

The language of light: How lighting designers
use language and exercise agency
in creative collaboration

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Abstract

This study introduces a new way of thinking about and understanding the processes of theatre technical rehearsals, focusing on these as a discrete and fundamental part of understanding and making theatre, by observing and analysing the linguistic strategies of lighting designers, directors and lighting programmers, *in the moment*. By applying existing research in language and linguistics, creativity and collaboration, this thesis makes an original contribution to an understanding of the hidden, tacitly practised mechanisms that are integral to the theatre production process, drawing out and unravelling the latent processes of negotiation that occur in this particular workplace environment. This research aims to fill the gap that currently exists at this intersection of creativity, collaboration, scenography and applied linguistics. Combining research on the people, processes and potential of light in live performance with a linguistic ethnographic study of current practice in the UK, this thesis addresses issues of communication, agency, hierarchy, power and creativity – themes that have emerged from an analysis of the research context and through the data gathering process. The overarching aims are two-fold and relate to both academic and professional practice: first, to explicate the contribution of lighting designers and programmers during the technical rehearsal process and, second, to provide a way to articulate the underlying forces at play during technical rehearsals, for instance how power relations, collaborative working practices, personal and professional identities, and opportunities to advocate for the role of light on stage are manifested through language. It is expected that the results of this study will have implications beyond performance studies and can be extrapolated to the creative industries more generally, with additional methodological applicability to other fields in which professionals work together towards a shared goal or outcome.

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Solely published work included in this thesis

Work relating to or drawn from sections of this thesis has been published in the following solely authored publications:

- Zezulka, K. 2019a. A linguistic ethnography of theatre production. In: Wright, C., Harvey, L. and Simpson, J., eds. *Voices and Practices in Applied Linguistics: Diversifying a Discipline*. York: White Rose University Press, pp.127–141. doi: <https://doi.org/10.10.22599/BAAL1.h>. Licence: CC BY-NC 4.0.
- Zezulka, K. 2019b. The lighting programmer as creative collaborator. *Behind the Scenes: Journal of Theatre Production Practice*. **2**(1). [Online]. Available from: <http://journals.sfu.ca/bts>.
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Chapter 1: Introduction

This research examines the complex relationship between theatre lighting designers, lighting programmers and directors and the intangible material of light, through a linguistic ethnographic lens. In order to articulate the significant role that both light and lighting designers have in the realisation of a production, this thesis explores how lighting professionals use language not only to describe their creative process but also to navigate and potentially exploit the constantly changing social processes of the technical rehearsal. By way of explicating the importance of this research, both to current scholarship and professional practice, I begin with a 110-year-old quote from pioneering theatre designer Edward Gordon Craig:

Can anyone on the stage today tell us what is *Language* and where it comes from – what its history? Can anyone on the stage tell us what is *Light*? Whence it comes – what its power – No – yet these two things, *Light* and *Language*, are great and lesser parts of our material of the modern theatre.

They are both great factors of our new theatre of tomorrow.

Where is the school then?

I want to sit and study week after week in the body of the Hall whilst someone who knows all about Language shall make some of his knowledge clear to me.

(Craig, 1908–1910, p.187, emphasis in original)

As Craig advocates, both light and language are integral to our understanding and practice of theatre. While Craig may here be referring to language in the sense of what is spoken on stage (or written in playtexts), I maintain that an emphasis on the language spoken off stage is equally important to an understanding of how theatre is made and, therefore, what theatre *is*. The tension between the intangibility of light and light's material, affective and dramaturgical potential is one that is often bridged through the use of language. An examination of this combination of light and language, however, has yet to be taken up by either scholars or practitioners in any

sustained, serious way, something this thesis will address. Light, Craig notes, has an inherent power in its materiality; as a scenographic element, light has long been acknowledged as both fundamental and integral to performance. However, critical attention paid to light, both in comparison with other scenographic elements and in relation to the wider field of theatre and performance studies, has been relatively scarce. Palmer (2018) and Moran (2017) both outline some of the reasons for this: light's "ephemeral nature and the difficulties in putting into words our experience of light" (Palmer, 2018, p.50); "we can't see light – only its effect on the bodies and objects that it hits" (Moran, 2017, p.22); the role of lighting "has historically often been dominated by concerns with the practical" (Palmer, 2018, p.48); and "the difficulty of analysing the ways in which theatre lighting affects an audience" (Moran, 2017, p.24). Palmer (2018) poses the question, "Why has detailed consideration of light been so largely absent in writings on theatre and performance studies?" (p.50). Indeed, this thesis takes this question one step further and asks, "Why has detailed consideration of the *processes by which light is created on stage* been so largely absent in writings on theatre and performance studies?" Through an analysis of language-in-use – Craig's second "great factor of our new theatre of tomorrow" – this thesis will show how light and language are not only inexorably intertwined but also mutually dependent and indispensable considerations in the study of scenography and theatre-making.

