Creativity in Electronic Music: Unravelling the Sociocultural Fabrics of Expression

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Abstract

This thesis explores the sociocultural factors that influence creativity within electronic music production, adopting a constructivist approach to examine the interplay between individual creativity, social creativity, and cultural fields. Through a combination of traditional social scientific research methods and autoethnographic reflexivity, this study investigates the experiences of nine highly accomplished electronic music producers and how their sociocultural interactions and positions within the field shaped their habitus. The author, also an accomplished electronic music producer, provides a first-person narrative to compare and contrast his experiences with those of the research participants, grounding and contextualising the theoretical findings.

In addition to contributing to the broader literature on creativity, this thesis aims to expand the understanding of creativity in electronic music production, and specifically the cluster of genres associated with hiphop, trip-hop, dubstep, and ambient music. It also seeks to enrich the theoretical frameworks used to study creativity by providing a deep and nuanced understanding of the role of social and cultural contexts surrounding the creative process, and the technological affordances that facilitate creativity both in this field and more widely.

The findings of this research indicate that the development of creative expressions within electronic music production is influenced by the sociocultural interactions and experiences of its practitioners, which are mediated by their sociocultural fields, and catalysed by the technologies they use. However, creative expressions also rely on individualities of influence, thought, and technique, which can challenge the rigidity of cultural field values and structures. These findings provide a fresh perspective on the nature of creativity within electronic music production and underscore the importance of sociocultural context, community, and individuality in shaping the creative process.

Overall, this thesis offers an innovative and comprehensive exploration of creativity in electronic music production and provides practical insights that can be applied to other creative fields. It not only advances theoretical debates surrounding creativity but also offers a practical framework for understanding the sociocultural mechanisms that underpin creative expression within cultural fields.

For my Mum, my Dad, and my Brother.

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Chapter 1. Introduction

Electronic music has progressed from experimental systems used by modernist and futurist composers into something which is so ubiquitous that we barely notice it at all. It has firmly entrenched itself into our cultural canons, to the point where the primary tool used to create it, digital audio workstation (DAW) software, has annual global sales figures totalling approximately $2.95 Bn at the time of writing and is expected to grow rapidly over the coming years (Fortune Business Insights, 2023). Add to that the fact that there are many highly sophisticated DAW packages available for free, and many users pirate the paid software, and you have a genre of music which can be produced by virtually anyone with access to a computer.

My own career as an electronic music producer happens to have been during the period of rapid technological development between 1999 and today. When I started out, the technology used to produce electronic music consisted of magnetic tape as the primary recording medium, bulky and often difficult to use synthesisers and samplers, and primitive and limited sequencing software. Now it consists of sophisticated DAWs consisting of multi-track recording interfaces, synthesisers, samplers, drum machines, FX units, and mixing and mastering capabilities. Every function you would commonly find in a hardware based recording studio, and everything you need to put together complex pieces of music. The technology has become many times more powerful, yet much more affordable and user friendly. The transformation has been radical.

With that transformation has come a revolution in what it means to be creative as a musician. It is arguably easier to learn to use a DAW and put together a piece of music on a computer than it is to pick up a guitar, learn to play it, and write music that way. That increase in accessibility has brought a great many new artists and ideas into being, and seen a splintering of electronic music in the broader sense of the term into a thousand new sub-genres. Its ubiquity is such that the 2020 Grammy award for Best Album went to Billie Eilish for *When We Fall Asleep, Where Do We Go?* A pop album rooted in electronic music sensibilities and produced by her brother in a small home studio using DAW software. What was once the preserve of the avant-garde is now at the very centre of the mainstream.

This leaves us in a position where we have a thriving and vibrant creative field with huge reach but, as I outline below, very limited research into how creativity functions within that field. The scope of electronic music production as a creative practice and sociocultural field has far outstripped the academic work which allows us to understand the meanings and functions of creativity within it. I felt I was the right person to change that, and so I embarked upon this research hoping to shed a little light on the subject, and to find along the way some deeper truths about creativity and what it means to be creative.

During the planning stages of the thesis, I was discussing the idea of observing artists in the studio with one of the interviewees who contributed to the primary data collected for this project - the influential DJ and producer Kevin Foakes. Despite being very open with his ideas and generous with his time, Kev was reticent, stating: "I don't like doing things like that because it takes the magic out of it". This simple statement, perhaps more than any other in this thesis, reveals why research into how creativity is understood and actualised needs to be carried out.

The implication, of course, is that the music making process, and by extension the creative process, is somehow mysterious and magical. But those of us working in the field know that there is nothing really romantic about it. We know that it is a long and often tedious process, typically more akin to software programming than to conceptions of pieces of music falling together smoothly and easily due to a particularly strong creative insight.[1] Most accomplished creative people in any given field know that putting together a piece of work is a long process of hard work. Yet the myths persist.

The tropes of the lone genius and the misunderstood artist whose work was ahead of its time are very common in western culture. They are inherently appealing notions because they are based around the idea that most if not all individuals have the potential for large and significant creative insights, if only they can find the right inspiration. I am as guilty of this as anyone, and it took me a long time to rewire my thinking through the process of producing this thesis. I simply did not want to let go of the idea that I was solely responsible for my own ways of thinking and acting because it felt like I was giving up a part of my own

[1] This can happen too, but it's relatively uncommon.

agency. My sense of self.

What I was to find, however, was something far richer. Tapestries of ideation sewn from collectivised lifetimes of experiences, interactions, and understandings. Far from removing significance from the creative individual, I found a new and empowering perspective of the individual as a conductive and shaping force for vastly complex networks of social and cultural engagement. Only once we let go of the idea that we are at the centre of our own creative universe can we realise how large that universe is and how significant our role is within it.

1.1 My Background

In order to begin understanding this field of creativity, I must first describe my own position relative to it. This is important because this work is structured around ethnographic research practices, and I frequently refer to my experiences and provide autoethnographic counterpoints for context and comparison as well as to develop discussion and argument.

I first began studying music production at Newcastle College in 1999, and much of that education was based around analogue recording technology and rock music paradigms. I would not change it, but I would not go back. I was a fan of electronic music at that time, and had a broad idea of how it was put together, but I was not able to make it myself until a few years later when I first got a PC that was capable of running Cubase SX.

Limited access to studio space and musical collaborators, and my limited ability as an instrumentalist were no longer issues, and I quickly found that I could start piecing together music using samples and programmed MIDI instruments. My poor musicianship in terms of my ability to play instruments ended up working in my favour because it forced me to find creative ways around those problems and learn the capabilities of the software.

For the next 15 years I focused solely on learning to produce electronic music. I put out a few records on small but respectable labels, and gained some limited recognition within the field, but never quite had the success that I felt that my ability deserved. I was unhappy. I was frustrated. I could not understand why I was doing it anymore, and so I set out to re-

examine my relationship to music through understanding the mechanics of creativity itself.

1.2 Research Questions

The overall aim of this research is to provide an extensive and relatively comprehensive view of creativity within electronic music production. It uses as its basis the well-established understandings of creativity and sociocultural interaction put together by Pierre Bourdieu (1983, 1984, 1986), Mihaly Csikszentmihalyi (1988, 1997, 1998), and Lev Vygotsky (1960, 1971, 1984) to provide a constructivist perspective on the field of study. To do that effectively, it was necessary to formulate research questions which were broad enough to facilitate a sustained discussion, but also narrow enough that they can eventually be concisely answered. With that, and my personal motivation to understand the core mechanisms at work within my creative practice, in mind I formulated the following two questions:

1. What are the Sociocultural Mechanisms underpinning Electronic Music Production?

This question is designed to get to the heart of the sociocultural and constructivist position taken by this thesis. To fully understand that position in terms of how it defines and structures the topic of study it is necessary to look clearly at the exact mechanisms through which that definition and structuring take place. I wanted to see how exactly established theories of creativity fit within the field of study by testing and combining them with the experiences and understandings of myself as the researcher and that of the participants. This question both facilitates that process and allows for a relatively concise and straightforward set of answers.

2. What do those Sociocultural Mechanisms and their Interactions tell us about Creativity as a whole?

This is an extension of the previous question which is designed to create links from the research back into the literature, allowing for original contributions to, and reinforcement of, existing literature through integrating the new perspectives derived from this work. The word ‘interactions’ is important here because it places emphasis on how the mechanisms

described above come together in the specific circumstances of the field of study to create those new perspectives.

1.3 Research Context

Creativity within music is typically studied using well-established social scientific practices, and whilst genre specific research into creativity within music is not at all uncommon, it often focuses upon smaller elements within those genres and their creative practices (McGrath et al, 2016; Morey & McIntyre, 2014). This means that whilst works covering many aspects of creativity within a given musical genre do exist (Warner, T 2017; Toynbee, 2016), they are relatively uncommon, and there is nothing which covers electronic music. The importance of electronic music as a field is widely recognised amongst musicologists (Demers, 2010; Emmerson, 2017), technologists (Mumma, 1967; Holmes, 2020), and historians of music (Taylor, 2001), but has largely been overlooked by scholars of creativity. There are numerous papers studying elements within the field and its practices, several of which are covered in-depth in the Methodology chapter of this thesis (Chapter 3), but nothing which seeks to provide a comprehensive overview linking theory with practice and experience.

This thesis seeks to fill that gap by combining traditional social scientific practices with ethnographic research methods to compare theories of creativity with the experiences of electronic music producers. For example, observation, interview, and autoethnographic narrative. As with studies into creativity in music, there are numerous ethnographic studies which look at musical genres (Oliver, 1967; Bennet, 1999), several which engage with creativity theory (Söderman & Folkestad, 2004; Sawyer & DeZutter, 2009), and a few which look at electronic music (Allington et al, 2015; Hietanen & Rokka, 2018), but nothing which combines all three. Similarly, autoethnographic narrative writing is used in studies focusing on given musical genres (Brown, 2011; Littleton, 2022). creativity (Brown, 2012; Waters, 2021), and electronic music (Zebracki, 2016; Mainsbridge, 2022), but there are no works which combine the three.

1.4 Thesis Outline

The structure of this thesis is broken up into three sections. The first section, comprising the Literature and Methodology chapters, provides context by establishing the work within its theoretical basis and the ideas underpinning its execution. The second section, comprising the Analysis and Discussion chapters, tests and examines that context by linking and discussing it in relation to the experiences of the participants and my own experiences. The third section, comprising the Summary and Manifesto chapters, synthesises findings, derived from the previous sections, to answer the research questions from both traditional social scientific and autoethnographic perspectives. Naturally, there is a degree of crossover between these sections, and a sense of recursivity in terms of how ideas are constructed and used. As such, the structure described above should not be seen as rigid, but rather as a broad categorisation based upon what functions the chapters hold. I will now break each of those chapters down further and describe how the overall arguments are developed over the course of the thesis.

1.4.1 Theory

This chapter lays the theoretical foundation for the thesis by exploring the conceptual paradigms that inform this work and many other areas of creativity research. The focus is on the work of three key theorists; Bourdieu, Csikszentmihalyi, and Vygotsky, explaining the relevant concepts and tracing their work through similar areas of research to form a multi-layered foundation for understanding creativity. This type of multi-layered approach was necessary because I did not feel that the work of either of those theorists in isolation was sufficient for the type of nuanced view I wanted to take, one which is constructivist in outlook but also understands the importance of the individual within those wider sociocultural contexts. All three provide deep and complex views of creativity, but there are subtle differences and areas where I found that it was either appropriate to focus upon one theoretical viewpoint over the other two, or to present two or three theoretical viewpoints and use them for contrast and comparison. This allowed me to synthesise an ontological basis from a wide range of ideas and to tweak it to suit the needs of the project, using Vygotsky to understand the creative individual, Csikszentmihalyi to understand the mechanics of creative action, and Bourdieu to provide wider context and deeper understanding. As I explain in this chapter, these categorisations are somewhat broad, and there is a great deal of interplay between the three, but by using them in this way I was able

to synthesise a framework for understanding the aspects of creativity which I felt were most important in depth and with very solid and well-established theoretical bases.

1.4.2 Methodology

The Methodology chapter provides a thorough account of the research methods used in this study, highlighting their strengths and limitations, providing numerous examples from the literature, and demonstrating their appropriateness for answering the research questions. As with the previous chapter, this one forms part of the foundation upon which the rest of the research is built. From the outset, I knew that I wanted to approach this work from an ethnographic perspective because that approach has been shown to be very effective for this type of project. After researching this chapter, I came to have a deeper understanding of ethnography and autoethnography, their associated techniques, and my own methodological position as a cultural insider. Through that, I was able to put together a methodology which combines more traditional research techniques with first person narrative and creative writing. I feel that this approach adds depth and subjective nuance to a topic which is itself very subjective and based around individual experiences. Similarly, my approach to data analysis, which is also laid out in this chapter, was very important in terms of the overall structure of this thesis. Reflexive thematic analysis provides a very clear series of processes through which a researcher can rigorously and accurately interpret data and present it as a long form piece of work. By following those processes I was able to understand how the latter parts of this thesis should be constructed and how each element should function relative to one another and the research as a whole.

1.4.3 Analysis

This chapter, alongside the Discussion chapter which follows, represents the heart of the research, providing the evidence and data needed to answer the research questions and applying theoretical frameworks of creativity to real world phenomena in order to generate the insights and ideas necessary to answer the research questions. Here, I present the findings from the data collected through interview, providing detailed examples and quotes to support theoretical argument and discussion, and counterpointing that with autoethnographic vignettes which seek to ground the theory in first person experience and

provide points of contrast and comparison.

The reflexive approach which I took to data analysis has meant that this chapter has changed quite a lot since the first couple of drafts. Initially, it took the form of an insider ethnography, using standard writing and structuring practices from that methodology which still accounted for my perspective as a researcher and artist, but dropped it more into the background. As I developed my methodological understanding, I realised that it would benefit greatly from some more narratively orientated writing which made the theory live for the reader, so I incorporated some pieces of autoethnographic writing representing my own experiences and understandings of the primary themes of the chapter.

The first theme, 'What is Electronic Music?', covers understandings of what electronic music is, what is meant by 'electronic music' as a term, and how it is defined in the context of this research. The second, 'Participants' Backgrounds', covers the participants early lives and habitus development generally. 'Creative Motivation' covers why artists are motivated to create and focuses primarily upon the inherent enjoyment of creating and creative practice as a way of meaning making and finding a sense of place and meaning within society. The fourth theme, 'The Role of the Field', covers the values and structures which define the field through discussion of direct and indirect interactions with other field members, including artists, labels, and journalists. 'Technology and Affordance' focuses on the technology used to create electronic music, using affordance theory to understand the nature of our relationships with those tools, as well as their influence upon creative practice. 'Creative Production' centres around the creative process itself, breaking down how ideas are formed and actualised both individually and through forms of collaboration. The seventh theme, 'Cross-Pollination', covers how elements of creative ideas can be drawn from diverse fields to create sophisticated approaches to practice. The final theme, 'Reactions to Creative Works', discusses subjective and objective responses to creative works, and how those responses effect understandings and practices.

This chapter also builds upon the theoretical basis laid out in the Theory chapter by introducing a number of more specific elements of creativity scholarship, incorporating them with the previously established theory, and using them to provide a finer grain of insight into

the data. I chose to do this because those ideas are less abstract than the concepts covered in the Theory chapter and are therefore best discussed and applied in context. Those ideas include but are not limited to: staged models of the creative process, big C and small C creativity, evolutionary theories of idea development, and convergent/divergent thinking.

1.4.4 Discussion

This chapter brings together the findings from the analysis chapter and the theoretical framework discussed in the theory chapter as I move towards answering the research questions. As with the previous chapter, this one integrates elements of autoethnography alongside traditional social science paradigms to highlight key themes and explore findings from multiple perspectives. The core function of this chapter is to refine the themes explored in the Analysis and draw out those ideas which will form the basis of the summative discussion in the next chapter. Fundamentally, this discussion switches from the primarily deductive position taken in the thesis up until this point to one which is primarily inductive. It reflects upon the data gathered and the arguments raised, in order to draw out points which are particularly relevant to this research and this field of study. Those points include but are not limited to: Creativity as Self-Actualisation, which highlights what my research finds to be the most powerful motivational force for creativity in this context, that of meaning making and understanding of self; Music as Collage, which discusses a point which came up repeatedly about the diverse nature of sources which form habitus and provide the basis for creative ideation, and extrapolates that to look at parallels between the functionality of the creative mind and the process of musical composition itself; and The Individual within the Social, which harks back to one of the central ontological themes of my research, that of the importance and function of the individual within constructivist systems. This chapter provides the building blocks which allow the following chapter to more directly and conclusively answer the research questions.

1.4.5 Summary

This chapter switches back to a more traditional academic writing style to provide a relatively objective set of answers to the research questions. It does so by summarising the key arguments of the thesis and highlighting the implications and contributions of the

research. I felt that it was important to take this approach as it provides a clear and concise set of findings which counterbalance the more subjective and personal reflections laid out in the Manifesto chapter which follows. The primary focus here is on the notion that we should view creative production and sociocultural interaction as one and the same, and that we should understand that the role played by the individual within that is catalytic rather than originating, but that it is no less unique or important for that. The chapter concludes by suggesting areas for future research, including the exploration of other subgenres of electronic music and further investigation of the impact of technology on creative processes in electronic music production.

1.4.6 Manifesto

The Manifesto chapter is the personal conclusion of the work. It is my own reflection upon the nature of creativity having completed this research. I have deliberately written it so that it is none field specific, reflecting the fact that my personal views of creativity, while rooted in electronic music production, are a lot broader and more widely applicable. This is also reflected in the somewhat minimal, prose orientated, writing style. By approaching it with a few well-chosen words rather than explaining it in great detail, I wanted to give the reader a framework upon which to attach their own understandings, rather than very rigidly define everything and perhaps draw the reader away from their own truths relative to the piece. It feels very true in terms of how I understand myself within the work, and I hope others find something of themselves in it too.

1.5 Conclusion

What all of the above results in is a thesis that is original in both its content and its execution. The focus upon socioculturally focused theories of creativity in electronic music is unique in itself because, as noted earlier in this chapter, while there are many studies which have looked at electronic music, they tend to centre around technological or musicological aspects rather than the broader contexts which construct and define the field and its works. Methodologically speaking, there has been no extensive social scientific study of creativity in electronic music, there has been no extensive ethnographic study of creativity in electronic music, and nothing which employs both approaches. From a theoretical perspective, this

research contributes new insights to the existing corpus of creativity theory by examining creativity as a product of individual expression formed through the free associations which derive habitus from collective context and highlight the importance of the individual within constructivist thought. It also further reinforces its theoretical basis by demonstrating how those theories interrelate, apply, and function within new contexts.

This chapter has provided an overview of the thesis, covering the field itself, my background, the research questions, the research context, contributions to knowledge, and given an outline to the thesis itself. It situates the research which follows within the field, and explains how the work fills the identified gaps in the literature. More broadly, it gives an understanding of why the field of electronic music is culturally important, why it should be studied, and why it is significant in terms of how creativity is actualised within it. The next chapter, the Theory chapter, will cover the social, cultural, and creativity theories which combine to form the ontological base of the work and establish it within the paradigms of constructivist thought.

Chapter 2. Theory

In this chapter I discuss the theoretical basis for my thesis, which consists of the work of Pierre Bourdieu, Mihaly Csikszentmihalyi, and Lev Vygotsky. While I have used the work of a wide range of scholars, both on matters concerning methodology and on matters closely related to the study of creativity, they are covered separately in the methodology and analysis chapters respectively. The reason I have chosen to separate the theory in this manner is twofold. Firstly, for the sake of clarity. In doing so, I am better able to explain my own use of those theorists, make comparisons between them, and relate this research to other research that uses those theorists or combinations of them. Secondly, while the methodological and specialist creativity theory is of great importance to this thesis, the methodological work stands apart due to its functional nature, and the creativity specific theory is better seen within its own context because it provides understandings of the core functionalities of creativity in real world situations. If I were I to cover areas of creativity theory such as divergent thinking and multi-stage models of the creative process here, it would necessitate breaking up what is the fundamental core of thought upon which this thesis is based. It would also create unnecessary complications in this chapter, and repetition when those concepts are discussed later on in the Analysis chapter.

My reasoning for using the three theorists noted above begins with an encounter with the work of McIntyre, whose study into creativity within musical production and composition states: “The contention of this article that it is [Csikszentmihalyi’s] Systems Model of Creativity in particular, partially coupled with the similarly complex approach to cultural production presented by Pierre Bourdieu, which provides the most useful working platform to investigate the idea of creativity” (2008, p.1). The argument for combining this theory is further supported by Fulton & Paton (2016) and Thompson (2016), both of whom will be discussed in more detail later in this chapter. Bourdieu and Csikszentmihalyi in combination provide a social constructivist approach with which to explore the systems surrounding creative thought and creative action. However, their nature is such that the focus lies more upon the social than it does on the individual. As a creative practitioner, I wanted to place as much emphasis on the individual within creativity as the systems of which that individual is a part. Therefore, I have incorporated Vygotsky into the combination. His work discussing creativity as a higher psychological function (1960), creativity as an ongoing process of self-

actualisation or self-understanding (1971), and creativity as situated within cultural-historical context (Lindquist, 2003; Zavershneva & van der Veer, 2019) are similarly constructivist but focus upon the creative individual.

These three theorists provide a tripartite synergism. I have used Vygotsky to provide insight into the creative individual, Csikszentmihalyi to provide insight into creativity as a system, and Bourdieu to provide wider social and cultural context and a framework within which the first two can function. There is a great deal of crossover between the three theorists. For example, the field element of Csikszentmihalyi's Systems Theory of Creativity (1988) and Bourdieu's notions of Field as a social concept (1977) are virtually identical. As such, it provides a framework within which Csikszentmihalyi's use of the same concept can be placed and enables me to look at that concept more broadly. Vygotsky's work on the development of creativity as a higher psychological function predates that of Bourdieu. However, Bourdieu's theories around the development habitus (ibid, 1977) work in a very similar way, providing interesting points of comparison. There are other examples of similarities and differences which I will cover in this chapter, and later on in this thesis.

The aim of this chapter is to illustrate how these three theorists fit together, how they have been used separately as well as in varying combinations to study creativity, and to show through discussion and comparison why combination is the most effective way of understanding creativity. Given that Bourdieu is the theorist who I have used to provide the wider context and broader points of theoretical comparison, I will begin by covering the relevant areas of his work, how those works have been used to study creativity, and their relevance to this study. I will then move on to Csikszentmihalyi and discuss his work on creativity: in isolation, in comparison with Bourdieu, its uses in this field of study, and its uses within this thesis. Following this, I will examine Vygotsky's ideas, comparing them with those of the previous two theorists, discussing their use in previous studies of creativity, and their relevance to my own study. Finally, I will provide a discussion of how I have synergised these three theorists to provide a platform for studying creativity in electronic music.

2.1 Bourdieu

Bourdieu's work covers a wide range of concepts which are foundational to much modern

sociological thought. His work often centres around dynamics of power (Bourdieu, 1991), forms and methods of sociocultural interaction (Bourdieu, 1984), and cultural production and consumption (Bourdieu, 1983). He provides a wide range of methodological tools and systems for understanding how and why individuals, societies, and cultures behave in the ways that they do. Of those tools, the four which are most important for this thesis are field, habitus, capital, and doxa. Those concepts work together to give us a theoretical framework which we can use both on its own and, combined with the work of other theorists, to give us insight into the processes underpinning cultural production. I will discuss each of the three concepts separately, giving an overview of what they are, how they work, how they fit together, contextualising them within this research, and discussing examples of how they have been used by other scholars to study creativity.

2.1.1 Field

Bourdieu uses the term 'field' to describe the structures and functions which create the social spaces in which interactions take place between individuals and/or organisations of individuals - such as companies and educational institutions (Thompson, 2014). It is a concept which allows us to contextualise the actions of agents and the cultural products they produce as a result of those actions. By analysing the field, we are able to give context to creative thought and action, and use that to understand how and why creative works are developed. Field theory allows us to understand creative works by placing them in the context of other creative works, cultures, and societies.

The functionality of the field is most easily understood if we follow Bourdieu's lead in using the analogy of a sports field. In this view we see society as a game, with players (individuals or organisations) within the field succeeding or failing based upon their understanding of the rules of the game (doxa), the skill of the players (habitus), their achievements and positions within the game (capital), and the state of the field itself (Webb et al, 2002). As such, the field should be seen as dynamic; evolving and changing as new ideas are brought into it through evolutions to its doxa and changes to how and where capital is assigned. However, there are complications. Individuals belong to, and draw ideas from, many different fields, and all belong to what Bourdieu termed the 'field of power' (Bourdieu, 1989). The field of power is a wider field in which all of society competes for prestige and to improve their

position through the acquisition of capital and the influence associated with that. This notion of fields as concentric and overlapping is useful because it allows us deeper insight into the sociocultural circumstances surrounding the primary field of study.

Lopes' (2000) study looking at the field of jazz music between the 1920s and 1960s reveals how jazz evolved from being centred around the idioms of popular music to its more modern position of high art aesthetics. That movement is framed by evolving attitudes to race during that time period, and the struggles of black musicians as a dominated social class to participate in forms of cultural productions which Lopes describes as articulating high art aesthetics. My study has similarities to Lopes' approach in terms of looking at: how participants' experiences of time, society, and place inform their creativity; how the developments within the field of technology influence their work; and how exposure to cultural fields outside of electronic music is central to the development of their creative habitus within the field of electronic music.

For Bourdieu, fields of cultural production have two poles: autonomous and heteronymous (Bourdieu, 1993). These poles represent two ends of a spectrum in terms of how creative works within a field are produced and disseminated. The autonomous pole is one of restricted production whereby members' creative contributions to the field's systems of value and self-understanding receive low returns in terms of economic capital and high returns in terms of cultural capital.[2] Those producing contributions which primarily fall into this category can be seen as producing art for art's sake. At the other end we have the heteronymous pole, where creative works receive high returns in economic capital but low returns in cultural capital. This is production for profit. This view of polarity within cultural fields has been used by Oware (2013) to look at the field of rap music. His study highlights that there are many grey areas between poles, with producers of culture, their creative work, and their approaches to their creative work taking positions which focus upon the acquisition of both cultural and economic capital to varying degrees. As such, these poles are not a set of binary positions, but rather a complex and dynamic interplay with many grey areas and spaces for interpretation. Oware's interpretation centres around exchanges of capital, with underground artists conforming to themes more typically associated with the heteronymous pole as a way of building social capital with those in powerful positions within

[2] Forms of capital will be discussed in more detail later in this chapter.

that area of the field. Within the wider field of music, electronic music as it is understood in this thesis sits more towards the autonomous pole. However, as with any cultural field, within electronic music there are some artists and works which can be seen as primarily autonomous, and some which can be seen as primarily heteronymous. The concept of poles is a useful analytical tool because it provides insight into both how creative people approach their work in terms of pursuing and acquiring capital as part of a field, and how those works fit within, and are viewed by, that field as a result of that approach.

Another important aspect of cultural fields is in assigning value to creative products relative to other products contributed to the field (Bourdieu, 1984). Works which are accepted by the field become a part of the field's value systems and evolve those systems based upon their interpretation by the producer of the work. It is in this way that cultural fields can self-reinforce, while allowing for the flux and evolution caused by ongoing submission and acceptance or declination of new creative works. In this way, agents within the field of music production, such as record labels and the music media, act as gatekeepers by assigning value and therefore forms of capital to those creative works and their producers. Music producers mobilise capital in order to gain the attention of gatekeepers, and in doing so they illustrate and reinforce the power held by the latter (Scott, 2012).

2.1.2 Habitus

Habitus is a way of understanding and describing how and why individuals understand what to do in a given situation using the knowledge they have gained through sociocultural experiences (Bourdieu, 1977). Bourdieu uses habitus to bridge the subjectivity of our perceptions and actions with social structures and the discourses that inform those structures. Developed through exposure to a field, our habitus represents our understandings of that field and therefore the nature of our actions as a field member.

Habitus represents an accumulation of the capital acquired through exposure to a field and/or a social position within a field. It is our relationship to a culture defined by our recognition of that culture's systems which actualises, in a practical sense, when we meet an opportunity to engage with those systems (Maton, 2014). It is in that actualisation that we use our habitus to help us decide what actions to take in each circumstance. De Ferranti's

(2002) paper discusses this in the context of Japanese music, connecting traditional music with modern pop. His work shows a continuity of creative practice actualising through elements such as melodic and rhythmic techniques, modes of performance activity, and general social practices around musical production. In so doing, De Ferranti illustrates continuities of practice and structure within creative fields, topics which I discuss in the analysis chapter in the context of technology, of the conceptual ideas surrounding electronic music, and how habitus formation begins and develops through field exposure. Approaches to music making develop in tandem with technology, whilst retaining the structuring sets of ideas that inform the habitus of those using that technology. We also see continuity of habitus in terms of how music is conceptualised and discussed. The participants in this study encompass three generations of musicians, but even so we see very strong similarities in how the participants discuss and understand electronic music. By looking at and understanding the similarities and differences between individual habitus over time, we gain insights into the structuring nature of those habituses, their relationships to the field, developments within the field, and the field's overall nature.

There are several ways through which creative habitus are formed within music production. One way is family background. For example, the American producer Flying Lotus is the nephew of jazz musician Alice Coltrane. Flying Lotus was exposed to two musical fields, electronic music and jazz, and this is evident in his signature style, which centres around complex jazz rhythms and instrumentation.[3] Through this dual exposure he developed a creative habitus which, while centred in electronic music, allows him to incorporate ideas from jazz. Deeper issues, such as race and gender, also inform habitus. As discussed above, the development of approaches to cultural production in jazz was closely tied to race and political context (Lopes, 2000), and within the metal and folk music fields gender powerfully shapes how women view their practices and roles (Miller (2016). Fields condition the habitus of their members through relationships between established practices within fields and sociocultural structures. My research emphasises how participants' habituses developed through the similarities and differences of their personal and sociocultural backgrounds and their exposure to various fields. It also draws parallels between habitus and the nature of the field of electronic music itself, showing that while habitus acts as a structuring force within

[3] Of course, he will have been exposed to many other musical and cultural fields, but for the sake of simplicity and illustration I am only discussing two of them here.

the field, it is also subject to the individual interpretations which allow the field to evolve.

2.1.3 Capital

Bourdieu uses the term 'capital' as one which covers a variety of sociocultural functions. As mentioned above, it is the accumulation and exchange of capital which defines one's position within the field, and one's recognition and success as a part of that field (Bourdieu, 1986). In short, it is the fuel through which a field functions. Of concern to this research are three forms of capital; economic, cultural, and social.

Economic capital is a term used to represent financial capital. For Bourdieu, economic capital is a central enabling factor in the accumulation of all forms of capital because it is the catalyst through which an individual can acquire more economic, social, and cultural capital, and use that to improve one's position within a field (Moore, 2014). In electronic music production, for example, one could use economic capital to purchase better equipment or to release and/or promote a record.

Cultural capital represents knowledge of a field (McCormick, 2006). It is most directly displayed through habitus and, in our case, the creative actions which that habitus enables. The field recognises levels of ability attached to those actions and assigns cultural capital accordingly. In terms of creativity, cultural capital reflects and is accumulated through creative ability. Cultural capital plays a role in its own definition and assignation. As we shall see when we come to discuss the Systems Theory of Creativity later in this chapter, works which are accepted by the field become a part of its domain, and it is through understandings of that domain that individuals within the field assign cultural capital to new works. If an individual has a piece of creative work accepted into the field's domain, that work and the field's perception of it plays a role in how the field understands itself, and thus how and why it assigns cultural capital in future.

Social capital is defined through the connections that we make with other people within the field (Bourdieu & Wacquant, 1992). We form those networks through formal and informal, direct and indirect social interactions. Social capital allows for the amplification of the effect of other forms of capital through providing opportunities to use that capital. Within electronic music production, social capital in the form of contacts with record labels helps to

facilitate the release of music and its exposure to the field and to audiences more widely.

Two functions of capital that are important to note are its ability to transmute and to be exchanged (Bourdieu, 1986). In my description above, I mentioned how economic capital could be used to buy better equipment. That better equipment could be used by an artist to create better music and thus gain more cultural capital. That cultural capital could, in turn, be converted into social capital through facilitating a deal with a record label. That deal could get that music published to a wider audience and bring in more economic capital through record sales. This is just one set of examples, but there are almost infinite permutations. As mentioned above, music producers exchange and convert social and cultural capital to capture the attention of gatekeepers within the field (Scott, 2012). Those exchanges of capital are often strategic, with individuals within the field exchanging capital based favours such as sharing connections and collaborating creatively in ways which provide mutual benefit by amplifying limited resources. My research highlights how participants have made those kinds of exchanges and transmutations in their own careers, the effects they have had on their habituses, and the movements within their fields that they have facilitated. In looking at capital in this way, we are able to understand the fluidity of the systems of value and exchange within the field itself. Just as the field is dynamic and constantly in flux, so is the capital which drives that dynamism. Capital is important to consider when studying creative fields, because it is both the cause and the effect of individuals altering their position within the field, and that positioning plays a large part in defining the field in question.

2.1.4 Doxa

Doxa is a term for the unwritten rules of the game within a given field (Bourdieu, 1977). In a more specific sense, it takes the form of the key values and processes of the field; values and processes that are accepted by those within the field as ‘the way things are’. This provides stability and continuity of meaning to the field and those within it. This stability is what defines how those within the field perceive it and their place within it. It is also what defines how capital is earned within that field because through representing the value systems of the field doxa defines the knowledge, behaviours, and products to which value and therefore capital are assigned.

Doxa is derived from social interaction within a field (Margolis, 1999). Through that interaction and exposure to a field, its attendant concepts, and its domain of creative works, agents within the field take on its doxa and use that as a basis for understanding the field. This understanding informs their habitus and thus their future actions as field members. However, there are complications. As Bourdieu himself acknowledged, just because doxa is accepted as the way things are does not necessarily make it so (Bourdieu & Eagleton, 1992).

I am a very poor instrumentalist, generally speaking. By the doxa of the field of music I should be seen as someone with a poor habitus and little ability. However, when using computer-based systems to piece music together in a studio, I can produce music which is of a high standard. My habitus manifests in a way which is contrary to some forms of musical doxa. While there is a degree of conformity to doxa as a set of beliefs in terms of how individuals understand and approach their creative practice, those beliefs are often shown to be false. Sound engineers, for example, are doxally regarded more as artisans than artists, however, they play a large part in the creative decisions that go into the overall sound of a record (Lashua & Thompson, 2016). This brings us to perhaps the most interesting element of the concept. Doxa is fundamentally misrecognised (ibid, 1992). Just because those rules are seen as the way things are by the field does not make it so. Those rules are subject to, and the result of, the constant evolution of the field. They are both structural and structuring. There must be a doxa for creative work to be recognised as part of the field. However, understandings of, and approaches to, creative production can and do step outside of doxa, providing new ideas and new concepts which alter that doxa, and thus alter the nature of the field itself.

In this thesis, doxa is used as a way of understanding and describing attitudes and approaches to creativity in electronic music within the practice of the participants, within the field, and within society. By interpreting doxa in this way we are better able to understand how the field structures itself, how and why that structure changes over time, and what it is about certain creative works and practices which have brought about those changes. We may even be able to use this concept to speculate about what kinds of changes to the field may come about in future through conformity and non-conformity to doxa by field members However, to do that we must attend to the taken for granted, something which is very difficult to do.

2.1.5 Summary

Bourdieu gives us a deep and wide-ranging set of concepts for understanding creative practice and creative cultures. Used in concert, his ideas give us insights into how those practices and cultures work together as a whole and how they fit within society in a larger sense. In terms of creativity study, they provide a contextualising basis and demonstrate the progressive and fluid nature of creative fields, based upon the motivations and actions of the agents who make up those fields, as well as their interactions with one another, with other fields, and with society. As mentioned, Bourdieu provides the basis upon which I have structured and integrated the ideas of Csikszentmihalyi and Vygotsky, as well as those of other more specialised theorists who provide insight into more nuanced aspects of creativity. I will discuss how Vygotsky fits in later in this chapter, but next I discuss Csikszentmihalyi and his Systems Theory of Creativity, demonstrate how it integrates with Bourdieu's work, show how it has been used in creativity research, and explain how I use it.

2.2 Csikszentmihalyi

Csikszentmihalyi's research into, and development of, creativity theory is deep and wide ranging. His work goes into topics that include stages of the creative process (Csikszentmihalyi & Sawyer, 1995), creativity over the lifespan (Mokros & Csikszentmihalyi, 2000), creativity within organisations (Csikszentmihalyi & Sawyer, 1995b), and the personalities of artists (Abuhamdeh & Csikszentmihalyi, 2006). Much of his work is seen by creativity scholars as foundational to the current view of creativity as socially constructed in that it demonstrates how and why social exposures, interactions, and contexts catalyse creative habitus and creative works. The apex of that work is his Systems Theory of Creativity, a confluence model in which three elements, the individual, the field, and the domain, engage with one another and allow us to understand creativity through those engagements (Csikszentmihalyi, 1988).

Broadly speaking, Systems Theory works as follows: an individual learns about a given domain of knowledge, creates a work based upon it, and submits it to the field. The field then decide whether that work should be considered a truly creative variation on that

domain and by extension whether it should be preserved as a part of the domain and go on to influence future creative works. However, this deceptively simple process belies a great deal of nuance. By looking at topics such as how and why that individual goes about creating that work, how the field decides which works to preserve and why, and what the effects of that preservation are, we are able to learn a great deal about the processes behind creativity and understand the dynamics of how the results of that creativity sit within, and help to define, their sociocultural contexts.

As with Bourdieu's work on cultural production and the functionalities of social fields, the elements within Csikszentmihalyi's system should be viewed as synergistic parts of a greater whole. Also as with Bourdieu, however, those elements can be discussed separately and their connections with one another explained individually. This section of the chapter will break down the roles that the field, domain, and individual play within Systems Theory, look at the relationships between the three, establish the model and its functionalities within the theoretical context of Bourdieu discussed earlier in this chapter, and explain how Systems Theory has been used in this research and elsewhere.

2.2.1 Field

In many ways, the concept of the field within Systems Theory is similar to Bourdieu's notion of cultural fields in that the term is used to represent a group of individuals and/or organisations who relate to one another in a given context. The crucial difference within Systems Theory however, is that the scope for field membership is narrower, because Csikszentmihalyi's field is made up exclusively by gatekeepers who are able to decide whether a work should be accepted into that field's domain (Csikszentmihalyi, 1998). Some fields will therefore be very small, as in certain academic fields. Some fields will be very large, as in the general public deciding whether or not to buy a new product. The difference with Bourdieu, then, lies in terms of influence. For Bourdieu, interest alone is enough to qualify as a field member, however, within Systems Theory, members of a field must be able to influence how that field understands and responds to the potentially creative works which are submitted to them. As Csikszentmihalyi notes: "Without a group of peers to evaluate and confirm the adaptiveness of the innovation, it is impossible to differentiate what is creative from what is simply statistically improbable or bizarre" (1988, p327). By

utilising this distinction between fields of interest and fields of influence we are able to shift focus and view cultural fields through different lenses. This research switches between the two fairly frequently, looking at both the wider views and contexts of those who are interested in the field more passively, and at the more focused and direct influence of important contributors and gatekeepers.

The primary gatekeepers within the field of electronic music are the record labels and specialist music media who promote and publicise creative works. The decisions they make regarding which works to release and the responses to those releases defines how much influence the wider field in the form of the audience has in terms of their role as gatekeeper through record sales, streaming, word of mouth, and so forth. In Bourdieusian terms, those decisions represent assessment, assignation, and mobilisation of capital. For example: cultural capital in how the qualities of a work are perceived relative to the works already selected to become a part of the domain, social capital in how connections within the core of the field are used to promote the work to the wider field, and economic capital to fuel that promotion. If a work is seen by gatekeepers as without value as a creative variation relative to the rest of the domain, then relatively little capital be assigned to it, and it will not be preserved as a part of the domain. The roles and functions of these cultural intermediaries are highlighted in a number of studies which use Systems Theory to understand creative production. Of those studies, the usage which most closely matches my own is McIntyre's work on popular songwriting as a creative system (McIntyre, 2008). By tracing movements of capital through the field within Systems Theory, McIntyre adds nuance to understandings of the functions behind the judgements of value which reflect a field's self-understanding and demonstrate its current state in terms of how its members relate to it and to one another. In order to understand the movements of the field through its relationships to its creative evolutions it is most effective to use Bourdieu's capital as a way of unlocking those relationships and, as such, that is the approach I have taken in this thesis. By tracing movements of capital in that way, we are able to follow the processes which reflect how gatekeepers relate and react to new creative works submitted to the field, and better understand how and why works are selected to become part of the field's domain and defined as creative through that selection.

