you will be provided with some loose pointers at the start.
Your role	There are five questions relating to perceptions of how decisions are made around your role and your professional development as an academic
Management relating to non-apprenticeship work and apprenticeship	There are six questions on your perceptions of award management decisions. For each question, you are asked to consider first your experiences with non-apprenticeship university work and then your experiences with apprenticeship work.
Academic practice relating to non-apprenticeship work and apprenticeship	There are six questions on your perceptions of aspects of your academic practice. For each question, you are asked to consider first your experiences with non-apprenticeship university work and then your experiences with apprenticeship work.
Summary	There are two final summary questions

Note: The Covid-19 pandemic and the subsequent lockdown of the university campus has brought with it challenges and possibilities for innovation. You are most welcome to comment on these, but I would like you to focus on what you feel are 'normal' practices.

Please note that you will be able to answer each question in as much detail as you like (or not at all) – the bullet points are ideas on what could be included in that area, but I would like the interview to flow naturally.

BACKGROUND

QUESTION: Please discuss your background and route to academia in your own words.

NOTES: You may wish to include the following:

- Where you were brought up
    - Was your family academic, intellectual, religious?
    - Were you encouraged to develop hobbies, sports, play musical instruments?
- What interested you in school and out of school?
    - Were you encouraged to do well academically – by family or school?
    - What sort of senior school did you attend – comprehensive/grammar/FE college/independent school?
- Were you the first in your family to go to university – were you expected /not expected to go?
- What made you decide to become an academic – was there a moment of realisation – did you drift into it or plan - did you try anything else in-between?

YOUR ROLE

QUESTION 1: How do you perceive your academic profile?

- What activities make up your academic profile?
- How is this decided?
- Why did you become involved in apprenticeship?
- How does your involvement impact/benefit your other work?

QUESTION 2: How and why do you perceive that your proficiency is monitored – consider firstly your non-apprenticeship work and then your apprenticeship work?

- What do you feel is valued in your role – by you, by others eg students/managers/colleagues
- How is the value/proficiency measured and monitored
- Why is it monitored – for whose benefit/what purpose
- Why do you think these things are valued?

QUESTION 3: In terms of your professional development, how is this chosen – how do you feel that your involvement with apprenticeship affects your choice?

QUESTION 4: How do you perceive your professional identity when you teach apprentices?

- Do you speak to apprentices differently than to students? Do they speak to you in a different way compared with non-apprenticeship students – if so, why do you think this is?

QUESTION 5: How has your involvement in apprenticeship programmes affected your professional identity?

- Will you move forward in a different way? If so, why?
- Have you changed your career aspirations or professional development? – if so, how have these changed?

MANAGEMENT

For this section, think about a non-apprenticeship award and an apprenticeship programme that you are involved with – you need not refer to these awards by name

Non-apprenticeship work - this means work that you do with awards and modules which are taken by full-time students who would normally attend university for face-to-face teaching.

- Apprenticeship work – this relates to your work with level 4 and level 6 apprentices and the awards/modules they are enrolled on.
- For each of the above consider the extent to which you feel the decisions below depend on recommendations from you, your academic colleagues, academic manager, non-academic manager or external accreditation/regulatory bodies?

QUESTION 1: How do you perceive that award introduction/termination decisions are made?

- Consider decisions made about whether an award or apprenticeship should be developed in the first place/continue to run/be terminated – who makes these decisions – what process is followed?

QUESTION 2: How do you perceive that the curriculum content is decided?

- Consider decisions around learning outcomes, subject areas that are included – are there constraints, conditions? - who makes these decisions – what process is followed?

QUESTION 3: How do you perceive decisions around selecting students/apprentices are made?

- What about entry requirements? How are these decided, policed?

QUESTION 4: How do you perceive decisions around student numbers on the award/programme, class sizes are made?

- who makes these decisions – what process is followed?

QUESTION 5: How do you perceive decisions around QA mechanisms concerned with the award validation and delivery are made

- Consider decisions around:
    - Whether the award is fit for purpose
    - Whether the university/departmental processes are fit for purpose?
- Have you been involved in Apprenticeship validations – how are they different?

QUESTION 6: How involved are you in management decisions? Do you perceive that you are more or less involved in the management decisions around apprenticeship awards than non-apprenticeship awards or is it about the same?

ACADEMIC PRACTICE

For this section, think of modules that you are involved with on non-apprenticeship awards and others that are part of apprenticeship delivery – you need not refer to these by name

- Consider the extent to which you feel the decisions below depend on recommendations from you, your academic colleagues, academic manager, non-academic manager or external accreditation/regulatory bodies

QUESTION 1: How do you perceive that module introduction/termination decisions are made?

- Consider decisions around size and shape of modules
- What about choosing the module title? – who makes these decisions – what process is followed?

QUESTION 2: How do you perceive the content and assessment is decided?

- Consider decisions around choice of learning outcomes and what content is to be included?
- Is all the module content directly related to the subject of the module?
    - If not, what other content is taught/assessed– example other technical areas such as mathematics, general ICT or graduate skills such as employability, critical thinking, reflection, presentation skills. What about subjects not related to subject, technology such as those that develop graduate attributes, values?
    - Why do you feel these are taught/assessed – to satisfy you, computing requirements, university requirements, external requirements?

QUESTION 3: How do you perceive decisions around teaching and academic practice are made?

- Consider decisions around how the modules are taught (lecture, tutorial, seminar, practical)
- How does your apprenticeship teaching differ from that for in-house teaching on similar modules – do you adapt the materials?
- Consider decisions around the extent and to which students are monitored in terms of attendance, learning, progression through the module against learning outcomes.
- Who makes these decisions – what process is followed, how is it policed and why?

QUESTION 4: How do you perceive QA mechanisms concerned with teaching practice and student monitoring are implemented and why - for what purpose?

QUESTION 5: What teams do you feel part of? Comment on the nature, structure and purpose of the teams you work with for non-apprenticeship awards/modules. Comment on the apprenticeship team.

- How cohesive is the team – what holds it together? How is it managed?
- practices etc of the teams? Do other people in the department recognise the team? How?
- Why does the team exist? For whose benefit - you, management, others?
- Are there team meetings – How are these arranged and led?
- Why are the meetings held – for what purpose/who benefits?

QUESTION 6: Have you changed (or will you consider changing) your academic practice with non-apprenticeship students or suggested (or considered suggesting) changes to award content moving forward based on your experiences with apprentices and apprenticeships? – if so how and why?

SUMMARY

QUESTION 1: Which do you prefer and why – your non-apprenticeship work or your apprenticeship work?

QUESTION 2: Do you feel that your involvement with apprenticeships has been positive for your professional development? Why/Why not