The significance of this research to the critical study of theatre lighting lies in its emphasis on process rather than product, the resulting impact of process on product, an examination of creative collaboration at the production desk, and how technical rehearsals work and power structures are enacted through language. The methodological approach of this study is unique in theatre lighting design research and is in contrast to previous work in this

field, which relies primarily on interviews, anecdotes or autobiographical experience (for example, Pilbrow (2010) and Moran (2017)), or is historiographical in nature (for example, Palmer (2013)). Similarly, applied linguistics research in theatre environments is relatively rare, with this being the first multi-site ethnographic study to focus specifically on the linguistic habits of theatre lighting designers. Through the use of a linguistic ethnographic approach, this research provides an insight into how lighting designers, lighting programmers and directors use language in a collaborative environment to exercise agency and navigate creative hierarchies. This original knowledge explicated throughout is firmly rooted in contemporary professional theatre production practices, from the viewpoint of an experienced practitioner–researcher, and underpinned by an interdisciplinary approach that borrows from linguistics as a means of exploration. The emphasis here, therefore, is explicitly on the ways in which an understanding of linguistic practices may help explicate collaborative processes, within the specific setting of the technical rehearsal, rather than a study of applied linguistics that uses theatre production as a case study.

I have undertaken this research with fifteen years' experience in the UK as a lighting programmer, production electrician and lighting designer and, prior to that, four years in the US as a lighting designer, director and stage manager. I have therefore been able to draw on my extensive experience and knowledge of the theatre industry and production process, having worked on a variety of production styles and scales, from rural tours of one-woman shows to large-scale musicals at regional producing theatres. My role as editor of *Focus*, the bi-monthly members' magazine of the ALD,¹ has given

¹ This is the Association of Lighting Designers in the UK. The ALD comprises approximately 1,000 individuals working in the field of live performance lighting and video, including designers, programmers, operators and technicians.

me access to the UK's high-profile, as well as emerging, lighting designers and has contributed to my position within the industry nationally and internationally. The majority of my professional working life in theatre has been spent in technical rehearsals, as the in-house lighting programmer at the Royal Court Theatre in London, where I programmed dozens of productions for a wide range of lighting designers across two venues; as the lighting assistant on the London leg of a world tour for the Royal Shakespeare Company; as a production electrician working in receiving and producing theatre across two venues at the West Yorkshire (now Leeds) Playhouse; as a freelance lighting designer since 2004, designing two to three shows a year on average; and as a freelance stage, company and production manager since 2015. I am therefore intimately acquainted with the setting and environment of the technical rehearsal. It is a process I have come to have a profound understanding of, and it is this extensive and deep experience in not only the professional community being researched but also the professional environment being researched that enables my effective analysis of the fieldwork data that follows in Chapters 5 through 7.

I spent the five years preceding this research working in corporate communications as a senior proofreader, a role that allowed me to pursue a long-held interest in language. I became fascinated by etymology, syntax and semantics, but I also became acutely aware of people's ability to use words to do more than simply transmit or impart information; in particular, I came to realise how language affects who we are, how we are seen by others, and how we do what we do – or, as Austin (1962) puts it, how we “do things with words” (much in the way that lighting designers “do things with light”). Although I was dealing primarily with written texts in the context of investor relations and financial reporting, which perhaps seem unrelated to the topic of this research, I found myself wondering if and how a study of

language could be used to help lighting designers articulate something more abstract: how they talk about light and how they use language as part of their creative process and the ways in which they collaborate. While this thesis is not a linguistic study per se, it uses a mode of analysis based in linguistics to explicate the creative contribution of the lighting designer in the creation of a performance. This research is therefore situated at the crossover of my two professional interests: lighting and language.

The process of making theatre and other live performance relies on an interconnected network of skills and experience from often geographically disparate colleagues over a relatively short period of time. The freelance, peripatetic nature of the industry dictates a diversity of workplace settings and interactions, with lighting designers and other members of the creative team² constantly negotiating the creative, interpersonal and linguistic boundaries in their work and the hierarchies in which these occur. Therefore, the need to communicate effectively and efficiently is paramount; it is essential to every aspect of work in theatre, whether artistic, technical or otherwise.