Intimately tied in with the role of the field as a gatekeeper and a defining body is its role as a

catalyst for creativity (Csikszentmihalyi, 1998). Patronage within the arts is a well-known system whereby field members with economic capital and therefore wider access to resources catalyse creativity through opening up those resources to creative individuals. This is another area where we can apply Bourdieu's notions of capital to understand the functionalities behind that catalysis. Patrons provide the economic and social capital required to produce creative works and place those works such that they are advantageously positioned for acceptance into the domain. In doing so, patrons gain cultural capital through association with important works of art and science, social capital through the interactions involved with their patronage, and often significant returns on economic capital through, for example, ownership of valuable works of art and licensing of scientific breakthroughs. The importance of patronage, and economic capital as facilitator in terms of providing the creative individual with time and resources, is further highlighted by McIntyre & Coffee (2016), and Paton (2012). Their studies look at patronage systems in fine art and fiction writing, illustrating the importance of capital in enabling creative people and promoting creative works. Within electronic music, economic and social capital provided by record labels typically form the basis for a work's release and promotion, and to a lesser extent its production. The label receives a return on investment in cultural and social capital, and ideally makes a profit in economic capital on the release through record sales, streaming, and licensing. Artists, in turn, receive social and cultural capital through association with the label, and ideally a financial return through their share of the sales, rights, and royalties. These processes and responses give us a tangible way of understanding how much value is placed on a creative work by the field, and while it is still the case that money is not everything, in a Darwinian system such as Systems Theory it holds a great deal of importance in terms of enabling a work to reach the wider audiences within the field.

The field also acts as a generative force for creativity in a slightly more abstract sense. For example, prior to the nineteenth century, Botticelli was considered a mid-tier artist at best, with his work held in much lower esteem relative to today. It was through the critical re-assessment of figures such as John Ruskin that Botticelli's work came to be seen as very creatively important (Csikszentmihalyi, 1988). More closely tied to the topic of this research is Morey's (2016) study which discusses the creative practice of sampling composers, many of whom are peers of the participants in my own study. His illustration of the field as generative uses the age of the participants relative to the invention of the sampler as a way

of demonstrating that technological conditions created by the field can and do shape how that field offers up new avenues for creative action. As fields shift, so does the context of how they are contributed to and understood, and therefore assignations of creative validity shift too. We can find examples of that in every creative field, and they show us that just as fields are dynamic, creativity itself is dynamic. It is inextricably linked to the ebbs and flows of the sociocultural contexts that the field provides and that it sits within.

2.2.2 Domain

Within Systems Theory, the term 'domain' is used to represent the systems of knowledge associated with a field (Csikszentmihalyi, 1988). It provides structure to the field, helps to define its identity, and serves as a repository for relevant knowledge. Domains play a similar role to Bourdieu's doxa in terms of playing a part in the structure and identity of a field. However, there is a crucial difference in that doxa are interpretations of field identity which may or may not play out in real world scenarios. Domains, while providing similar dynamic and structuring roles, should be seen as more objective in their nature. They are works, ideas, and innovations which have had their creative value confirmed by the field. The notional ingredients of creative ideas lie within them, waiting for the right individual and the right sociocultural context to bring them together and actualise them.

Inculcation of the knowledge contained within the domain is a vital part of the development of creative habitus, with researchers including Killen (2011) and Paton (2016) emphasising the methods which are employed in order for creative people to achieve this within the fields of children's writing and fiction writing respectively. The processes underpinning that are similar across the majority of creative fields, and are analogous to Bourdieu's work on habitus development and the acquisition of cultural capital, beginning in early life and continuing through education into more field specific activities, discussed earlier in this chapter. The primary use of the concept of domain inculcation in studies which use Systems Theory is as an illustration of how participants develop views of and relationships to a field over time. No individual can learn every structure, pattern, and element of a domain, and so, as the above cited researchers have done and as I have done in this study, we examine that learning process in the context of the backgrounds of individual participants to gain insight into their creative styles, how those styles came to be, and how they relate to the domain as

a whole.

There are three factors which define the extent to which creative actualisation of domain and domain related knowledge can occur: the state of the domain in terms of its evolution and codification, its attractiveness to individuals who may wish to make creative contributions, and the overall accessibility of the knowledge contained within it (Csikszentmihalyi, 1998; Csikszentmihalyi & Wolfe, 2000).

Domains which are early in their evolution generally lack the rigid systems of codification which define what distinguishes creative contribution from novelty (Csikszentmihalyi, 1998). If there is no status quo, then there is no way to understand how new works relate to the status quo in terms of their innovation. This is both a positive and a negative in terms of creativity. Positive because the lack of definition makes it more viable for creative individuals to play a significant role in that definition. Negative because the same lack of definition makes it difficult for the field to know how to define works as creative, and decide what should constitute that definition in the first place. It is at that early stage that domains can most closely be compared to doxa. Sets of notional ideas which guide those individuals seeking to participate in the new field, which may or may not prove to have a lasting real-terms basis once the field becomes more developed.

The openness of a domain to new variations can be an important factor in how attractive it is to new individuals seeking to produce creative works. Open domains allow individuals who understand them the ability to see how their own interpretations might have a place within the current structures of knowledge, and are attracted to it by the intrinsic and extrinsic capital rewards of having made a contribution to those structures (Csikszentmihalyi, 1997). Another factor in terms of the attractiveness of a domain is its place within culture. Electronic music production is often seen as ‘cool’, and there is a lot of cultural and social capital attached to that, but it is a domain which is also very open in how it can be approached. One need only look to the abundance of sub-genres within it to see the wide ranging potential for valid creative ideas. This combination of openness and cultural cachet makes electronic music a very attractive domain, and results in thousands of new contributions every year. Those contributions would not be possible, however, if the

knowledge within the domain was not so readily available.

As mentioned above, in order to make a creative contribution to a domain, an individual must be able to access the domain knowledge necessary to develop their habitus to a level sufficient to make such a contribution. That inculcation of domain knowledge in electronic music takes place in a wide variety of ways, beginning with early contributions of cultural capital from parents and at school, and proceeding through further music education, informal music education through peers and mentors, free and paid online learning resources, books and magazines, and so on. The most accessible of these, however, is simply listening to electronic music. Electronic music is widely available, and, through the internet, so are the software resources which allow a person to go about producing it. These sources of domain knowledge are common through many domains of popular music, with McIntyre (2008) and Thompson (2016) describing them in the contexts of popular songwriting and the studio practice of rock music. Both of these works emphasise the importance of domain accessibility of within their respective fields of study, and, in common with this thesis, go into some detail about the nature and role of that accessibility within their genres. It is important to delineate how domain inculcation takes place in any study using Systems Theory, as it is that process which is at the heart of how the individual comes to perceive their role within the system and thus how they go about forming the field specific habitus which cements that role through tangible works.

In order to understand creativity then, one must understand the nature of the domain one is studying. We have established that electronic music production, in common with most artistic domains, is very open, is attractive to new individuals, and is relatively easy to access. It is important to have this context because it is the domain which fuels creative habitus, and it is creative habitus which ultimately fuels the domain. By looking at cyclic relationships such as this, I have been able to trace outlines of influence and internal movement within the nature of creativity in electronic music, and by situating them within the work of Bourdieu I have been able to gain a wider sociocultural understanding of creativity within this context. But in order to fully understand that creativity and how Systems Theory helps us to define it, we must also look at the creative individual, their roles within the system, and how that role links to the Bourdieusian theory discussed above.

2.2.3 Individual

The individual within Systems Theory represents the creative person. A person who, through building a field specific habitus by accessing and internalising elements of the domain, produces a creative work and submits it to the field for consideration as a valid creative work and therefore a new part of that domain (McIntyre et al, 2018). There are a wide range of factors which influence an individual's ability to do this, and broadly speaking they can be categorised by whether they are external and internal. In doing so, however, we must remember that no one element can be described as wholly external or wholly internal because each relies upon both external interaction and the internal understanding and processing of those interactions to function effectively. Creativity exists within the nuances between, and in discussing it we must understand that the lines between the individual and the social are often blurred.

The external accumulations and manifestations of cultural capital play an important role in how accessible specific creative fields are to specific individuals. Examples of that are things like a parent or sibling's record collection, books in the local library, musical instruments and instrument tuition offered by schools, DJing and music production workshops at youth and community centres, and so on. The forms and degrees of that capital have a profound effect upon the early development of habitus, and influence how an individual views and understands a domain as they develop more the more specific forms of habitus necessary to make creative contributions to it (Bourdieu, 1986).

External economic environments position individuals such that some will more easily be able to find the time and money necessary to build up the domain knowledge needed to form a creative habitus capable of contributing to that domain (McIntyre & Coffee, 2016). Economic capital is not as important within electronic music as it once was, given the abundance of freely available music software and the fact that computers and laptops can be bought for next to nothing second hand. That said, high quality specialist equipment still costs quite a lot of money and is beyond the financial reach of many people, even while the knowledge required to effectively use that equipment, or in Bourdieusian terms to transmute that economic capital into cultural capital and develop habitus, is now often freely available online. As with McIntyre & Coffee's study, economic capital and its importance in promoting

works to the field is discussed in this thesis. However, I do not touch upon that subject as deeply in its function as a facilitator for individual creative production. The reason for this is that access to the resources needed to begin creating electronic music is fairly straightforward, even for those with little income. Access to time is a little more complicated but, given that electronic music can be produced in the home using nothing more than a laptop and a few pieces of free or pirated software, it is easier to find that time than it is in many other creative fields.

Another external factor worth consideration is social capital in the form of connections within the field. Field connections are particularly important within Systems Theory because without confirmation by the field a work cannot, by definition, be considered creative. What this means is that individuals must be able to get works to gatekeepers and convince those gatekeepers that those works are valid creative variations relative to the existing domain (Csikszentmihalyi, 1998). This can be done directly, through personal connections, or indirectly, by mobilising various forms of capital to promote the work directly to an audience and create 'buzz', as discussed earlier in this chapter (Scott, 2012). The skills needed to make connections are also discussed in Fulton's (2019) study of young journalists preparing to work in new media markets. Similarly to Scott, she describes the accumulation and role of social capital as a facilitator for wider field exposure and subsequent opportunities for that to transmute into other forms of capital. Social capital is analysed in this research as a vital part of the creative development of the individual in terms of their ability to contribute creatively to the field. In a Darwinian model such as Systems Theory, social skills, and the associated understandings of field selection process, are of vital importance if a work is to be selected to become part of the domain. Therefore, my research places emphasis on how connections within the field are developed, how those connections influence the habitus of the participants, and the parts they play in creative outcomes.

In terms of internal factors, intrinsic motivation and cognitive functioning are very important. Given the years of time and effort that must be invested for an individual to internalise enough of a domain to form a creative habitus, it follows that the individual in question must be highly intrinsically motivated in order to go through that process (Fulton, 2019; Morey, 2016). This is doubly so within electronic music, which offers very little in terms of tangible extrinsic rewards, such as economic capital, to the vast majority of field

members and contributors. In order to understand intrinsic motivation, we must look at the personality of the creative individual. Their attitude towards learning and intellectual curiosity, typically derived from the exposures to cultural capital in childhood discussed above, plays a large role. As does that individual's cognitive style, with different individuals showing different propensities in terms of how they relate to and understand the world around us. "Great musicians like Mozart seem to be unusually sensitive to sounds from the earliest years, and artists seem to be sensitive to colour, light, and visual shapes even before they start practising their craft" (Csikszentmihalyi, 1998 p.56). This is something which tracks within this thesis, all of the participants discussed being drawn to music from early childhood, as I was myself. The reasons for that are based in psychological and pedagogical theory, and are therefore somewhat beyond the sociologically focused scope of this research, but researchers in those fields have found links to topics such as multiple intelligence theory and psychometric 'g factor' (Gardner, 1991; Bartholomew, 1995).

What these internal factors boil down to is a habitus that is able to internalise domain knowledge and process it in such a way as to feed it back creatively. But of equal importance, given Systems Theory's focus upon the field as a defining force, is an understanding of how the field functions and how it makes judgements of creative validity. These soft skills would seem to run counter to many of the internal skills which enable the creative habitus. If creativity requires inculcation of a domain through long periods of solo effort and abstract thought, then interaction with the field in this way requires good social skills, pragmatic approaches to problem solving, and sensitive interpersonal interaction (Csikszentmihalyi, 1998). It is not enough to be able to produce creative works, the individual must be able to convince the field that the work is creative. This research covers those aspects of habitus too, looking at how the participants have interacted with the field in order to gain confirmation and acceptance of their work into the domain.

2.2.4 Summary

The role of Systems Theory within this thesis is one which provides a model for understanding the sociocultural nature of creativity itself. The abstract and complex nature of creativity means that it can be difficult to understand directly, but by using Systems Theory as an underlying theoretical model we are able to break it down into its component

parts and view it through the lenses of how those parts are constituted and how they connect to one another. As we have seen, when Systems Theory is paired with Bourdieu's theories surrounding creative production, we are able to add depth and nuance to Csikszentmihalyi's model and gain a very detailed overall picture of how creativity functions within sociocultural fields. However, the nature of human experience is subjective; so, it follows that if we want to understand creativity as a part of that experience we must look in a little more detail at the creative individual. This does not advocate a return to out-dated approaches which view creativity as a purely psychological phenomenon, but for an increased focus upon the individual within the creative system. In order to do that, we turn to the work of Lev Vygotsky.

2.3 Vygotsky

Vygotsky's work on individual psychology as culturally and historically situated is foundational to contemporary social-constructivist thought, particularly in the fields of developmental psychology and pedagogy (Vygotsky, 1960; Vygotsky, 1990).[4] He also wrote extensively on the nature of creativity, tying it in with his cultural-historical theories of psychology and presenting it as a higher psychological function derived from social interaction and developed throughout the lifespan (John-Steiner, 2015). Broadly speaking, his views on creativity are that it results from a socially derived confluence of a range of psychological functions such as memory, motivation, perception, and abstract thinking (Lindqvist, 2003). Of particular interest in this thesis are his cultural-historical theory of psychology, his view on creativity as a higher psychological function, and his view of creative motivation as a process of understanding of self, relative to society.

By bringing Vygotsky's ideas into the context of the socially orientated confluence models of creativity developed by Bourdieu and Csikszentmihalyi we are able to gain a little more insight into the creative development and subsequent creative agency of the individual. In this section of the chapter, I will situate Vygotsky's notions of creativity relative to theories already discussed, explain why and how those ideas are relevant and useful as part of the

[4] It should be noted that Vygotsky was working in the 1920s, however, his work was not published in his home nation of the Soviet Union until the 1930s, and did not reach the west until much later. I have used the dates of first western publication in-text, and the dates of first Soviet publication can be found in my bibliography.

theoretical basis of this thesis, and discuss how I have used them as a part of that basis to develop an effective and holistic approach to understanding creativity within electronic music. It should be noted, however, that empirical research using his theories around creativity in sociological contexts is almost non-existent. As a result, I have primarily focused upon the core theory, my own use of that theory, and on comparisons with Bourdieu and Csikszentmihalyi, incorporating uses of Vygotsky's work from other fields where appropriate.

2.3.1 Cultural-Historical Theory of Psychology

In order to understand Vygotsky's views of creativity we must first understand his cultural-historical theory of psychology and how creativity fits within that. Vygotsky viewed culture as a constantly evolving set of phenomena, and relationships between phenomena which shift as a result of the changing circumstances of society over time (Zavershneva & van der Veer, 2019). In this view, historicity is not seen simply as events which have preceded the current cultural context, but as active sets of processes which continually develop views and understandings of culture, and therefore what it means to be creative within culture. He emphasised the role of social interaction and experience as driving forces behind cultural evolution and individual development. On a sociocultural level those interactions are most often indirect, taking the form of engagements with the texts and products upon which we base our current understandings of society and culture. On an individual level, we learn how to behave and interact as part of our sociocultural contexts, first through interaction with our parents, then through education and peer groups, and later through self-guided learning and experience within the various fields in which we find ourselves (Vygotsky, 1984; Vygotsky, 1990).

The parallels between this concept, Bourdieu's notions of habitus development, and Csikszentmihalyi's notions of domain inculcation are clear. All three sets of ideas emphasise that the personal, and by extension creative, development of an individual occurs as a result of exposure to, and understandings of, sociocultural fields. What makes Vygotsky interesting in this regard are his views regarding how that learned information and behaviour is processed and enacted by the individual. Nothing is ever taken from the field directly; it is reinterpreted based upon that individual's relationship with the field and experience as a part of it and translated through that into something unique to that person (Smolucha,

1992). It is often difficult, however, for a person to directly describe how their habitus has been formed by those relationships and experiences. In order to examine those connections I approached the topic more obliquely, focusing on discussion around the participant's backgrounds and early experiences with music, their general views on art and culture, and how they see musical creativity in others. From that information I have been able to draw connections between their understandings of their cultural-historical contexts, their sociocultural interactions, and their creative habitus. This analytical approach allows me to understand not only what has come before and provided the context for creativity, but also to conceptualise how creative development and action might proceed in future through new sociocultural experiences and field interactions.

Vygotskian views of creative development through cultural and historical experiences resulting in a specific habitus and cultural products can be described as cyclic processes which draw from, and give back to, the cultural and social worlds that we exist within (Moran & John-Steiner, 2003). We see broadly the same concepts in the work of Bourdieu and Csikszentmihalyi. The former in terms of the development of field specific habitus and movements of cultural capital, and the latter in domain inculcation and submission of works to the field. What makes Vygotsky different is that his work on the relationships between individuals and cultural-historical experiences is typically interpreted as dialectic (Bidell, 1988; Veraksa & Basseches, 2022). When artist and audience interact through creative works, we see a complex discourse of sociocultural experience, with meaning derived through the harmonies and discords inherent in that interaction. Similarities and differences are of equal value to the creative mind, with evolutions to existing thought processes linked to the former, and revolutions brought about by the new ways of thinking resulting from the latter. This is important in studying creativity because by looking at creativity in this way, we acknowledge not only the context of the work and its production, but also that of the audience, as demonstrated in Adrián et al's (1996) work on cognitive responses to musical stimuli. From their emphasis on Vygotsky's (1971) view of art as a function of communication, we see how the interaction between the work and the observer plays a joint role in how that work is interpreted and understood, and how new understandings develop as a result of that interaction. These structures and tensions are evident in the interviews which form the core of this thesis, with strong views expressed by a number of the participants on a wide range of musical and cultural topics, accepting or rejecting

elements of sociocultural discourse as valid or invalid based upon the context of their individual creative ideologies and practices. Even where elements are rejected, we see reflections of creative value, as we can view the participant's rejection of those elements as insights into their understandings of their own voices in the creative conversation. Again, we might draw parallels with Bourdieu and Csikszentmihalyi, their concepts of doxa and domain, and how we interact with them to form habitus. Each of us views the domain and doxa of a field from a different perspective, and so we build our creative values individually based upon those perspectives. However, while doxa and domain fulfil similar roles to Vygotsky's notions of creativity rooted in sociocultural experience, cyclical in nature, and interpretations of sociocultural interactions, conceptually they are not as directly interactive because the resulting habitus is typically seen as derived solely from accumulated experiences external to the individual. Vygotsky allows us a perspective of creativity where the external and internal derive meaning in concert and, as I will discuss below, where elements of creative habitus can be formed without the need for novel external experience.

2.3.2 Creativity as a Higher Psychological Function

Another of Vygotsky's ideas which is important to the theoretical basis of this thesis is his view of creativity as a higher psychological function, which is developed slowly during childhood, reaches maturity in late adolescence, and continues throughout the lifespan (Gajdamaschko, 1999). His view of creative development was of a complex and nonlinear process based upon, but not beholden to, the internal and external resources available prior to and during that development (Smolucha & Smolucha, 1986). Old conceptualisations are broken down, and used as resources to form new ideas when the personal and sociocultural circumstances are right for those developments to be made. Vygotsky highlighted the complexity of this process as one which is "characterized by periodicity, unevenness in the development of different functions, metamorphosis or qualitative transformation of one form into the other, intertwining of external and internal factors, and adaptive processes that overcome impediments" (1978, p. 73).

What that process results in is the development of higher psychological functions such as creativity as psychological tools (Moran & John-Steiner, 2003). Vygotsky used the term tools in a similar way to Bourdieu's habitus, to refer to the functions which allow us to be able to

act in given scenarios, and externalise our thoughts, feelings, and ideas in concert with society. Vygotsky's view is one of deconstruction and reconstruction rather than cumulative development over time, which means that when the tools we are using begin to outlive their usefulness, we break them down and replace them with new ones in order to fulfil our new requirements. This process takes place through our interactions with, and exposures to, the societies and cultures around us, as well as their semiotic systems and modes of production, with the richness and variety of those sociocultural interactions and exposures defining the nature and sophistication of the resulting tools (Vygotsky, 1995).[5] At first, we learn through simple imitation but, as we become more familiar with a field and more sophisticated in our understandings of related fields, we develop more sophisticated interpretations of our experiences within our field. We are then able to evolve tools internally, based upon existing knowledge and without the need for new social interactions to trigger change (Zavershneva & van der Veer, 2019). The participants in this study frequently make reference to adapting ideas on the fly, or stepping away from them and revisiting them with new perspectives, without linking those adaptations to any conscious triggers. Processes like that are an integral part of the creative process within music production, as producers we are constantly reassessing musical and technical elements within a track through internal discourse, questioning how and why those elements are the way that they are, and looking for ways to improve upon them and develop them based upon the knowledge that we possess. This is one of the core reasons I have integrated Vygotsky with Bourdieu and Csikszentmihalyi; his work allows us insight into the mind of the individual and how it can function with a degree of independence without breaking away from the sociocultural root of creativity. Subjectivity is at the heart of creativity and sociocultural interaction, and while Bourdieu and Csikszentmihalyi show us the mechanics of the individual as a part of a system, Vygotsky shows us where we fit into those systems and how we develop and function as a part of them.

As noted above, the role played by development of creativity as a psychological tool is broadly analogous to Bourdieu's view of the development of creative habitus. However,

[5] This link has been well explored and widely proven in the field of pedagogy, for example, Lunevich's (2021) study used exposure to fine art as a way to engage children creatively and found a positive correlation between wide cultural exposure and more holistic understanding of art amongst the participants. Her research was with young children, however the process by which we develop our psychological tools remains more or less the same throughout the lifespan.

habitus has been critiqued in some quarters as rigid and deterministic, structuring the role of the individual within the field (King, 2000; Adams, 2006; Elder-Vass, 2007). By contrast, Vygotsky's perspective on creative development allows for a greater degree of individual fluidity due to his view that it does not rely solely on novel sociocultural experiences, and his views of sociocultural interaction as mutually interpretive. As our understanding undergoes continual development, so our voice in the sociocultural dialogue, and our approach to thinking and acting creatively, develop concurrently. As creative individuals, this means that the way we approach our practice is continually evolving in ways which are sometimes very subtle, and sometimes very obvious. There are a great many electronic music producers who can and do shift between sub-genres fairly frequently. If their habitus were fixed and impervious to change beyond certain limited points, then logic would suggest that such shifts would not be possible. However, if we take the Vygotskian view of the individual deconstructing and reconstructing their own creative imagination then those shifts make a lot more sense. Indeed, Meacham's (2001) work compared the process of deconstruction and reconstruction of our thought processes and understandings to the improvisations of jazz musicians. He discusses musical breaks as moments of uncertainty, or deconstruction, which the musician fills with fractions of existing knowledge through improvisation, resulting in new awarenesses of musical possibility. By looking at the way artists make stylistic shifts in that way, we can discuss and infer patterns of thought over time and potentially trace those alterations back to the external events and/or cognitive shifts which triggered them. Most musicians will be able to pinpoint experiences which completely changed their view of music as an art-form and their relationship to it. Several of them are described by the participants and discussed in this thesis. What Vygotsky teaches us is that those moments are part of a lifelong process. They may not all carry the same weight of memory and profundity, and most of the time we hardly notice them at all, but they can all have significant effects upon how we as individuals conceptualise and enact our creativity.

2.3.3 Creative Motivation

Vygotsky saw the individual and the social as irreducible (Moran & John-Steiner, 2003). Therefore, we must keep in mind that, when using his ideas to study the sociocultural interactions of creative individuals, those interactions always contain an element of sociocultural dialogue (Lindqvist, 2003). Vygotsky saw this as a process of understanding the

self, relative to society: “Art is the supreme centre of social individual processes in society, it is a method for finding an equilibrium between man and his world, in the most critical stages of his life” (1971, p.259). Based upon this, we can infer a Vygotskian view of creative motivation as one which seeks balance and meaning from the interactions we have with one another, and with society in a wider sense. It is a view where the creative person re-externalises their sociocultural experiences through the production of the creative products which are the crystallisations of their socially derived, but individually developed and interpreted, habitus. Indeed, this is a view that was expressed by several of the participants in this research, who described creativity in terms of communication, and of having their own voices in the cultural dialogue. This notion, used together with the concepts of creative motivation based around the accumulation of capital discussed earlier in this chapter, give us a more holistic view of why people are motivated to create, allowing a subjective perspective within an objective context. By linking the two, we are able to understand more about the internal factors which help to explain why the participants as individuals are motivated to produce music. It is through learning how to function creatively within their fields that people are able to refine the techniques and approaches to creative practice that allow them to be a clear and effective part of the wider sociocultural dialogues which take place through us and around us.

2.3.4 Summary

While Bourdieu and Csikszentmihalyi should be seen as occupying the same ideological path due to the close relationships between their ideas, Vygotsky’s ideas place him in a parallel position. His work points in the same directions, and shares a lot of similar attributes, but is focused slightly differently. Most notable of those differences, of course, is the emphasis he places upon the psychological development and processes of the individual relative to the social world. The confluence models of creativity of Bourdieu and Csikszentmihalyi tell us almost everything we need to know about creativity, but those readings are somewhat cold. They remove a lot of agency from the individual, discuss motivation as primarily capital driven, and are quite Darwinian in their definitions of what represents valid creative achievement. Vygotsky uses the same sociocultural basis for his ideas, but places the focus upon the individual within that. By bringing the individual back into the sociocultural

contexts of creativity, we can gain a more holistic understanding of creativity, and of the individuals and experiences which lie at its heart.

2.4 Discussion

In bringing these three theorists together, the focus must be on the clarity and functionality of the ideas chosen. There are no deep fundamental discords between the three, meaning that there are no large ideological gaps which need to be bridged, but it is important to be clear about exactly where and how the three fit together.

All three agree that creative habitus is developed and structured through social interaction, beginning in early childhood, and developing slowly over time. Those interactions can be direct, as in speaking with, and learning from, other people, or they can be indirect, as in reading books or listening to music. Where there is a slight theoretical rupture is in what happens once the habitus becomes well-developed. Bourdieu and Csikszentmihalyi posit that the habitus continues its development cumulatively through further social interaction and inculcation of field knowledge, while Vygotsky argues that the individual is able to continue development through a process of internal de-construction and re-construction of existing ideas, without the need for further input. This distinction is an important one because in being able to develop ideas internally, the individual maintains and develops a degree of creative agency. Without that agency, creativity is given over entirely to the social, a position which does not adequately account for the abilities of creative people to improvise ideas, develop works over long periods of relative social isolation, and bring about major and minor shifts in creative style without consciously significant novel social input. As such, we must acknowledge that, while creativity is drawn from, and based around, social interaction, creative individuals who have reached a high level of sophistication in terms of their habitus are able to use that sophistication to bring about their own creative adaptations. A well-developed habitus, therefore, should be understood as one which is able to function with an element of creative independence.

Even with creative independence, however, the individual and the social are still irreducible. Everything we know about every field we are involved with comes through social interaction, and therefore every way in which we think and act in any scenario must come through those

interactions. Even with a sophisticated habitus that is able to synthesise new ideas, the connections that are formed independently are rooted in logical extensions of existing socially inculcated knowledge. We put the pieces together ourselves via our understanding of the domain and doxa of the field, but the pieces themselves are still given to us by the social world. What that means is that while the individual and the social can and should be discussed separately, due to their differing perspectives and functionalities, it should always be borne in mind that the two function as synergistic parts of the greater whole. This is something that is widely understood amongst the participants in this research. They all showed understanding of the links between habitus and creative processes and sociocultural backgrounds and experiences. They also showed understandings of how their creative ideas have developed based upon their conceptualisations of those experiences, confirming Vygotsky's notion that individuals with sophisticated habitus are able to form new ideas internally and independently.

The facilitation of creativity is generally agreed upon here as consisting of the following factors: access to domain knowledge and associated resources, openness of that knowledge and resources to beginners and novices, flexibility in how knowledge and resources can be used, depth and breadth of sociocultural experiences available to the individual, and receptiveness of the field to new creative variations and openness in terms of the nature of those variations. The two primary themes here, then, are openness and flexibility. The former because it allows access, and the latter because it allows for development. Add sociocultural diversity and field receptiveness to that and we have a very well rounded view of how creativity can be successfully actualised in any given field. Naturally, each field has differing amounts of, and approaches to, those elements, but the field of electronic music has all four in abundance, which goes a long way towards explaining its enduring popularity and its wide scope for expansion and development. All of these factors are discussed in the participant interviews and analysis to some degree, with the general themes of openness, flexibility, diversity, and receptiveness being the central concepts around which all of the facilitating factors are built.

The three theorists agree that the creative process functions as ideas and information are drawn from the field, developed and mediated by the individual, and then fed back to the field as creative works. However, there are differences in terms of how the creative validity

of a work is defined. Of the three theorists, it is only Csikszentmihalyi who makes it abundantly clear what is considered creatively valid within his ontology, therefore, my descriptions of Bourdieu's and Vygotsky's positions on this subject are somewhat interpretive. Bourdieu holds that a creatively valid work is any work which represents a completion of the cycle of drawing from, mediating, and giving back to the field; Vygotsky's position is that it is any work which represents a completion of that same cycle with a degree of independent development of domain knowledge; and Csikszentmihalyi holds that it is any work which is allowed to complete that cycle by being accepted by the field into the domain. The latter position is very Darwinian, and does not account for genuinely creative works which are not successful due to failures in terms of social interactions with and within the field. However, it should not be discounted because it is a useful perspective for viewing large and significant creative works, and for understanding the importance of the aforementioned social interactions to the creative process. On the whole, it is the Vygotskian perspective which is the most well-rounded. It is not so open that it allows for each and every work to be called creative, but it is not so closed that only the most significant of works can be considered valid. Broadly speaking, this tallies with the views of the participants within this study. There was a definite understanding that valid creative works and significant creative works are not necessarily the same thing, and that the complex nature of the field in terms of its selectivity is not necessarily the central factor in how the creative nature of a work should be defined.

Based upon the theory discussed in this chapter, we can derive two perspectives on creative motivation, both of which are of equal validity and usefulness in terms of understanding the subject. Firstly, we have motivation as a desire to acquire capital and improve field position. The drive to acquire capital as a motivational factor is something that was discussed at length with the participants in this research, and while it was generally agreed that naked pursuit of economic capital through creative works is distasteful, it still has its role particularly in terms of facilitating the functionalities of the field. The pursuit of cultural capital in particular was highlighted as being of great importance, with the general view being that the process of working within electronic music production was one of producing art for art's sake. However, all forms of capital improve field position through their acquisition, and can readily be transmuted into different forms; even an idealistic pursuit of cultural capital through development of creative abilities still has an aspect of economic and

social benefit, and there was at least an abstract awareness of this amongst the participants. The Vygotskian position is of creative motivation as a way of understanding the self within society. This view is one which is fundamentally intrinsic, of creativity as a medium for understanding the social and cultural experiences which we have and of our positions relative to them. Through inculcating those experiences and interactions, and developing them, we produce crystallisations of them in the form of creative works and are able to view them and understand them, and by extension ourselves, relative to the experiences and interactions that they are rooted in. The drive to develop a sophisticated creative habitus in this view is one rooted in the desire to actualise this process of self-understanding with greater clarity and effectiveness. This was discussed by the participants, although not to quite the same degree as the drive to acquire capital and improve field position. However, evidence of this understanding of motivation is widely present within this thesis's interviews and analysis, albeit typically somewhat below the surface.

This chapter has laid the fundamental theoretical groundwork for how creativity is understood within this thesis. The concepts discussed above are used extensively throughout the rest of this work and, even when they are not referenced directly, they should be understood as existing as a subtext to any ideas which are discussed. As I mentioned in the introduction to this chapter, there are many other ideas covering the nuts and bolts of creativity which are not discussed here, but are instead discussed in situ in the Analysis chapter. Those concepts are also of great importance to the understandings of creativity presented in this thesis, and they should be seen as sitting within, and as functional elements of, the theoretical context presented in this chapter.

Chapter 3. Methodology

In this chapter I will discuss my methodology. First, I will describe ethnography and autoethnography as my primary methodological approach, discussing ethnographic research, contextualising its concepts and describing its use in terms of other works and within this research. As I will explain, all ethnography is to some extent autoethnographic, and all autoethnography is ethnography, so whilst I will use the most appropriate term for each area of discussion, it should be understood that they are often interchangeable. Next, I discuss cultural insiders and outsiders in relation to ethnography and my research practice. Then I will look at artefact analysis and the role it plays as a supporting methodology. Following that, I work through my research chronologically, beginning with a description of the sample, before moving on to interviewing including giving a rationale of the questions asked during interviews, and then explaining my analytical approach. The chapter concludes by covering issues linked to research ethics and academic rigour.

3.1 Ethnography and Autoethnography

Ethnography is a socially focused qualitative research methodology which generally seeks to acquire detailed and contextual data from a few participants, as opposed to acquiring broader and less detailed data from many participants. Ethnographic data can be produced through observation, participant observation, and semi-structured and/or unstructured interviewing, using written notes, audio recording, and/or video recording by a researcher or researchers embedded within the field (Krüger, 2009: pp. 18-19). Ethnographic interviews commonly involve unstructured or semi-structured questions, in a conversational style, with a view to building rapport and helping the participant feel comfortable speaking at length and in depth (Spradley, 1979).

Ethnographic research practice seeks to observe and describe how the theoretical models surrounding the behaviours of individuals, cultures, and societies actualise in their real world contexts. This means that ethnography is something that is constructed in situ, interpretations of experiences built through the interactions between researchers and participants.

There are numerous studies of music which use ethnography, often with an emphasis on social and cultural factors surrounding the music and the people who produce and consume it. Grazian describes three elements of ethnographic practice (2004, p.198): "The legacy of these Chicago school investigations lies in (1) their use of the case study as a legitimate form of sociological inquiry; (2) an attention to participant observation and other types of ethnographic fieldwork; and (3) an emphasis on the interactional fields in which urban culture is produced, marketed and consumed."

A case study is a qualitative study which typically focuses on a small number of individuals, or a group of individuals, within a real world context in order to learn about a given phenomenon related to those people. Oliver's study of blues music (1965) is relatively wide ranging for a case study, and serves as a good example due to the status of the musicians involved, and the depth of the study itself. It was funded by both the BBC and the US State Department, and taking in around 65 participants including blues legends such as Muddy Waters, John Lee Hooker, and Lightnin' Hopkins. This is a large number of participants, the work being to a great extent transcriptions of interviews conducted in the field. Both Oliver's work and my own can be called case studies because both look at groups of individuals in a real world context, but there are significant differences between the two because I am using a much smaller number of participants and am presenting it primarily for an academic audience.

Closer to my work in terms of its tone is Bennett's study looking at the hip-hop community in Newcastle upon Tyne (1999). That paper uses a small number of participants, approximately a dozen, and is similar to my work in that it uses interviewing as its primary data collection method, and draws from the researcher's experiences within the field as a secondary data set. My case study uses nine participants; smaller than both Oliver and Bennett's studies, but I am also using my own experiences within the field for comparison and context, and I am working with gatekeepers who by the nature of their role are relatively few in number. What this shows is that the size of a case study varies according to the circumstances under which it is carried out and the subject it covers. However, as long as it fits within the paradigm of qualitatively studying a relatively small group of people in real world circumstances, as both the above cited papers and my own work do, it can correctly be called a case study and therefore begins to fit within Grazian's definition of work which conforms to ethnographic

tradition.

The second factor given by Grazian is “an attention to participant observation and other types of ethnographic fieldwork”. This refers to studies which use the kind of practices which are common in ethnographic research, such as participant observation, semi-structured interview, the taking and analysing of field notes and drawings, and the use of audio and/or video recording, alongside other techniques such as document and artefact analysis. Ramsey (2003) uses the experiences of his relatives collected through interview, and his own experiences as a musician, to create what he terms an ‘ethnomemoir narrative’ as a form of opposition to what he describes as monolithic representations of black culture. The term ‘ethnomemoir’ also reminds us of the subjective and situated nature of ethnography and therefore its suitability for understanding personal experiences. In common with Ramsay, I drew from my own experiences as part of the field, collected data through interview, used audio recording and discussed musical artefacts. The foci of my study are individual experiences and understandings of creativity, and the sociocultural contexts around them. By looking at them through participant interviews contextualised through the literature and my own experiences as part of the field I was able to meet Grazian’s second criterion for good Chicago school style ethnographic practice.

Grazian’s third factor is “an emphasis on the interactional fields in which urban culture is produced, marketed and consumed”. This factor describes the situatedness which is central to the ethnographic view and places emphasis on the interpersonal nature of sociocultural phenomena upon which ethnography often focuses. His mention of urban culture is a little unusual, as ethnographic research goes beyond the boundaries of that which occurs in our cities and population centres. However, my research does happen to be based around a culture which is often described as ‘urban’, as does Thornton’s (1995) book looking at cultures surrounding various nightclub scenes in the UK. She traces what she terms as a ‘geography of youth’ by defining club cultures, discussing natures of authenticity within them, comparing her study area of club culture with more mainstream alternatives, and the impacts of the media within that. While Thornton describes spending significant time in the field, experiencing and gathering data on cultures in situ as a participant observer, the work itself takes a more traditionally sociological tone rather than one based more heavily upon directly recounting and analysing the subjectivity of her experiences and that of her

participants, resulting in a collection of extended and linked essays dealing with four major research themes.[6] Zebracki (2016) takes a different approach, understanding club cultures through his own experiences using techniques such as creative writing alongside more traditional academic writing, an approach which he describes as "powerful in explaining the operation of affective citizenship at techno-space's grounded gendered/sexual and technologically mediated level" (Ibid, p.112). My own research uses a combination of those approaches, primarily using a traditionally social scientific writing style, but incorporating subjectively orientated elements of creative writing in places. In writing from these perspectives, I was able to ground the cultural experiences being discussed in interview with the situatedness of my own experiences as part of the field. This allowed me to both ground the theory in examples of its real world contexts and understand and describe how the interactional natures of those contexts builds upon and facilitates the concepts of musical creativity discussed during interview. Now that we have an understanding of what factors constitute an ethnographic study, let us look at a few examples which cover similar subjects to my own, in order to compare and contrast the techniques used.

McGrath et al's (2016) study uses ethnographic techniques to look at the processes behind making a grime EP. Two of the researchers involved with this project had music production experience, had experience in researching music production, and had written about the grime scene in general, meaning that they can be said to have insider status within the field.[7] In that sense, this study is very similar to my own. Both are ethnographic studies, both are concerned with the creative process in music production, and both are conducted by researchers who are to some degree cultural insiders. The differences lie in the data that is collected and how it is used. McGrath et al's work provides detailed information of the creative processes used by the participants, with a particular focus on workflow and the use of technology, leading to discussion of the potential implications of the research in terms of the design and use of computer based music production platforms. They capture a great deal of objective data concerning how technology is used as part of the music production process, using interviews, studio logs, photographs, audio files, and online communications. My study is focused more upon creativity as a subjective and sociocultural phenomenon. So, I have focused upon collecting subjective data describing experiences of creativity and the

[6] This is in line with the insider research approach to ethnography described in more detail below.
[7] Notions of insiders and outsiders are discussed below.

sociocultural contexts underpinning it, from interviewing, from the literature, and using my own experiences. While the more subjective and discursive data I have collected would not be suitable for McGrath et al's focus upon the mechanics of music production, their detailed data on the production process could effectively be used to study the minutiae of creativity as it is enacted in situ. We can go through that kind of data as creativity scholars, tick off the elements which tally with what we already know, and speculate as to the elements which do not fit quite so cleanly. The trouble with that approach is that it is difficult to derive any deeper meaning regarding how that creativity has developed and how it actualises in that setting without more subjective information from the participants of the study. That is information that, in terms of my own study, could only be collected through in-depth interviewing, and personal knowledge and experience.

In a similar vein to the above work by McGrath et al is a project by Söderman & Folkestad (2010). This paper analyses the creative practice of teenage amateur hip-hop musicians in Sweden with a view to understanding learning processes in the studio and the textual nature of hip-hop as a genre. They observed and filmed the participants in the studio, discussed the film with them afterwards as a group, and conducted individual interviews. Söderman & Folkestad's work is intimately linked to the creative process within the studio, but it is also one which considers the experiences of creativity of the participants both individually and as a group, especially how those participants practice and refine their creativity. So, it places itself somewhere between McGrath et al's study and my own because it looks at the technical nuts and bolts of the creative action occurring in that context, and also looks at how the participants experienced creativity. With this in mind it is therefore logical that their approach to methodology should focus on detailed documentation from studio sessions, on going through that data with the participants, and on interviewing them to understand their experiences. Their use of stimulated recall is one which provides a rich data set bridging what actually occurred and how it was experienced, but it is not a technique that was suitable in my own research as I did not have the same level of access to my participants in terms of studio time and repeated interviews.

Another publication which fits into this category of ethnographic studies of creative musical practice is a paper by Bowers (2002). Bowers focuses on collecting detailed information about the role of technology in a performance setting through description of the technology

he designed for electro acoustic musical performances, its implementation during those performances, and other events around those performances. This serves as a way of informing, through analysis, musical system design for future performances. What differentiates Bowers' paper from McGrath et al and Söderman & Folkestad is his use of thick descriptive writing, which is a style of academic writing which describes the experiences of the researcher(s) in a reflexive narrative style. As this style of writing has been employed in places within my thesis, it is worth taking a minor tangent here to explain it in more detail.

First conceptualised by Gilbert Ryle (1949), thick description is a way of understanding the actions, interactions, and semiotics of individuals, groups, or cultures through detailed description of those factors and their context. The methodology was later re-popularised by scholars including Clifford Geertz (1972) who used a narrative style to analyse and interrogate the social practices and interactions surrounding cockfighting in Bali. Through describing the ways in which those practices and interactions take place, as well as giving detailed information about their context, he is able to analyse that data for many deeper and wider issues related to Balinese society. I have employed elements of thick description within this thesis because, as I stated in the Theory chapter, I wanted to place an emphasis on the subjective experiences of the creative person. In order to do that effectively, it was desirable to relate elements of my own creative experiences as a researcher and as a musician in a manner which reflected the creative experiences being recounted. This has allowed me to relate my perspectives to the subjective experiences described by the participants during interview, and therefore achieve a more holistic expression of the process of creating music and conducting research.

While ethnographic research into creativity theory within music is relatively thin on the ground, there are a few papers which serve to demonstrate the suitability of those techniques. Examples include: McIntyre (2016), who looked at the potential for applying Systems Theory ethnographically to recording studio practice in order to derive deeper understanding of the creative process as a whole; Sawyer & DeZutter (2009), who used ethnography to look at improvisational creativity within jazz and looked at the distinctions between that and compositional creativity; and Thompson (2016), who used semi-structured interviewing along with audio and video recordings to show that while Systems Theory

(Csikszentmihalyi, 2014a) is often seen as quite a broad, macro, way of looking at creativity, it can in fact be scaled down in order to understand the workings of the creative individual in the recording studio.

The paper which most closely matches my own topic, though, and the one I would like to discuss in more detail, is Morey & McIntyre's (2014) investigation in the creative studio practice of what they term 'dance music sampling composers'. The authors position themselves theoretically within the work of Csikszentmihalyi and, in particular, Systems Theory, and from there focus upon issues derived from the creative process in how it relates to sampling. Given the similarity of topics between that paper and my own thesis, it is not surprising that both use similar methodologies to collect primary data. The two data sets differ somewhat in that their data leans more towards technical detail, whilst mine is more conceptual, but both sets of data were collected through semi-structured interviewing. They state: "Interviewing was the single method adopted following the realisation that while triangulation using multiple methods is common to many positivist approaches, it may be "rooted in a scientifically naive notion that multiple methods can reveal a single, 'true' reality beyond frameworks of theory and interpretation" (Jensen & Jankowski, 1991: p. 63)." (Morey & McIntyre, 2014: p. 42). The quote within the quote here is what I would like to focus on. I believe that Morey & McIntyre have used this quote somewhat out of context. Jensen & Jankowski largely write in favour of triangulation, using the above quotation simply to acknowledge that the argument regarding potentially increasing bias exists, but the only source they give for it links back to a work from 1973 which is little cited and, as I have discovered, impossible to find via Google Scholar and the Newcastle University library. Indeed, the majority of the research I have found, including papers by Oppermann (2000), Thurmond (2001), and Risjord et al (2002) supports the overall idea that triangulation decreases researcher bias by revealing different aspects of those biases through the use of varying methodologies, allowing them to be identified and mitigated.[8] So, the natural question to ask here is: why haven't I used triangulation in my research? I have already discussed the practical problems related to access to participants and the problems inherent in recording, viewing, and analysing studio sessions, so that leaves us with two sets of methodological approaches: semi-structured ethnographic interviewing, and

[8] The issue of researcher bias is discussed in more detail below.

autoethnographically orientated data derived from my experiences as a field member. A biangulated approach. However, there is also artefact analysis which acts as a supporting methodology, and is discussed below.

We have looked at a wide range of information concerning ethnography both as a concept and as a practice, focusing on the techniques which are most relevant here, and why certain techniques have been used or not used. I would now like to take a slight shift in perspective and look in more detail at autoethnography.

Autoethnography is the ethnography of the self. It is an approach to qualitative research which sees the researcher and the knowledge they seek to describe as being socially and culturally situated, and interrogates that position though critical and reflexive writing (Grant et al, 2013). The researcher, acknowledging that experiences and the truths derived from them are contextual and, therefore, that any sort of universal objective narrative is impossible, takes a subjectivist approach to research which foregrounds their own experiences. Autoethnography uses rigorous reflexivity to describe and analyse the experiences which stem from their own sociocultural positions in a scholarly, and often literary, manner. This process of reflection is vital because autoethnographers see identity, knowledge, and experience as inseparable from sociocultural position. This means that if the researcher is to derive knowledge from that sociocultural position, they must qualify what, where, why, and how their identity as a researcher is situated within that position, because that process is at the very core of the research itself.

During the early 1980s, anthropological research experienced a 'crisis of representation', which Butz & Besio (2009, p.1662) define as "an intellectual – and for many scholars, a professional – crisis […] that had ontological, epistemological, methodological, representational, and political aspects." Dissatisfied with white, male, colonialist academic paradigms, researchers sought to develop schools of thought and research methodologies which allowed voices from outside of those paradigms to speak for themselves. They realised that in writing about subjects as other, they were positioning the researcher and the researched as diametric. The former as inside and a part of the dominant sphere of knowledge and, therefore, power, and the latter as outside of that sphere, and, therefore, subordinate both to it and to the researcher representing it. The solution to this problem

was driven primarily by feminist researchers, who "waged an unrelenting attack on the post-positivist's presumptions about the authority of a humanly constructed text, casting serious doubt on the sanctified scientific doctrine of truth through method" (Bochner, 2013: p.52). This conflict is described by Walker (2009), who writes of her experiences as the editor of a conservative family studies journal, and the ideological struggles she experienced between publishing objectivist and conservative works which supported hegemonic and patriarchal ideals such as the traditional nuclear family and the subordinate role of women in the workplace, and more subjective and feminist works which questioned those positions and sought to understand how those hegemonies came to be constructed. She found that by living the experiences of the research and acknowledging the biases inherent, the researcher is able to interrogate their position from the deeper personal perspectives that can only be achieved through direct experience. This represents a move away from the modernist thought prevalent at the time, and towards a position arguably more reflective of current thinking, a position "more congruent with postmodern, feminist, queer, postcolonial, and post-structural approaches to social science inquiry" (Anderson & Glass-Coffin, 2013: p.72).

Ethnography and autoethnography can be viewed as one and the same because they both treat knowledge and experience as situated, and reflexively acknowledge and accommodate the researcher, and their experiences, as part of the research. Broadly speaking, however, the two are distinguished by the fact that ethnographies primarily focus upon others, and autoethnographies primarily focus upon the researcher(s). In order to give an overview of autoethnographic practice, I will be using a typography put forward by Butz & Besio (2009), paraphrasing and expanding upon their descriptions of each type. Those types are: personal experience narrative, reflexive/narrative ethnography, autoethnography from below, indigenous ethnography, and insider research.

Personal experience narratives are a form of ethnography where researchers view themselves and their experiences as both the subjects and objects of signification. Autoethnographies of this type are often very literary in style and structure, and, while scholarly in how they are theoretically based within, and link to, more conventional academic literature, they generally bear little resemblance to that literature due to their narrative construction. These works will often foreground emotion and how the researcher relates to the rest of the world through their sociocultural experiences. Given that personal

and emotive focus, personal experience narratives are well suited as ways of exploring issues which centre around the personal experiences of the researcher.

Grant (2009) uses personal experience narrative to describe the clinical and non-clinical effects of performance related injuries upon musicians. She describes the psychological and emotional impacts of an injury to her hand from the perspective of a pianist as a way of providing insight into the intimate relationships between musicians and the act of music making. Her work is written in the first person, is centred around her own experiences and emotions, and describes her musicianship in terms of her own identity. I have used personal experience narratives within this thesis as a way of grounding the theory and presenting the subjective side of both music production and research. However, given that my position on creativity is that it is a socioculturally situated phenomenon best explored by focusing primarily upon the experiences of my participants, I feel it would be reductive to place my own experiences at the centre of my own research, and so the personal experience narratives which are used here serve as counterpoint and illustration to the information derived from the theory and the data derived from the participants. This combination of writing styles allows me to defer to a wider range of experiences but also to acknowledge and examine the situated and subjective nature of those experiences in order to gain a wider perspective from which to represent and contextualise the subject matter.

Reflexive/narrative ethnographies are constructed around the experiences of the researcher in terms of how they relate to other people. Those other people could be family members, friends, or members of a sociocultural group which the researcher is studying, reflexively engaging with their experiences and encounters with the people or group being studied so as to better understand the flows of power and situatedness inherent in those relationships.

Zebracki's (2016) study of bodily participation in techno spaces, specifically the famous techno orientated nightclubs of mainland Europe, such as Berghain in Berlin and Time Warp in Utrecht, uses reflexive autoethnographic techniques to explore how inter-corporeal experiences of these events create a kind of technologically mediated affective citizenship. He uses a mixed methodology incorporating traditional academic writing, first person experience narrative, illustration, and introspective poetic revelation. This combination of

techniques conveys “embodied knowledge of techno-space as creative transformative experience beyond conventional modes of retrospective narration (Ibid, p.1).” The combination of methodologies allows the more typically academic enquiry to act as contextualisation and compliment for the more arts based techniques. I have used a similar approach within this thesis, with the bulk of the work sitting within more traditional academic paradigms, while also incorporating creative/narrative writing and culminating in a personal manifesto for creativity within electronic music. This structure allows me to keep the analytical academic focus primarily upon the experiences of the participants, whilst also allowing my own creative experiences and the development of my understandings of those experiences to be used as reflexive counterpoints.

Autoethnography from below, or subaltern autoethnography, is an approach to research whereby members of the group being researched provide input into the research itself. That research prominently foregrounds participants’ experiences, allowing those groups to have a voice which can sit in opposition to the dominant sociocultural and academic paradigms. For example, Potvin et al (2021) present a work which collectivises the experiences of three new faculty members working in music therapy departments across three universities in the United States. Their approach blends the experiences of the three academics as participant researchers into a work which creates an “integrative narrative capable of greater depth and breadth than a single narrative potentially could” (Ibid, p.2) as a way of exploring themes of success, identity, and fulfilment. The result is a paper which is structured very much in line with the accepted paradigms of social scientific academic writing. What makes it autoethnographic is the fact that it places the experiences of the researchers at the heart of the research in terms of how the primary data that the research is based upon was collected, organised, analysed, and discussed. I have drawn upon the same subjective, situated, and experiential focus in this thesis, although I have not centralised it in the same way as Potvin et al, choosing instead to use it as a way of providing context and balance to the discourse between myself, the participants, and the ideas surrounding creativity in electronic music which form the core of this project. Naturally, the collaborative nature of Potvin et al’s methodology was not possible in terms of this thesis, although my work with the participants could in itself be considered collaborative and I see that there is an interesting potential for deepening that kind of collaboration in future work.

Indigenous ethnographic writing is another approach through which sociocultural groups engage directly with the academic discussion. This approach differs from the previous one in that a member of the group who is an academic themselves uses their academic knowledge and sociocultural experiences to speak from the perspective of a member of the group in question. What a researcher gains through doing that is a connection between worlds, those of the ethnographic object and the autoethnographic subject, allowing for deeper insight than would be possible by occupying only one of those positions. It is not so much an acknowledgment of, and accounting for, the subjectivity of the researcher, but an active use of that subjectivity as a basis for discussion of what it means to have that group identity.

As an example of indigenous ethnographic writing I would like to go back to a work which I mentioned above: Ramsey's (2003) book *Race Music: Black Cultures from Bebop to Hip-Hop*. It is an exploration of black music cultures framed through Ramsay's experiences as an African-American musician and the experiences of his family in terms of the role of music in their cultural lives. Ramsay writes as an African-American, as a musician, and as an academic researcher, using those positions to give a much wider panorama than would be possible for an individual occupying a single viewpoint. Had Ramsay written a similar work purely about his experiences as a jazz pianist we would very probably call that work insider research. However given that the focus of this book is African-American culture, it is more accurately classified within Butz & Besio's typography as indigenous ethnography. Of interest to me methodologically are the multiple roles occupied by the researcher and the breaking down of the subject/object paradigm. While I am looking with a degree of objectivity at what we know about creativity and how it applies within electronic music, I am doing that subjectively as a creative person working within electronic music. Given that I was not born into that culture, my own research cannot be called indigenous ethnography in terms of the typography I am using here.

The final category given by Butz & Besio is insider research. Insider research is a research methodology where the researcher studies a group that they are a member of, using their status as a member of that group as a data gathering and interpretive tool. The difference between insider research and Indigenous ethnography is that, in the former case, it is possible for a researcher to become a part of and to leave the group being studied, and in the latter case it is not. While I think it is questionable whether or not becoming a part of a

group solely or primarily for the purposes of research can ever bring about a true voice for that group, this approach can be a useful one for investigating phenomena related to the sociocultural groups that the researcher was already a part of prior to commencing that research, and that is why it is the primary autoethnographic methodology I have used in this research. Advantages of researching as an insider include the ability of the researcher to use their habitus as a means of understanding context, easing communication with participants, and as an aid to analysis. Their connections as a part of the group being studied allows access to a wide range of potential participants and the researcher is able to use their past experiences as a part of the data set and as a way of cross checking findings between themselves, the participants, and the literature. Disadvantages are primarily related to perspective. Because the researcher is a part of the field being studied, they may not ask the same kind of probing questions as an outsider because there is an implied level of field understanding between researcher and participants. Certain things could be taken for granted that may provide valuable context for the research, and serve to illuminate areas of the field of study that are important for outsiders, and readers of the research, to understand.

Doğantan-Dack (2012) looks at live classical music performance from her perspectives as both a classical pianist and an academic researcher, focusing on how classical musicians continue to learn on stage and on how live musical performances can be documented and studied academically. She writes in a tense which leans towards the first person singular, which perhaps puts her a little bit outside of the above categorisation, but that tense is blended with a more traditional social scientific style in a similar way to the above discussed paper by Zebracki. In a sense, she is conducting her research as a kind of double insider, as a musician looking at musical performance, and as an academic looking at the study of musical performance. She is twice both the subject and object of her research, leading to a complex set of roles with a great deal of interplay. These roles are possible due to the contrasting yet complimentary aims of her research, allowing for a wide range of perspectives and a set of connected positions. That is an advantage to using ethnography and autoethnography as sets of methodologies. They offer a framework which allows us the openness to hang our own concepts within them without restricting those ideas by contextualising them within hegemonic academic and sociocultural paradigms, allowing research to be as unique as the subjects being researched and the researchers undertaking those studies.

As we can see, there are a wide range of approaches to ethnography and autoethnography, and, while each is in some way unique to the work and its context, they are all the same in the fundamental senses of accepting and allowing for the subjectivity of the researcher, treating sociocultural groups and phenomena as situated and relational, and viewing knowledge as something constructed between researcher, participants, and the sociocultural context as a whole. We have also seen that many techniques, including deep and critical self-reflection, and writing from a position of insider knowledge, are common across multiple, if not all, approaches, and across both ethnography and autoethnography. I have used a case study approach in broadly the same style as Bennett, I have used semi-structured interviews in approximately the same style as Morey & McIntyre, I have placed the primary focus upon other people within the field and upon the sociocultural context of the field in a similar way to Thornton, but I have also looked at my own experiences and occupied multiple positions in broadly the same way as Doğantan-Dack. While it would have been interesting to have been able to carry out studio based observation and discussion in the manner of Söderman & Folkestad and McGrath et al, that was not practical, and I also did not feel that it was necessary, given my broader focus upon the sociocultural factors surrounding creativity. It would also have been interesting to place more focus upon first person narrative writing style as did Grant and Zebracki but, again, the focus of this project on those aforementioned broader factors and the fact that I am tipping the scales of emphasis more towards other people meant that that was not really appropriate either. That said, the creatively written counterpoints within this thesis draw from those kinds of arts based methodological ideas and so there are similarities with Grant's and Zebracki's works too. The flexible nature of ethnography as a set of research methodologies has allowed me to build my approach in a way which is academically rigorous and, yet, open enough to facilitate a structural movement and a creative approach to research which I feel is entirely appropriate for this topic and this context.

In this section I have discussed a wide range of notions linked to and underpinning ethnography and autoethnography, looked at the different ways that they can be applied, and described how I have used them within this research. Later, I will move on to look at artefact analysis before going through my research and discussing each stage of how it was planned and enacted before concluding with discussion of ethics and rigour. Next, though, I

would like to cover ideas surrounding cultural insiders and cultural outsiders, as those ideas are central to the auto/ethnographic approach I have taken in planning and conducting this research.

3.2 Insiders and Outsiders

In the above section on ethnography and autoethnography I described this thesis, in a fairly direct sense, as insider research, and discussed some of the advantages and disadvantages of that methodology. Now I would like to look at how statuses of cultural insider and cultural outsider are understood in terms of their characteristics and their relationships with one another. From there I will analyse my own position relative to this PhD.

Outsider research developed within the field of anthropology at a time when the dominant paradigm for working with, and learning about, other cultures was for a western researcher to visit a less developed part of the world with a view to understanding the people who lived there and their ways of life from a detached and objective perspective (Paechter, 2013). However, with the development of ethnography came a shift in understanding which allowed for the subjectivity of the researcher to be reflexively integrated into academic method. This led to a more sophisticated understanding of insider and outsider positions, and also an understanding that those positions should not be considered as either static or binary but, rather, as variable depending upon the situations and circumstances that arise during the research process (Dwyer & Buckle, 2009).

Scholars, including Nowack & Haynes (2018), Pavlidis & Olive (2015), and Taylor (2011), have discussed the fact that insider researchers possess a number of advantages in planning, organising, and conducting their work. Those advantages are generally based around three themes: greater access to participants and the field; relative ease of communication based upon shared identity, language, and commonality of experience; and inherent understanding of the ideas and concepts within the field.

The first theme, that of greater access to participants and the field, is discussed by Taylor (2011, p.6**)** who states that insider status allows for “more detailed consideration of the social actors at the centre of the cultural phenomenon making access to, and selection of, research participants easier and better informed”. The advantages to this are clear,

however, selection of appropriate participants can be made more complicated due to the insider's relative lack of objectivity. Their embeddedness within the field and relationships with field members can lead to forms of bias, meaning that researchers could overlook potentially appropriate participants because those participants do not fit with how the researcher sees and understands the field.

The second theme is relative ease of communication due to shared interests and experiences. In their paper on insider and outsider status in parent groups, Dwyer & Buckle (2009, p.58) state: "One's membership automatically provides a level of trust and openness in your participants that would likely not have been present otherwise. One has a starting point (the commonality) that affords access into groups that might otherwise be closed to "outsiders." Participants might be more willing to share their experiences because there is an assumption of understanding and an assumption of shared distinctiveness." This kind of relationship is something that is important for particularly sensitive topics, where a participant may not feel comfortable sharing experiences with someone who has not experienced similar things. My research is not particularly sensitive, but it does delve into areas where shared experience can aid communication and understanding. For example, during the interviews there were a number of instances where the participants discuss some of the more technical aspects of music production, aspects which would be more difficult to describe to outsider due to their specialist nature. There are also attendant disadvantages, primarily that participants may not feel as though they need to explain themselves as fully as they would to an outsider due to an assumption that the researcher 'just understands'. However, this can be mitigated by the researcher asking for elaborations where necessary.

The third group of advantages are based around an insiders' inherent understanding of the ideas and concepts attendant within the field. Berger (2015) discusses this from an outsider's perspective, stating that it can be difficult for outsiders to conceptualise relevant research questions, that they may misunderstand how certain concepts are viewed, and that they may not understand the significance of certain words or terms. An insider researcher's position allows them to sidestep these potential problems due to their exposure to them. As an insider with an understanding of the technical aspects of music production, I was able to have nuanced technical conversations with the participants, and draw out deeper analysis as a result. Once again, though, there is a flip side to this advantage. Coming into research as an

insider means that the researcher may have a set of preconceived notions about ideas within the field which may blind them to fresh perspectives. It can also be the case that insider preconceptions can be projected onto participants, leading to improper understanding of the participant's viewpoints, or bias towards information which reinforces those preconceptions.

We have seen that there are several areas in which insider researchers have a set of advantages, and we have also seen that those advantages present their own problems. I would now like to move on to discussing the advantages of working from an outsider position, along with the disadvantages which are relevant there. We have already touched upon some of those issues above so, in order to avoid repetition, I would like to focus upon two themes: greater objectivity, and avoidance of role confusion and partiality.

A number of scholars, including Kerr & Sturm (2019), Nowack & Haynes (2018), and Dwyer & Buckle (2009) have noted that one of the most significant advantages available to outsider researchers is the fact that they have greater objectivity relative to insider researchers. This objectivity allows for a greater critical distance and a broader sense of perspective. However, the outsider faces drawbacks here in that they may miss some of the more subtle cues which are clear to someone more familiar with the associations and languages of the culture. It can also be the case that critical distance can lead to an outsider conceptualising the field through lenses that are based upon inaccurate or wholly theoretical understandings. Just as insiders must understand that inherent bias can colour research, outsiders must also be aware of their own biases and preconceptions and work to critically and reflexively situate themselves in relation to their participants.

The second primary set of advantages available to outsider researchers is avoidance of role confusion and partiality. This is highlighted by Dwyer & Buckle (2009, p.58) who describe how insider researchers occupy a dual role as field member and researcher, which can be problematic "when the researcher responds to the participants or analyses the data from a perspective other than that of researcher". What this means is that it is possible for a researcher to work from a position whereby they push the research in directions based upon their experiences as a field member, rather than from the more objective position of the outsider who acts solely as researcher. Insider researchers can mitigate against this problem

through role bracketing, which is to say sidelining their preconceptions and making "a concentrated effort to be self-aware enough not to intrude on the essential aspects of participant's accounts" (Padgett, 2016, p.58). This is another context where reflexivity plays an important role, with Moustakas (1994) recommending that the researcher record their experiences as part of the field with a view to limiting the influence of those experiences. In this research I have made a conscious effort to do this, by separating the two roles as I perceive them and using the two as separate viewpoints for comparison and contrast in both writing style and intellectual position. This provides a useful tool which has allowed me to use the sense of perspective that occupying two roles can bring, while mitigating against some of the negative elements through reflexive understanding of those positions.

So far, the language I have used to discuss insider and outsider researchers has been quite binary. However, the reality for the researcher in the field is that insider and outsider are not dualistic positions. Rather, they should be thought of as more of a spectrum with the researcher occupying variable positions along an axis between the two depending upon context. Dwyer & Buckle (2009, p.60) note: "as qualitative researchers we have an appreciation for the fluidity and multi-layered complexity of human experience. Holding membership in a group does not denote complete sameness within that group. Likewise, not being a member of a group does not denote complete difference. It seems paradoxical, then, that we would endorse binary alternatives that unduly narrow the range of understanding and experience." In any insider-outsider research context, there will be similarities and differences between researcher and participant, and each of those similarities and differences form a point of reference. It is by looking at these points of reference, and how they change over time, in context, and through interaction, that we are able to situate ourselves within the insider-outsider spectrum. There is no clear cut position whereby one is 'better' than the other; rather, they are complex sets of related characteristics wherein the researcher applies advantages and mitigates against disadvantages depending upon the situation.

My role as an insider researcher was variable across the three sets of interviews and also fluctuated during the interviews themselves. The first interview was with participants who hold important positions within the field, due to their long term association with it, successful work within it, and roles as gatekeepers. Their creative works have been a shaping

force within electronic music and, as such, possess high levels of the cultural capital within the field. Having been aware of the importance of cultural capital prior to the first interview taking place I wanted to make it clear that I was also an active field member, an insider, and therefore possessed some of that same kind of capital, and so I sent copies of my own musical releases to the participants prior to the interview. My reason for doing this was as a way of promoting a more open and, to some extent, equal discussion, and to demonstrate understanding of the technical aspects of music production so that they could be discussed in depth. While I was accepted as someone who knew and understood the field, I am not an insider to the field's upper echelons. My interjections and comments were listened to and discussed, but the participants did not hesitate to correct me or to brush past things which were not seen as important in the context of the discussion. Another factor effecting my position was that of social capital. The participants have all been associated with the Ninja Tune record label, and have known each other personally for a long time. These social connections, with each other, with the label, and by extension with the field, meant that they held greater social capital and therefore a more powerful position than mine. I was a guest within that space and, as such, was an outsider, albeit a welcome one. It was also interesting to note that this dynamic shifted after the interview, when I discussed the relevant academic theory with the participants. We were now operating within the academic field, rather than the field of music production, and this was a field where I was the one holding the greater capital due to my knowledge of that theory. In this situation I was the insider, and they were outsiders, placing me in an expert position where I was explaining the concepts underpinning my research. There were myriad subtle variances based upon factors such as these, with my position as an insider or outsider fluctuating from moment to moment based upon those variances.

It is interesting to compare the above experience with the second interview. Two of the participants in those interviews, Will Horrocks and Simon Williams, were people with whom I had worked with as a producer, having remixed one another's work. This represented an exchange of cultural and social capital, and an association with one another as field members. It should be noted that both Will and Simon hold significantly more prominent field positions than mine, having had a string of successful releases, having worked with some very highly regarded labels, and having played prestigious events. But, the fact that this exchange of capital had occurred meant that there was a broad sense of being on the

same kind of level in terms of our cultural capital and therefore habitus as field members. This resulted in an interview which felt more like a discussion amongst equals. In this situation I was very much an insider, although perhaps still not to the fullest extent because I was still the one going to them and asking them to share their cultural capital by answering my questions. As with the previous interview, there were also subtle fluctuations depending upon the topic at hand, but my position overall leant more towards that of an insider.

The third interview represented something of a balance relative to the previous two. My impression was that the primary reason for this was that, unlike the previous two interviews, none of the participants knew each other beforehand, and all worked in slightly different areas of the field. As with the first interview, I had sent my music to the participants prior to the interview, and for the same reasons. I had also developed my knowledge as a researcher and abilities as an interviewer by this point, and as such felt as though I had a greater degree of authority in terms of the academic aspects of the subject. This meant that I was able to make more insightful interjections and steer the interview more effectively, and the impression that I got was that the participants appreciated and respected my position within the discussion. Perhaps not quite as a full insider in terms of musical ability, but certainly in terms of knowledge and general field status. I was positioned as a knowledgeable insider, and also as an objective researcher, and the two positions seemed to balance one another out.

We can see, then, no researcher can ever be a complete insider or a complete outsider but with an understanding of their position(s) they can maximise their advantages and mitigate against their disadvantages. What I would like to do now is look at artefact analysis, before moving on to discuss the research sample and issues linked to interviewing.

3.3 Artefact Analysis

There is another methodological approach which should be considered in terms of this research, and any research of any kind relating to the arts and culture more widely. Artefact analysis. While there is no section within this thesis where I as the researcher sit down, either with my participants or on my own, listen to some of the musical artefacts which form the core of this research, and discuss them/analyse them at length in a very direct fashion,

that music is still the basis for the vast majority of the discussion on how creativity is enacted, derived, and defined. Just as autoethnography need not take the form of deep descriptive first person narrative to be at the core of how research is conceived and enacted, artefact analysis need not be applied in a very direct way in order to serve a methodological role. Norum (2008, p.23) states that "there is no one right way to analyse artifacts", so we can extrapolate that this supporting methodological role as artefact analysis by the back door through discussion and use as contextualisation is appropriate in the context of this or any other work.

Norum (ibid, p.24) gives five types of artefact analysis: content, discourse, document, historical, narrative, and semiotic. For an example of their application, we can look at the Morey & McIntyre's (2014) paper discussed in the first section of this chapter which used each of these types in their analysis. They analyse content, discussing factors such as the timbre of a piece of music and how and why that can be co-opted by sampling producers looking for a king of sonic 'warmth'; discourse is used in discussion of how that co-option represents a dialogue between original musician, sampling musician, listener, and society and culture more generally; and music as document in terms of discussion of the technologies and techniques used to actually create the music which their study is based around. They look at the historical factors surrounding music by discussing trends within recording and technology and how they lead to certain sonic characteristics. They look at narrative by discussing topics including how building a musical composition using samples creates an internal coherency of previously diverse musical texts and how that construction creates a kind of musical fiction of musicians who have never met playing together outside of the constraints of the physical world. They discuss semiotics in terms including Barthes' (1990) notion of 'grain', or how the non-musical elements of a sound create nuanced textures which reveal contexts and meanings outside of that which is communicated directly through the music itself or the language(s) within it.

These five approaches to artefact analysis are also extensively used in my research, so extensively in fact that it would take far too long to cover every instance of their use, so instead I will give examples. Content is covered in discussions such as that concerning how the moods and structures from film scores feed into participants' works in other musical

genres. Discourse is looked at in terms of how cultural capital derived from direct and indirect social interactions within the field is accumulated, processed, and then fed back through new works. Historicity in terms of how artists such as Daphne Oram and Sun Ra pioneered electronic music and how knowledge of those kind of artists lays the foundations for the type of work produced by the participants. Musical artefact as narrative is looked at in terms of how people from lower socio-economic and/or marginalised backgrounds can use it as a way of having a voice and making a mark in the world. Finally, the semiotics of music are covered in discussion of how musicians use certain musical cues, how those cues are interpreted, and how they represent and convey emotion.

While artefact analysis as a methodology is not something which is pursued in my research in a very direct fashion, the discussion and analysis of cultural artefacts which takes place between myself and the participants is an important form of support, allowing us to contextualise the wider ideas surrounding creativity which are the primary focus of this work.

3.4 Sample

In terms of the sample it is important to consider the field itself and the subject being researched. Creativity within electronic music is a large topic due to the complexity of creativity as a field of study and the size and diversity of electronic music as a cultural field. With that in mind, the subjects for interview needed to be very well situated within the field and also be of sufficient number to allow for comparison. With that in mind, I chose nine participants ranging from those who are very highly regarded and well-known within the field to not quite so widely known but still well respected by their peers. While status within the field is significant in terms of the types of experience it brings with it, the position of this thesis is status alone is not considered to have much, if any, impact upon experiences of creativity. This is important because if there were a proportional relationship between accomplishment within the field and understandings of the creativity it would be necessary to sub-divide the field along those lines and find participants appropriate to each division, and that would complicate matters significantly. As it stands, any field member who considers electronic music to be their vocation and reaches a more or less professional level within that vocation is considered a suitable participant for this study. Given that all of my

participants met this requirement, I expected to see consistent understandings of creativity but with similarities and differences depending upon each individual's habitus.

While this study focuses on electronic musicians from the UK, it is important to acknowledge that this sample represents a relatively narrow view, in sociocultural terms, of what is a very large and very diverse global music scene. The participants in this study are all ethnically white British, with the exception of Riz Maslen who identifies as being of mixed ethnicity, all middle class, and are majoritively male with seven males to two females. This study is not one which is designed to look at potential differences in the creative process or conceptions of creativity relative to the ethnicity, social class, or gender of the participants. Indeed, research, including that by Chen et al (2002), Rostan et al (2002), and Kauffman et al (2004), has shown that such factors have little to no impact upon capacity for creative ability and creative accomplishment.

This study is designed to look at creativity within electronic music and so it is natural that I would choose to interview people who I see as particularly creative. The nature of creativity is such that it cannot really be objectively measured, but one method used to help show which individuals are creative within a field is that of peer recognition (Sawyer, 2006). In this view, an individual is considered creative because their peers consider them to be creative. As I have worked extensively as a music producer within this field it makes me, to some degree at least, a peer of the people who I have chosen to interview and therefore be able to identify those whose work I feel is creative, either in a big C or a pro C sense.[9] This also means that I have an existing network of contacts from which to draw participants, and so I used those connections to organise a set of participants who provided a good range of experience and field status, and who all comfortably meet the vocational threshold outlined above.

So far, I have covered ethnography and autoethnography, insiders and outsiders, and artefact analysis. This section has focused upon the sample, with regard to the participants' suitability for the study. Later, I will go through the interview questions and my rationale in terms of formulating them and what I expected to learn through asking them. Before I do

[9] Big C and pro C are discussed in the analysis chapter.

that, I would like to look in a little more detail about my interviewing in terms of the ideas behind it and how they are applied, in order to effectively produce the kinds of data suitable for this study and other studies.

3.5 Interviewing

In this section I would like to discuss interviewing. Starting with an overview of the most common approaches to interviewing, discussing the approach that I have used, and concluding by covering issues surrounding audio recording and group interviewing.

Broadly speaking, there are three approaches to interviewing: structured, semi-structured, and unstructured (Andersen & Grote, 2015). In this research I have used semi-structured interviews and will discuss that below but, in order to give some context, I would like to comment briefly on structured and unstructured interviewing.

Structured interviews are interviews which are carried out using a predetermined set of questions and answers which are always asked in the same way and in the same order (Dunn, 2005). The questions themselves have clearly defined responses, from binary positions through to ranges representing more nuanced positions, from which the interviewee selects the most accurate answer. This type of interview is often used to collect quantitative data for application in statistical analysis or other activities such as market research. Structured interviewing techniques can also be used in qualitative research which seeks to clearly categorise, for example, responses to a stimulus.

Structured interviewing is not an approach that is useful for my PhD research for two reasons. Firstly, it is best employed as a way of gathering quantitative information, and this thesis is a piece of qualitative research (Whiting, 2008). While it may be possible to use this type of interview to, for example, ask participants to rank the perceived creativity of pieces of music, the subjective nature of individual responses would be difficult to categorise clearly. Secondly, I have covered complex topics such as the interviewees' social contexts, how they enact creativity, and how they perceive creativity in a wider sense. All require nuanced answers, and the predetermined and categorised nature of structured interviewing does not typically allow for that.

Unstructured interviewing is the opposite of structured interviewing in that it uses very few predetermined questions and typically collects qualitative data (Whiting, ibid). There is a theme worked out before the interview and the interviewee is prompted to speak at length, with the interviewer encouraging the interviewee to go into depth and detail (Andersen & Grote, 2015). Problems with unstructured interviewing primarily relate to the highly subjective nature of the interaction and the difficulties in ensuring that the interview stays focused upon the topic at hand.

This approach to interviewing is one which holds some appeal for me, however, in this context its shortcomings outweigh its benefits. If I were putting together a more journalistic or narrative focused piece of work, unstructured interviewing would most likely bring out ideas and discussion which are of interest to the general reader. However, this thesis seeks to deductively test a specific set of theories and an unstructured approach would make that more difficult due to its inherently open nature.

Semi-structured interviews aim to strike a balance between the rigidity of structured interviews and the loose nature of unstructured interviews (Dunn, 2005). This allows for the collection of qualitative data with a degree of openness in terms of how the interviewee presents their ideas, with the interviewer avoiding much of the potential for straying off topic using an interview guide which breaks a larger topic down into more specific questions (Rabionet, 2009). The questions are designed to be somewhat open-ended in nature, encouraging the interviewee to talk quite broadly, while remaining focused on the theme and topic (Kallio et al, 2016). It is an approach often used within the social sciences due to the fact that it allows the interviewees to speak freely while still focusing upon the topic. The slight narrowing of focus, relative to unstructured interviewing, guides the interviewee's responses towards answering the research questions in a more direct manner.

The first interview took place in person, at the Ninja Tune offices in London which, while not socially neutral, was convenient and familiar for the participants and relaxed and informal enough to be conducive to open discussion. It was also quiet, allowing unimpeded audio recording, and comfortable enough to sit in for an extended period. The second interview was also going to be carried out in person but that was not possible due to the COVID-19

pandemic, so it was carried out over Zoom. Lindsay (2022) notes that interviews carried out over Zoom, while typically shorter than in-person interviews, are still high quality in terms of word count, topics and sub-topics covered, and rapport, and this was my experience. While the group dynamic was altered by the setting, ideas were openly shared between participants with no noticeable reduction in quality. The fact that all parties were at home contributed to the relaxed atmosphere, and the fact that we were in lockdown meant that we had time to discuss the subject at length. The third interview was also carried out over Zoom, although this was more for reasons of convenience than necessity because the participants all live in different towns. By 2022 many people had gained experience using Zoom, and using it felt much more natural than during the second interview. As a result, all parties contributed comfortably and freely interacted with one another.

I chose to conduct each interview as a group discussion for a few reasons. The primary reason being that all of the participants would be able to discuss topics together and share illustrative experiences. All interviews represent a kind of constructed fiction between the interviewer and participants, and interviewing in a group often results in fictions which are deeper and richer than those created through one-on-one interviewing (Rabiee, 2004: p.656). This has potential downsides too; participants may not agree on certain things and some participants may default to the consensus over their own experience. This is a risk that can be mitigated against by creating an atmosphere where everyone feels that their opinion is valued equally, and I feel that this was achieved in this study through the open and friendly nature of the people involved, and the comfortable and relaxed environments.

Audio recording is a helpful tool which does not alter the quality of interviewee responses (Berazneva, 2014). In my study, all parties are very experienced recording musicians and therefore comfortable in the presence of live microphones. I found the presence of the use of audio recording to be completely unobtrusive and I do not feel as though this practice had a noteworthy impact upon either the interview dynamics or the resultant data.

In this section we have looked at the three most common types of interviewing, their characteristics, and their suitability for this study. We then focused on semi-structured interviewing and why I have used it in this project. I will now move on and discuss my interview questions, covering what I have asked, why I have asked them, and what I

expected to learn through asking them, before moving on to discuss how that data was used and analysed.

3.6 Question Rationale

In this section I will go over the questions that were asked during the interviews. I explain why I have chosen them, what I expected to find out through asking them, and link them to the theories that underpin this study. It was not possible to ask all of these questions during each interview, because time constraints and the natural flow of discussion did not allow for it. As such, these questions served more as a loose guide than a rigidly structured plan.

Can you describe your upbringing?
What effect did that have upon your career?

This was designed both as an icebreaker to get the participants talking and as a way to test ideas surrounding the development of habitus. We know that family background and education are very important in this process as they represent the early socialisation through which the individual becomes exposed to the kind of ideas and experiences which form the basis for the productive creativity they develop later in life (Vygotsky, 1990). They may not be exposed to ideas and experiences which are directly musical, but those ideas and experiences will strongly inform work ethic, attitudes towards pursuing arts based activities, and attitudes towards creativity in general.

What motivates you to create?
What do you think motivates other people to create?