Ingold reminds us that even “though we do not see light, we do see in light” (2005, p.97), drawing attention not only to the necessity for light on stage for basic illumination but also to how light affects and is affected by other production elements, as well as its potential power to affect audience perception, to direct attention and to become a discrete dramaturgical force

² The divisions in nomenclature between cast, creative team and production team are sometimes contested (see e.g. Brennan, 2011, and McAuley, 2012). For my purposes here, I include designers and the director/choreographer in the “creative team” and technical staff and stage management in the “production team”. The use of either term is not intended to imply or impose “a hierarchy of creativity” (McAuley, 2012, p.45). As seen in Chapter 3 as well as in the analysis, the lighting programmer’s role and responsibilities often straddle both the creative team and production team, though they are usually included in the latter group.

in its own right. As lighting designer Jennifer Tipton notes, “Ninety-nine and nine-tenths percent of the audience is not aware of the lighting, though 100 percent is affected by it” (quoted in Fisher, 2012, p.9). What Tipton is perhaps attempting to get at here is the difficulty many audience members would have in articulating this affectivity and in accessing the language needed to explicate the role of light in performance, possibly due to light’s lack of tangibility but also to the subjective nature of an audience’s response to light (Palmer, 1994, p.6; Moran, 2017, p.24; Palmer, 2018, p.51). This subjectivity and difficulty in articulation is not specific to audiences, however; professional designers, directors and technicians, as well as theatre and performance scholars, face a similar challenge, and this may account for the marginalisation of light and the lighting designer in both academia and professional practice. This is in part due to the way in which light is interwoven with space, time, material and affect (which will be explored further in Chapter 7). Light, though seemingly immaterial, is the material that binds together all other scenographic elements. Indeed, “when talking about the set, or the clothes, or the music or the style of acting we ARE talking about the light” (Strawbridge, 2018, p.3). The problem is that light is “essentially visual, but the discussion must take place without having the actual product to look at. [...] It can be a frustrating exercise” (Strawbridge, 2003, p.38). During a lighting symposium in Malmö, Sweden, when discussing the skills a student lighting designer needs to have in order to communicate with the rest of the creative team, lighting designer and educator Nick Moran asked:

What do you talk about with directors before the rehearsals, before you get into the theatre? Anything but lighting. Because lighting limits the conversation. [...] What you really want to know is how they see the piece, where are the important parts of the piece, what is the story of the piece, how is that piece evolving? And anything

that you can talk about that informs you both about that. You can bring your own ideas about it too – you can inspire; it doesn't have to be a one-way conversation. But in order for that to happen you have to know about more than lighting, and that I think is absolutely key (Moran, 2018b).

The idea of talking about anything but light in order to talk about light is an interesting paradox and underlines the inherent difficulties that lighting designers face in the execution of their work. It seems the main point that Moran was attempting to make in this quotation is in the final sentence: the need for lighting designers to draw on existing practices and material outside their discipline, to have a wide understanding and aesthetic appreciation for a variety of art forms that will in turn provide them with an extensive basis for building a shared vocabulary with directors and other designers. While this is something that I would equally advocate (and indeed is seen to be a vital skill for the lighting designers observed here), it is perplexing that this shared vocabulary, or the pursuit of this shared vocabulary, should *exclude* a discussion of light because it “limits the conversation” about light. There are, of course, a myriad of ways to approach a discussion of light, as this thesis will show; this quotation from Moran, however, goes some way to demonstrate the necessity and timeliness of this research and its relevance to contemporary theatre practice and scholarship.

As a practitioner, and through my long-term involvement with the ALD at a national level, I have long been aware of the continued marginalisation of the lighting designer, from both within and outside the industry (see Chapter 3), and how acutely this is felt across the profession. This can be seen in a number of places: the lack of recognition by critics, established working and hiring practices, fee structures and hierarchies, as well as marketing, press and other externally facing documentation, much of which

neglects or downplays the role of designers (of all types). The role of the lighting designer is a relatively recent development in UK theatre practice and since its formalisation in the 1950s lighting designers have had to fight to establish their place in the creative team.³ As the latest addition to the creative team, lighting designers were commonly appointed after the set and costume designer, a practice that has by and large been retained in contemporary practice (although there are exceptions) and continues to downplay the significant contribution light can make to a production. This lack of understanding and/or recognition of the lighting designer and the role of light and its creative potential, while challenged by some practitioners (for instance, in the partnerships of Lucy Carter/Wayne McGregor, Michael Hulls/Russell Maliphant, and Paule Constable/Katie Mitchell/Rae Smith), continues to be perpetuated.