This question looks at motivation; why the participants do what they do, what they get out of it in a personal sense, and why they have continued to do it over the course of a long career. I expected this question to spark discussion of making music as an inherently enjoyable activity and as a means of meaning making, self-understanding, and sociocultural placement (Csikszentmihalyi, 1996; Vygotsky, 1971). The follow up question was designed to look at the participants' views of others in the field and by extension the field in a general sense. Answers to this question could have touched upon the question of big C and small C

creativity if that discussion moves to individuals working creatively at a more everyday level as well as at the higher levels associated with the participants (Richards, 2007).

Is there a competitive element to being creative?

This question was designed to look at interactions within the field and views of the field itself. Bourdieu holds that fields exist as constant competitions for capital and, therefore, position (Thompson, 2014). By asking this question I was looking at how the participants see that competition and their role within the field as a whole.

Do you start your creative process with a clear idea in mind?
How do those ideas change as the piece develops?
What happens when you run into problems?

This was designed to test ideas surrounding presented problem finding and discovered problem solving, and as a precursor to questions about multi-stage models of the creative process. I expected responses to conform to the view that creative people use both thought processes interchangeably depending upon which area(s) of the project they are working on and what stage the project is at (Kozbelt, 2008). These questions are really asking 'how do you understand and approach problems in the context of your work?' and are intended to lead to discussion of problems as a natural part of the creative process and as catalysts for ideas.

Can you break your creative process down into stages?
What are your thought processes during each stage?

This very directly looks at multi-stage models of the creative process. I expected the discussion to broadly follow the lines of the four stage models put forward by scholars such as Poincaré (1913), Hardamard (1949), and Feldman (1988). However, the question was also open enough to allow for discussion around deviations from those models. The question about thought processes is designed to go into more detail not only about what they are doing at each stage but how they conceptualise what they are doing. This aims to give clearer insight into how and why the participants' processes fit in with, and deviate from, the

theory.

What are your experiences with the idea of 'creative insight'?
What leads up to and follows on from moments of insight?

This was another question which looks at multi-stage models of the creative process, and the insight stages of those models in particular. It aims to understand how the participants view moments of insight and by extension the commonly held notions which surround it. The follow up question probes more deeply into multi-stage models of the creative process, with particular focus upon the gestation and elaboration stages. The theory states that the elaboration stage is the stage which involves the most conscious effort so, I wanted to test whether the participants see it that way or whether they see themselves putting in more effort at other stages of their processes (Lubart, 2001).

In what ways do you engage with other people and the field as a whole in the process of working on a project?

This was designed to test the participants' attitudes towards the social aspects of the creative process and the development of habitus (Bourdieu, 1977). It was designed to provoke discussion of direct collaboration with other musicians and/or discussion about sampling and engagement with works in the domain as indirect social interaction. It is also designed to test awareness of the fact that habitus is socially derived, and by extension learned techniques and musical concepts as social engagement.

What do labels look for in terms of deciding which releases and artists to sign?
What do you think it means to have that role?

This question looks at the role of field members as gatekeepers to the domain. The participants all have knowledge of, and experience with, record labels, with Jon More in particular being a very important gatekeeper as co-head of Ninja Tune. This role is one which is vital in systems theory and by asking this and the follow-up question I was asking what the role of gatekeeper entails, how decisions are made, and what it means to the field to have gatekeepers (Csikszentmihalyi, 2014a: p.52). They are also questions designed to provoke

discussion of the qualities that artists and their work have which makes them stand out to gatekeepers and therefore be accepted into the domain as valid creative variations.

Who do you think are the most creative electronic musicians around at the moment?
What makes them more creative than others?

This question was designed to test attitudes of the participants towards creativity. By defining what it is that makes those artists creative, the participants can discuss their own creative values in the context of other creative individuals and their creative products. This is a subject that can be difficult to discuss due to the inherent misrecognition of the doxa which shapes the field and the products associated with it, by asking about it in the context of others we sidestep a lot of that difficulty and discover the participants' values as they see them in others (Deer, 2014).

What is your relationship with electronic music as a whole?
How is that relationship reciprocal?

This question looks at domains of knowledge. By asking how the relationship is reciprocal it opens up discussion of how those domains are constantly evolving as new ideas are passed to and from them (Csikszentmihalyi, 2014a: p.52). It is also a question asking how the participants see themselves in relation to the rest of the field and the field itself, opening up discussion of their contributions to the field and how their personal and professional lives have altered in accordance with that.

What is the difference between a successful and unsuccessful creative person?
What causes those differences?

This is a question which opens up the discussion on the importance of forms of capital. As far as I was aware, the participants were not aware of notions of capital as described by Bourdieu, however, I wanted to test how they see those ideas play out in real life. What I was looking for here was discussion on economic, social, and cultural capital and the role that the accumulation and transmutation of those forms of capital has in the successful or otherwise development of creative habitus and creative products (Bourdieu, 1986).

Imagine that you had to find a way to rank how creative a piece of music or a record is. How would you do that?

This was another question which looks at the participants' general notions of creativity. It was intended to draw out further discussion of how they see creativity in the context of creative products. By defining what makes something more creative than something else I was able to look at the participants' conscious opinions on creativity, how they see it within themselves and how they see it within others. I expected individualist ideas to form the basis of the discussion, but it was also possible that social views of creativity such as creativity as defined through peer consensus could have been discussed (Csikszentmihalyi, 2014b: p.172).

3.7 Analysis

In any research it is important to have a clear approach to analysis. There are many options, including grounded theory (Birks & Mills, 2015), discourse analysis (Willig, 2013), interpretative phenomenological analysis (Smith et al, 2009), and thematic analysis (Braun & Clarke, 2006). I have used a variant of the latter, named reflexive thematic analysis (Braun & Clarke, 2019), which focuses on the use of data coding to identify patterns of meaning in the form of themes. I chose this approach because of its flexibility, its foregrounding of the researcher as a resource, its treatment of meaning as contextual and situated, and its non-linear/recursive nature. I will go into more detail about reflexive thematic analysis and how I have used it below, but before that I would like to provide some context by giving a brief overview of the other approaches mentioned.

Grounded theory was first developed in the 1960s by Glaser & Strauss (1967) and is intended as a way of grounding sociological theory within the empiricism of scientific method. It is an inductive process whereby ideas and concepts are brought about through studying the data collected. This methodology has developed and diversified significantly over time, but the core approach remains the same: the data is analysed and coded through a complicated series of levels or 'stages', and assembled with a view to outputting a core concept. Grounded theory is often used in research with large sample sizes and/or data sets, and is seen as a complex approach best suited to more experienced qualitative researchers

(Cutcliffe, 2000). Those two reasons, and the fact that my approach to this research is primarily deductive rather than inductive, meant that I did not see grounded theory as an appropriate analysis methodology.

Discourse analysis is a process for understanding meaning through use of language which has roots that go back as far as the ancient Greeks. In a more modern sociological sense, its use was established by scholars including Spitzer (1948), Harris (1951), and Foucault (1969). There are a wide range of approaches to discourse analysis, but fundamentally speaking they all treat language, and specifically the practice of language, as a performative social function which brings about meaning through how it is used and in what context. It involves detailed analysis of language, and the subtleties within how language is used, to draw out understandings of the topic at hand. The analysis itself can be undertaken using a wide variety of theoretical frameworks, such as post-structuralism, constructivism, and essentialism, meaning that discourse analysis as a methodology has a great deal of flexibility built into it. The reason I chose not to use a discourse analysis approach is that my research is concerned with the sociocultural mechanisms and contexts which underpin the discourse, so it makes little sense to use an analytical approach which focuses so directly upon the discourse itself.

Interpretative phenomenological analysis is similar to reflexive thematic analysis in that it works towards the elaboration of themes through analysis of the data set (Smith & Fieldsend, 2021). However, it differs in that it takes an idiographic approach, going very deeply into each individual element of the data in bringing out those themes. Generally speaking, interpretative phenomenological analysis is well suited to topics dealing with very personal experiences, where the focus is inductive rather than deductive, and where the analytical interest is less focused upon fitting those themes within a wider sociocultural context (Smith, 2004). While this PhD looks at personal experiences, it takes a deductive approach to thematic development and is concerned with the wider sociocultural contexts of those experiences, making interpretative phenomenological analysis unsuitable.

Now that I have given some context in terms of some of the analytical approaches that are available, I would like to focus upon the approach that I have used in this research, that of reflexive thematic analysis. I will cover what reflexive thematic analysis is, how it works and

what it hopes to achieve, define its core concepts, discuss the considerations which must be made in order to use it effectively, and describe the processes through which it is carried out.

Reflexive thematic analysis was developed by Braun & Clarke (2006) as a way of bringing about an analysis methodology that was clearly defined enough to be used by early career qualitative researchers, but also flexible enough to be used by more advanced researchers. It differs from thematic analysis in that it "emphasises the importance of the researcher's subjectivity as analytic resource, and their *reflexive* engagement with theory, data and interpretation" (Braun & Clarke, 2021: p.330).[10] I chose this approach because of its flexibility, its foregrounding of the researcher as a resource, its treatment of meaning as contextual and situated, and its non-linear/recursive nature. It is a six phase method for analysing qualitative data, based around coding the entire data set in order to identify patterns of meaning situated within that data, and elaborating those patterns into the form of themes which provide answers to the research question(s). In this context, the term coding refers to searching through the data set in order to identify and organise elements of that data. Due to the reflexive nature of this methodology, codes should be seen as flexible, and changeable based upon how the researcher's interpretive positions change during the research process.

Themes are generated through coding with the aim of telling "stories about particular patterns of shared meaning across the data set" (Braun & Clarke, 2019: p.592), and are the overarching connections of knowledge drawn out of the coded data which we use to form an analytical narrative, and ultimately answer the research question(s). In terms of reflexivity, emphasis is placed upon the recursive approach to the methodology. There are six phases which are followed in sequence, however, as the researcher's understanding develops phases can and should be revisited in order to reflect that development. It is this recursivity and reflexivity, combined with the clear and easy to follow step-by-step process which are the primary reasons why I chose to use this methodology. The six phases are: data familiarisation, coding, initial theme generation, theme review, defining and naming themes, and writing up. I will now break down those phases and describe how I approached them.

[10] Emphasis theirs.

Data familiarisation involves becoming familiar with the data in order to fully understand what it contains. I did this through repeated listening to the audio recordings on a daily basis. Not always whilst actively working, but whilst exercising, doing jobs around the house, and other day-to-day activities. I also carried out a more active listening process, concentrating solely on the recordings and searching for potential patterns which connect with the theoretical framework laid out in my Theory chapter, and form the basis of codes. I opted for a loose form of transcription, noting what was said and by whom each time they spoke. This gave me a detailed enough transcription to work with and use for coding, and also helped cement my own familiarisation with the data.

The next phase is coding. Braun & Clarke (2019) emphasise that there are three choices which must be made in order for the coding to make epistemological sense.

Firstly, is the analytical approach inductive or deductive? An inductive approach is one which is very much data driven. The researcher forming their codes and themes from a stance which is grounded in what the data is telling them. A deductive approach is one which begins with a theoretical framework already in mind, with the data coded and themes developed in such a way as to prove or disprove an existing hypothesis. As I began this research with a specific theoretical framework, and research questions to answer, it was natural for me to use a deductive approach.

Secondly, is the epistemological basis realist or constructionist? In a realist approach, a researcher assumes a direct connection between meaning and language, which in turn means that the data is viewed and coded in a very direct fashion based upon what was actually said. A constructionist view is one which views meaning as socially constructed, meaning that the analytical focus is based upon the socio-cultural constructs which inform the data set. In this view, the researcher codes in such a way as to highlight the data elements which point towards those constructs. Given that the primary view of creativity in this thesis is one based around the sociocultural constitution of the phenomenon, it made sense for me to use a constructionist approach to my analysis.

Thirdly, is the approach to coding semantic or latent? Semantic coding focuses purely upon

what is being said in the data, with no attempt to code for any meta-text which may be present. The coding is then analysed such that meanings are theorised by looking for patterns present within that. Latent coding looks at what is said, but in such a way as to seek out the ideas, assumptions, motivations, and concepts which underpin the data. This is often used when there is a pre-existing epistemological framework, and therefore works well with a deductive and/or constructionist approach. I began this research by putting together a theoretical basis, one constructed of ideas surrounding creativity, so I already had sets of ideas which I was looking for before I carried out the interviews. That, combined with my constructionist standpoint and deductive approach to the analysis overall, meant that a latent coding approach was the most appropriate.

The coding phase itself involves going through the data and generating codes by which to categorise elements of the data which could potentially form themes. I did this by going through the audio recordings, and my transcription, and coding into three broad areas: 'the creative process', 'use of technology', and 'creativity as social'. I included an 'other' category for data elements which were interesting, but did not quite fit in any of the above categories.

The next phase is the development of initial themes. The emphasis here is on the word 'initial', because due to the reflexive nature of this process it is understood that themes will be reviewed and revised as the research develops. Themes are developed from the coded data, and are intended to give a finer categorisation closely linked to the research question. My initial themes were fairly close to my codes, which is normal, because they are intended to be further refined in the next phase (Terry & Hayfield, 2020). My first theme was 'participants' backgrounds'. My second theme was 'views of creativity. My third was 'the creative process'. My fourth was 'use of technology', and my fifth was 'interactions within the field'.

The theme review phase involves refining the themes developed in the previous phase in order to check whether they accurately represent the data and whether they can answer the research question. If they do, then analysis moves to the next phase, if they do not, then they are reassessed, split, combined, or otherwise altered until the researcher is satisfied that they tell a convincing story of the data (Campbell et al, 2021). My five initial themes

expanded to eight in the Analysis chapter, I drew nine further talking points out in the Discussion chapter, and refined them to succinctly answer the two research questions in the Summary chapter.

The fifth phase involves defining and naming the themes. It is during this phase that the researcher decides upon the scope and focus of each theme, and ultimately decides where they sit within the bigger picture of the research as a whole. In my own research, this phase was one which was very much rolled in with the previous phase. Remembering that reflexive thematic analysis is a recursive, rather than a linear process, I spent a lot of time bouncing back and forth between this phase and the previous phases as I tried to decide which theme definitions best represented the data that I had, and the questions that I wanted to answer. In terms of naming them, I naturally opted for what I thought were the clearest, most efficient, and most effective representations of their content.

The final phase is the writing up phase. It is this phase where the themes are brought together with a view to answering the research question. This involves linking the themes together and contextualising them in terms of the literature, and the overall epistemological basis of the work. The Analysis, Discussion, and Summary chapters represent this phase of the analysis.

In this section I have covered how I have approached data analysis. I have given an overview of some of the methodologies employed in the social sciences. I then went into greater detail about reflexive thematic analysis, the ideas behind it, considerations which must be taken in order to use it effectively, and described how I took those considerations and employed the methodology. What I would like to do now is move on to some of the other considerations related to this thesis, beginning with a discussion on the research sample.

3.8 Ethics

Ethical approval within the university for this project proved to be straightforward as it is not a particularly sensitive topic. There were, however, a couple of factors which needed to be taken into account and clarified with the participants prior to their involvement. These factors were primarily linked to the fact that any personal information and opinions covered

would be sensitively handled. Given that the participants were discussing their personal and professional lives and are, in the context of the field, quite well-known, it was important to assure them that their responses would only be used for academic purposes and not for general consumption. This was important to clarify as if, for example, one of the participants mentioned not liking the work of a particular artist, if that artist were to find out, it could result in damage to personal or professional relationships. I provided the participants with copies of the analysis, both for the purposes of member checking, which is discussed below, and to ensure that they were comfortable with how they were represented. Following that process there were one or two minor occurrences where responses were altered collaboratively with the relevant participants so as to obscure personal details without changing the intended message.

While anonymity is often used in ethnographic research, particularly when dealing with more sensitive topics, the tradition within popular music research is to name participants. This is because we are not dealing solely with the personal views and private experiences of participants, but are also considering published works and well documented careers. Anonymising participants would preclude the incorporation and analysis of their bodies of work into the research and as such their input as accomplished field members with deep knowledge of the research area would be greatly diminished. Participants' rights to anonymity were outlined in the consent forms provided to each participant ahead of interview, but it was not something that was requested or discussed in depth, with the consensus being that the editorial control measures outlined above were sufficient.

Through these measures, and a general focus upon ensuring that the participants were fully briefed as to the nature of the project and their rights as participants within it, I was able to ensure that this project met ethical standards within Newcastle University and was in line with current practice in the wider research community.

3.9 Rigour

It is always important to consider how to approach an academic project rigorously. Korstjens & Moser (2018) describe five key criteria for establishing rigor in qualitative research: credibility, transferability, dependability, and confirmability, and reflexivity, which they

summarise as follows.[11] Credibility: confidence that the data and its interpretation are a correct description of the participants' original views. Transferability: the degree to which the results of qualitative research can be transferred to other contexts or settings with other respondents. Dependability: that the findings of the study over time are supported by the data as received from participants of the study. Confirmability: the degree to which the findings of the research study could be confirmed by other researchers. Reflexivity: the process of critical self-reflection about oneself as researcher, one's inherent biases, and one's relationships to the participants and to the study.

One of the factors which ensured credibility was my long term engagement with the field. That gave me a familiarity with the concepts at work from the same kind of perspectives as the participants. As discussed above, the approach I took towards analysis was reflexive thematic analysis, a flexible multi-phased system which emphasises the recursive reassessment of each phase as new information and understandings are brought into the work. This recursivity means that credibility was ensured through constant checking and re-checking of how accurately I was understanding and applying the research data. Following the interviews, I debriefed the participants and did follow-ups via Facebook message, telephone, and Zoom to help ensure that my understandings of the data were accurate and reliable. I also provided copies of my analysis to the participants for the purposes of member checking, and took their feedback into account reflexively by incorporating it into the analysis.

Transferability was achieved through the care and attention given to the processes through which this study was designed, and how that data was analysed. The data was collected and preserved, with the audio recordings from each interview archived for potential future use. The most useful and pertinent elements of that data were transcribed for analysis and serve as a written documentation of the data. Through each stage of the analysis, I made sure that I was clear on which ideas I was using, how I was combining those ideas, and how they served as a basis for analysis. This allows the theoretical side of this study to be potentially used in other studies looking at creativity.

[11] I have paraphrased these definitions in places.

Dependability in this study was primarily based upon three factors. Firstly, the theoretical and methodological basis as derived from the literature, and my approach to the analysis of the data, were discussed and validated between myself and my supervisors. The second factor assuring dependability was based around member checking. As mentioned above, all participants were debriefed following the interviews, follow-ups and clarifications undertaken, and copies of the analysis provided to them. This means that, in common with the discussions with my supervisors, any ideas and themes raised during the analysis were checked and validated by the participants in order to ensure accuracy. Finally, I regularly went back to the literature to ensure that any new ideas or concepts that emerged during the study were properly understood and applied correctly.

Confirmability was established through the documentation of the data collection through field notes and audio recordings, and critical awareness of my own role as a researcher. This means that original records of the data and my own initial impressions of that data and the process of its collection are available for reference. I also kept extensive notes during the entire research process which provide a record of my thoughts in terms of linking ideas from the data with one another and with the theory.

The final criteria, reflexivity, was ensured through awareness of my own position as a researcher and incorporation of that awareness into my theoretical and analytical approaches. Naturally, factors such as innate bias and power dynamics can colour not only the study design, approach to data collection, and data analysis, but also the ways in which I interact with the participants and therefore the way they answer questions. It is impossible to completely remove unconscious bias, and so I sought to minimise my biases by being aware of them and accounting, as far as possible, for their effects at each stage of the project.

With those criteria accounted for I am satisfied that this project was carried out with the proper degree of academic rigor. By considering the above factors openly and strategizing in such a way as to fit them within the context of this work, I was able to ensure a high level of quality control in terms of maintaining a scholarly approach.

3.10 Conclusion

In this chapter I have covered a wide range of methodological and practical issues. What it has served to do is provide a comprehensive breakdown of the practicalities of conducting qualitative research and my own experiences in approaching this research in a thorough and scholarly fashion. In discussing these topics, I have covered all of the significant factors and considerations that effected how this research was planned, how it was conducted, and how it was adapted around problems which occurred along the way. By considering these issues thoroughly and basing my methodology around those considerations I was able to build a strong platform for the Analysis, Discussion, and Summary chapters which follow.

Chapter 4. Analysis

In this chapter I will analyse three interviews. The first was carried out in London on the 28th of November 2019, the second was carried out via Zoom on the 12th of August 2020, and the third was also via Zoom on the 20th of March 2022. The participants are all accomplished musicians with a long history of producing and releasing music. The overwhelming majority of responses came through those interviews; however, some have come from follow-up communications between myself and the participants. I have also made minor edits to some of the responses for readability and/or brevity without affecting intended message (Corden & Sainsbury, 2006).

It is worth noting that due to inherent biases in terms of the research design, it is not entirely possible for a researcher to select and edit quotes in a totally objective manner (Daly & Lumley, 2002). What this means is that the answers that are selected and the edits that are made are accurate to what was said during interview, and that interviews were designed, albeit in a semi-open fashion, to test how closely the experiences of musicians who make electronic music correlate with the body of theory used in this PhD. The responses quoted, along with my interpretation of those responses are, by necessity, a reflection of that research aim and that research design.

In line with the ethnographic approach to research that I have taken each section of this chapter, apart from the introduction and conclusion, begins with an autoethnographic vignette. That placement is not intended to indicate any form of primacy over the discussion which follows them, it simply made the most sense in terms of layout. Those vignettes are representations of my personal experiences of the topics covered, and serve as counterpoints to, and for comparison with, the ideas and the experiences present in the theory and described by the participants. This allows for greater depth in terms of how the field and the theories of creativity associated with it are represented and understood. The nature of individual experience is such that it may not always track completely with the academic theory, or the experiences of others, so those vignettes should be viewed as related asides and narratives of personal experience rather than definitive examples of the areas of theory discussed.

As explained in the Theory chapter of this thesis, my underlying core of theory is a combination of Csikszentmihalyi's System's Theory of Creativity (1988), Bourdieu's notions of field, capital, habitus, and doxa (1977), and Vygotsky's theories linking the individual and the social, and presenting creativity as a higher psychological function rooted in personal experience and cultural-historical context (John-Steiner, 2015). As noted in the Theory chapter, I will be using Bourdieu to provide wider context, Csikszentmihalyi to look more closely at creativity itself, and Vygotsky to give us insight into the creative person.

To look at more specific aspects of creativity I have used concepts including, but not limited to, multi-stage models of the creative process (Poincare, 1913; Hardamard, 1945; Feldman, 1988); divergent and convergent thinking (Guilford, 1956; Runco, 1991); discovered problem finding and presented problem solving (Kuhn, 1962; Csikszentmihalyi & Getzels, 1971; Moore, 1985; Runco, 1994); evolutionary theories of creativity (Simonton, 1988, 1999; Johnson-Laird, 1993; Lumsden, 1999); creative motivation (Geirland, 1996; Csikszentmihalyi, 1996); and affordance (Gibson, 1966, 1977; Greeno, 1994; Chemero, 2003).

As stated in the methodology chapter of this thesis, the interviews were semi-structured and designed to step outside of pre-conceived ideas surrounding creativity and leave room to investigate ideas which may not necessarily fit neatly into any particular theoretical area. The reason for this degree of openness was to allow for the experience of the participants to find its own voice without being defined or confined by the prejudices inherent in the design of the interview questions and the research overall. That openness allowed the research a degree of movement in that it can be shifted to fit around the data rather than the data being shifted to fit the theory. This open nature means that there are elements which could arguably fit into more than one section of this chapter, however, for the sake of coherence I have tried to keep things based around the section with which they are primarily concerned, referring to other sections where appropriate.

4.1 Participants

I have not reached the same levels of accomplishment as the participants in this study. Whilst I have put in a lifetime's worth of work, certainly enough to be considered a member of the field, my achievements in terms of the music I have released, and its overall impact, is that of

a journeyman. I am comfortable with this fact, and it is no hinderance to understandings of creativity within either the context of this research or in terms of how it plays out in real life.

Given that the purpose of these autoethnographic segments is to ground the theory, show how it actualises, and make it relatable, I feel it is advantageous to communicate with the reader from a grass roots perspective rather than one which may seem far beyond most people's realities. These counterpoints exist to demonstrate that while the participants in discussion may all have achieved a great deal as artists, the concepts and experiences discussed have relevancy across the board and throughout the field.

Creativity is not a black box. It is not a set of secrets known only to the most accomplished. It is something that everybody who chooses to pursue a career in the arts experiences more or less equally, and something that is shared amongst all of us.

With that democratic perspective in mind, I organised the interviews such that I would be able to gain a range of viewpoints to connect with my own. In the first interview, the artists in conversation were Ollie Teeba (OT) from the English jazz hip-hop group The Herbaliser, Kevin Foakes (KF), also known as Strictly Kev, from the group/solo project DJ Food, and Jon More (JM) from the group Coldcut and co-founder of the Ninja Tune record label.

Ninja Tune was founded in 1990, has served as a platform for many successful artists, and maintains a consistent level of high quality releases. It is run by Jon More and fellow Coldcut member Matt Black and is one of the most important labels in British and international electronic music scenes. Ninja Tune's music industry awards include the AIM Independent Music Awards Innovator's Award in 2015, Mixmag's Label of the Year award in 2017, DJ Magazine's Best of British award in 2017, and the AIM Independent Music Awards Label of the Year award in 2018.

Jon More and Coldcut are known for their cut 'n' paste style of music making and are considered one of the first stars of British dance music and pioneers of sample based production in general. They are also active outside of music, having co-designed the very popular VJamm software used for live visual mixing (VJing). Their multimedia art installation work has been exhibited at venues including The Glasgow Gallery of Modern Art and The

Barbican Art Gallery.[12] Coldcut's status within the field of electronic music was formally recognised most recently when they were awarded DJ Magazine's Outstanding Contribution award in 2017.

Kevin Foakes is the director of the DJ Food electronic music production and DJing project. He is known for his sample based production style and work in abstract hip-hop. Foakes curated the physical format and online Solid Steel DJ mix series between 2001 and the series' conclusion in 2019. Foakes was also involved with the graphic design work for Ninja Tune between 1994 and 2014, designing album sleeves and helping to build the visual identity of the label in its first two decades.

Ollie Teeba is a DJ and hip-hop producer, best known for his work with The Herbaliser. His musical style is an extension of the original Bronx break DJs such as Kool DJ Herc, Grand Wizzard Theodore, Grandmaster Flash, and the sampling beat makers such as Eric B, Hank Shocklee, and DJ Premier that followed. Teeba's take on the genre is highly cinematic, drawing influence from the likes of Lalo Schifrin, Ennio Morricone, and movie scores in general.

The artists in conversation in the second interview were Will Horrocks (WH) and Simon Williams (SW), both of the group LV, and Emma Davies (ED), who is a solo artist working under the name E.M.M.A.

LV are a dubstep group formed in 2000 who have released 13 singles and three albums on well-respected labels such as Hyperdub, Keysound, and Giles Peterson's Brownswood imprint. They are known for their diverse world music and jazz influences, as well as their collaborations with a wide range of vocalists from non-Western musical traditions. Their music often incorporates unusual conceptual approaches, such as 2015's *Ancient Mechanisms*, which is based around the non-musical or timbral sounds associated with various acoustic instruments. Both WH and SW are currently active as solo artists and DJs, however, it is their collaborative work as LV which makes up the overwhelming majority of their creative output.

[12] 1994's *Generator* and 1996's *Synopticon* respectively.

Since her debut release as E.M.M.A. in 2012, ED has become known for her synth led productions which focus upon abstract soundscapes and fluid arrangements. She has produced soundtrack work for a number of short films and worked with Gucci, composing the music for their 2018 *Timepieces* jewellery collection. She is also the founder of Producergirls, a free to attend beginner music production workshop for budding female and non-binary artists.

The participants in the third interview were Riz Maslen (RM), Matt Ford (MF), and Zak Brashill (ZB).

RM, primarily known creatively as Neotropic, has produced a wide range of critically acclaimed music over approximately the past thirty years. Her experimental and ambient productions have been released by labels including Ninja Tune subsidiary N-Tone, and New York based Oxygen Works Music. She has collaborated with artists including Future Sound of London, 4hero, and The Beloved, with her second album, *Mr Brubaker's Strawberry Alarm Clock*, ranked by Fact magazine as one of the 50 best trip-hop albums of all time.

MF, known as DJ Format, is a producer who is primarily known for his sample-based hip-hop production. He has worked extensively with rap vocalists including Abdominal, and Charli 2na and Akil of Jurassic 5. His first album, *Music for the Mature B-Boy*, was a sleeper hit which grew largely through word of mouth and is still regarded as a classic of its genre within the UK urban/hip-hop scenes. Since then, he has diversified stylistically, producing works with a more low-key, trip-hop orientated feel, alongside the eclectic hip-hop he is more well-known for. MF has released music on a number of labels, most notably Genuine/PIAS and Project Blue Book.

ZB is a drum 'n' bass, garage, and grime influenced producer who goes by Etch. His work has been released on labels including Keysound, Sunday Best, and Sony, and he runs his own label, Altered Roads. ZB has also worked extensively in radio, with regular slots on Radar, Rinse.fm, NTS, and Balamii Radio. His production style incorporates a wide range of musical inspirations from across an equally wide range of genres, leading to work that is experimental, exciting, and varied. Journalistic critics have described him as one of the more

prolific and exciting younger producers within electronic music.

4.2 What is Electronic Music?

The complexities of 25 years of creative practice are difficult to unpick. As we develop complex understandings of our artform the boxes into which we place those understandings shrink and multiply. As such, the box into which I personally place the concept of electronic music is a lot smaller than it used to be. As I developed the ability, as every artist does, to make connections within connections, I lost a lot of the origins of those connections. All I have left are a few vague notions and a handful of scattered memories. When I return to them in considering the concept of electronic music, however, there are a couple of things which stand out to me, and a particular time which forms the basis of my understandings today.

In 1999 I began studying at the John Marley Centre, which at that time was the music and media school for Newcastle College. A fantastically well-equipped facility packed to the rafters with cutting edge, for the time, technology and staffed by passionate people with the knowledge to get the most out of it. It is still spoken of in revered tones amongst musicians of a certain age today. It was here that I began to learn about the processes which underpin music making, and to understand the differences in approach typical to particular genres. I started to apply that understanding when listening. Picking out instruments and trying to conceptualise the techniques surrounding how they were used, how they were recorded, and what all of that meant in terms of how the track sat together. I started to understand that music is defined as much by its processes and its environments as it is by the resultant product.

It was also around then that I found that I was increasingly interested in music which I perceived as produced outside of the rock paradigms which made up the bulk of my early exposures to music as an art form. Massive Attack. DJ Shadow. Daft Punk. Aphex Twin. Here was something fresh and vital. Not limited by the constraints of guitars, bass, and drums, but encompassing all of recorded music, all of sound itself, and bringing together those ideas in ways which were as unique to each artist as their very DNA. Electronic music to me represented total creative freedom. It still does.

At the core of that time in my life was my own initial development as a musician. The creative freedom I saw in electronic music, combined with my nascent understanding of the accessibility of the means its production and the rapidly developing and increasingly accessible computer technology meant that it was the launchpad which has ended up defining my life. Within that freedom I saw a potentiality, for my own expression, and by extension and as a way of understanding how I relate to the rest of society. Many years of practice and refinement followed, resulting in modest professional success and, more importantly, in a sense of personal growth.

From that time to this I have pursued an awareness of what electronic music is, what it means to me, and what my place is within it, and I always return to that basis of technique and process combined with creative freedom as a means of self-understanding. Over time I have learned a little about how those processes and freedoms relate within and between one another. I still have a lot to learn about my place within them.

That is what electronic means to me, but understandings naturally vary from person to person. The first interview opened with a short discussion about how the participants understand the term. This was not a part of the interview which was planned; it came about organically during the first interview through OT's desire to clarify and contextualise the term and the discussion itself, feeling that he would not describe himself as an 'electronic musician'. From a research perspective the discussion was useful in that it allowed me to gain insight into the participants' views of electronic music in the macro sense and how they contextualise their own practice within that. Due to the usefulness of the exchange I decided to incorporate it into the following interviews as a question. This allows comparison between the viewpoints of the participants and discussion based around the similarities and differences in their responses. OT and JM discussed what they think electronic music is and how they identify with the term.

OT: "I totally understand that the realistic answer is 'yes, I do make electronic music', because I use electronic means but I've never really felt that if there's an electronic music movement that I'm part of that because what we did was more part of soul and funk and hip-hop and so forth."

JM: "Even using a turntable is technically using an electronic instrument."

OT: "I suppose in reality everybody makes electronic music because everybody makes music recording it into a computer."

SW, ED, and MF also described electronic music in terms of the technology used to create it.

SW: "I think in the most basic sense, making music with machines is how I look at electronic music. As soon as synthesizers came on the scene electronic music was being made. I'm thinking of machine in a purely electronic sense. So, synthesizers and computers."

ED: "I would describe it as any sound that's been processed by a machine."

MF: "Sampling technology has just increased and increased in terms of capabilities and how you can manipulate things, and it's that side of things that I really embrace."

These answers give us an idea of how the participants understand the term, but that understanding does not give us the depth needed for the sociocultural analysis in this thesis. Therefore, I am putting forward a definition of 'electronic music' broadly linked to three of Mooney's Four Ps of Creativity, and designed to clarify and give functionality to the term: people, practice, and product (Mooney, 1963).[13] As with any element of culture, electronic music requires people to take an interest in it as practitioners, as fans, as teachers, as journalists etc, and collectively build an understanding of it. This means that electronic music is a sociocultural field. The practitioners within the field use certain technologies based upon their understandings of and relationships to the field in order to produce distinctive and linked creative works. This means that electronic music is a practice. The concrete results of that practice are pieces of music which are referred to as electronic music. This means that electronic music is a product. This definition is covered in more depth in the Discussion chapter of this thesis. In order to avoid colouring responses this definition was not revealed

[13] Mooney uses the term 'press' to describe the social fields around creative individuals, and the term 'person' to describe the creative person themselves. However, his work was produced prior to the more recent understandings of creativity linking the individual and the social, and as this thesis is based around those more recent understandings it was necessary to tweak the concept slightly by rolling the two together.

to the participants prior to the interview.

There are a wide range of sub-genres associated with electronic music. This thesis looks primarily at music that can broadly be described as hip-hop, dubstep, trip-hop, and ambient. These genres overlap and influence one another to produce forms of electronic music which are typically distinct from more dance or club orientated forms, although there are crossovers. It is these forms of electronic music with which the participants and Ninja Tune as a label are primarily concerned. WH and OT commented on the field and Ninja Tune's role within it.

WH: "I guess I started hearing it in terms of the 90s output of things that were kind of separate to hip-hop but still used samplers. So, like, your Warps and your Ninja Tunes and things like that."

OT: "Clearly Ninja Tune is part of that movement along with Warp and Mo' Wax and so on."

The term 'cultural movement' can be regarded as representing a collective social action bringing about a change in how a cultural field understands itself and by extension how it defines creativity through that understanding (Melucci, 1984). OT's description of that movement in this context recognises the importance of those labels in moving electronic music forwards through their understanding and development of the creative cultural aesthetics of the field.[14] The processes within the field resulting from that understanding constitute the doxa of electronic music, a Bourdieusian term that refers to the 'rules of the game' which help to structure and contextualise that field and its attendant works (Deer, 2014). Artists with a better understanding of that doxa and its related domain should in theory contribute works which are more acceptable to the field than those with lesser understandings, and be in a position help to evolve and grow the field by producing works which break from that doxa in novel ways. By discussing electronic music as a movement OT alludes to a field which is continually evolving as new creative ideas are brought into it, and new social and cultural forces influence it. This continues as other creative products are

[14] The role of record labels is covered later in this chapter.

created and fed back into the system in the form of the creative products which shape perceptions of that knowledge. One can observe the stylistic shifts within electronic music across the years as cultural and technological contexts alter the ways in which making electronic music is approached.

In addition to discussion of cultural movement, the second interview featured comments about how electronic music as a product is viewed both by practitioners and by those outside of the field. Those comments give us insight into how those participants experience the context of the genre and how they understand and apply the field's domain and doxa.

WH: "It has a much longer history than people generally give it credit for. There's a much wider definition that goes all the way back to people like Daphne Oram. Even people like Sun Ra using early Moogs and stuff like that."

ED: "I often hear people trying to define what they like by what it isn't. This guy was saying to me 'strings and wood, that's my thing' when I told him what I did."

WH: "I've definitely had a few quite frustrating conversations along the lines of 'the real instruments' and 'real music'. There was this sense that if you weren't strumming a guitar, you were making something that somehow inherently had less value. I think a lot of that has pretty much been swept away by this point."

These quotes give us insight into the habitus of the participants in terms of their accumulated knowledge of the field relative to how the field is viewed more generally. The sophisticated natures of the participants' habitus allow them to contextualise their own work as part of a long history of what is defined as electronic music. For example, WH describes an awareness of the roots of electronic music as dating back to musicians such as Daphne Oram, whose work as part of the BBC Radiophonic Workshop helped lay the foundations for generations of electronic musicians to come, and Sun Ra, the pioneering jazz artist whose avant-garde compositions were some of the first within that genre to use synthesizers and electronic keyboards. In terms of creativity, this deep background knowledge tells us something interesting; that the participants understand not only the field and the associated domain of knowledge but how it came about and how it has developed

over time. These early electronic pioneers were foundational in bringing early structure to what was a very open domain, and through knowing about their work the participants come to know more about the context of their own work. By seeing where they fit within the domain development of the field, participants come to better understand where their work sits within the domain relative to it, and through that understand more about who they are as creative individuals. This deep domain knowledge can result in the frustration which WH and ED expressed when they spoke about those outside of the field whose beliefs conform to the doxal myth that electronic music is in some way creatively inferior to other forms of music.[15]

The technology used to create music using a computer has become much more widely available over approximately the past 20 years. As WH alludes to in the previous quote, that rise in availability, along with the associated rise in people engaging with electronic music as a practice is in no small part responsible for a widening of understanding of the genre within the general population.[16] With that widening of understanding comes a more common knowledge of the legitimacy of electronic music as an art form. However, this is a relatively recent development; electronic musicians in the 1980s spoke of a general misunderstanding of the technology, and how it was used, at that time. For example, in the 2009 BBC documentary *Synth Britannia*, OMD's Andy McLuskey talks about a general view that the synthesizer wrote the song for you. Similarly, I myself have had a number of conversations regarding DAW software with people who did not understand that the software functions in exactly the same way as a hardware recording studio. As with WH and ED's comments above, this is a form of doxal misrecognition, as those outside of the field, or who are part of different musical fields, do not always understand the legitimacy of using DAW software and similar technologies as a primary platform for musical creativity because it does not conform to their own understandings of musical doxa. As will be discussed in motivation section of this chapter, one of the primary reasons that people seek to create music is as a way of understanding their place in society and that is a process which is made easier when society recognises the methodological legitimacy of that drive. That a domain is correctly understood rather than maligned as lesser is an important factor in attracting new people to

[15] Frustration with mainstream culture is discussed further in the section on motivation.
[16] My own experience as part of the field tallies with this. Having been a very active producer since 1999 and having taught music technology professionally since 2005 I have witnessed this shift first hand.

the field, broadening the popular potential, and therefore the cultural and financial potential of the field (Csikszentmihalyi, 1998; Csikszentmihalyi & Wolfe, 2000).

Having established a context in terms of participant's understandings of electronic music as a broad concept, I would like to shift focus back to the participants themselves. Given that this PhD largely focuses upon views of creativity as socially derived and individually processed, it is important to understand the early socialisation of the participants through discussing their early lives and family backgrounds. This gives us insight into how their habitus developed, and thus how they as individuals use the sum of their experiences in order to enact their creative practice.

4.3 Participants' Backgrounds

I do not come from a particularly musical background. My parents, as cultured as they are in their own ways, were not really the kind of people who played a lot of music around the house or actively engaged with the fine arts. It might seem surprising, then, that my life and work would skew so sharply towards music and the arts generally, but there are good reasons for that. While I was not exposed to cultural pursuits as directly as many of the participants, I was strongly encouraged to follow my passions, taught to see the world with an intellectual curiosity, and made to understand the value of working hard to achieve my goals. In other words, I was given three very important psychological tools, and shown how to use them to acquire the kind of capital that would come to define who I am as a person.

How exactly a child from a supportive but relatively non-musical family becomes so strongly interested in music in the first place is rooted in developmental psychology, and mentioned below as innate bias towards certain cognitive styles. To go into that subject very deeply would represent a large tangent for this research so, for now, it has had to remain a black box. However, it must have been clear to my parents where my interests lay, because many of my early childhood activities were very obviously focused around music, sound, and technology. The toys I remember most clearly from when I was small were musical toys. I would make little mixes using two portable cassette recorders pushed together mic to speaker. I would use the dials and switches of my dad's beautiful Leak amplifier as battlegrounds for my action figures. I can't imagine he was too pleased about that one.

The point is that my predilections were clear from the outset and, while I certainly caused them a lot of frustration later in life with a pitbull like stubbornness in my refusal to get a proper job, my parents overwhelmingly understood and supported that. I don't know how normal it is for a person to have only ever wanted to do one thing for their entire life, but I do know that familial support for that, let alone active encouragement, is pretty rare.

Later on I would come to develop that innate feel for sound and technology into something more tangible. Through study, but primarily through a strong sense of self-motivation and many long hours of practice. I've never asked my parents how they felt about the incessant scraping and stuttering of loud rap records as I learned to use the set of turntables they bought for me at 17, or how they felt about hearing the same 8 bars of music coming through the wall for hours on end while I was learning to write music on the computer they bought for me at 19. I never had to. They understood that those things were the things that meant the most to me, and that by supporting my passion for them, they were providing me with a healthy and positive way to begin to form my own version of myself. I will be forever grateful to them.

This early development, particularly in terms of the familial relationships and support mentioned above, is a large factor in determining the later characteristics of a creative habitus, indeed, Bourdieu (1986) and Vygotsky (1990) both state that the development of habitus and the creative personality begin during childhood. Bourdieu (1986, p.19) notes that "the initial accumulation of cultural capital, the precondition for the fast, easy accumulation of every kind of useful cultural capital, starts at the outset, without delay, without wasted time, only for the offspring of families endowed with strong cultural capital". There are numerous forms of capital in Bourdieu's ontology, with economic, cultural, and social being the most commonly discussed. Economic capital represents financial resources, cultural capital represents knowledge of a field, and social capital represents connections with others in the field. Capital is transmutable, meaning that one form of capital is able to change into another form.[17]

[17] For example, economic capital can be transmuted into cultural capital through paying for a university degree. That cultural capital can then be transmuted back into economic capital through an increase in financial income associated with that degree.

As discussed in the Theory chapter, Vygotsky's position is that all psychological processes, including creativity, develop during childhood and adolescence through internalising information gleaned from others during social activity (1960; 1984; 1990). We learn to process and transform that information through our experiences and existing knowledge, and externalise it either verbally or through action, eventually reaching a stage where we can develop ideas without the need for novel sociocultural interaction. This process of development takes place slowly over time and continues throughout our lives. It is only in adulthood that we are able to use our higher psychological functions, such as creativity, in truly sophisticated ways. Vygotsky's ideas on creativity are linked to his cultural-historical theory of psychology (Lindquist, 2003; Zavershneva & van der Veer, 2019), which, broadly speaking, states that all higher psychological processes are mediated through and derived from sociocultural interaction and context. We develop our creativity throughout our lives, but the theory points to its origin in childhood, and in predilections towards certain cognitive styles (Csikszentmihalyi, 1998). I asked the participants about their early lives and early exposure to creative and cultural activity.

OT: "My mum was a dress designer; she was really quite good, made all of her own clothes. My dad was a carpenter, but I think that he really wanted to be a musician. He had many friends who were professional players. He'd often sit at home and play but didn't know a huge range of songs. I thought my dad wrote *Sunshine of Your Love* because he'd play it at home, like, endlessly to the point where I was sick of hearing it. Everybody in my family could draw. I was into drawing and so was my brother, so we were always encouraged."

JM: "My parents were always just very open about creating. My mum was an art teacher so being creative, being expressive, doing what you want to do. It was quite rare I think, in the '70s, me at 14 going 'I want to go to art college' and them going 'yeah, fine'.

RM: "I was a classical recorder player, which is quite a weird instrument to start on. I ended up doing lots of competitions and doing quite well in them."

SW: "In general I had a lot of exposure to both art and music from my parents when I was

growing up. I grew up in London and Brussels, so I always had access to a lot of amazing art galleries. I'm sure that had a big influence on me. Nirvana was probably, like, my first true musical love. Grunge is what got me into wanting to make music."

ED: "I had piano lessons; I didn't do very well in the grades or anything but that was when I first started taking an interest in chord progressions and atmospheres. My mum was very into prog rock, she asked my granddad to build a synthesizer in the '70s. My mum played on my album as well, on the outro."

WH: "My stepdad's got a really sort of academic approach to nearly everything. He's retired now, he's now a painter and a visual artist, but his music taste is almost aggressively eclectic. He introduced me to Sun Ra, all the jazz I know anything about. He was first person to play me *Madvillainy*, so like, it wasn't just when I was really young. He still sends me stuff."

MF: "I played the piano as a kid, I didn't want to do it, but I was in trouble a lot at school, so my parents said, 'you're clearly not going to be academic so let's try and bring out the musical side in you'. I want to say encouraged, but really they sort of politely forced me to do it."

ZB: "My uncle [a well-known comic book artist] has really always been my biggest influence creatively. I mean, he introduced me to a lot of the music I listen to. He left me his turntable and his records when he moved to Seattle."

KF: "There was zero culture or love of culture in my house growing up, except for an auntie of mine who was quite, sort of, worldly wise. I always drew, I always read comics from as long as I remember. I had to seek out culture for myself. For some reason that was something that was always in me from day one. I would look for stuff. My friends were the kind of slightly nerdy, geeky kids. We were friends because we were into things which were on the margins, which were part of the arts, and because I had nothing within my family which was pushing me into that I sought it out in other people."

The participants describe strong early attractions to music and art, and varying degrees of

familial support for their nascent creativity, with the majority of them coming from families who were themselves creative and/or had a strong interest in the arts. KF differs in that immediate exposure to what Bourdieu describes as higher musical and artistic forms of culture was less available within his family (Bourdieu, 1984). That is not to say that KF was not exposed to culture, simply that his early exposure to culture and thus the cultural capital he accumulated through his family took a different form to that discussed by Bourdieu. The development of his habitus proceeded differently to that of the other participants, however, his drive to seek out his cultural capital of choice from wider social sources meant that he was still able to shape his own habitus as a creative individual.

The participants describe their childhood social spaces as providing them with early exposure to music and creative activity, and in several cases, musical instruments and formal music training. Exposure to creative activities and experiences such as art and music has a transformational effect upon the individual in that the more that we are exposed to, and partake in, those sociocultural experiences, the more we are psychologically shaped by them and come to embody them (Bourdieu, 1990). When that exposure takes place at a very young and impressionable age, the effects can be profound, with individuals building their core personality around them, particularly in cases where those exposures tally with their innate cognitive preferences (Csikszentmihalyi, 1998). As the person develops, they deconstruct old ways of thinking and reconstruct them based upon those new experiences. First in play, then through adolescent fantasy, and finally through internal creative thought alone, with the nature of their social and cultural exposure and the knowledge gained through that exposure defining the nature of their creativity (Smolucha, 1992b).

One of the most important tools a musician can possess is a deep knowledge and a sensitive understanding of music and the systems which comprise it. It is unsurprising then, that alongside ZB's comment, above, a number of other participants described an interest in music and vinyl records in particular as an important early part of their social and cultural exposure.

JM: "From, I think, about 11 years old I collected records."

KF: "We didn't have records in our house until I got a record player. My dad was a tape

man. He would tape things off the top 40. He used to have a tape player on his set that I wasn't allowed to touch, and he would fade in the music instead of just pause button it and he would try and fade it out before the DJ talks and he would make these little tapes. That was my first experience with recording I think."

OT: "My dad had about 300 records and I thought 'wow, my dad's got a huge collection of records!' I was not allowed to play my records on my dad's record player and the fact that I wasn't allowed to touch my dad's record player was really, like, goading me into getting into record players and messing with them, making them do things that they're not supposed to do."

WH: "I also had a friend who was a lot older, he was the stepdad of one of my best friends and sort of became one of my best friends. He had a massive record collection, mostly kind of reggae, dub, soul, disco, and a bit of afrobeat. I used to basically go round and record that stuff onto minidisc. I still occasionally turn up there and rip stuff onto my computer."

For Bourdieu, interest in a field begins in childhood within the domestic space and develops through social exposure, with a desire for recognition as an individual at the heart of that process (Grenfell, 2014). As the child enters social spaces, such as schools, they show affinities towards individuals and activities which feed into and evolve their early interests and cognitive biases. This represents a wider exposure in the social space, allowing the individual to select that which they find engaging independent of familial influence, and develop their personality through those social exposures. Indeed, Erikson (1980) thought that it was through these early interactions and the individual's increasing ability to define those interactions that a person develops their identity as their first creative work. While it is common for musicians to show innate attractions towards music and sound early in life, it should also be remembered that individuals also locate certain interests later in life.[18] These later life interests are often activities which they were either not exposed to as children, or interests and biases from childhood that are rediscovered and new interest found as more mature individuals, a process Bourdieu refers to as the development of 'specific habitus' (Bourdieu, 1984). These processes of interest finding and rediscovery, and associated

[18] Indeed, Vygotsky (1971) saw creativity as a lifelong process of self-mastery through which individuals come to better understand themselves and their place in the world.

habitus development, are also the result of wider sociocultural exposure, of the sort that becomes increasingly available as an individual develops their independence during adolescence. The social development of OT's habitus was strongly supported by his parents. He received encouragement to engage with hip-hop culture, and the people who were a part of that culture, from an early age; his parents perhaps tacitly recognising the importance of diverse social experiences and interactions as fundamental to the development of the complex tools which come to define personality, fuel creativity, and help us understand how we co-exist with the rest of society. He describes those interactions.

OT: "From about 1985 I'd been getting into DJing, I'd always been into hip-hop since I was about 12 years old, first as a breaker [break dancer] and then as a DJ. My parents were always really into Black American culture and so they were really supportive, and they would take us to breaking workshops and hip-hop jams and so I just became completely absorbed in that culture."

This early exposure to hip-hop culture in London gave OT a window into a field available to relatively few people at that time. It enabled him to build social capital by interacting with others in the field and cultural capital by becoming involved with it more directly as a dancer and then as a DJ before going on to produce hip-hop himself.

OT: "My main creative drive came from seeing someone doing something amazing and I wanted to try and do it myself. Hip-hop in particular appealed to me because it wasn't saying 'you have to go to music school, anyone can do this, you just have to have a go', and that was beautiful to me."

MF expresses a similar sentiment in describing how he moved away from classical piano as a youngster.

MF: "I really went against it, for me it was all about the authenticity of hip-hop, the energy of hip-hop that was created through the repetition of taking the best bits of certain records."

As the participants describe, the domain of hip-hop music has always been very accessible.

The roots of hip-hop were born out of marginalised social groups taking the things that they had available to them, in this case records, turntables, and microphones, and building a social and creative field around that (Williams, 2011). This approach of creating new things from disparate elements is one which would feed strongly into their habitus as sampling producers.

KF grew up in Surrey, and without the same sort of exposure to culture as OT and JM was driven to actively seek out cultural experiences for himself, as he describes.

KF: "We didn't have any access to pirate radio, we had a couple of national radio shows which played hip-hop that I could crib from, but it wasn't enough. I was always looking for something that was more leftfield than the mainstream."

We can compare this with a quote from WH where he describes what amounts to the opposite of KF's sentiment; the seeking out of music which is outside of the genre which he is known for working within. Both quotes ultimately point towards the same thing, though, namely a drive to seek out wider musical and by extension wider social and cultural experiences.

WH: "I would say that I do not find listening to the vast majority of what you would describe as our contemporaries as a particularly exciting endeavour. It's basically because I don't derive an awful lot of pleasure out of listening to music that I can immediately completely understand every single element of."

Vygotsky's view of creativity is that it is inherently linked to social experience, he states that "the creative activity is directly dependent upon the individual's experiences, and the extent and degree of variation of these experiences" (1995, p.19). By considering the range of the individual's social interactions and experiences we understand more of the nuances and idiosyncrasies of that individual's habitus. For example, KF's leftfield musical style and approach to music making is a partial reflection of the leftfield influences he was driven to seek out in his youth. Vygotsky's ideas are important here because they support and flesh out the socially based views of Bourdieu and Csikszentmihalyi by considering the range of the individual's experiences and looking in more detail at the nuances and idiosyncrasies of

habitus brought about by that diversity. KF's description shows a desire for exposure to a wider range of cultural experience, something which he describes as lacking during his childhood. He found the experiences available to him to be inadequate for the kind of complex cultural habitus he sought to develop and, therefore, found it necessary to move away from his childhood home.[19] He describes moving to London to attend art college.

KF: "Living where I lived wasn't enough which is why I moved to London. When I moved to London and started to see the sights, it called to me and I was like 'this is where I want to be'."

RM discussed similar experiences. She grew up in the Gloucestershire before moving to London and becoming involved with the early 90s music scene in the capital.

RM: "When I was 21, I moved to London, and I arrived, fresh out of the countryside, at the beginning of the whole late 80s/early-90s rave scene, and that for me was just mind blowing. There wasn't any perfect fit, it was very anarchic, and I liked that, because you didn't necessarily have to be a musician, and people were just kind of doing it. It gave me the impetus to go 'yeah, right, I'm gonna do this'."

In London, the participants found environments which were diverse enough to provide the range of cultural and social experiences necessary to satisfy the development of their habitus and creative styles. This process of incorporating wider experiences into a person's social and cultural makeup also shows us that habitus grows, adapts, and develops based upon those experiences (Smolucha, 1992a; Compton-Lily, 2014). Had they remained in their hometowns and continued their development in the arts it is almost certain that their ways of thinking about their work, their methods of carrying out their work, and the work itself would be radically different. The habitus they formed in their earlier years were fundamentally altered, and their existing ideas broken down and reconstructed through their sociocultural experiences in London.

[19]It should be remembered that the cultural experiences available to a person at the time KF describes, the 1970's, were vastly limited compared to what we have available now, with virtually every piece of music, art, or film imaginable freely available via the internet. It is therefore arguable that such moves are less necessary nowadays.

We can draw parallels here with WH and SW meeting at university, becoming more interested in electronic music, and starting to work together to produce it.

SW: "When I went to uni in 2000, I really started to get into electronic music a lot more and linked up with Will. So, from the sort of early 2000s was when I started to really get into electronic music and discovering as much as possible about all the different areas of production and sound creation and making music with Will."

University is widely regarded as a space where young people can develop their independence and pursue their interests at a time when they are leaving adolescence and entering adulthood. This time of life is critical in terms of creativity because it is the period when, for most people, accumulated knowledge and experience have reached a stage where the ability to think creatively matures and becomes productive (Smolucha, 1992a). For KF, SW, and WH, university or college was the place where their nascent interest in music production grew into something more serious and actualised. As noted above, individuals find new and more diverse social experiences and conceptual ideas over time, and for many people university is a culmination of that. For SW and WH, being in an environment which was home to a wider range of people than perhaps they were used to in their childhood and adolescence allowed them to form connections with people who were more closely aligned with their own cultural interests. They were able to diversify their social interactions and shape their creative styles through the natures of that diversification. To put it in Bourdieusian terms, they developed social capital in the form of connections with others who were interested in, or part of, the same cultural field, and transmuted that into cultural capital through those interactions.

As discussed in the Theory chapter of this thesis, social capital is an important resource in allowing field members to improve field position. Social capital represents knowing people who are in a position to help an individual improve their position because it can open up wider connections and further opportunities within that field. It gives access to the gatekeepers who play a large role in defining, facilitating, and supporting creativity. In the music industry this is often people associated with record labels, publishers, and well-known artists. As the saying goes 'it's not what you know, it's who you know'. KF and RM describe some of the early interactions which helped them progress within the field.

KF: "I often think that when I met Coldcut in the early days of Ninja Tune they could see some skill in what I was doing as a DJ, I wasn't even producing music at that point. They could harness that, show me the ropes, and give me a foot on the ladder so to speak. I was lucky enough to be in the right place at the right time with the right people with the right skills for it to become a job."

RM: "When I was starting out I was working in a studio in Dollis Hill, I just happened to be making a cup of tea, and I bumped into this bloke who said 'we've just taken over the studio downstairs' and we got chatting, and it was Brian Dougans, who went on to become Future Sound of London. I ended up working with them and they were so pivotal in getting me to do my own thing. Then I was able to get involved with Ninja Tune, and meeting people like Coldcut, DJ Vadim, Roots Manuva. They were all just really supportive."

At that point in time, Coldcut were more or less considered to be pop stars due to the fact that they had appeared on Top of the Pops and had an album in the top 20. What this popular recognition gave them was social capital in the form of music industry connections and an enhanced position in the field due to their commercial success relative to the majority of their peers. Similarly, Future Sound of London were and are very well-known and highly respected within the field, with all of the cultural and social capital that brings. As a result of building up cultural capital through learning about, and working within, the field, KF and RM were able to meet and work with these people and transform that social capital into greater cultural capital. Importantly, they were also able to learn more about the field's selection process for acceptance into the domain, develop their creative styles down the pathways opened up for them in terms of understanding the receptiveness of the field to new ideas, and position themselves advantageously to acquire the domain knowledge necessary to facilitate creative habitus and refine their own ideas.

The accessibility of domain knowledge is of interest to us because it ties in very directly with what we know about the social nature of creativity. We have already discussed how habitus is derived from social exposure either directly through personal interaction or indirectly through, for example, listening to other work in the field or reading books about music production. By working with people in stronger field positions, the participants were

exposed to domain knowledge, which was not readily available at that time, could transform it through their own habitus, and feed it back to the field through their own music. The kinds of techniques used by artists such as Future Sound of London in the late '80s and early '90s were known to producers outside of the electronic music community, but the nuances of those techniques, and the associated modes of thinking about music and music making, were not. While there were publications such as *Sound on Sound* and *Future Music* covering technical domain knowledge, they were, and still are, niche publications. Even with those sources of information there were very few people putting those ideas into practice and developing them relative to today due to the high barrier for entry in terms of having the economic capital necessary to buy equipment, and the steep learning curve required to be able to properly use that equipment. It was a time when arguably the most common way for people to learn about the domains of music technology and music production was still through working their way up from making the tea in a commercial studio, and this was the case with RM before she made those initial connections and moved on to working more independently. Electronic music as a practice, generally speaking, often exists outside of more traditional studio environments, and it was artists like Coldcut who pioneered the kinds of approaches we see today, with almost everyone in the field from hobbyists to world famous artists primarily working with idiosyncratic collections of equipment in home based or other small private studios. In terms of capital, it was vital at that time to have either the social capital in the form of connections within the field to show you how to use the equipment and approach music making with it, or the economic capital to buy the equipment yourself and support yourself by facilitating the time needed to build up cultural capital through practice and creative development.

Nowadays, of course, things are very different. Freely available online tutorials, 'in the studio' videos where artists break down their production techniques, and discussion groups where people share ideas, allow anybody with an interest to access tremendous amounts of information about how to produce electronic music. There are also music technology and music production courses available at many, if not most, local colleges and universities. This rapid growth in available domain knowledge, combined with the proliferation of DAW software, has played a significant part in the wider understanding, popularity, and status of

electronic music as a genre (Chambers, 2022).[20]

We know that an artist's habitus develops in an inherently social manner, through interaction with others in the field. It also has a wide range of characteristics, each element of it being developed through different sets of cultural exposures and experiences. But what is it that drives an individual to seek out and focus those cultural exposures? What is it that pushes them to spend many years developing a habitus well-formed enough to make original contributions to a cultural domain? In order to look into those issues more deeply I asked the participants some questions about motivation.

4.4 Motivation

I am existing within a dual layer of consciousness. Completely aware of what I am doing but without noticeably processing my actions in the forefront of my mind. The sounds which make up this four bar loop spread out in front of me in three dimensional space. Every nuance of every element and every tone of every sound merging and separating to create colour, light, and movement via my mind's interpretation of their vibrations within the air. Snare drums smash spaces through miasmas of texture. Sub bass rumbles in the walls which surround me, framing complex patterns of timbre which flow like shifting sands. I am within all of this.

Like a voice echoed from some phantasmal Brigadoon deep inside of me, I understand (it has skipped the stage of knowing) that I need to place something within this. The sonic ether I have created suddenly seems too light. Too disconnected. It must be brought together. I turn to my right and see that my synthesisers are already switched on. LCDs and LEDs glowing green and orange, waiting for instruction. I push a few buttons and press down on the keyboard, idly flipping through possibilities to confirm the assumption that I have already accepted. Better to make sure. Finding the sound that I already knew I wanted I experiment again, variations of tone, variations of meter, inversions of chords and constructions of harmony. Searching for the combination which holds at the core of this; I did not know when I started playing what the answer to this question was, but when I find it, I feel as though I

[20] DAW software and its proliferation are discussed further in the chapter on Technology and Affordance.

always knew. Some practice. Some refinement. A few clangs of dissonance as clumsy fingers hit clumsier notes. It is recorded.

Listening back through the new connections I have made I slowly get a feel for how it serves its purpose. How these new structures structure the structures already in place. Notes and sounds supporting one another. Sitting together. Holding.

But something isn't right. Somewhere there is an opposition to the forms of my understanding. I listen again and it reveals itself. An errant tone concealing an innocent silence. It is easily fixed. I boot up an EQ and scroll a sharp filter through the frequency range until it jumps out at me. Far worse than before and offensive to its context, I dial down its amplitude and, for a moment, order is restored. Even that action, though, creates new imbalances. The cut frequencies highlighting others which take its place in the mix. The process repeats and I become lost ever more deeply within it. Pursuing a perfection always just out of reach. No time passes.

What I have described above represents my own experience of creating as an inherently absorbing and enjoyable process. This intrinsic enjoyment of the act of creating is just one element of the research that has been conducted into creative motivation (Csikszentmihalyi, 1996; Kowal & Fortier, 1999). Other elements include the effects upon creativity of extrinsic reward motivation (Amabile, 1985), creativity as a way of improving one's position within the field of power (Thomson, 2014), creativity as an ongoing process of self-actualisation or self-understanding (Vygotsky, 1971), and creativity as a means of communication (Gardner, 1994). JM and MF describe their feelings while creating.

JM: "It's a sort of escape, it's a kind of meditation, and it's a way of stopping time. I did a mix last night and I can't really remember much about it. I forget how I've made stuff. Half the stuff Coldcut made I have no recollection of."

MF: "When you're in the zone and the ideas are just flowing, and everything you try out just seems to work, why would you stop? Why would you stop to eat? Why would you stop to sleep? You could make music right now because the magic's happening! Everything gets pushed aside because you just want to continue in that moment as much as you can."

What they are describing here ties in with Csikszentmihalyi's (1996) concept of flow, an idea which describes a specific type of subjective experience when an individual is performing a complicated task with a real or perceived high level of skill. In an interview with *Wired* magazine, Csikszentmihalyi described flow as "being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement, and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you're using your skills to the utmost" (Geirland & Csikszentmihalyi, 1996). It is clear from the close ties between the participant's description of their experiences while creating and Csikszentmihalyi's quote that the participants are experiencing flow states. A state of being with one idea following 'inevitably from the previous one' arguably removes a degree of conscious consideration through that seeming inevitability, as though the individual is operating from a position of pure habitus rather than by objectively thinking through each decision. The activity becomes one which is akin to meditation, the deep state of focus distorting perception of time. It is a peaceful, productive, and highly enjoyable experience. Most individuals with a degree of competence in a creative field are familiar with flow state in one way or another, with Kowal & Fortier (1999) finding a direct link between experiences of flow and feelings of competence in the activity in question. The notion of *feelings* of competence is important here. The creator does not have to have a particularly well-developed habitus and be producing particularly sophisticated music to gain feelings of competence while working in a flow state. I recall producing lots of music in a flow state when I first got into production, and while that music wasn't particularly good, the flow state was certainly present. This is an important reason why novice producers keep coming back to the practice. They feel competent while working in a flow state, even if, in a more objective sense, they are not.

When we carry out an activity in a flow state, we often feel creative and productive, feel as though we are learning and improving our abilities, and feel as though we are working towards a larger goal. Results improve as we gain competence and begin to inch closer to our goals, and that brings more enjoyment and more satisfaction because we know that we are making progress. It is the intrinsic enjoyment of an activity undertaken in a flow state coupled with satisfaction as we improve our skill level and see the results of that improvement that are at the heart of the link between flow and motivation.

The second set of participants also discussed the inherent enjoyment they derive from producing music and the results which follow.

ED: "Broadly speaking I like creating generally. I have many mediums; I write and things like that."

WH: "Making music for me is a leisure activity as much as anything else. It's the same motivation as 'why would you sit and watch a film?' or 'why would you listen to a record?' or 'why would you go out and eat?' or whatever."

SW: "It's incredibly satisfying, I find, when you feel that you've finished. You've created something and you feel that that's complete. You've taken it from having nothing to having something that you can feel a certain amount of pride and get a certain amount of enjoyment out of."

WH: "It's nice when other people say that something's good as well, to be fair."

KF described a different view of creative motivation, one which is centred around the accumulation of economic capital. This is a view that veers away from much of the research cited in the opening paragraph of this chapter, which shows that extrinsic reward motivations have a negative effect on creative output. It should be remembered though that, as discussed in the Theory chapter of this thesis, that even those who consider themselves to be working from a truly intrinsic perspective, or autonomous pole within the field, have an awareness that extrinsic rewards can result from that position through the transmutation of capital, as KF alludes to.

KF: "When we got into it, it was to do it as a hobby and people can legitimately see a career path in it now and that could be a motivation."

The cultural landscape over the past three or four decades has shifted to the extent that DJs, once seen as hobbyists, have been glamourised to the extent that the concept of the 'superstar DJ' has become a familiar trope within music and popular culture. Even relatively

low level DJs can realistically make a living playing 3 or 4 nights a week in local bars and nightclubs, such is the value attached to their skill sets. There are people who get into music making and DJing who are motivated to build up those skill sets in order to transmute that cultural capital into economic capital and social status rather than entirely for its own sake. So, what is going on here and why does KF's observation go against the main thrust of the research? Those who are primarily motivated to make money and gain status, or in Bourdieusian terms to directly enter the heteronymous pole of the field, are able to gain a degree of proficiency, even to the point where they are able to make a living out of their skills. However, those who do so may not be assigned the same kind of cultural capital as those artists who trend more towards the field's autonomous pole because their motivations are not generally viewed by gatekeepers within the field as 'pure'. This is particularly true in the area of electronic music that this thesis focuses upon, where the cultural emphasis is often very much on art for art's sake rather than extrinsic economic and social rewards.

The negative correlation between extrinsic reward motivation and quality of creative output tallies with research carried out by Amabile (1985). A reason for this, as I will discuss in the section on the role of the field, stems from the fact that it is only artists who produce work that is in some way revolutionary who gain high levels of prestige within the field. Save for notable exceptions, such as Daft Punk, this kind of work within the field of electronic music often lacks wide popular and therefore wide commercial appeal because it is based upon the more specialised and complex elements of the field's domain and doxa, and therefore primarily appeals to the relatively small number of people who have the specialised field knowledge necessary to understand what constitutes a revolutionary idea in the context of that field. The knock on effect is that few within the field of electronic music make a living through producing music alone. Even among the participants, WH works for a radio station, ZB works for a computer games company, RM works for a charity, and EW teaches music. They are accomplished artists who have made valid creative contributions to the field and that is not enough to sustain them financially, so there is no financial incentive for people striving to build up that sort of creative ability. It is logical, therefore, to state that the majority of those whose primary motivation is making money will tend to drop out of the field upon reaching that realisation.

This idea of making music and DJing as a way to build social status was also mentioned by OT, although his take on it is one which leans more towards an inherent need for expression.

OT: "Especially if you come from a poor background or a marginalised community you feel small in the world and you want to do something that says 'I'm here'. I think that's very much a motivating factor for a lot of people to create things. They have frustration in them that they want to express. For a lot of people, it's a need to be noticed in a world with 8 billion people in it."

This is a take on creative motivation related to Bourdieu's field of power, a kind of master field within which all other fields exist and in which everybody competes for capital and the status which comes through possessing that capital. Thomson (2014, p.70) describes the field of power as a space which "consists of multiple social fields such as the economic field, the field of the arts, bureaucratic fields and so on". People from lower socio-economic or marginalised backgrounds experience disadvantages within the field of power (Bourdieu, 1989). For example, people from those backgrounds can have limited access to high quality education and consequently limited access to the economic and cultural advantages that come through education and improve field position. As Thomson (2014, p.76) notes, "education as symbolic capital works together with other capitals to advantage and disadvantage, and to position social agents in multiple fields." This drive to improve field position and build financial capital through transmuting the cultural capital which comes from making meaningful contributions to the domain can be a powerful motivation.

There is also a subtext within OT's quote on people from marginalised or minority backgrounds that is worth discussion. That subtext is the fact that by the nature of their situation, people from marginalised and minority backgrounds can feel othered and, therefore, have a more complex relationship with society than those from the more dominant social groups. Given that the creative person's thought processes, creative process, and by extension their creative products are derived from their socio-cultural context as filtered through their individual experiences, it follows that many of the creative products which society consumes often do not represent the experience of those not of the dominant groups. This means that the forms of social dialogue that creativity brings about can leave marginalised people feeling alienated and in need of representation.

As discussed in the Theory chapter of this thesis, meaning making and understanding of the self, relative to society, is an important creative motivation, as MF describes.

MF: "For me music was always the thing that just connected. We're all trying to figure out where we fit in this weird world, I tried messing around with music and it just became something that was clearly going to be more than a hobby."

In order to understand this more clearly, we must revisit a quote cited earlier in this thesis. Vygotsky (1971, p.259) stated: "Art is the supreme centre of social individual processes in society, it is a method for finding an equilibrium between man and his world, in the most critical stages of his life". If people find themselves in a situation where the cultural products they are exposed to or consume do not satisfactorily represent their experiences, what choice do they have but to either seek out that which does or to create it for themselves? In the Theory chapter, and in the above text, I argued that a powerful motivation for creative people is to understand their place in the world and their relationship with the rest of society, and art allows us a way of doing that, whether as producers or consumers. That sense of a need to have a voice in the dialogue is undoubtedly a powerful motivating factor, especially for those who find themselves consistently under-represented by the mainstream narrative.

It is worth noting that in recent years, with the great majority of society having access to free or pirated music making software and relatively cheap computers capable of running that software, and the free availability of information online, the domain of electronic music is no longer the preserve of those who can meet a fairly high financial barrier for entry or those who are able to commit time and money to a community, college, or university course on the subject. That democratisation has allowed for a diversification of talent and the diversification of cultural and social influences which come with it, something which SW commented upon.

SW: "It's created this situation where it's much more democratic now. Anyone can make music with very little investment really. That, I think, has created this fascinating proliferation of genres and new sounds, all different kinds of approaches from the uber-

high-end studio kind of approach."

Another motivating factor commented upon by the participants is that of communicating through music. This notion is one which will be familiar to virtually everyone, as the capability of music to act in that way is a foundational part of human communication. This correlates with the Vygotskian view, discussed in the Theory chapter of this thesis, where the motivation to create is one born out of a drive for understanding of self through complex dialectical interactions between the individual and society. Indeed, research by Mithen (2006) and Brandt et al (2012) shows that early humans developed forms of musical communication prior to, or in tandem with, spoken language. In this next set of interview answers, SW and WH discussed communication of ideas and emotion through art. These responses provide good examples of the Vygotskian view of creativity as intimately linked to communication noted above, albeit subtextually. It should be noted that in this context, what is being communicated, whether that be emotions, ideas, experiences, or anything else, is not important. It is the fact that the creator is able to engage with that process of communication as a form of clarification to themselves and to others that is important in understanding creative motivation. In should also be noted that by describing communication as a part of creativity, SW and WH also point towards the view outlined in the Theory chapter, which describes an awareness of creative validity as distinct from creative significance.

SW: "I think that something that is a common ground between a lot of creative processes is that people want to communicate something. They want to communicate an idea and often communicate something that isn't necessarily easy to communicate with language or with spoken language. It's different mediums which people can use in order to express ideas. I think that's a big part."

WH: "Communicate ideas or emotions."

SW: "Or emotions, yeah, exactly. I mean, communicating complex emotions is arguably easier to do with things like painting and music."

RM and ZB commented upon the emotional and self-reflective/communicative aspects of

creating music.

RM: "It's an escapism."

ZB: "It's hard to put into words. It's almost a form of therapy."

Gardner (1994, p.30) states: "Every art form involves communications on the part of one person to create by means of a symbolic object that the first subject has created, and that the second is able in some way to understand, react to or appreciate." Creative products within the arts, then, are objective and communicable representations of the socially derived experiences, emotions, and ideas of the artist. The meanings embodied by those products are defined through a form of dialogue, first within the artist, as ZB alludes to, and then between artist and audience. The experiences, emotions, and ideas of the artist transformed and reinterpreted in concert with the experiences, emotions, and ideas of the audience. ED commented upon creativity as a form of dialogue.

ED: "If you're the kind of person that listens to music or is a fan of music, and it speaks to you on a certain level that you then think, maybe you're going through some kind of issues or something, you hear a song and you think 'wow, I really get that, I really get that song'. That's what made me start making stuff, because I was thinking 'what have I got to say, what can I bring to the table?'

ED describes the motivation to create as one which stems from a sophisticated and sensitive connection to music as an art form and a desire to be involved with music as a cultural dialogue. Note her use of the words 'speaks' and 'say'. It is a motivation born out of a habitus particularly attuned to art, and to music specifically, as a dialectic medium for lived experience. If a person understands and relates to music in this way, it is natural that some would wish to use it to create products which convey their own lived experiences and be a part of the sociocultural conversation. This is another clear example of creativity used as a set of discursive processes which allow the artist to better understand their thoughts, their experiences, who they are as a person, and how they coexist with the rest of society (Vygotsky, 1971). The creative products that result are the crystallisations of those processes.

Artist's relationships to mainstream society and mainstream culture are often complex, and that complexity can also be a motivating factor. Some participants mentioned a sense of frustration or tension with the cultural mainstream and a feeling that they themselves know better and are capable of doing better. As JM stated.

JM: "Even if it's anger that motivates your creativity, it's like 'I'm fucking going to do better than that, that's a pile of shit that I've just had to experience!' It's not even necessarily music that makes that it's just, like, stuff. How can that, which is so rubbish in my opinion, be so massively popular when this, which I think is the most amazing and beautiful thing, isn't?"

JM's habitus gives him a complex knowledge of what is 'amazing and beautiful' relative to musical domains in a broader sense, but the highly developed nature of that knowledge can create situations which leave who possess it feeling isolated from mainstream culture and frustrated with it as a result. Although delivered calmly and without the slightest hint of anger at the situation, his choice of words does evoke the frustration and tension inherent in the relationship between autonomous and heteronymous poles within cultural fields. The tension was something that was commented upon by ED during the second interview.

ED: "For me the most creative you can be is when the art isn't dependent on capitalism and you're able to take influences from other things and create something new. My album was quite influenced by this guy called John Cassavetes.[21] He was often criticised by critics, but he didn't care; he did something he liked and if other people liked it that was a bonus. If you're coming at it from that point of view then you're top of the creative ladder."

As well as reinforcing the above point about the negative correlation between quality of creative output and extrinsic reward motivation, ED's quote also describes heteronymous and autonomous poles of culture in a broader sense. The general consensus amongst the participants was that music is art and should, therefore, be made with an uncompromising vision, or from an autonomously orientated position. When music is made for mass

[21] An actor and director, known as a pioneer of American independent cinema.

consumption it can be perceived as having compromised that integrity in return for rewards in economic rather than cultural capital, and therefore as being poorer qualitatively relative to music that is seen more as the product of an autonomous focus. Although, as mentioned previously, there is often an awareness that cultural capital can lead to economic capital through transmutation, even when that is not seen as the primary goal of creative practice. This is something that can create tension between artists, management, and labels. An example of this is the relationship between The Clash, their manager Bernie Rhodes, and their label CBS, with the band lyrically, and arguably hypocritically, commenting upon punk's commodification in songs such as *(White Man) in Hammersmith Palais*, *Death or Glory,* and *Hitsville UK* (Linstead, 2010). Similarly, Schlitt (2003 p.7**)** discusses the riot grrrl movement and its commodification by the mainstream music industry through artists like Alanis Morisette; "their music was of the produced, packaged, pop variety that has historically done well on the radio, not the angry punk style of riot grrrl-associated bands." This commodification of cultural movements is succinctly described in the liner notes for Ninja Tune's 2000 compilation release *Xen Cuts*, which discusses the subject and uses a quote which JM attributes to the writer and poet Shane Solanki: "all good things come to a trend". This commercial dilution of what JM described as amazing and beautiful can be a large part of the frustration that artists often feel with mainstream culture. As noted in my Theory chapter, however, autonomous and heteronymous poles do intersect, and ideas and works can cross between the two. The rap group Outkast, for example, were very successful commercially, despite making music that was not fundamentally commercially orientated. Their 2000 single *Ms. Jackson* sold approximately 1.7m units worldwide despite being to all intents and purposes indistinguishable from much of the underground rap music available at that time. Quite why and how underground music occasionally breaks through into the mainstream is a question that is beyond the scope of this thesis. However, commercial success in mainstream music has been studied by scholars such as Cox et al (1995), Power & Hallencreutz (2002), and Smith (2014).

So far, the discussion has centred upon the individual and the 'how' and 'why' surrounding the development of their habitus as well as its context in terms of the participants' social and familial backgrounds. The undercurrent to this has been the social relationships which take place within the field. Within the field of electronic music, record labels play an important role as social and creative entities. It is that role, and interactions with the field

more generally, which are the subjects of the next part of this chapter.

4.5 The Field

The second album that I released was on a Dutch label called 4lux. I had moved from focusing primarily on instrumental music to collaborating with vocalists, and the label itself was a level or so above those I had worked with prior. Creatively speaking, it was a very exciting and satisfying time, but alongside that came a few harsh truths about the realities of the music industry and the field as a whole.

One of the reasons I was able to make that step up was the calibre of the vocalists I began working with. I put together a few instrumentals, structured to support vocals, contacted a number of singers asking if they were interested in working on something, and was surprised at the very positive nature of the responses I received. These were artists who I was actively listening to at that time. Artists whose work I had, and still have, huge respect for. There was a mutual enthusiasm, and very quickly I had the core of what would become that record.

I put a handful of demo tracks online, pushed the links out to one or two bloggers who I was friendly with at that time, and thought nothing more about it as I went about my day. Logging on the following morning I was staggered to see the play counts shooting up into the multiples of thousands. Far higher than the four or five hundred I would usually get. It turns out that while I had slept it had gone low key viral. The name of the featured artist drawing in bloggers and sites who had then written it up and published it themselves. The association with well-established and widely known field members opening my work up to gatekeepers at higher levels than I had experienced previously. Naturally I was thrilled.

I signed with 4lux off the back of that, my decision shaped by their respected position within the field and their enthusiasm for the record itself. The next stage of the process, however, was to lead to disappointment.

Once it was finished, mastered, and slotted into the release schedule, we began promoting it. Putting together press releases and firing them off to contacts in the music media, those who were in a position to make something happen. But nothing did. A few publications wrote it

up, but the real gatekeepers, those with access to tens of thousands of readers, simply weren't interested. There was no 'story'. No hook for the press to catch on to after their initial interest in the demos. As it turned out, the label I was on did not have the clout to get the record picked up via the reflected field position that came through working with them, and it vanished without a trace.

The hard lesson I learned was that the music industry is not a meritocracy. It does not matter how well put together something is if the connections aren't in place to bring it into the field and the domain. I was not part of any particular scene, and I had no significant personal connections with high level journalists or label bosses. It is impossible to build hype if you don't know anybody who is in a position to build it. Nobody to attach their field status to a product and amplify its potential.

I was naïve in my belief that building cultural capital would negate the need to build social capital. While I think that can sometimes be the case, it requires a very high level of ability as an artist and a healthy dose of luck. As it turned out, I didn't have enough of either.

I found it difficult to build up the right kind of connections within the field, but as I established earlier in this thesis, social fields are vital to how creativity is derived, how it is defined, and how it functions. This section focuses upon the role of those fields, in particular the way that record labels organise and produce creative talent and cultural products, their function as fostering the circumstances for creative works, their role as creative entities in their own right, and the role of the field and other entities within it in a more general sense.

Two of the roles which record labels play as part of the field are that of creative facilitators and gatekeepers to the domain associated with their field. KF describes this in terms of record labels acting as creative entities and relates them to musical artists.

KF: "I follow a lot of labels as opposed to general artists, so I'll be into particular scenes. Ghost Box I love because they have a whole world going on with the design as well as the music. It's very mired in a nostalgia for the British '60s and '70s. Something that Boards of Canada also did very well."

The lack of distinction which KF makes between the label (Ghost Box) and the artist (Boards of Canada) illustrates the influence that labels can have in creating products with a distinctive identity. It is a combination of factors, not just musical, that come together to put record labels in a position to act as creative entities. In aesthetic terms, these labels produce works that can be considered gesamtkunstwerk, a German term which translates to 'total work of art' or 'universal artwork'. Moholy-Nagy (1969, p.17) described gesamtkunstwerk as "the attempt to bring together into one entity, singular works or separate fields of creation that were isolated from one another". Record labels such as Ghost Box and Ninja Tune do this through bringing together music, sleeve and logo design, vinyl record and CD label design, coloured or picture disks, music videos, promotional posters, and the more creative aspects of marketing. This places labels as producers of gesamtkunstwerk, the audience responding to the diverse elements which make up the overall product as parts of the experience that the product represents. Part of what allows labels and by extension, fields, to function in this way is the ability of those in charge to bring together the right people, something JM commented upon.

JM: "Our main skill, actually, is collaging people. Putting things together and figuring out what's going to work and what isn't."

This quote recognises the importance of bringing together the right people for the label to function as a collective and inherently social creative entity. It is a description of using the combined cultural, social, and economic capital of people associated with the label, from the bosses to the mailroom staff, in such a way as to create a cultural product which is greater than the sum of its parts, or a gesamtkunstwerk. JM's experience of having run Ninja Tune successfully for 30 years gives him an inherent feel for which people are going to fit within the organisation and contribute to the economic and cultural success of its products and which are not. That feel is a part of an exceptionally well-developed habitus in terms of understanding the field. In some ways conscious and considered and in some ways instinctual, JM's habitus gives him clear notions regarding what Ninja Tune as a label is and should be as a creative entity, and the kind of skills needed to inform and develop that creativity.

Intrinsically linked to the how record labels act as gatekeepers to the domain is their

association with the field's doxa. This gatekeeping role is one in which creative ideas are assessed by notable entities within the field such as record labels, journalists, and promoters for their appropriateness to become part of the domain based upon their understanding of the field's current doxa, the state of the domain at that time, and how the work conforms to and breaks away from that domain and doxa. As discussed earlier in this thesis, some fields are more receptive than others in terms of what constitutes a valid or significant creative work. Gatekeepers look at a work relative to the field and derive a response, ranging from ignoring the work entirely to supporting and promoting it for acceptance into the domain. That response is often a large factor in determining how much exposure the wider field have to the work. If the work is accepted by the field as creatively valid or significant it becomes part of the domain, and its conceptual ideas introduce new perspectives on the field's doxa. JM describes doxa, though he did not use that term, describing it instead as 'rules and regulations'.

JM: "There is also 'the scene', whatever it might be, heavy metal, country and western, J-Pop, or whatever, and within that scene there are rules and regulations. If you're into heavy metal there's no point in signing an act that hasn't got a certain amount of those elements because from a strictly business point of view it's kind of pointless unless they've got something that is so special they're going to rip that scene apart and make it amazing."

JM's description of an artist that is 'so special they're going to rip that scene apart and make it amazing' is an interesting one. He refers here to artists who produce work which is creatively significant. By 'ripping the scene apart', those artists are proving that a field's doxa is not a rigid set of rules, but rather a guiding structure that is open to reinterpretation, and in doing so they revolutionise elements of how the field experiences itself. Works like this are rare, and it is this rarity that JM alludes to when he mentions seeking out artists who are the 'top of the pile'.

JM: "In some respects what we're looking for is 'the one', so it's the top of the pile. We have Cinematic Orchestra so we don't want someone who sounds like Cinematic Orchestra or someone who sounds like the one who sounds like Cinematic Orchestra. We want artists who sound unique."

WH and SW also describe the importance of uniqueness as an important factor in creativity.

WH: "In terms of artistic endeavour, you are being more creative if you are presenting something that is some ways different from what has previously existed."

SW: "That idea of, like, you're listening to something and you're expecting it to go in a certain direction and then it goes in a slightly different direction. I always enjoy that sensation. I think that's definitely part of creativity; creating new sound worlds that you might not necessarily have experienced before."

I asked the participants what makes an artist unique;

OT: "It's that not necessarily quantifiable thing. It's like 'where does the creativity come from', we're not really conscious of this stuff I don't think."

This inability to pin down what represents creative uniqueness can be explained by the fact that the participant's understanding of the field is so well established through many years of practice and their embodiment of field habitus is so complete that it is like asking them to describe a fundamental part of their own humanity. Their inculcation of the field's doxa is such that to them, creative uniqueness, when framed in those terms, is something that 'just is'. However, they show the ability to determine and describe uniqueness more indirectly, as OT, KF, ZB, and WH indicate below in discussion of artists they consider particularly creative.

OT: "For me, Alchemist is a producer who's been around for many years but since about 2012 his music has taken on a quality to it that is far more interesting to me. I feel that hip-hop became too over-produced and slick sounding during the first 15 years of the 21st century. In the last few years, I've noticed a movement towards a less produced, rawer and more lo-fi sound. There's almost an anti-production ethos with artists like him and several others like MF Doom and Roc Marciano that I find really interesting."

ZB: "As far as electronic music goes, and my obsession with breaks, it's definitely Photek. His drums just sound like no-one else's. I've spent days, like, dissecting them, figuring out what parts of what breaks he's used. I still never come close to doing anything like what he

did."

KF: "I would probably hold Boards of Canada up as a very good, precise, example of something that I'm into. Incredible melodies, they're taking influences from all sorts of places and putting them back in but never literally sampling. They're creating memories. You almost hear things you've heard before in their music but it's not a sample. They're recreating a feeling of lost nostalgia."

WH: "I think there's that sweet spot. That's why I mentioned that Moses Sumney thing before. I really like that because it sounds like a combination of things that I haven't heard an exact version like that before. From a production point of view, it's very classy, it sounds amazing, but also musically and melodically. It's like the baring of his soul in that *Aromanticism* album."

These descriptions show a deep understanding of the field and how Alchemist, Photek, Boards of Canada, and Moses Sumney exist as influencing forces within it. OT's description of hip-hop as overproduced shows an understanding of a particular creative aesthetic which he personally rejects in favour of what he describes as an 'anti-production ethos'. This tells us about an element of his own understanding of, and approach to, production and also how he sees and values that approach in others. We can infer from this comment that OT considers works which are not 'over-produced' to, in some contexts at least, have greater creative value than those which are. Similarly, ZB focuses on the concrete production elements of Photek's work, specifically in terms of how he produces drums, illustrating that he places value on how those drums are produced and programmed, and also on how the samples which they are sourced from are selected and used.[22] KF's description of Boards of Canada's work differs from OT and ZB in that it is centred more around his reactions to the music more than the objective content of the music. Boards of Canada's work connects so closely to his understanding of the field that it provokes a sense of familiarity, even when the work is completely new to him, and he describes feeling as though he has heard elements of that work before. WH's quote on *Aromanticism* also differs slightly. In describing why he considers that record to be a particularly unique creative work, he talks about the

[22] Sampling is a very important part of electronic music production and is discussed further in the next section.

production and musical elements but also takes a humanist view by connecting the record's creativity with the artist's personal expression. The previous section of this chapter discusses communication through music, and we can view WH's quote as acknowledging a particularly effective example of that. As he describes, it represents a set of musical elements that he has not previously heard in that combination, but done in such a way as to have a feeling of familiarity to it. It conforms to enough doxal ideas to be recognisable, but it breaks away from enough doxal ideas to be considered creatively valid and/or significant.

The journalists, publications, radio shows, and more recently podcasters and social media influencers, which make up the music media are important field members within electronic music. Their role is similar to that of record labels in that they act as gatekeepers to the domain. If a record or a track is selected by the media as one which has validity as a creative variation on existing domain knowledge or doxa they have the power to promote that work, retain it as part of the domain, and expose it to the field at large. As discussed in the Theory chapter of this thesis, in Csikszentmihalyi's Systems Theory of Creativity (1988), field exposure, receptivity, and acceptance are vital because without them the work cannot become part of the domain, will not reinforce or evolve the field's doxa, and will end up being less well preserved than works which are accepted. Only those works which are selected and preserved as part of a field's attendant domain of knowledge are considered to be truly creative. This idea ties in with theory describing big C and small C creativity (Richards, 2007). Big C creativity describes creative acts which are significant enough to be accepted into a domain, and as such have some impact upon the nature of that domain, and in Csikszentmihalyi's view, it is these works alone that are considered truly creative. Small C creativity describes the small creative acts which we engage in every day; finding an alternative route to work due to a road closure, for example. The problem with this is that it is a very binary system. To mitigate that, Kaufman & Beghetto (2009) proposed the addition of the pro C category. This category refers to work which is produced with a high level of skill and as an intelligent response to the domain but that for one reason or another is not itself accepted into the domain by gatekeepers. Many music producers fall into this third category, producing high quality work which is not widely accepted by gatekeepers within the field and does not become widely known.[23] Creative works which fall under this category

[23] I would largely place my own work as a producer into this third category. I've had one or two things that have done quite well but nothing that's really been very significant to the field.

can be said to conform to the Bourdieusian and Vygotskian views of creativity which are described in the Theory chapter. In this view, valid creative works are crystallisations of the process of socio-cultural dialogue as transformed through an individual's experience. This dialogue is one which is to a large extent hidden from the wider field because it primarily takes place internally, and is presented in the abstract through the creative works which that person produces. The result of that internalised and abstract nature is that many artists experience frustration with how they and their work are viewed and described by other entities within the field. ED commented upon this.

ED: "I got some reviews the other week for my album. I really appreciate them, and the work that goes into the writing, but I sometimes disagree with some of the things they say. One said something like there were no 'real world' instruments in there, and referred to my melodies as 'quasi classical' and that wasn't accurate because I've been trained in music theory and piano and all that. OK, so you've given it four stars and obviously you've said a lot of nice things about it, but pointing stuff like that out comes across as a little bit privileged."

ED: "Another said there was no focus to Ryan Gosling in Space, and that it drifted around too much. I totally respect their opinion, but what is Ryan Gosling floating around space? Is that focused? No, it isn't. I didn't feel like they understood where I was coming from with it, but you can't control how people perceive things."

It should be noted that, while ED's work, along with the rest of the participants, has generally been accepted by gatekeepers, her frustration with the role which the media plays in that acceptance is evident here. Her use of the word 'privilege' is of particular interest. The review ED refers to came from a well-known and influential publication, putting it in a powerful position to decide what should be accepted into the domain. Music media gatekeepers are in a position to decide what represents big C creativity and what does not. This is the privilege that ED references, and her frustration with the misinterpretation of her work is obvious. Why should the media have this power when they cannot understand in any depth the nuances of the individual socio-cultural experiences represented by those artists? On the whole, a good journalist, podcaster, or radio producer will understand the domain as well as any artist, but the disconnect comes because they will generally not have the same kind of domain knowledge, or the same kind of lived experiences of creating music, as the

artists they discuss. Add this to the above-mentioned point about the inherent difficulty in understanding the constitution of the creative person's lived experience, and their perspective on the domain, and there is a recipe for frustration for both parties - particularly for the artist. This can result in an 'us and them' relationship between artists and the media, with many artists frustrated that the media has the power to make judgements on creative validity without having the same personal understanding of the experiences, interactions, and domain knowledge from which those creative works stem.

Another function of the field is educating individuals seeking to contribute to that field and its domain of knowledge. As discussed earlier in this section, there are certain 'rules and regulations', or doxa, related to musical genres which give those genres their perceived identities. Habitus, domain knowledge, and doxal understanding vary from person to person depending upon their own exposure to the field and understanding of their place within it. This results in relationships between field, doxa, and habitus continually evolving; powered by changes in viewpoints as new agents with new ideas come into the field and as the field alters as a result. JM made reference to recently signing Floating Points, an accomplished producer who has a good understanding of the domain and doxa of the field of electronic music, not just from a musical standpoint but also from an industry standpoint.

JM: "We've just signed Floating Points for example. He's very, very, particular about how things work, he's got a very good understanding and overview of the industry, and to us that's actually an advantage."

The advantage which JM refers to comes down to not having to work as hard with that artist to teach them the industry elements of the field's functionality. The fact that Floating Points is particular about how things work shows that he has an understanding of the field, its receptiveness to new ideas and the nature of those ideas, and its processes of determining creative validity. The advantage that JM refers to is therefore one which is based around Ninja Tune as a label not needing to develop those areas of his habitus, and not having to teach him how the field and its values in terms of determining valid creative variation operates. In effect, JM is saying that they can hit the ground running with Floating Points as an artist.

The current situation within electronic music as an industry is that most artists endeavour to develop an understanding of the field and its processes on their own, through acquiring experience with smaller labels and build up social and cultural capital as they work their way up the ladder, ultimately seeking to transmute that capital for the improved field position associated with working with larger, well-positioned, labels such as Ninja Tune. This is not to say that is always the case, or that labels always look for an individual with field knowledge as well-formed as that of Floating Points, as KF explained.

KF: "If you can see or hear in that person something unique, even if it's tiny, and you know that that person has got the potential to develop that or you can help them to develop that."

KF was referring to his own development, described in more detail earlier in this chapter, and his quote illustrates the fact that with the right combinations of social and cultural capital it is not always necessary for the individual to have developed a full understanding of the selection processes of the field. The term unique is used again here, as a way to describe an artist taking an approach to music making that demonstrates a character or understanding which builds upon rather than simply reflects the knowledge within the domain and the doxa of the field. It may be that that uniqueness is a very small element of what the artist does, but an experienced practitioner or a record label can help the artist to grow that element by providing knowledge of the field and wider exposure to the rest of the field facilitated by social and economic capital.

So far, we have considered some of the social context in which electronic music is produced and focused on musical movements in a general sense. We have also explored in more detail how those social networks structure the field, how they influence the production of creative works, and how they play a part in defining what we understand as creative. But in order to develop habitus and produce music, an artist must use technology, and It is that topic which we turn to next.

4.6 Technology and Affordance

It is probably fair to say that back in the late '90s few of us were prescient enough to

understand the vast changes to music technology that we stood on the cusp of. We were using computers to make music, but they were typically very basic and used as platforms for MIDI sequencing rather than as the hub of the studio environment. The mixing desk and the reel-to-reel tape were king, and computers provided little more than a medium for synthesis, some basic sampling, and as triggers for various sounds and effects. A useful tool to be sure, but a far cry from where we are now.[24] *In all honesty, I cannot speak too directly about using computers within the studios I was used to at that time because their functions didn't quite seem to fit with where my peers and I were at that time musically speaking. Looking back though, they almost seem noticeable by their absence. If that technology was more accessible, and our understanding of it a little more developed, it seems inevitable that our approaches to, and uses of, the studio would have been vastly different. It is a lot more straightforward recording, editing, and experimenting in a DAW than it is using 1" tape and outboard hardware, and that means there are fewer limitations on what it is practical for most people to achieve.*

It would only be a few short years before everything changed. We were a little further up the steep slope of exponential growth in the capabilities of computer technology and associated software to revolutionise how we think about and produce music. Rapidly expanding storage capacities and increasingly powerful processing units meant that for the first time the entire functionality of a recording studio could realistically be replicated within an increasingly affordable everyday piece of technology. Studio time was no longer expensive and limited, and this meant that those like myself, with a little knowledge of the nuts and bolts, were able to spend as long as we wanted developing our nascent abilities and figuring out for ourselves how to push them in the directions we wanted to take them.

The two pieces of software that I picked up when I first got my own PC were Cubase SX and Fruityloops 4, and I used them both more or less equally for a time, drifting between one or the other depending upon my mood. I quickly found that, while each offered more or less the same overall capabilities in terms of what you could potentially do with it, they were different in terms of how they presented those capabilities. Cubase very directly reflected a

[24] There were, of course, a lot of very creative people already using computer technology in very creative ways at that time, but we were young and, in my experience, not really able to conceptualise that kind of thing yet. Plus, the college where I first learned about this kind of thing was quite a rock orientated environment in which computers were often seen more as secondary tools.

traditional studio environment, focusing upon audio channels and FX plugins. Fruityloops placed what was effectively a drum machine front and centre, offering easy experimentation with internally synthesised sounds and a wide variety of bundled samples. Eventually, and in particular because I began to incorporate a lot of audio recording from live instruments into my music, I gravitated towards using Cubase as my sole platform for music production. I know when I sit down with the seed of an idea it will provide the path of least resistance for my workflow because my workflow has developed alongside the development of the software through many different versions and over many years.

How much of a difference my choice of this software over another package has made to my musical style is impossible to say, although it is interesting to note that when I sit down with a new piece of DAW software I will automatically gravitate towards certain styles depending upon what is put in front of me. Over time, were I to learn that package thoroughly, I would expect the differences to even out, but it is very obvious how different systems place you in different positions relative to their functionality.

As I have described above, we all have our preferences when it comes to the technology we use, so it is important to understand the nature of those connections in understanding creativity. This section covers the technology used to create electronic music and the affordances brought about by that technology. Gibson (1979) states; "the *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*."[25] Affordance theory presents us with the world as an ecology of potential actions, which, when our habitus enables us to perceive them, allow us the opportunity to take them. Gibson gives the example of a flight of stairs and the affordance those stairs offer us in terms of climbability. In terms of music and music technology those affordances are complex systems which are intertwined with the musical and technological habitus of the individual. A synthesiser, for example, offers different affordances depending upon the user's synthesiser habitus. Some will perceive those affordances in terms of a collection of preset sounds. Those with more well-developed habitus will perceive those affordances as a system which can be used to create near infinite musical, and not so musical, sounds from scratch. In a wider sense, affordances are also derived from our socio-cultural conditioning. For example, language

[25] Emphasis his.

provides affordances in terms of how we use it to shape and define our thoughts. Being from the UK also provides certain affordances; in musical terms we are exposed to certain musicians and sets of musical ideas and values which will be different to their equivalents in other countries. That exposure and those ideas and values provide certain affordances which offer certain pathways for stylistic development and, thus, creative action.

Internal affordances are similar to the wider socio-cultural affordances mentioned above because they are socio-culturally derived. We learn about the domain and doxa of creative fields through indirect social interactions such as listening to music, and direct social interactions such as discussion with other field members, before mediating those experiences and developing our perceptions of their affordances internally. We observe, discuss, and partake in creative activity throughout our lives and through that derive our creative habitus and ability to perceive affordances for creativity. A creative habitus which presents each individual with a unique set of affordances for creative action based upon their experience in interacting with the domain and results in a unique creative style. All creativity is contextual, depending upon the materials and psychological tools available to the individual. Those tools represent unique sets of affordances from which we derive the nature of the creative thought and the creative action.

Let us now explore the links between technology, habitus, and affordance, and the nature of the tools and systems associated with them. To begin, let's look at how perception of affordances crosses over from DJing to music production as described by OT and MF.

OT: "Because I came to DJing through hip hop, which was all about scratching and cutting doubles of the same record back and forth, it seemed logical that the same process could be applied to create tunes."

MF: "I was a DJ and I just wanted to scratch and maybe make DJ tracks, and that was the start of my personal journey. I basically got an Akai S950 sampler, and as a sequencer we had an Atari 1040ST. It was all very basic, but it was just a means to be able to sample things and put them together and make the kind of hip-hop I was hearing."

There is a large crossover in terms of skills and, therefore, perception of musical and

technological affordances between those who are interested in DJing and those who are interested in music production. For example, a DJ mixing records must have an excellent understanding of, and feel for, musical structure in order to place mixes so that one record flows into the next. They must understand musical keys so that records do not clash harmonically or so that those clashes can be minimised or mitigated through technique. They must understand musical dynamics so that the overall structure of their set makes sense to the audience and within the context in which they are playing. A DJ scratching must have an excellent sense of rhythm and musical timing. They must understand the fundamentals of composition in order to know how and when it is appropriate to add scratching to compliment the music rather than distract from it. A DJ must be comfortable with technology and able to use it effectively to achieve a given set of musical aims. Above all, a DJ must have a very deep and wide knowledge of music and enough passion for it to spend many hours developing their skills. These skills allow DJs to perceive the same affordances in music production as in DJing because they are based around the same kinds of intimate understandings of music and technology. Once the individual has adapted to the different technology, they are able to transfer those perceptions into music production using the same internal processes they have used in DJing.

In several of the participant's cases, computer technology and digital audio workstation (DAW) software at the time they started producing was either non-existent or not advanced enough to be a practical means of music making. The technology they used at that time consisted of equipment such as turntables, samplers, synthesizers, drum machines, 4 & 8 track tape recorders, and analogue reel-to-reel recorders. The participants described their early experiences of making music and the technology they used.

OT: "By 1987 I was already attempting to make tracks, albeit without a sampler. I borrowed a 4-track tape machine from a musician friend of my parents and laid down the drum track by cutting double copies of breaks and then layered other samples in over the remaining 3 tracks."

RM: "I actually started off with a sampler, a huge cumbersome thing that I actually took touring. I mean, you wouldn't dare think of that now!"

JM: "We had a very basic set up: 2 Technics SL1200s, a DJ mixer with a sampler that you could get a single bar loop going on. A Maxim delay, a Casio RZ1 drum machine, and a 4 and 8-track cassette recorder. We made our first four records using that setup."

Relative to today this technology can be considered very basic. However, even these basic technologies offer affordances to produce complex and multi-layered pieces of music using techniques such as overdubbing, multi-tracking, and mix bouncing if the user understands enough about music and has a sufficiently developed technological habitus to perceive those affordances.[26] Mix bouncing in particular offers affordances far beyond the limitations of a four or eight track recording device, theoretically offering the user the capability of recording infinite instruments onto infinite channels.[27]

Limited access to the economic capital needed to buy more expensive equipment meant that many electronic music producers had to make do with the relatively limited resources available at that time. Alhough limited, basic technology can act as a liberating force for creativity and allow artists to drive it in new directions shaped by the affordances presented by the limitations of that technology and their ability to work within and around those limitations.

MF: "I had plenty of friends that never made any music because they were all too busy worrying about 'well I just need to get this next bit of technology, then I'll have the sound I want'. I used to think 'well, maybe just concentrate on the stuff that you've got, and have some fun and experiment', which is kind of what I did. Limitations force creativity, in a way."

Affordances presented by technology, either intentionally through design or otherwise, provide pathways by which the creative process propagates. This raises a question: how much of the character of a cultural product is a direct result of the technology used to create it? The answer to this is murky and will be largely dependent upon the cultural product in question. However, it is undeniable that some cultural products and some pieces of

[26] Mix bouncing is a technique whereby several audio channels are recorded, processed through a mixing desk, and rerecorded ('bounced down') onto one channel of a second recording device, famously pioneered by Brian Wilson on the Beach Boys' 1966 album *Pet Sounds*.
[27] There is a limiting factor, however, in what is called multi-generational degradation. Each time a recording on an analogue source is bounced to a new analogue source it loses a degree of sound quality.

electronic music are fundamentally shaped by technology. One only needs to look at the distinctive sound of '90s hip-hop for examples of this. Many of the producers who were part of that movement; J.Dilla, RZA, and DJ Premier, for example, made extensive use of samplers such as the E-MU SP-1200 and Akai MPC 3000. The resulting music differs according to who produced it but is similar in that it often consists of the same basic building blocks: chopped and looped breakbeats, short musical elements taken from obscure records, individual hits and sounds from diverse audio sources etc. Those samplers were essential in creating the distinctive musical sound associated with hip-hop of that era and, while the affordances they offer are broad enough to allow the skilled producer to use them distinctively, they are limited such that there are strong similarities in how producers used them and in the products those producers created. The technology allows the habitus freedom through its affordances, but it is a freedom that is shaped by that technology. Technological context is both liberating and restraining, a trade-off of sorts.[28]

Of course, the technological landscape has shifted dramatically between the 1980s, when some of the older participants started producing, and now. Apple, for example, bundle a copy of their digital audio workstation (DAW) software, Garageband, with every copy of their operating system. This practice has democratised the use of multi-track recording software and presents it as something which everybody can and should have access to. Similarly, major multi-platform DAW manufacturers, such as Steinberg and Avid, offer basic versions of their software for free, and numerous open source or otherwise completely free DAWs exist for those wishing to record and to multi-track music and audio on their home computer, laptop, tablet, or phone. Just because those affordances exist within the mass market, however, does not mean that everybody who is able to take advantage of them is able to perceive and use them, be motivated to use them to make music, or use them to develop a habitus which allows them to contribute to musical fields. Affordances exist within the relationship between the individual, the social and the technology. The technology presents the user with affordances, but perception of those affordances must be derived by the individual through their sociocultural experience.

The importance of technology and the affordances it provides was commented upon by both

[28] That restraining effect can be desirable too. See below, where OT talks about the narrowing down of parameters.

RM and SW.

RM: "For me it was always about bending the rules. There are no boundaries really. I mean, if you think about it, technology allows us to be as weird and wonderful as we'd like to be."

SW: "What's amazing about technology is that it just gives you so many options for sounds that you can make and routes that you can take in your creative process. I think technology is like the other collaborator in the room."

What is particularly interesting to note here is SW's anthropomorphisation of technology. His description paints it not as a more or less passive catalyst but as an active collaborator in the creative process, presenting affordances to the producer. The notion of technology as collaborator has been discussed by academics including Klett & Gerber (2014), Van Nort (2006), and Tan (2012). Tan's study of mathematics students and their use of advanced calculators found that those who viewed and used those calculators as collaborators, as opposed to viewing themselves as subservient to the technology, did so with a high level of sophistication and utilised a 'connected knowing' approach. A concept rooted in the world of pedagogy, Galotti (2004, p.533) describes connected knowing as "discovery of a personal connection between the individual and the thing, event, person, or concept under consideration". Marrs & Benton (2008) state that connected knowers "may be open to the voice of intuition or interpersonal experiences when constructing knowledge". From this information we can infer that music producers like SW, who feel the role of technology to be a collaborative one, can be said to engage with it as part of a sophisticated process that is highly personal and intuitive. The latter two adjectives are covered in detail elsewhere in this thesis, primarily in the sections on motivation, creative production, and reactions to creative works respectively. The first adjective, sophisticated, requires a little bit of discussion here so we can understand how it relates to affordance.

The sophisticated nature of a producer's relationship with technology comes not through the complexity of the technology itself but from the producer's understanding of the technology and their ability to use it to achieve what they want to achieve. This does not necessarily mean engaging with the high-level affordances offered by the technology, but

finding and exploiting the affordances which allow the producer to create what they wish to create. Even where technological affordances are very limited, a skilled producer will find sophisticated ways of working around those limitations to achieve their goals. The sophistication of the relationship between producer and technology, then, is rooted entirely in the habitus of the individual and how they express themselves relative to their perception of the affordances offered by the technology, rather than inherent in the technology itself.

The affordances offered by DAW programs and their attendant effects plugins, as well as those offered by the equivalent hardware, fundamentally do one thing: process audio. Audio processing is a term which covers a lot of things, from complex processes such as algorithmic and convolution reverbs to simple processes such as cutting large elements of recorded audio into smaller and more useable chunks. ED and SW commented upon audio processing as central to their understanding of what electronic music is.

ED: "I would describe it as any sound that's been processed by a machine, by something with an electrical current."

SW: "You can make electronic music only using an acoustic guitar, and then Ableton to make it stuttery and chop it up and pitch it up and down, and suddenly you've got electronic music." [29]

ED: "If I'm trying to take a sound and place it in an imagined world, with reverb and delay and stuff like that, then the effects are limitless and that's the most interesting bit I think. That's the paintbrush strokes really and that's what makes it an imagined electronic space."

These quotes describe the affordances offered by technology as being at the heart of what constitutes electronic music as a practice. They offer those with the right sort of knowledge and skill the opportunity to create unique sound spaces outside of the boundaries of physical reality, allowing them the ability to step away from our ordinary existence and create hyper-realities. Spaces where they have complete control over the height, width, and depth of a sound, as well as its tone, timbre, harmonic relationships, and rhythm. This power

[29] Ableton is a popular DAW.

is one which is reflected in the kind of adjectives producers use to describe sound. Terms such as icy, deep, distant, dry, wet, resonant, punchy, dirty, filtered, bright, and clean are used and commonly understood by the majority of practitioners within the field. They are all terms which describe the quality of a sound, with the technology offering the producer affordances related to the nature of those qualities. The competent producer is able to use those affordances, presented through the interfaces in technologies such as DAWs, effects units, or mixing desks to create, shape, and combine abstracted representations of the raw materials of recorded sound.

The opportunities for users with well-developed habitus to use technological affordances in ways far deeper than would appear feasible at first glance are numerous and can make for results that go beyond that which the designers of the equipment originally intended. A good example of this is scratching. Turntable manufacturers such as Technics initially did not intend for their equipment to be used for anything other than playback and mixing. However, DJs began to perceive and exploit the affordances for stepping outside of those boundaries, and developed the techniques now associated with turntablism as a way to show their high level of skill and please their audience. Turntable manufacturers then adapted the technology to that, through changes such as increased motor torque and smoother pitch control, with a wide range of DJ equipment, such as the classic Technics SL-1200 series, now designed with those practices in mind. Another example of this is the sampler. In 1985, E-mu Systems released the SP-12, which was designed for drum sampling and intuitive playback. However, hip-hop producers began using them to sample snippets of music, as well as drums, and using them to produce entire tracks. E-mu realised this, and quickly released a new version, the SP-1200, which quadrupled the internal memory and allowed for longer samples to be recorded and used, giving greater flexibility to producers. The SP-1200 then became a mainstay of hip-hop production, particularly during the 1980s and 1990s. We can correlate these examples with the Systems Theory of Creativity. Techniques or sets of techniques, developed by individuals disrupting existing knowledge and patterns of use, are accepted as valid creative variations by technological fields, and become a part of their domains. SW gave a good example of the relationship of affordance between musicians and technologies.

SW: “I was watching a video recently about the influence that J.Dilla had on drummers, I

think Questlove commented upon that. So you've got this sound that basically was only really possible through creating music on machines, and now, drummers, particularly in jazz, are obsessed with trying to get that swing and that sound of an MPC groove. [30] So now you've got a situation where before people were working with machines trying to get it to sound like real instruments and now people are playing real instruments trying to get it to sound like machines."

This example describes more or less the opposite of the earlier example of scratching. That example saw technology adapting through affordances perceived by musicians, while this quote describes musicians adapting due to affordances offered by technology. There is something of a disconnect between musician and technology here. While the relationship of affordance between DJs and turntables is a direct one, the relationship between drummers and samplers is not.[31] The affordance perceived by the drummer is, therefore, one which is rooted in the musical rather than the technological. The drummer perceives the potential for adapting his playing style to the looser grooves brought about by other musicians, particularly hip-hop musicians, making use of the swing function on their samplers. New and wider affordances for creative thought and action brought about by a system comprising musicians, technology, and music.

Musical affordances can be deep and long lasting, offering a great depth of potentiality, or they can be shallow and limited, offering what could be described as trends within the field. An example of a deep set of affordances is the famous Amen break, a drum break from the 1969 track *Amen Brother* by The Winstons, which has been sampled and used by hundreds of producers since its first recorded use as a sample by Steady B on his 1986 track *Stupid Fresh.* Shallower affordances can be found in short-term stylistic choices such as the use of 'chipmunking', a technique popular in the late '00s through the mid '10s, where vocal samples are pitched up beyond the range of ordinary singing.[32] This technique is very easy to

[30] Swing, also known as humanize, is a function which loosens the timing of individual sample hits within a loop on a sampler or in a DAW. The idea is that it allows the producer to more closely recreate the minor (or major) timing errors present when humans play instruments. It is most commonly used with drums.
[31] While there are undoubtedly some drummers who use samplers, it is far from a common thing, particularly due to the fact that the samplers best known for the groove which SW mentions are now rare, expensive, and difficult to use relative to more modern technology.
[32] While the technique was popular at this time it was developed significantly earlier. RZA's productions from the 1990s, for example, often featured the technique.

achieve, and, once it became a popular part of the domain, the potential for others to recreate the technique was widely perceived. This resulted in a short term trend whereby the affordances the technique offered were relatively rapidly used to their limit and the field moved on. By contrast, the affordances offered by the Amen break are still being explored by producers nearly 40 years after they were first opened up to the field. The reason for this is that the Amen break offers a wider range of deeper affordances to the producer by virtue of its unique and recognisable tonality, timbre, and rhythm. There are virtually infinite ways that it can be chopped up, rearranged, layered, and contextualised. Chipmunking, while it is an effect that can be applied to any vocal sample, only ever results in a very predictable set of outcomes, and therefore the affordances it presents are far fewer. However, even deep and well-established sets of affordances such as those offered by the Amen break can become clichéd. This can result in pushback, as ZB describes.

ZB: "The thing with the jungle scene at the moment, and I suppose it's been like this forever, is its pretty much always Amen breaks, or Lyn Collins' *Think*, or there's another one called *Hot Pants.* They're really easy to chop up and use in a track, they're very good for dance music especially, but I use a lot of breaks from, like, Italian library records and things like that.[33] I like to think that sort of gives me a little bit of an edge in that scene."

What this means is that artists consciously engage in processes of choice in terms of which affordances they use and how they apply them. ZB is aware of the affordances offered by those particular breaks, but he does not use them because he sees them as overused. This is a facet of the sophistication of his habitus; a sense of over familiarisation with those affordances pushing him to seek out less obvious creative pathways for his own music as a way of distinguishing it relative to the rest of the field.

In this section I have discussed how technology offers affordances for creative production and how artists relate to, understand, and utilise those affordances. It is clear that the technology, the user's interactions with it, and understandings of it play important roles in the process of creative production.[34] What I would like to do now is move on and look more

[33] The term 'library records' refers to music that was released, usually royalty free, for use on film and TV and suchlike. They are a popular source of samples for producers looking for more obscure content.

[34] There is potential for much more technologically orientated research which looks at technology and affordance in more detail than I was able to do here. It is an angle which is very rich, and ripe for deeper

directly at creative production in terms of how closely the reality of the participants' creative process tallies with what we know from the theory.

4.7 Creative Production

The first thing that I do when I'm putting together a piece of music is lay down a drum track. There are a number of ways to do this: sampled loops, MIDI instruments, drum machines, and programming. The approach I usually take is slow and laborious, dropping samples of drum hits into Cubase, and then arranging them using the grid which snaps them to a given time signature. Effectively, I use the grid like a drum machine, and it's not very efficient, but it offers a great deal of flexibility and control over the nature of the sounds and rhythms, and how they come together.

I will typically already have half an idea in mind when I sit down in the studio. Whether it be a notion of how I want the track to feel, a certain meter that I want to experiment with, or simply a broad conceptualisation of a genre I'm working within. Naturally, this will inform which samples I pick, which associations of ideas I focus on, and how I approach thinking about the rhythm pattern itself.

What follows is a period of experimentation. A process of incubating the core of my ideas through playful and sometimes frustrating trial and error. I am experienced enough to know that if I do X then Y will occur, but the first problems occur in those moments when I am looking to step outside of X and Y. This is a natural part of the process, the fuel which drives growth in ability, and what ultimately makes music interesting to listen to. If our favourite artists suddenly stopped experimenting with new concepts and new forms, we would likely get bored very quickly. It is having an understanding of the conventions of the style that you are working with, and then looking to step outside of them. The reason that it requires a great deal of trial and error is that we as creative people have not yet conceptualised what it means to step outside of convention in that context.

exploration within the context of electronic music production. For more on the role of technology in electronic music production see Collins & d'Escriván (2017), Warner, D (2017), and Holmes (2020).

Eventually something will click. It's impossible to predict what exactly, but some combination of kicks, snares, and hi-hats, some application of a specific effect, or some sound that comes completely from the left field, will strike sparks within the rhythms and cadences coming out of the speakers. Once this focal point is created, it often feels a little bit like filling in the blanks. The beat has something to pivot around now, and it becomes a question of building supporting structures around that. Testing and elaborating to see what best serves its purpose. What also occurs here is a process of sonic refinement; layering and tweaking and adjusting each hit to inject a humanity into the overall feel. Drummers do not play like robots, and the human ear is very sensitive to artificiality, so many of us believe in pushing back against the rigidity of the digital medium. Looking for a middle ground between man and machine.

It is difficult to say at what point it reaches an equilibrium, but I tend to notice it when it arrives. At some point during the elaboration, it simply seems as though nothing more should be added and nothing taken away. It will start to have a feel to it. It will start to sound like a piece of music in and of itself rather than just a simple drum beat. I understand that it does what I need it to do.

So far, we have looked at the notion of electronic music and what it means as a term, and at the field and how certain elements within it function. We have looked at the early lives of the participants and how that, alongside the accumulation of their social and cultural capital, relates to the development of their creative habitus. We have looked at motivation, both in terms of what motivates the participants and more widely, and at the affordances offered by technology. This section will dig a little deeper into the creative processes of the participants and look in more detail at how they actually go about creating works. JM spoke about making *Doctorin' the House*, an early Coldcut hit which saw chart success.

JM: "When we were making *Doctorin' the House* there were plenty of hours of messing about with various bits of equipment that we had. Matt was into synths, nobody wanted them at that time, so they were really cheap bits of kit and we'd mess about with them. I said to Matt 'oh, play a bassline' and he just played it. There were house records around and there were basslines vaguely like that and he was just responding to what was current."

What JM describes is Matt's habitus responding to the domain of electronic music as it was at that time and his enaction of that habitus in terms of playing a particular bassline in a particular context. His absorption and processing of the domain and doxa of the field drove him to play certain things in certain ways as a reflection of the knowledge absorbed, and he was then able to adapt that knowledge himself, without the need for further input. What this shows us is the Vygotskian view of creativity as stemming from the domain, and mediated and developed by the individual, something which is discussed in the Theory chapter of this thesis (Zavershneva & van der Veer, 2019). Matt knew what to play because he had derived knowledge of what was appropriate to play from the contributions to the domain of electronic music, and music more generally, made by other field members, and he was then able to adapt that knowledge to fit his own creative context. WH described a similar aspect of creativity.

WH: "I was actually listening again to *Remain in Light*, a Talking Heads album that came out a year before I was born. It was amazing listening through the album and really enjoying it but also hearing a lot of the musical ideas that me and Simon often come up with. My parents used to play Talking Heads a lot when I was a kid so, it made me realise that even though I hadn't really consciously absorbed it that much when I listened to this album I heard so many things that made me go 'yeah, I like it when things sound like that.'"

While this quote also describes drawing ideas from the domain, it is a description of that phenomenon taking place at a more macro level than that described by JM. WH's early exposure to Talking Heads had a broad effect on his habitus from an early age, his connection to that element of the domain influencing not only his taste in music but the way in which he produces it.[35] This is not to say that he was necessarily consciously aware of the influence of certain music from his childhood from the moment he started producing music. In fact, an awareness of that sort would seem very unlikely indeed, given how deeply embedded within habitus those early influences become. WH is consciously aware of the influence of the doxa of the field and of musical domains as a whole, though, describing them here in terms of why he favours certain musical ideas.

[35] This early exposure to culture by his parents links back to the previous chapter on participant's backgrounds.

WH: "Musically speaking if it's in a key which generally appeals to me, or over series of chords which feel nice to me, and they will feel nice to me because of all the things that I've enjoyed in the past, I guess. I will like a particular chord sequence because I'm kind of habituated to listen to a lot of soul music, which has a relatively standard set of progressions and expressions musically speaking."

WH was relatively unique amongst the participants in describing a conscious awareness of the social nature of creativity and habitus. In the above quote he uses the word habituated to describe what amounts to his inculcation and embodiment of domain knowledge, or his habitus. While most of the participants demonstrate some understanding of the pluralistic and sociological constituents of creativity and the field as a whole, WH was the only participant to use such clear and aware language. As discussed earlier in the Theory chapter of this thesis, the relationship between musical influences and creative habitus is misrecognised to some degree and is usually described much less directly. Artists will talk about the reasons why they employ certain musical or production ideas, or why they enjoy certain elements within another artist's work, but usually without displaying conscious awareness of the reasons behind the reasons. As I alluded to above, this misrecognition lies at the heart of Vygotsky's ideas surrounding creative imagination (Smolucha & Smolucha, 1986). Creative imagination can be, but does not need to be, directly based upon past or present sociocultural experiences. We individually transform those experiences based upon our habitus to the point where it is very difficult to pinpoint exactly which experiences the creative idea is based upon. In order to dig a little deeper into why the participants use certain creative ideas and modes of working, I asked them how their process of music production is enacted and specifically how they go about beginning a piece of work.

All three of the participants in the first interview describe starting pieces of work with clear ideas in mind. A narrow set of parameters from which to build. This links to research by Csikszentmihalyi & Getzels (1971), Moore (1985), and Runco (1994), among others, linking creativity with presented problem-solving and discovered problem-finding. Presented problem-solving is where a problem is laid out in such a way that it can be solved with one 'correct' solution. Discovered problem-finding represents a less linear approach where problems are formulated and solved as they are perceived. The way that we approach finding and solving problems within the creative process is often cyclic; we first identify that

there is a problem, or have that problem identified for us, and then we solve that problem, and the process repeats as we discover new problems within or related to the initial problem. We use both approaches depending upon the situation and which stage of the creative process we are at. We can also have several layers of these processes occurring simultaneously, each dealing with separate aspects of the task, with research by Simon (1989) and Kozbelt (2008) discussing how presented problem-solving and discovered problem-finding function simultaneously. In order to test the participants' views on these concepts, I asked them how they go about initiating the process of putting together a piece of music.

JM: "I have an ear for collage, if that makes any sense, and I'm sure these guys have the same thing. I can listen to a record or a phrase, pick something out and go 'yeah, that'll work'."

RM: "I might just be noodling around on something, and I'll just record little snippets of things. I'll just build up a bank of ideas, and then I'll go back to them, and then they'll probably mutate from that."

KF: "How I tend to work is that I think of a concept, as in a style or a theme for a track. A good example is when I was working with Patrick Carpenter as part of DJ Food, when we were doing the *Kaleidoscope* album, we did a suite of songs called *Quadraplex*. We had a record of people playing wine glasses by rubbing the rims, tapping, smashing, things like that. We sampled that all up and mapped it across the keyboard and that would form the melody."

OT: "The reason I leant towards graphic design at art college was that the brief was very rigid. I needed clear parameters to work within and that absolutely translates to the thing with the sampling."

Whether a creative person chooses to begin with a stated problem is really only a matter of personal preference because both problem finding and problem solving will come into play regardless of how their work was begun. Csikszentmihalyi & Getzels' (1971) research into young artists and how they approached putting together a piece of work is important

because it shows how these two approaches are used in context and how they relate to perceived quality of creative output, with the discovered problem finders producing higher quality work than the presented problem solvers. The accounts given by some of the participants here would seem to contradict that research in the sense that they are producing high quality creative work from an initial problem-solving position. What may account for this is the fact that, unlike Csikszentmihalyi & Getzels' participants, who were art students, our participants are all successful and fully developed creatives with a great deal of experience producing significant works. This experience allows for a depth of problem finding within the initial presented problem that is simply unattainable to those without that experience. The initial problems may be simplistic, but it is in the process of finding problems within problems where the two diverge. Experience brings with it the potential for the kinds of psychological connections and intuitive leaps which spread out like a road map from a presented starting point. In the relatively open context of artistic production with a loose brief it is possible for those with a well-developed habitus to perceive a stated problem not as one which requires a simple solution but as one which offers the potential for a wide range of creative action. It is not so much the answer to the question as the ways in which the question can be answered which drive their creative process. In effect, a problem-finding approach to solving a presented problem.

Presented problem-solving and discovered problem-finding are similar theoretically to ideas which link creativity to divergent and convergent thinking. First defined by Guilford (1956)**,** divergent thinking occurs when an individual takes an unusual or original approach to solving a problem. Convergent thinking, by contrast, occurs when an individual focuses on one 'correct' or conventional solution. Torrance (1966) devised a series of tests to measure divergent thinking as an indicator of creativity, with the tests consisting of tasks such as asking a participant to find unusual uses for everyday items such as bricks and coat hangers. Several of the participants described electronic music and the process of creating it as a form of collage, taking samples and other musical elements and using them in unusual and original ways. Effectively taking everyday musical items and recontextualising them through divergent thinking.

OT: "No creative idea comes out of a vacuum; you see something that exists, and it inspires you to take that thing or take some aspect of that thing. One of the things that

appealed to me about hip-hop culture in general was that what it always did was take something and make it do something it's not designed to do. So, you're taking a small piece of a record that already exists, 'you're not supposed to do that with it!' In terms of my creative process that's always a factor."

MF: "I always have to have a start point. It's not like I magic something out of thin air. I've got to hear a record that inspires a thought."

JM: "I think it's a very deep part of all types of creativity. Taking a lot of things from around you, throwing them up in the air, letting them fall, and rearranging them until you have something that gives you some kind of empowerment."

WH: "Once I've got a huge pile of things that I like, I start to arrange them and during that process probably take a lot of it out."

ZB: "I usually start a track by sampling a record, and that sample tends to end up sounding nothing like what it used to, unless I'm doing a hip-hop track. Yeah, I love that."

KF: "I've always seen the way I make music as collage, just the term 'cut and paste' says it all really. That's why hip-hop inspired me; I could hear how people like [Grandmaster] Flash, Double Dee & Steinski and Coldcut put things together because I could identify some of the components and hear what they'd done. DJing, then megamixing, then making tunes by samples is the logical reduction in this process for me." [36]

The use of samples can be seen as a part of the cyclic relationship between field, domain, and individual. The individual takes a piece of one creative idea within the domain, filters it through their understanding of the domain and doxa of the field, and feeds it back into the cycle as a new piece of work or in a new context through a process of divergent thinking. I asked the participants to explain more about what it means to engage with samples.

JM: "It can have a lot of different meanings. When we did *Paid in Full* [*Seven Minutes of*

[36] Megamixing is creating a piece of music by a DJ mixing together short elements of existing music.

Madness Remix], for example, we put in some samples that were, in a way, sticking two fingers up to Eric B and Rakim. Dropping a sample that says 'London', for example, over a US hip-hop track. So, there's that wry, slightly comedic competitive element."

KF: "Then there's taking a known sample, let's say, and flipping it in a new way to show how clever you are and how musical you are."

MF: "I've gotten to a point where I want to rely less and less heavily on one source; I might want to take the bassline from one record, or a bit of a bassline, or chop it or manipulate it a little bit. In recent times I've just wanted to get as creative as possible."

OT: "It's very much on a sample by sample basis. I'm almost more satisfied with myself if I've taken the smallest piece I can find from a record that on the whole is garbage. If I can then take that one or two bars and turn it into something that is not garbage. Literally making art out of rubbish."

As the participants describe, engagement with the domain through sampling has approaches and meanings as varied as the samples that are used and the individuals who use them. It is a form of dialogue between sampler and samplee, with the relationship between the two ranging from effectively meaningless to profoundly affecting for one or both parties depending upon the contexts of each party. The composer of the sample-based work co-opts the musicians on the original sample as part of their musical team, effectively creating an imaginary band playing together outside of the restraints of time and space. It also represents a co-option of the cultural capital associated with the sampled piece. Indeed, it was common before the prevalence of the internet for sampling artists to be seen to possess cultural capital based upon the rarity of the samples they included in their work. I asked JM about that relationship, and he described some of his work with Coldcut and the effect that had upon the artist whose work they sampled.

JM: "A good example for us is Ofra Haza and *Im Nin'Alu* that we used on Eric B and Rakim's *Paid in Full* [*Seven Minutes of Madness Remix*]. I'd been using it for several years, like, mixing it over various different things. We used it in that record, people were really

interested because it was very unusual, her record company realised that there was a lot of interest, her career had been in a bit of a lull in terms of the world and it took off and she had a worldwide hit with that record."

Coldcut's *Seven Minutes of Madness* remix of Eric B and Rakim's *Paid in Full* is regarded as a significant piece of work in the field of sample based music and is mentioned in academic work by Costello & Wallace (1990), Miller (2001), and Zuberi (2018). The interest that the release generated both within the field of electronic music, as it was at that point in time, and within hip-hop more generally was such that it was able to transcend its field of origin. That transcension was in turn significant enough to reignite interest in Ofra Haza and led to the sampled record becoming a worldwide success. Situations like this, where artists collaborate with one another leading to growing interest in the lesser known or, in Bourdieusian terms, more autonomously positioned, artist are not uncommon. A famous example of this is the Eminem track *Stan* which borrows heavily from the Dido track *Thank You* and acted as a significant launch pad for her career.[37]

The general view of sampling is an unusual one in that it is not considered by some within the field, and many outside of it, to be as valid a creative approach as instrument based production. OT commented on this.

OT: "I often think of the process of sampling in terms of 'am I a fraud?', I've accepted that it may well be a lesser artform than to create something from scratch, understanding music theory and harmonics. What I want to reinforce about that, though, is that while it may well be a lesser artform, it still has a right to exist and be recognised for what it is. Something doesn't have to be the most creative thing to be the thing that you connect with."

Sampling in the way that OT uses it is based upon having the knowledge of how to manipulate and transform a sampled sound using technology to achieve a desired outcome. It is also important for a sample based producer to know how to arrange the chosen samples in such a way that they complement one another and allow movement within the piece both moment to moment and in a wider sense when arranging and structuring the track. Sample

[37] That collaboration was billed as a collaboration rather than one artist sampling another, although the elements used in the Eminem track are taken directly from the earlier Dido track. A semantic quirk.

based production is no less an artform and no less creative than production which relies primarily on the recording of live instruments, so why is it that OT alludes to a view that that approach is somehow lesser? Sample based production and the skills it utilises are perhaps not as valued by the wider public due to their functional differences relative to more traditional instruments and a lack of general understanding as to what a sampler actually does. This view refers to a doxal myth held by the general public, who typically do not have the depth of knowledge necessary to understand the functionalities and creative applications of much of the equipment and techniques used within the field. Whenever new instruments, and the sampler is an instrument, are introduced to the field it takes time for that instrument to be understood and accepted by the field, with the aforementioned doxal myth held by the general public being broken down slowly as understanding of the instrument enters wider consciousness. As discussed earlier in this chapter, we can find parallels to this in the early days of the synthesizer, when many people thought that the synthesizer wrote the music for you, and in the early days of DAW software, when people scoffed that it 'wasn't real recording' because it didn't always take place in what is popularly perceived as a typical studio environment. The sampler and the affordances it offers have still not filtered into wider understanding, with its status as an instrument and its users' status as musicians not fully understood outside of their musical fields. It may be that the sampler will never gain that recognition. Unlike the synthesizer and its widely known cousin, the piano, and the DAW with its cousin, the recording studio, there is no widely known analogue that does what the sampler does. There is nothing for the wider public to relate it to and so doxal myths about what a sampler does and how it does it are likely to persist.

Morey & McIntyre's study of sample-based composers notes that amongst their participants "the ability to listen and select was considered as compositionally significant as any production or technique-based skills" (Morey & McIntyre, 2014, p.48). I would go further and argue that listening and selecting *is itself* a technique-based skill. It requires a habitus that is developed enough to allow the listener to auralise the recorded element in a wide range of different contexts. Technical considerations need to be taken regarding the suitability of any sound to be sampled, including: how it can be looped, which instruments are playing, which notes and rhythms those instruments are playing and how they are being played, how the sound's timbre fits with the artist's production style or with what they are trying to achieve, and how much potential it has for being chopped up and rearranged.

Those connections between audio content and production technique take place in a matter of seconds and allow the sampling musician to accept or reject a given sound very quickly. It is a process of holding a sound up to the light of the producer's habitus and examining it from dozens of angles and aspects simultaneously. It is not a skill which can be easily observed because it takes place internally, but the ability to auralise and manipulate a sound within a person's mind in this way is one which takes a long time to develop to a high level. This kind of active listening, along with the associated internal processing, should be considered a creative skill in the same way as any other more visible or concrete production technique.[38]

Sampling and the combining of disparate musical ideas and elements is central to the hip-hop orientated production approaches that several of the participants' work centres around. As noted above, the process of listening and understanding is usually one which takes place internally; however, it can be externalised through collaboration and discussion. JM described his creative process working with Matt Black as part of Coldcut as a collaborative process. A dialogue, and a swapping of information between the two, informing a shared habitus through the production of creative work. As discussed in the Theory chapter of this thesis, creative imagination and musical style represent processes of externalising the ideas which we have absorbed through our social exposure and have transformed psychologically based upon our sociocultural experience and habitus. By working collaboratively, artists share that experience and that habitus and, in effect, further develop their ideas through the internal transformative tools of their partner, giving them another layer of refinement. This process of externalising ideas and refining them either collaboratively or as an individual is at the very heart of creative production. It is a process which takes place in stages that have been well researched and much discussed, as we will see below.

JM: "The process of us working, for example, we'd get a drum program together and then we'd get a bassline together and then we'd kind of layer shit on top of that. I'd say to Matt 'play a bassline' and he'd play one and I'd go 'I don't like that one' or 'yeah that's good' or he'd play another one and I'd go 'OK but I think it should go la la la' or he'd come with three or four different basslines, and I'd go 'I don't like that' or 'you've just stolen that from such

[38] This is in contrast to critical listening in a more general sense, which is widely taught in higher music education, and has been written about by scholars including Copland (1957), Thomas (1972), and Pratt (2005).

and such'. For us there it was a general swapping of information and then we'd layer shit on top. The creative process for me was not in this instance an individual thing, it was a back and forth process and if we both liked something then we'd keep it and work on it."

WH: "Obviously I've got some idea because I know how to program a synth, but I'm also not thinking, you know, if I put this at 8 o'clock or put this envelope down to exactly that, it's very much playing things and finding things as they happen."

ED: "I do a lot of thinking when I'm not at the machine. I'll do a lot of thinking about influences and space and stuff like that and then I'll kind of work out what I need to do from here."

SW: "I'll tend to start off more from a sonic perspective, finding a sound that inspires me. Mess around on a synth or mess around with some effects on an instrument, whether it be a Rhodes or a guitar or whatever, and try and get a sound where I'm like 'I can just play one note on this sound and it's giving me that good feeling which is making me want to explore more.'"[39]

What JM described are three stages of the four stage creative process models described by Poincare (1913), Hardamard (1945), and Feldman (1988) amongst others. These models differ between theorists, but typically consist of the following, or variations of the following: preparation, where a problem is identified and information is gathered about the problem; incubation, where the individual or group filter that gathered knowledge into usable information; insight, where new connections between that information are formed and cognitive leaps are made; evaluation, where those connections and leaps are assessed for their usefulness and elaborated to form solutions to the initial problem. The experimentation and swapping of information described by JM represents the incubation stage where information gathered during the initial preparation stage is processed, many combinations of that information combined and tested, and then filtered from the unconscious mind to the conscious mind. WH's quote describes that incubation stage as very intuitive. A process of engaging with his habitus and developing ideas through what is, to

[39] A Rhodes is a type of electric piano.

him, a natural flow of ideation. ED's quote also deals with the incubation stage, although she describes an instance where that process takes place outside of the studio. Csikszentmihalyi & Sawyer's (1995, p.343) in-depth study of creative insight discusses the importance of the idle time described by ED in incubating ideas. They note that amongst their participants, "many of them told us that without this solitary, quiet time, they would never have their most important ideas. This daily idle time seems to be a period during which a problem solving incubation stage may be at work." This quote, alongside ED's, illustrates the importance of stepping away from a creative work and allowing the subconscious time to process any relevant information absorbed during preparation. It shows us that the creative process is not simply one which is turned on and off depending upon whether the creative person is actively working. A creative person is almost always engaging in the creative process, whether they are aware of it or not. The incubation stage leads to the third stage; that of insight, where the information gathered and incubated is filtered through the individual's collected experiences and presents an idea to the conscious mind. SW's quote describes that stage in terms of 'finding a sound that inspires' but, as discussed in the Theory chapter of this thesis, this stage can and often does occur without the need for novel external input. Csikszentmihalyi & Sawyer (1995, p.340) describe the insight stage as "a particular combination or pattern that has emerged (randomly, undirected) from the subconscious network [and] is strong enough to surface into consciousness." This is the moment when new connections are formed and presented to the conscious mind. The processing of information connects elements of the creative individual or group's perspectives of the domain and doxa of the field and their own idea and experiences, and that results in a cognitive leap. Theories surrounding the psychological mechanisms which facilitate that leap have been developed by scholars including Kuhn (1962**),** Simon (1977), and Simonton (1988). JM also described the fourth stage, evaluation, through his description of deciding what to keep and working on it. This is a conscious, considered, and often time consuming process where the idea is developed, tweaked, and tested to find its optimum state. This stage is another period of time where ideas are developed independently in the Vygotskian manner discussed in the Theory chapter because the verification stage typically involves long periods working in isolation, focusing on the task in hand. That isolated nature means that novel external inputs are typically not possible, and it therefore follows that the development of a creative insight, or set of creative insights, takes place as an internal process, distinct from the sociocultural interactions which form the basis of those insights.

Multi-stage models of the creative process are useful because they allow us to analyse the creative process in bite sized chunks rather than trying to look at the entire process at once. They work asynchronously and concurrently, with complex projects consisting of many different layers of the same models being applied to many different problems at any one time, and with each problem being at a different stage within the model. Some insights will be smaller, a variation in a drum pattern for example. Some will be larger, an idea which radically alters the direction of the piece. Every layer of process operating in tandem with and in opposition and in harmony with to every other layer of process to make up a hugely complex network of movements and relationships.

There are a number of theories within creativity research which relate the creative process to evolutionary theory. These theories have been put forward by scholars such as Simonton (1988; 1999) Johnson-Laird (1993), and Lumsden (1999). Kozbelt et al (2010, p.36) note, "In this view, ideas are combined in some blind fashion, typically below the threshold of awareness; the most interesting combinations are then consciously elaborated into finished creative products; these in turn are judged by other people." This form of retention within the domain and repetition by individuals drawing from the domain becomes a type of evolutionary feedback as ideas are transformed according to the habitus of the artist and fed back into the domain/individual/field cycle. OT and JM described this as a process of development through repetition.

OT: "I think that's why a lot of music these days sounds very generic and very similar is because so many people are just satisfied 'oh, I like that preset' or 'that's the preset that everyone's using right now'. So, you get a slew of records which all have the same lead keyboard sound."

JM: "That happens in all forms of creativity. So, you'll have the original lick and then you'll have a copy of that and then a copy of that and then a copy of that copy, to the point where they start to degenerate the original. So, somebody comes up with something that is effectively an original idea and then that is taken to the Nth degree by people going 'oh, I like that, I'm going to have a go at that'. Slowly it gets to the point where you get some interesting spinoffs from it and it creates some new strains, but you also get a load of

detritus. It's actually quite a natural process."

An example of this within the field of electronic music is the use of the 'Reese' bass, a type of low modulated bass sound originally used by Detroit techno producer Kevin Saunderson under his Reese alias on the 1988 track *Just Want Another Chance*. This sound saw a resurgence within the drum n bass and dubstep scenes in the '00s and reached a stage of popularity where it became virtually a cliché, with Ratcliffe (2014) noting its use on 'innumerable' drum 'n' bass records. Its popularity waned towards the end of that decade, although the sound evolved through retention within the domain and repetition of the ideas behind it. That repetition transformed and recontextualised the audible elements of it, and the methods of producing it, bringing about a wider range of deep modulated bass which, while similar to the Reese and based upon the same kind of musical and technical ideas, are different from the Reese in their individual sonic characteristics. The sound evolved through the repetition alluded to by OT and created the spinoffs mentioned by JM via individuals reassessing the idea through internal and external discourse. The Reese bass is one fairly concrete and easily observable example of this process; however, it also occurs on a more macro level. Music taken into the domain provides evolutions to the domain because the habitus of each creator represents a unique method of transforming the ideas they have drawn from, and fed back into, the domain. These variances subtly change the way that the field experiences and understands the domain and newer creative variances emerge based upon those subtle changes. As long as new ideas are brought into the domain and that domain knowledge continues to be accessible, it, the field, and individuals associated with it will continue to evolve.

One feature of the creative process which deserves looking at in a bit more detail is cross-pollination. Cross-pollination is the process by which ideas are taken from one creative field and applied within another. It is that process, the practicalities of it, and the ideas around it, which we will look at next.

4.8 Cross-Pollination

I have always been a big fan of movies and video games. One of the things I like about them is that, unlike writing, the visual arts, and music, I have never engaged with them creatively. I

have never sat down and made a conscious effort to pick them apart and understand how they function, and the same goes for the music and sound associated with those art forms. I enjoy those sonic aesthetics simply for what they are, with no further analysis necessary, and I have often enjoyed finding ways to incorporate them into my own work. I spent quite a long period, for instance, messing around with glitchy 8 bit sounds and basing hip-hop beats around them. The kind of thing you would expect to hear if you lobbed an Acorn Electron down a staircase swiftly followed by a half knackered drum kit. It was as much fun as it sounds. I've also been influenced by the sounds of cinematic composers, if not so much by their approaches to composition. The creeping synth tones of John Carpenter and the neon haze of Vangelis' mesmerising Blade Runner score. Deceptively simple sounds which, believe me, are very difficult to emulate effectively.

Perhaps there is some influence in terms of structure, too. Not so much a narrative arc as a feeling that music should have a sense of progression. A beginning, a middle, and an end. I've always liked writing music which feels as if it is going somewhere and is bringing the listener along with it. That music should have those structures is fairly common advice for songwriters, but as we become more sophisticated, both in terms of our abilities to write music and our understandings of narrative structures, we are able to incorporate new understandings of how those structures can fit together and how we can represent them musically. From progressions which are clear and straightforward towards something a little more ambiguous. The best stories take us in directions we were not expecting.

The point here is that even when we are not conscious of the sources of our ideas, they always exist in the background, shaping our work in ways which we cannot necessarily predict. As I have previously stressed, the nature of habitus is such that it is rarely clear exactly what has formed it and, as such, we should view it as completely open in its origins. The roots of sounds and the moods of works can come from some surprising places. The vast majority of those who are a part of this culture understand that almost any idea from any field can be interpreted and reinterpreted through music. Whether we are actively looking for them or not, those ideas are already out there, waiting for us to create new contexts for them.

Those kinds of diverse cultural connections and influences are what helps to fuel a habitus

that is broad; incorporating concepts from multiple fields, as well as deep; representing expert level knowledge of one or more fields. This allows for a cross-pollination of ideas, as techniques from, and perspectives of, different fields feed into one another. This gives the creative person a broad range of knowledge and experience through which to filter new knowledge, and brings about sophisticated cross-disciplinary stylistic psychological tools to be used during the creative process. As Harrington (1999, p.329) notes, "many creative ecosystems appear to have benefited from the fact that they have existed near cultural crossroads, have contained somewhat permeable cultural boundaries, or have included people from a variety of different cultural backgrounds." This is something that can manifest in a range of ways, from intimate links producing works which openly cross disciplinary boundaries to broader connections representing subtle influences which come from outside music. ED and SW both mentioned taking inspiration from films and film scores. ED talks about the idea behind her track, *Ryan Gosling in Space*, which was in part inspired by the actor's appearance in the movie *Blade Runner 2049*.

ED: "When they announced he was gonna be in that, I made the initial sketch when I was trying to imagine what a Ryan Gosling *Blade Runner* track was going to sound like based on *Drive* and *Lost River* and stuff like that.

SW: "I think the idea of, like, the unexpected is quite important in creativity and that is a big part of what I think film music tries to do a lot of the time. It tries to not use, you know, 5/1 cadences and the sort of traditional tensions and resolutions that we're used to."

These quotes describe two levels of engagement with an art-form other than music, namely film. ED talks about engaging with film on a conceptual level, drawing musical influence from her own conception of what that particular film would sound like based upon her knowledge of other works. SW's connection to film is described more in terms of concrete ideas around music theory. He shows an understanding of how film score objectively functions, the implication being that he can use those ideas to step outside of more traditional ideas surrounding musical composition.

During the first interview, OT mentioned in passing that he and Jake Wherry (as The Herbaliser) would write music as though scoring a non-existent movie. I followed this up

with him via Facebook.

OT: "When I say that we would imagine a non-existent movie scene and write the music with that in mind it's not quite as literal as imagining visuals. It's more along the lines of having put a basic track together with a sample or an arrangement, that sometimes what we had would suggest that it felt like a scene from a spy movie or a western or a car chase, for example, and we would try to carry that mood further with what we would decide to add to the arrangement. Because movie soundtracks are often arranged according to what happens onscreen, when you listen to the score with the image absent, the music often takes unexpected turns and we liked to inject that spontaneity into our compositions."

What OT described is an engagement similar to SW's. Taking notions of musical mood and structure from one field, that of film score composition, and combining them with another field, hip-hop production. Cross-pollination represents a kind of internal creative interdisciplinarity within the music maker. In the mind of the creative person, two disciplines are combined in such a way as to inform one another in the production of the creative product. To the audience, that product is perceived as one form of music, in this case hip-hop, when in actuality it is a combination of two: hip-hop and film score.

As I mentioned in the introduction to this chapter, Coldcut have worked extensively in the audio/visual arts and are seen as a pioneering influence on VJing as a creative practice. I followed up the initial interview with JM and in a short telephone interview asked him how the fields of the audio and visual arts intersect and how ideas and concepts from one cross over into the other.

JM: "From time to time we would find visual clips, more often than not in the early days it was spoken word clips and we would fly those over the music. It was a step on from our radio show and DJing where we would fly spoken word clips over the records we were playing. Things started to coalesce, and those elements became more interrelated. Human beings have a natural ability to sort of mix shit together in their heads. I think it's that sort of relationship and *Timber* was the culmination of that in many respects."

JM: "You might see a clip from a film, or you may have shot something yourself which

presents you with an idea. You see something and you hear it and that triggers you to sample that and build a track around it."

JM talks about the relationship between the audio and the visual in more concrete and practical terms than OT. Less as a transposition of techniques and more as the audio and the visual working synergistically, with one inspiring and/or amplifying the effect of the other. For JM the relationship between audio and visual is one that is immediate, what we see and what we hear coming together to take Coldcut's *Timber* and similar works beyond the realm of the purely audible into a wider sensory plain by presenting the audio and visual elements as co-defining and synergistic. This creates a cultural product which is arguably greater than the sum of its parts in terms of the more holistic experience it creates for the audience by crossing over field and therefore sensory boundaries.

So far, we have looked at many different aspects of the creative process, the creative person, and the contexts they exist within. It is important to remember, however, that creative people are also consumers of creative works. I wanted to explore how the participants understood the creative works they consume in a more general sense, giving them more freedom to discuss their personal views on creativity both within themselves and more broadly, and so it was that topic which concluded the interviews.

4.9 Reactions to Creative Works

When I was little, I used to sleep with the radio on. Turned down low enough that it didn't keep me awake, but up high enough that I could still hear it when I focused in on it. This was around the time when I was first becoming aware of music generally, and starting to gravitate towards certain pieces. Some of the first that I felt drawn to were the soul classics from the 1960s, and I developed a strange habit of waking up at night when the graveyard shift DJ, presumably enjoying the freedom which comes from knowing that nobody is really listening, dipped into the glorious catalogues of artists such as Sam Cooke, Otis Redding, and Jackie Wilson. I was barely aware of doing this at the time, but some part of my sleeping mind would signal my consciousness, and I would wake up, listen to that one song, and immediately fall back into a deep sleep.

Music has always had the power to cut through me in that kind of way, and that pattern, or variations of it, has really been the basis of my relationship with the artform ever since. Something about it just registers within me as a very deep emotional and physical connection. I was sat on a bus the first time I heard Bruce Springsteen's Born to Run, and the sense of freedom it gave me lifted my heart to the point where I burst into tears. There have been innumerable moments just like that, and I break out in goosebumps every time I think about them. That, to me, is real magic.

Once you learn a little more about music, it is only natural to try and understand why and how it can have that effect. All the chord charts and sheet music in the world won't give you the answer. Nor will all of those books and websites breaking down the production techniques that go into it. As far as I have been able to discern, it is something to do with how music and lyrics serve as a vehicle for communication. What we feel when we listen is a direct reflection of the emotion that went into writing and performing it. When all of that comes together with our own experiences of the world, that emotion and those ideas connect with elements from our own lives. We feel a little bit less alone because we feel the parities between ourselves and others. We understand that through our relationships with one another and with society and culture we are a part of something bigger, more important, and more beautiful than ourselves.

As artists, these kinds of deep connections to music are very important in terms of how and why we choose to pursue the development of creativity, and how we view those forms of creativity throughout our lives. In order to understand how the participants think about creativity in a wider sense, I asked them which musicians and artists they see as particularly creative and why they see them as such. This question was designed to give the participants the freedom to describe how they see creativity in their own terms. Several of the participants specifically mentioned minimalist music as being particularly interesting and creative.

JM: "From a pure electronic production point of view DJ Stingray is just incredible. It's kind of techno/electro. The most difficult thing to do is to make the simplest and least elements the most effective and that's something that he does. For a lot of people, they might listen to it and go 'well, there's fuck all going on' but actually there's an enormous

amount going on with a tiny amount of elements."

JM: "It's the combination of the application of the art form and the subject matter. That's probably at the essence of the best form of creativity. So, a subject matter which resonates with you and an application of the technique that works and resonates for you. The pure beauty of something."

KF: "That's what I really like about Eno. I've really been getting back into his ambient stuff recently and there's like nothing there. He does so much with so few elements over a long period of time, but it never gets boring."

OT: "There's something beautiful in minimalism. There's a piece by Phillip Glass, it's got so little in it, but it doesn't need to have anything more. That's the beauty for me, is something not having anything more in it than it needs to have."

SW: "Something like Steve Reich, his phrases when they're going out of phase with one another. In theory it's quite a boring thing, it's just the same thing happening again and again but it's fascinating what the small changes do to that little loop. The same with well-produced minimal electronic music, a lot of the time it does have that going on even if you're not directly aware of it."

Producing minimal electronic music represents a habitus that has developed to a stage where creative aims can be achieved using the fewest elements possible. It is a stripping away of musical detritus to the point where only the bare minimum is retained. It relies upon a habitus that is able to understand the core elements which make up a piece of music and use those core elements to full effect.[40] It is interesting to note that several participants recognised its importance to the field and the level of skill required to compose/produce it successfully. This tells us that the participants understand and appreciate the complex ideas underpinning that simplicity. It is a common myth amongst those with no experience of writing music that apparently 'simple' genres, such as pop and commercial dance, are easy to write and produce. In fact, effectively composing music in those genres is very difficult

[40] Minimalism within music has been studied by scholars such as Kroger et al (1988), Bernard (2003), and Fink (2005).

indeed, because achieving effective simplicity requires an extraordinarily complex habitus. One finds parallels in the visual arts too. For example, Mondrian's precise geometric shapes and primary colours may appear simplistic to the untrained eye but belie an incredibly complex process of creative thought and understanding of domain and doxa; and so it is with minimal music.

Those parallels in the visual arts were commented upon by the participants in the first interview.

KF: "I went to see Bridget Riley, which is basic paint on canvas. Absolutely stunning, perfectly executed pieces that are so simple. It's the minimalism of art."

OT: "That's why I love Mark Rothco's paintings. Stunning."

JM: "That's all about the application of the paint and the colour. The functionality provides the beauty of it."

KF: "None of those are about anything. They're not literally reproducing anything; they're creating a feeling."

JM: "That's probably why I love what I would call 'pure techno'. Robert Hood, Basic Channel, some of the early originators of it. There's nothing to interfere with your visceral reaction to it in a club. It's pure sound. You can make your own pictures and worlds from it."

All of the participants described a subjective connection with what they saw as particularly creative work and also demonstrated their ability to objectively analyse that work. This suggests that their judgements regarding the creativity of a given work can take place at an emotional or subconscious level as well as one which is conscious and considered. On one level, the participants are responding from the perspective that the work gives them on their emotional relationship to the art form. On another level, they are able to use their habitus as a way to break down the work, understand what makes it tick, and understand how it gives them that perspective. The sophisticated nature of the participants' relationship with music, in terms of how they respond to it as a listener and how they understand the mechanisms

behind that response, leads to an appreciation and understanding of the skill involved in producing the work and to a subjective response to the work itself. That subjectivity and the personal connections it speaks to was commented upon by several of the participants.

MF: "I think it first happened when I was about 10, when I was listening to *I.O.U.* by Freeez. I used to turn my dad's stereo as loud as it would go, and I experienced something that I had never felt before, where you actually get goosebumps from music. But it was more than that, it took me somewhere that I couldn't describe."

SW: "If something moves me emotionally, I want to listen to it again and again. I also have that drive, I'm sure we all do, of wanting to try and figure out why and how that stuff is made."

ED: "I'm only really interested in truth, and emotion, and the human condition. If someone is expressing the human condition in some way but is technically not very good then I'll relate to that more than a well-produced boring left side of brain repetitive piece of music."

This clarity of response was further illustrated by KF, who described a very strong visceral reaction to viewing Damien Hirst's *Mandalas*, which are made of thousands of dead butterflies.

KF: "I went to see Hirst's butterflies. It's beautiful but it's disturbing and disgusting to look at because you know that thousands and thousands of real butterflies had to be killed to make this work. They're like stained glass windows and they're beautifully put together but it's dead animals you're looking at so there's a conflict there that's almost indescribable."

KF clearly understands why he feels the way he does about the work but would that reaction have been the same had he viewed those same works of art during the nineteenth century when it was common practice for entomologists and amateur collectors to kill and preserve insects and other wildlife? While one may find a sense of beauty, or a power to move one emotionally, in a work, that response is defined by the relationship between the viewer and

their habitus, the creator and their habitus, and the sociocultural context surrounding each. As Csikszentmihalyi (1988, p.3) notes, "we have faith in the domains of art and science, and we trust the judgment of the field, that is, of the artistic and scientific establishments." That is not to say that we are all referring to the same domains, far from it, as WH illustrates here in describing a friend of SW's.

WH: "I remember Si telling me a story of being at his with a friend of ours. Who is a super nice guy, DJ, really into music but much more on the commercial trancey end of things. I remember Si telling me incredulously that they put *Kind of Blue* on which famously is a very chill, very harmonically pleasing album, you would struggle to find anyone that would condemn it. And this guy was just like… What did he call it, atonal, Si?"

SW: "He found the dissonance difficult to deal with."

WH: "And I listen to that album and I struggle to find dissonance. It's like a warm bath of an album, to use an Alan Partridgeism."

What this shows us is that while the individual has agency to decide what they enjoy, they do not have agency in deciding which works have creative validity and, by extension, influence. WH and SW's friend has, per their description, a well-developed habitus and a real appreciation for a certain type of music. The friend's habitus is not one which is geared in such a way as to appreciate *Kind of Blue* as WH and SW do, but that does not mean that it is not a record that has a creative significance within the friend's musical field. Indeed, that album is one which is widely regarded by critics as one of the most influential ever produced and so it can fairly be said to have had, at the very least, an indirect impact upon the kind of commercial and dance music which the friend enjoys. A truly big C creative work is something which extends beyond an individual's habitus or an individual's taste. It is something which impacts many fields in ways which range from the very direct and very obvious to the very indirect and very subtle. In other words, truly 'big C' creative works are much bigger than their field of origin. They are transcendental forces which shift and shape any related social fields and domains of knowledge that they come into contact with, producing networks of influence so wide and deep that they are almost impossible to

comprehend or to describe.[41]

We have covered a wide range of topics in this chapter. Ranging from the social and familial backgrounds of the participants, through to their approaches to their work, to their views and understandings of creative works in a general sense. To conclude, I would like to summarise and tie together the findings of this chapter and move towards further discussion of the primary points drawn from this chapter and from the research process as a whole.

4.10 Conclusion

This chapter has covered a lot of territory, discussing a wide range of theory on or linked to creativity. As mentioned above, the majority of those ideas have had a fundamentally socially orientated bent. To begin with, we discussed the term electronic music and placed the term into context by describing how electronic music describes a process, a practice, and a product. We looked at the early lives of the participants, how they were first exposed to culture, what forms that culture took, who introduced them to it, and how they began to build their habitus as creative individuals. We then moved on to motivation, the inherent satisfaction of creating in a flow state, the desire to improve position relative to one's peers as part of cultural fields and the field of power, and as a way of understanding the self relative to society. We then looked at record labels as social entities, as creative entities, and as gatekeepers to the domain. We looked at technology in the context of affordance theory, how it facilitates and catalyses creativity, and how it can be developed socially through use by individuals within a field. After that we moved on to look at the creative process, creativity as evolving through submissions to the field and domain, and collaboration as a form of shared habitus. From there we moved on to look at cross pollination and how ideas from one domain can cross over into another. Finally, we covered how the participants think about and respond to creative works, how their responses are constructed, and how works themselves come to be defined as creative.

[41] This can be seen in music particularly clearly. The Roots producer Questlove, in a 2018 interview, recounted being full of admiration for The Beach Boys' seminal *Pet Sounds.* Afrika Bambaataa was famously heavily influenced by the early European electro of Kraftwerk. In my own experience, when my second album was released, I was asked by a journalist what my influences were and I replied that I had deliberately avoided electronic music and had spent my time listening to 60s psychedelic bands such as The Zombies. These broad musical connections result in endlessly fascinating synergies.

What I would like to do now is move on and look at ten themes which I have pulled out of this analysis for further discussion. Those themes serve to highlight ten topics which are specific to creativity in terms of this context, and move this work forwards in terms of understanding the sociocultural mechanisms which underpin electronic music.

Chapter 5. Discussion

This chapter moves on from the central themes of creativity in the last chapter, seeking to highlight factors either specific to creativity in electronic music production or particularly relevant to it, as I move towards answering this study's research questions. In places, I have used a more narrative writing style, foregrounding my subjective experiences as a counterpoint to the traditional social scientific approaches used elsewhere in this thesis. In doing so, I feel that I am better able to bring a sense of openness to this discussion, allowing the ideas space to breathe and be expressed more fluidly in terms of how they are formatted. This shift is necessary because it is my own learning and experiences which are recounted in this thesis, and in a qualitative piece of research such as this, that subjectivity must be accepted and accounted for, and can be used as an analytical tool in its own right (Bochner, 2013).

There are ten sections to this chapter, comprising themes drawn from the analysis and from my own experiences as an electronic music producer and researcher. These sections outline, and elaborate upon, the sociocultural mechanisms and interactions which underpin electronic music production and link those mechanisms together with the wider frameworks of creativity discussed earlier in this thesis. While these sections are focused, sometimes quite directly and sometimes quite obliquely, on answering the research questions, I will answer those questions much more directly in the summary which follows this chapter. Consequently, this chapter should be seen as a highlighting some of the research themes that will form the building blocks for that summation, rather than as being summative in and of itself.

5.1 Creativity as Self-Actualisation

When I started out on my own journey as an artist, nearly twenty five years ago, all I knew was that the most alive I had ever felt was in the times and the places where I had felt the most deeply powerful and joyous connections with music. It is not something that I was even consciously aware of at that time. It just was. It still is. Based upon that sense of connection I began to pursue its development and my understanding of it. It was a long and slow process, and it continues today. It is a need to acquire greater understanding of that connection. It is

a dialogue for which I am still trying to find the words.

This research, of course, is an extension of the pursuit of that understanding. The reason that I embarked upon this thesis was that I felt that I had lost that sense of connection, and perhaps something of my sense of self as an artist. As it turns out, it was never too far away, I just needed to step back to once again see what it is: a reflection of the socially constituted self.

The question of why some people actualise their selfhood through that connection with music and art is one to which I have given a great deal of thought. I think a large part of the answer is sociocultural circumstance, and the constructivist nature of much of the literature used within this research supports that (Vygotsky, 1925/1971; Bourdieu, 1984; Thompson, 2014). Another large part, highlighted by Vygotsky in particular, is an awareness of the vastness which surrounds us, a need to find comfort through placing ourselves securely within our own tiny part of it, and a need to understand where we fit within the grand sociocultural scheme.

Vygotsky states: "art is the supreme center of social individual processes in society, it is a method for finding an equilibrium between man and his world, in the most critical stages of his life (ibid, p.259)." The development of creative habitus and the production of art, therefore, are processes through which people seek equilibrium through understanding their placement relative to the rest of society and interrogating where they sit within that wider context.[42]

In searching for that equilibrium through creativity we take part in a process that takes place across all of society and culture, and has done so through every free willed act of creativity in human history. The context is always unique, but the ways that we engage with the field as producers of electronic music are the same as in any creative field, at any time, in any society.

What, then, are the natures of those engagements? What is being communicated? As

[42] This is not necessarily a universal motivation. Some people never ask those kinds of questions, however, many people do, and art provides a means of doing so.

discussed in the previous chapter, it is a dialogue made up of abstract, but communicable, representations of our inner selves (Gardner, 1994). That is constructed from our conceptions of our accumulated sociocultural experiences, filtered through our understanding of the domain, and fed back into the field as new contributions to that domain (Csikszentmihalyi, 1988).

Through those contributions we see glimpses of ourselves reflected back to us. We see fractions of our own experiences through the experiences of others. By engaging with them, we acknowledge our sense of self within them, and present them as such through developing our own voice in the wider dialogue of creativity. We build and structure our creative identities around that voice and, through refining how we listen to it and act upon it, we learn to speak with our sense of self, and with the accumulated sociocultural experiences which determine who we are and define how we coexist with the rest of society. It is through that process that we find Vygotsky's equilibrium.

5.2 Music as Collage

Creativity is developed through the conscious and unconscious absorption and collation of sociocultural experiences and interactions (Bourdieu, 1977; Smolucha, 1992). Through the accumulated fractions of others brought together as reflections of the self. This bringing together of the disparate is a process which runs through not only the broader contexts of creativity, the self, and society, but is something which occurs at a fundamental level throughout the creative actualisation of electronic music production. It is a process which JM, OT, and KF described as a form of collage.

Collage in this context is a term most overtly linked with the use of sampling. Drawing together diverse snippets of music to create a new whole which is greater than the sum of its parts. It is something which is in evidence throughout electronic music, particularly electronic music from the 1990s, and electronic music which places itself within hip-hop's sphere of influence. This is only one dimension of the potential reading, however, because the notion of collage within creativity has a greater depth and breadth.

As discussed in the previous section, individuals create through accumulating and

reprocessing sociocultural experiences, and sampling has allowed electronic musicians to do that in the most direct of ways. Allowing the creation of new musical realities from fragments of those which already exist, sampling is a baring of that which has always been at the centre of creative production. It is a microcosm of the creative mind and a direct representation of our engagement in the sociocultural dialogue of creativity. We develop our understanding of music primarily through listening to music made by other people within the field, absorbing its structures and movements, and associating them with one another and with our accumulated experiences (Bourdieu, 1990; Moran & John-Steiner, 2003). A sampling musician shows this process for what it truly is, collaging musical elements, filtering them through their understanding of the field, and presenting them as such. They externalise a process which is typically internal.

This process is fundamental to the field of electronic music, and to all creative action. Cultural fields are social constructs, consisting of individuals who come together and share the understandings which collectively define how those fields experience themselves (Bourdieu, 1984; Dalton, 2004). They comprise disparate experiences, brought together through a collectivised understanding, to form continually evolving social entities. All forms of creativity function in this way because all forms of creativity rely on those collectivised understandings (Csikszentmihalyi, 1988; Csikszentmihalyi & Wolfe, 2000; Sawyer, 2006). Collages of experience which provide a basis for evolution through shaping the domains and doxas which define the experiences of individuals within the field, and the works which those individuals produce and feed back into it.

What the concept of collage does, within the context of creative practice, is illustrate clearly the fundamentally social nature of that practice. By using collage as a byword for the social nature of creative practice we recontextualise it into something more concrete, giving us a metaphor that we can then apply to many different fields and forms of creative practice. That some of the participants should understand and use the concept in this way shows that they have an awareness of the social within electronic music production, an awareness which takes in and reapplies creative paradigms from across the arts.

5.3 Diversity of Experience

I don't think I really learned very much about music through doing a music degree. It was not completely useless, and I picked up a few useful technical skills, but really, all of the time I was working on assignments I was simply doing what I would have been doing anyway; building my understanding of music production through long hours spent in the studio. When I wasn't making music, I was listening to music. When I wasn't making or listening to music, I was thinking about making or listening to music. I am still doing that.

I have come to realise that what I was doing at that time was building a sophisticated set of psychological tools; a partly conscious and partly unconscious understanding of how to enact my own creative realities (Smolucha, 1992). An understanding built through absorbing and producing as much music as I possibly could, and through exposure to a wide range of the sociocultural experiences which music represents. It is those experiences, and the nature of those experiences, which come together to define how creative people across all fields understand and employ new information and new experiences. As discussed earlier in this chapter, it is through that accumulation we come to develop a creative habitus. But what has not yet been discussed in this chapter is the importance of the *range* of those experiences, the importance of the fact that habitus is directly dependent upon the extent and degree of variation within those experiences (Vygotsky, 1950/1995).

We know that those experiences are fundamentally social, but within that we can break them down a little bit further and categorise them so that they can be looked at more closely. Firstly, we have experiences which are directly social, such as interaction and discussion with other members of the field. This can take place face to face, over the internet on forums and suchlike, more formally in the classroom, and for a few as a kind of apprenticeship in commercial studios. There are musical experiences, which are social because they represent a discourse between artist, listener, and field. Even when that music is from outside of the field it still imparts valuable contextualising knowledge. Indeed, that knowledge is often more valuable because it represents a discourse between fields. Cultural interactions from outside of music offer greater diversity still because they offer discourse and linkage between even wider sets of sociocultural fields. Technological experiences offer us ways to facilitate and develop our understanding of how music is performed and enacted through direct interface with that technology. More indirectly they represent interaction with the creators of that technology and their understandings of how best to facilitate the

creative process.

All musical experiences have value to the music producer. There is virtually nothing that, to the trained ear, does not offer up a spark of interest or a flash of insight. We learn to step outside of the constructs of genre and open ourselves to the potentialities of sound, whatever its origin. In so doing we embrace the diverse, absorbing the sociocultural experiences which build our understandings of our creative identities. This is our habitus, the accumulation of our experiences writ large in every kick, snare, and hi-hat, in every washed-out pad, and in every structure of tone and harmony.

Through that habitus we grow more sophisticated. The accumulation of the knowledge and experience which makes up that habitus redefines how we respond to new knowledge and new experience (Bourdieu, 1990; Moran & John-Steiner, 2003). It is a process of evolution through which we come to understand more about the sociality of our creative lives and our individual identities, and through which we become better able to produce works which reflect the rich individuality of our experiences.

5.4 Creative Uniqueness

When applied to a creative work, the term uniqueness represents the idea that the work in question pushes the conventions of a field in an original or divergent way (Cohen & Ambrose, 1999). For a work to be seen as such it must bend the domain and/or doxa of its field to the point of breaking, without going so far that it removes itself from the field entirely. Evolutions of what has gone before which open doors both within the context of the material that already exists with the field and within the contexts of how the field is perceived, and therefore conceptualised, by its members.

In opening those doors, however, there must be a degree of limitation for the work to sit within its field of origin. If too many elements go beyond the field's conventions, then the work will not recognisably belong to that field. There is a limit beyond which the work either transcends its field of origin and becomes the basis for a new field, or, more commonly, is lost to incoherence. (Csikszentmihalyi, 1988; Nakamura & Csikszentmihalyi, 2001).

As with so many other things, uniqueness is subjective. An artist that one person perceives as unique might not be perceived as such by another person. This perception is based upon how a person understands and relates to the field that the work derives from and is situated within. A more diversely derived habitus brings with it a greater appreciation for more nuanced creative influence, and it is those nuances, specifically how they are interacted with by the artist, which define the creative work. Only through understanding the context and nature of those interactions can a person judge whether a work pushes and questions the field in ways which can be called unique.

By noticeably and significantly drawing in a wide range of perspectives, and questioning what is ordinarily accepted, artists who produce works that are considered to be unique within the field tacitly allow others within that field to do the same. That allowance is the lifeblood of the field. Without it, the scope for diversity of cultural interaction would be greatly reduced, and without that, the field becomes starved of new ideas and eventually stagnates and dies.

5.5 The Individual and the Social

One of the most difficult questions I have encountered over the course of writing this thesis is that of the role of the individual within the social constitution of creativity. At the outset, my feeling was that an entirely socially constructed view of creativity was problematic because it seemed to remove a large degree of agency from the individual. I felt that this view placed the artist as nothing more than a channel for retained and developed insights and interactions, producing works which come not from themselves, but entirely from the social contexts they exist in and have existed within. What I was missing was the complex and unique nature of that catalysis. Far from empty, it is an infinitely complex system of processing which filters and recombines every piece of information and every new interaction based upon what has come before.

Whenever we create, we draw upon a habitus comprised of our accumulated sociocultural experience and knowledge of the field that we are working within (Bourdieu, 1977). As we have seen, such experience and knowledge are derived from social interaction, but since each of us has a unique combination of experience and knowledge, each of us approaches a

task in our own way. None of us has a habitus which exactly replicates the doxa and/or domain knowledge of a creative field, so we must produce representations of our individual understandings of them. That individuality is socially derived, but the way we incorporate it with the field, and the way that we make decisions within the context of the field, are unique to each person.

Through this we derive a kind of agency. Not an agency of true free will, allowing us to step outside of our social constructs, but an agency born of our individuality. The vastly complex and indeterminable origins of our habitus mean that we are free to combine and recombine the experiences which constitute that habitus (Hilgers, 2009). There are no boundaries, no rigidly defined ways to combine experiences, so we build, interpret, and enact our creative expressions however we consciously or unconsciously see fit.

We are symphonies of experience which shift and evolve as we discover new interactions and reach new understandings. Those evolutions are crystalised when we create, producing tangible representations of everything that makes us who we are and everything that defines how we exist relative to the rest of society. When we create, we do so based upon the accumulation of our experiences up to and including the moment of creation. That accumulation and our expressions of it are unique to each individual and sit within and between ourselves and every sociocultural field we interact with.

5.6 Agency

The notion of agency is intimately linked to creativity because they are both concerned with the human capacity to act within given contexts (Ahearn, 1999). A hard line constructivist reading of the concept of agency would state that because all of our understandings of how to act are socially derived, the individual surrenders their agency and acts as a catalyst for their social experiences. As discussed above, however, we have the ability to act as individuals because our ways of acting are derived from the free sociocultural associations which make up our habitus.

Within that context there exists a sliding scale whereby some ideas and actions are more deeply rooted in the social than others. Those concepts which are deeply engrained into the

domain and doxa of the field, such as the conventions of western musical scaling, are often very difficult, although not impossible, to bypass through creative variation. Conceptions of that type are so fundamental that they transcend our agency and, to all intents and purposes, tie us into basing elements of our creative work around them. We cannot help but follow those notions, even though we may not always realise that we are doing so.

At the other end are those more flexible ideas, such as the sequences and harmonies of the notes that we use, which we have a greater degree of agency over as musicians. While these ideas are often built upon the less flexible ideas mentioned above, in our example that would be the frequency in Hz of musical notes and deeply engrained ideas of which combinations of notes are considered pleasing and which are not, we have more scope for originality in terms of how we apply them. It is therefore the case that the creative individual is still able to freely derive their actions within a constructivist paradigm. While those actions are a limited and contextual form of freedom, there is space within them for the diversity that keeps the field fresh and exciting, and they feel to the creator as enactments of true agency.

5.7 Domain and Doxa

Two terms which I have used frequently throughout this thesis are domain and doxa. They are somewhat similar conceptually; domain refers to the accumulation of knowledge and works associated with a field, and doxa refers to the unwritten and misrecognised rules of a field (Maton, 2014; Deer, 2014). What is interesting in terms of how we create, and important in terms of how we understand our creativity, is the relationship between the two. It is a relationship through which they define one another, and through which the field defines itself.

The fundamental nature of doxa is to be misrecognised. It is a set of myths which are so ingrained into a field, and thus the members of that field, that they are accepted as reality. The fact that that reality is based upon myth or misconception does not matter because we adapt our behaviours and our understandings accordingly. Through those adaptations we alter how we understand and enact our creativity, turning myth into reality, and developing an understanding of it in tandem with our understanding of the domain, our contributions to

the field informed by both. It is reductive to state that one is less valid than another because it does not reflect a concrete reality so much as a discreet understanding of that reality. If the myth plays a role in defining the concrete products which become a part of a field's domain, then the myth becomes the reality of that field and that domain.

The socially constructed nature of creativity would suggest that a field's doxa must come, directly or indirectly, from other individuals within the field. Those individuals produce the works which constitute the domain based upon the works already part of the domain, their understanding of those works, and their perception of the field in general. It does not matter what the objective reality of the domain and the field is because they are constructed through our perceptions of them. If we base our perceptions on doxa and propagate that doxa through creative works, we enshrine it into the domain so that the next person who draws from that domain draws not only from the actuality of what the work is but also from the mythology which supported and informed its creation.

In this way, domain and doxa are intimately linked and co-defining. Shifts within one produce shifts within the other and they move in cycle. That cycle determines how individuals understand the field and how the field understands itself; a complex and irreducible assemblage of the notional and the concrete.

5.8 Relationship with Technology

The ways that we use technology are extensions of our conceptions of our creative selves, reflecting and embodying our habitus. In our use of technological affordances, and our development as artists through their use, we engage with them in a feedback loop, symbiotically linking habitus and affordance.

We each have our preferred technologies. Some offer a path of least resistance; a smooth and open workflow allowing us to express our ideas in the simplest way possible. Some offer more of a closed system, performing niche functions and with a learning curve that must be navigated to use them effectively. We choose technologies based upon the relationship between our habitus and the circumstances we find ourselves in at that point in time (Dalton, 2004). We consolidate existing elements of our habitus by using the technologies

and functions we are familiar with, and push ourselves to incorporate new or alternative elements into our habitus by using new technologies and new functions. In this way we build the tapestry of technology and technique which represents our creative abilities and potentialities.

Stylistically, we gravitate towards the technological functionalities which fit most closely with how we see our overall creative goals. Certain technologies are seen by the field as better suited to certain styles. But do the affordances of the technology define that view, or does that view define the affordances of the technology? Certainly, there are technologies which are central to one musical field that would be of limited use in another. Technological design, however, is patterned by use. By understanding how to break away from what the field tells us is the accepted pattern of use we transcend the intended affordances of design and transmute that technology into new realms of stylistic possibility through the complexity and uniqueness of our habitus.

The pathways we travel using those technologies exist partially within our socially derived understanding of their potential, and partially within how those technologies allow us to perceive that potential (Fayard & Weeks, 2014). As we interact with the field, we learn more about what it is possible to achieve using those technologies, and new pathways are revealed. As we deepen our relationship with technology through use, we deepen our understanding of it and new pathways are revealed. As we go beyond the designed affordances of those technologies, we step outside of what they were originally designed to do and new pathways are revealed (Gibson, 1977). We choose the technologies which allow us to take these pathways and the technologies which allow us to perceive how those pathways can be taken.[43]

Technology, then, catalyses and amplifies our habitus through the affordances that it offers. We catalyse and amplify those affordances by applying our habitus to them (Fayard & Weeks, 2014). Our perceptions of those affordances and our understandings of our habitus grow over time, fuelled by our interactions with the field, by our interactions with the

[43] As discussed earlier in the chapter, technology itself takes those routes too. As users step outside of its intended affordances, manufacturers often take note of that and the new affordances it opens up in terms of design. This all feeds back into the overall cycle of how technology is designed and used, and opens up the potential for more sophisticated evolutions based upon the updated technology.

technology, and by our understanding of what it is to use that technology as a way of creatively interrogating our sense of self within our social contexts. Habitus opens channels for affordance, and affordance opens channels for habitus.

5.9 Creativity as Layered Processes

It is common to think of the creative process as a linear progression from initial idea to completed product. An individual begins a piece of work, develops and actualises their idea, and ends up with some sort of tangible result. The stage based models of the creative process discussed earlier in this thesis provide clearly defined steps representing that progression (Poincare, 1913; Hardamard, 1945; Feldman, 1988). However, it would be overly simplistic to think of those staged processes as a singular path of transition because that belies the depth and complexity of both electronic music production and human creativity as a whole. A more well-rounded view is to consider multiple layers of those staged processes as occurring concurrently and asynchronously.

A piece of music is a system, with numerous elements operating simultaneously in a very delicate balance. If one element is altered even slightly, it can throw off this balance, necessitating further adjustments to other elements. It is a complex process of problem solving, with new problems within and between layered elements discovered in the process of solving existing problems. During the production process, each element of the composition goes through its own version of the stage based processes mentioned above. The complexity and asynchronicity come about when we build up layers of elements and when we adjust those layers. Those new elements and adjustments to existing elements often necessitate change in other elements within the system. When that occurs, the stage of creative process for other effected elements can jump backwards and forwards as our perception of the element's quality and appropriateness changes relative to the rest of the work. We see it in a different light, so we must solve the new problems which are revealed by that light, either by altering the effected element(s), replacing it, or removing it entirely. If the element is removed, the system is shaken up by its absence, and the stage of process of other elements is affected as a result. If the element is altered or replaced, then a different or new element is introduced, shaking up the overall system as described above, and bringing about further asynchronicity in the form of a new staged creative process.

Eventually, we perceive the relationship between those creative processes as having reached a kind of aesthetic equilibrium. It is not a true equilibrium, of course, because our perception of that is based upon habitus and is, therefore, subjective. Indeed, it is most often the case that we simply settle for a result which is as close to balanced as our habitus will facilitate and our time will allow. We know that perfection is impossible, but in aiming for it regardless we are able to bring ourselves as close to it as we realistically can.

While staged models are a very useful way of describing the creative process, it is important to understand that they can be reductive. As I have shown here, it is more appropriate to the complexity of the creative process to think of it not as singular, but rather as a system of often concurrent processes. Multi-stage models work in both the macro and the micro, but it is the relationship between the layers of processes within the system which define the nature of those processes and thus the nature and progression of the overall task. We must strive to understand the process of creativity not as a linear black box, nor as a set of clearly defined steps, but as a complex and dynamic network of layers of process within and between layers of process.

5.10 People/Practice/Product

In the Analysis chapter of this thesis I touched upon a definition of electronic music, which I derived from research by Mooney (1963) describing elements which come together form creativity. I named that definition 'the three Ps': People, Practice, and Product. As a term, 'electronic music' is very broad. It incorporates many musical styles and genres, encompasses a wide range of approaches to music production, takes inspiration from numerous diverse sources, and incorporates artists from all sorts of social backgrounds. In designing this study, I focused upon British artists producing electronic music that is influenced primarily by dub, hip-hop, and ambient, is often produced in small project studios, and is usually released on independent labels. Even with that narrowing of scope, closer connections were needed between the term 'electronic music' and the theory surrounding creativity and, in order to do that, I felt it was necessary to adapt Mooney's work to provide those links.

People describes the networks of individuals which make up the field. This part of the definition acknowledges that creative fields and creativity as a whole are fundamentally social in their constitution. Made up of shared ideas and collectivised notions of what constitutes a field, what it means to be a part of the field, and what it means to contribute to the field. By making this acknowledgement we can place electronic music within the Bourdieusian ontology, which explicitly defines cultural fields and their relationships with other fields and society as a whole.

Practice reflects the fact that electronic music is a form of creative practice. The individuals who participated in this study all produce forms of electronic music and share certain fundamental techniques and approaches to music making. This study positions itself around socially constructivist notions; however, it also acknowledges that individual experience is an important part of understanding the phenomenon of creativity. While individual creativity is derived socially, it is enacted and experienced by individuals. By defining electronic music as a form of creative practice we acknowledge and are better able to understand that experience and, hence, the role of the creative individual within the social phenomenon.

Product refers to the creative products which the field of electronic music is based around. Obviously, music is the primary product, but there are also significant visual arts and design elements associated with the music and its promotion, as well as written works such as magazine articles and similar video content. By incorporating those cultural products into this definition, we can observe representations of the structures of the field. Crystallisations of the complex social interactions which shape those products and bring them together to define how the field perceives itself, how it evolves over time, and how it influences and structures new works which are brought into it.

Systems of creativity within cultural fields are complex, with a great deal of interplay between the elements which make up those systems and those fields. Those complexities make any attempt to definitively describe a cultural field a major task in its own right, and the pursuit of such a definition is not the aim of this research. It is a side product and is not intended to be anything more than functional within the context in which it was created; a way of exploring the field denoted by the term ‘electronic music’, understanding three of the major elements which make up that term. However, I believe that the broad nature of the

three elements described above allows this definition to be usefully applied when studying any creative culture or creative field.

As elements, the three Ps should not be seen as separate but, rather, as inter-related facets that are linked together by the social nature of cultural fields and creativity as a whole. Each element functions based upon social interaction of one form or another, and due to that commonality must be understood as co-dependent and co-defining parts of a broader system. In understanding this, we are able to place electronic music and other creative cultures conceptually within what we know about creativity from the literature. The three Ps can help us to understand creative significance in a given field relative to other cultural fields and to our understandings of creativity in a wider sense.

Chapter 6. Summary

This chapter represents a culmination of this thesis. It summarises the previous discussion, takes in the analysis, methodology, and literature which precede that discussion, and uses them to directly answer the research questions set out in the introduction. As with the discussion chapter, these answers are not intended to be universally definitive, and they should not be seen as such because as with all areas of qualitative research there is a great deal of subjectivity. So, the conclusions that I derive from this research can only ever be my own interpretations of the information derived from the project.

There are two research questions which I set out to answer: 'what are the sociocultural mechanisms underpinning electronic music production?' and 'what do those sociocultural mechanisms and their interactions tell us about creativity as a whole?' They were always intended to be rather broad; open enough to allow them to guide the research in interesting directions and with a great deal of depth, but closed enough to allow the answers derived through that research to remain focused on the research context. What has surprised me is the way in which the answers have developed over the course of the project. What was once a wide scope has narrowed over the course of its development into something which can be brought together in relatively few words, and it is those few words which can be found below.

Before I go on to them though, it is important to make a couple of points about how this summary sits in relation to the manifesto which follows and serves as the ultimate culmination of this thesis. There is an interesting mirroring in the ways in which both that chapter and this have developed, narrowing from something very broad into something relatively narrow. Both chapters, in a sense, serve the same purpose, that of summarising the findings of this research, but they do so from two very different perspectives. This chapter is, in a sense, the full stop at the end of the book. Conclusions drawn, loose ends tied up, narrative arc complete. The manifesto chapter is more of a semi-colon; the end of something, but the beginning of something else. The reopening of the question and the beginning of a search for new answers. But we will cross that bridge when we come to it. For now, we must conclude this part of the research.

6.1 What are the Sociocultural Mechanisms Underpinning Electronic Music Production?

In order to understand and discuss the sociocultural mechanisms which underpin electronic music production, we must first remind ourselves of one of the central themes of this research. Specifically, that electronic music production is, at each and every level, processes of sociocultural interaction. That deeply engrained relationship means that we cannot describe the mechanisms which underpin how electronic music production is produced without simultaneously describing those sociocultural interactions. We must, therefore, treat electronic music production and sociocultural interaction as one and the same in order to meaningfully understand them. That synergy is at the heart of the mechanisms discussed below, and should therefore be borne in mind as a subtext to that discussion.

A creative habitus is drawn from, and ultimately gives back to, the sociocultural fields that the creative person has experienced and is involved with. Those fields draw from, and give back to, the individuals who constitute them through the creative works associated with them as part of their domains, and the abstract ideas which constitute how they are perceived through their doxa. This is a dialectical mechanism which incorporates the sociocultural contexts of the individuals within those fields because those individuals draw from their contexts in their creative works. Every musical influence, every cultural reference, every creative technique, every record, and every track are drawn from the abstracted, reprocessed, and recontextualised sociocultural experiences and interactions that form the habitus of the creative person. By building our habitus upon the work of others, and ultimately giving back to them through our own work, our sociocultural experiences interact with the sociocultural experiences of others as expressed in their creative works. Through those processes we connect more closely with the social nature of the self and come to understand, if not always consciously, that we are fundamentally irreducible from one another.

Creativity is derived from, and defined by, the sociocultural contexts that it sits within. We as creative people are constantly testing and re-evaluating those mechanisms as we develop our understandings of them and our relationships to them. As producers we come to know that certain approaches and certain ideas sit more comfortably within electronic music than

they do within other genres. This is something that we learn through interacting with electronic music as a field, and through interacting with other forms of music, other forms of culture, and society as a whole. We also learn through doing. Through experimentation with techniques and ideas, we learn whether or not they sit within how we conceptualise the field and our creativity relative to it. Later, we learn to what extent the field agrees with our conceptualisations through feedback on the creative works we submit to it as our part of the cultural conversation. It takes a level of accomplishment to have a voice in the dialogue, and often it is lost within the noise of the crowd. When it is not, however, we play a small part in developing the definition of what it is to speak that cultural language as our views of the field become a part of how the field views itself.

Fields are ecosystemic assemblages of their members' sociocultural experiences and interactions. They contextualise creative action, creative individuality, and creative freedom, and define understandings of creativity relative to themselves. Because fields constantly evolve through the creative ideations and productions of members, they are constantly questioning what the experiences and interactions of those members mean relative to one another and the field itself. This process represents a mechanism which contextualises the experiences of the individuals who constitute the field, question what it means to be a part of the field, and redefines the nature of the individual and collective creative experiences of field members and the field as a whole.

The reason that this constant redefinition takes place is that creativity is fundamentally interrogative. It is a mechanism which allows us to develop understandings regarding the place of the creative individual within society, and, in terms of electronic music and cultural fields generally, of sets of individuals interrogating their positions collectively within the context of their sociocultural experiences. As creative individuals draw from creative representations of sociocultural experiences and reprocess them as part of a field, so society draws from creative fields as reflections of its own, wider, contexts. Fields provide microcosms of society because they represent collectives of experience. Through the process of those fields questioning themselves and working towards deeper understandings of those experiences and how they are collected, they hold up mirrors through which society can find broader representations of human experience, and use them to go through similar processes of developing understanding. It is not so much a case of art imitating life, or of life

imitating art, but of art and life being one and the same. They grow together synergistically as each interrogates and comes to understand more about itself and the other in a relationship of co-definition.

So far, I have discussed a range of quite abstract sociocultural mechanisms which underpin some of the creative functions of electronic music production, cultural fields generally, and society in a wider sense. I would now like to move to the second of my two research questions, and answer it by discussing the creative functions themselves, and their implications, in more detail.

6.2 What do those Mechanisms and their Interactions tell us about Creativity as a Whole?

The overwhelming commonality between all of the above mechanisms is that they are centred around social interactions between individuals, cultural fields, and societies in a wider sense. Those interactions are based around interrogation of position within and between those three elements, the development of understanding through that interrogation, and evolution as a result of that understanding. We can apply the progression of interrogation, to understanding, to evolution as a way of describing habitus development, creative production, and growth within creative fields. Interrogation, to understanding, to evolution also serves as a form of summation of the creative process overall: creative people seek understanding of the self in a creative context through interrogation of their sociocultural positions, develop the understandings which underpin habitus, and eventually play a part in the evolution of the field through contributing creative works to its domain and conceptual notions to its doxa.

While creative mechanisms are social in their nature, the derivation of creative thoughts and creative actions are unique to the creative person. Each individual performs their positional interrogation in their own way because we each have unique positions relative to the field and to the rest of society. There must be structuring similarities for the field to coalesce and function; however, each individual development and approach within the field is unique. It is those (often) small differences which reveal the character of the individual approach and result in differing creative outcomes. For example, the data shows that there was general agreement amongst the participants on all sorts of topics related to the field and to

creativity within electronic music production more generally, but there were also differences. OT, for example, favours the heavy use of sampling in constructing his music, while others, such as ED and WH, favour an approach using synthesisers and other live instruments. There is a great deal of crossover, but those differences illustrate the differing routes which brought each of those participants into the field. OT started out as a DJ, and his early socialisation into the field was centred around that and supported by his family. ED and WH started out by learning more traditional musical instruments, again, supported through social interactions with family, and also with music teachers. Differences in the sociocultural interactions which characterise field members and, by extension, their creative products give depth and malleability to the field, while similarities derived from its domain and doxa give focus and structure to both the field and the creative development and output of its members.

In terms of creativity in a broader sense, the above shows that, while the habitus of creative people within a field are all different because they are all drawn from differing sociocultural experiences, there must be similarities to complement those differences. Without those similarities between field members, the creative person cannot become a part of a creative field because there is no direct context for that creativity. Even when entirely new fields are formed through creative action, they are based upon the domains and doxas of related fields in order to make sense as extensions of the fields they are based upon. Creativity cannot exist without context, and it is therefore vital that fields are united by sets of ideas and values held by members. It is through learning those ideas and values in their own ways that creative people are able to apply the uniqueness of their habitus and use it to create things which recognisably build upon existing ideas. A small amount of individual freedom must be sacrificed to allow for the greater expression of that freedom as part of a field.

Creative people come to embody their sociocultural experiences and the values of the fields they are associated with, but it is also the case that fields come to embody the experiences and creativity of their members. When individuals contribute works to the field, they submit not only an interpretation of their understanding of the domain and doxa of that field, but also of the wider experiences which constitute the freedoms inherent in the development and expression of their habitus. When the creative freedom and individuality of those individuals becomes embodied by a field, it allows for movement within that field by

showing the potential for reinterpretation of its values. If those values are very rigidly codified, it is very difficult to make creative expressions of the self within the field because creativity, by its nature, is an individualised expression and interpretation of a field's systems and values. Without new interpretations and expressions, it becomes a closed system, an unbreakable loop of repetition and reinforcement. It follows, therefore, that fields must be malleable enough to allow creative freedom to effectively develop and, given that fields are comprised of people and interactions between people, that malleability and by extension that freedom must be derived from those people, and their sociocultural interactions and positions as part of the field. Creative freedom is not something which exists solely within the individual. It is an inherent part of the function of all sociocultural fields. Fields must evolve in order to survive, and for that to happen members must come together to provide context for it and transfer their creative freedom into it through their interpretations of that context.

This research has highlighted the centrality of individuality to the constructivist paradigms which underpin much of the theory used in creativity research. It has shown that the relationships between the sociocultural mechanisms underpinning electronic music production and cultural fields generally are inextricably linked to the individual processes which constitute those fields and define what it means to be creative within them. It has also shown that creativity is something that is developed in ways unique to each individual, but that is also derived from the collectives of fields and societies which provide structure and context, and enable growth. These findings are commensurate with the theories which this thesis is based upon, and therefore it is not surprising that these links are evident. However, the extent to which they are encompassed into electronic music production is interesting because of the relative lack of research into that particular creative field. By highlighting those links to the established theory within a relatively novel and still emerging field, this research has reinforced prior knowledge, built new ideas upon that knowledge, and helped to define ways of applying it in order to understand new and existing cultural contexts and creative paradigms.

6.3 Conclusion

This thesis has explored the intricate dynamics between the sociocultural mechanisms,

cultural fields, and individual processes which underpin the field of electronic music production, with a specific focus on understanding their implications relative to current academic thought on the nature of creativity. One of the most important findings that has emerged from this research is that, like any other complex creative activity, electronic music production is an intricate and nuanced set of mechanisms that are inseparable from the sociocultural interactions and experiences that inform individual habitus. The research has also shed light on the complex range of influences that contribute to the development of individual creative identity and, by extension, creative output within the field. Those social factors have been shown as fundamental to an individual's habitus, providing them with unique set of skills, knowledge, and creative predispositions that shape their relationships with and contributions to the field.

Only through comprehensive examination of the natures of the sociocultural mechanisms which underpin creativity can one move towards effectively nurturing and supporting it, and while this research has taken large steps towards doing that within electronic music production, it is something that could conceivably take a lifetime to fully understand in a field as complex and multifaceted as this. While this study has looked at a small subsection of the field of electronic music, that subsection is significant enough that it can be seen as a microcosm of the autonomous pole of the field as a whole. That means that the findings here can just as readily be applied to any electronic music, whether it be club orientated dance music, very abstract ambient music, or experimental noise music, which is made from an autonomous perspective and uses the same kinds of technology in the same kinds of ways. House music, for example, is perhaps the other side of the coin to the area of the field discussed here. It draws its musical influences from slightly different areas and is produced with slightly different listening contexts in mind, however it is made using the same processes by people ultimately drawing from the same broad pool of structuring musical concepts and technological affordances. Fundamentally speaking, it is made by the same kinds of people doing the same kinds of things in the same kinds of ways. The only difference is the output.

The field of electronic music is only going to expand and become more significant, and while this work has opened a few doors, there is a lot more which could and should be done. For example: an investigation into how technological advancements have shaped the dynamics

of music production, how they have shaped creative processes and experiences, and their implications for the sociocultural factors which structure the field. One could conduct a comparative study of the sociocultural mechanisms underlying different forms of music composition and production, such as rock and acoustic music. This research could provide insights into how different genres and styles are shaped by different forms of interactions, experiences, and contexts. As noted in the Analysis, there is potentially to explore this field from a much more technologically orientated perspective, in a similar way to research by the likes of Collins & d'Escriván (2017), Warner, D (2017), and Holmes (2020), looking in a more granular sense at the technology used by practitioners and the affordances offered by that technology. Research such as that could, for instance, track changes to musical output in tandem with developments in music production technology. Similarly, one could apply the framework established here to creativity in other disciplines, such as visual arts, literature, or dance, contributing to broader understandings of the more universal aspects of creativity. More ambitiously, a longitudinal study of creative evolution would be very interesting and unique within the field of music production. It could provide significant new insights into how individual habitus develops over time, why they develop in the ways that they do, and how that development influences creative output. Alternatively, one could focus more upon the field itself, and seek to understand how feedback from other artists, labels, journalists, and fans impacts the creative practice of field members. The possibilities are numerous and wide ranging.

In many ways, the conclusion of this chapter represents the conclusion of the thesis itself. The research questions have been answered, my observations have been recorded, and new sets of ideas have been derived from those observations. However, this thesis utilises two forms of academic approach: the traditional social scientific, and the narrative autoethnographic. Having completed the first of those approaches, I will now move on to the latter; the manifesto for creativity within electronic music that has been the underlying goal for me on a more personal level. A creative expression of my own thoughts and feelings surrounding my life's work, contextualised and refined by the scholarly learning that has taken place over the course of this PhD.

Chapter 7. Manifesto

7.1 We are Catalysts

Abandon the concept of creativity as something which is directly within your control. Manifest it by developing the circumstances under which it occurs. Draw from the field. Examine understandings. Foster evolution.

Each creative experience represents a lifetime of engineering our sociocultural positions and developing our understandings of what it means to place ourselves within those positions. Only by being in the right place at the right time with the right concepts can we bring about the evolutionary leaps of true creative thought.

Even then, we must remember that we have not hewn those evolutions from solid rock. We have placed ourselves such that we can see what lies within and given ourselves the tools to reveal it.

7.2 We are Free

We form our understandings of what it means to be creative in a given field, and what it means to express ourselves relative to those creative fields, as unique individuals.

That individuality is defined by the unique natures of our interactions with our field, with the world, and with one another. No two of us are exactly alike. What this means is that we each see a slightly different slice of the field, and therefore we each have a slightly different understanding of what it means to contribute creatively to that field.

We are all exposed to individual sets of influences. Different experiences, interactions, and conceptualisations of art and life. Creativity is what we find when we connect them to the contexts which allow us to express them.

It is the uniqueness of those connections which represent our creative freedom.

7.3 Stepping Away

When I ride my bicycle I occasionally try to ride dead centre of the lines marked onto the road. I have found that when I look down at the line it becomes very difficult. However, when I look up from my wheel and concentrate on the road ahead I am able to trace the line perfectly. This tells us something about creativity.

When we focus too closely on the task at hand it is easy to become blind to its essential nature. We get lost in the details and either get stuck in feedback loops or go off course entirely. That is why, from time to time, we must step away from the work.

In doing so, we allow our subconscious mind freedom from the minutia of the problem, space to recontextualise it, and room to free associate. This enables us to draw concepts and ideas from the deeper parts of our creative selves without our conscious mind distracting us and tying us down to stale conceptualisations and overused practices.

We allow ourselves to open up to the wider and deeper understandings that exist within us.

7.4 Diversify Your Influences

We develop our creative individuality by drawing from pools of social and cultural ideas of immense breadth and depth. We absorb influences from them as we build our understandings of the fields we are associated with and exist within. This process continues throughout our lives.

We must realise that in order to build a rich understanding of what it means to be creative we must expand beyond the sets of ideas which structure the field that we work within.

The wider our influences, the more ideas we have to draw from. Many great works have stemmed from the blurring of boundaries between fields, but we can apply those wider sets of ideas in our own small ways too. A little from here, a little from there.

The nature and range of your influences are what makes you unique. Expand upon them. Build upon them. Filter them through your sense of yourself as a creative person and feed them back through your work.

7.5 Technology

Technology is the other collaborator in the room. It facilitates your ideas. It gives you the freedom to experiment, to refine, and to adapt.

What it also does is guide you. Each piece of equipment emphasises and optimises different functions, and opens up conduits through which you channel your creativity. Technology gives you the tools to take the path of least resistance towards your perceived outcomes, and choose which tangents you follow along the way.

We should always be mindful, however, that the technology only provides a framework. We can and should step outside of that framework when we encounter the right sets of circumstances to do so. The most creative ideas are often brought about by people using technology to do things it was never designed to do.

Take the paths of least resistance, but remember that there are always alternatives, even if they are not immediately obvious.

7.6 Don't Overthink

As a creative person you have developed a sophisticated understanding of what it means to function within and contribute to your field. It is impossible to call upon all of that information all of the time, but it is always there in the background guiding you.

The conscious mind is important too, because it is how we typically solve surface level problems, and how we put together many of the more basic structuring ideas which go into every piece of creative work. However, when we get bogged down in conscious thought, we can find ourselves caught in a kind of feedback loop. Obsessing over elements of our work which are often unimportant in the wider scheme of things.

Our subconscious allows us to bypass a lot of that. It is the feeling of excitement we get when something clicks. It is the gut instinct which tells us that we are on the right path. Through practice and experience we learn to connect with it more clearly.

Use your conscious mind when necessary, but develop your ability to quiet it from time to time, and listen for the quieter voice which represents the deeper nature of your relationship with yourself and with what you are doing.

7.7 Love the work

Understand that creativity is a process.

Do not worry about the outcomes, instead, find enjoyment in the work itself and create for the sake of creating. Over time you will find profound senses of satisfaction as you come to realise the progress that you have made and the skills you have developed.

It does not stop there. It is a process of learning and growth that takes place throughout your lifetime. With the right commitment to widening your influences and deepening your knowledge, you will develop and evolve as a creative person. Slowly becoming more of the person you were always supposed to be.

There is no shortcut for this. It requires huge amounts of time, commitment, and effort, but if you can find joy in the work itself then you are well on your way.

7.8 A Process of Self-Understanding

The reason why we do what we do is that we want to understand more about ourselves and how we fit within our creative field(s) and the rest of society.

We absorb knowledge and develop the understandings and skills necessary to express ourselves relative to those wider contexts. This allows us to have a voice in the conversation, not only in a sociocultural sense, but with ourselves as individuals.

Through learning to understand ourselves we become better at understanding other people. We discover greater meanings and clearer senses of ourselves relative to other people. We come closer to finding our place in the world.

7.9 Never Work for Other People

Always remember that creativity is a personal journey. It comes about through your interactions with the world, with societies, and with cultures. As such it is a direct reflection of who you are as an individual and your experiences of life.

With that in mind, you should always remember that to try and channel who you are as a creative individual towards what you feel other people want or expect from you is a path that is fallacious to your true nature.

You can never step in the same river twice. You can never go back and repeat past creative successes or fix past creative failures. You should never try to go backwards, even if you feel that is what people want. It is impossible.

Instead, going forwards, you should be mindful of your previous creative experiences and the circumstances which brought them about, and seek to evolve them towards new creative experiences in tandem with your own development as an individual.

7.10 Go out of Your Depth

Whilst it is always a good strategy to incorporate into your work elements and ideas that you know work well for you, if you feel that you are completely safe in what you are doing then you are not pushing yourself towards truly creative outcomes.

When you go out of your comfort zone as a creative person, you force yourself to free associate ideas and tap more directly into your deeper creative self because you do not have set rules and structures for what you are doing. You force yourself to make things up as you go along and try new things. That process is at the heart of creativity.

It is a question of balance. The ideas which you are comfortable with support and contextualise the new ideas which you have formed through going a little further out of your depth than you have previously. Experiment by degrees.

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