This attitude towards and treatment of lighting designers is compounded by the fact that light is the sole visual scenographic element that can only be created in the performance space. As will be seen particularly throughout Chapter 3, the failure of others to recognise the substantial “unseen” work of the lighting designer contributes hugely to their professional marginalisation. This unseen work occurs at all stages of the production process. During pre-production, set designers produce a scale modelbox, alongside technical drawings, sketches and storyboards – tangible, physical items that help to communicate their design to a variety of people and departments. Costume designers may similarly use drawings and fabric swatches, for example, to help illustrate and develop their process and creative ideas. These representations can be useful starting proposals, as well as a basis for

³ For instance, Michael Northen, widely regarded to be the first professional lighting designer in the UK, felt very strongly about how his name should appear on posters, in programmes and on other promotional material (Northen, 2012, pp.159–60).

collaborative discussion, and they provide useful and tangible evidence of the set and costume designers' contributions. In both set and costume design, the physical product is built or sourced over several weeks. The materials are tangible and the product can be observed, commented on and refined outside and, crucially, *before* entering the actual performance space. Even in the "related" fields of sound and video/projection, designers can provide content (images, videos, soundscapes, etc.) for discussion and exploration. Similar comparisons and tools do not exist for lighting designers: the technical rehearsal is the primary space in which creative and practical lighting ideas can be tested and discussed. The usual counter-argument to this holds up computer-aided design and "pre-visualisation" software as a solution. However, as Strawbridge states, the images these programs generate "are two dimensional and framed. [...] [T]hey don't accurately predict the subtleties of reflection or relative color and value that the eye is sensitive to in reality" (2018, p.5), making them of limited value artistically (though their logistical value is perhaps more easily apparent). From some lighting designers, there is resistance to computer-aided design as a primary tool of communication. As one lighting designer I observed said, "Who has time to do drawings in theatre? I would hope that my words would be able to articulate what I want better and quicker than the time it takes to do a drawing" (field notes, O5⁴, 18 March 2016). This was their reply when I asked if they ever used visualisation software or other drawings in conversation with a designer or director. While the technology to generate computer-aided visualisations is arguably easier to use than ever before, the time required to create these drawings remains fairly onerous and, in financial terms, the cost often outweighs the benefit. In most cases, this is

⁴ For an explanation of the shorthand by which the observations in this research are referred to, see section 1.1.

only possible on large-scale productions, either where there is money to engage an assistant or associate lighting designer or in cases where an in-house member of staff has responsibility for this, for instance at London's Royal Opera House (ROH).

James Simpson, who fulfilled this role at ROH until May 2019, maintains that there is a logistical value to pre-visualisation, even if it may not provide an accurate "artistic" image. He notes that the "invisible effect of visualisation on lighting designers and the production team" (Simpson, 2019) is not necessarily that it can be used for the exploration of artistic ideas but rather that the design suite becomes a "safe space" (Simpson, 2019, 3:10) for building a shared vocabulary and forging artistic relationships outside the comparatively high-pressure environment of the theatre auditorium during technical rehearsals, with "all the members of the company watching you" (Simpson, 2019, 3:50). Simpson's current doctoral research explores the effect of visualisation on the production process and how these tools can be deployed more effectively, taking up some of the aspects of language and interaction that I explore in Chapters 5 through 7. He does acknowledge, though, that the time in the theatre is what "makes" the design – or:

Theatre is mainly in the performance; lovely sketches and renderings don't mean a thing, however impressive they may be; you can draw anything you like on a piece of paper, but what's important is the actualization. (Svoboda, quoted in Burian, 1971, p.15)

There are, necessarily, two concurrent strands to this research. Taking an ethnographic approach, and drawing on my own autoethnographic tacit knowledge and experience, ensures that the research is grounded in contemporary performance practice and that it maintains a timeliness and relevance. Equally, there is a theoretical and scholarly rigour that underpins the observations and their analysis, establishing the research's originality

and contribution to knowledge. Throughout this thesis, I will show, through a discourse analysis, the ways in which lighting designers and lighting programmers not only contribute to but are also an integral part of any live production, with an emphasis on process rather than product.

It is as a critical and scholarly study of the “hidden” mechanisms and underlying structures of collaboration at work in the technical rehearsal, through an examination of language-in-use, that this thesis makes an original contribution to knowledge. The primary aim here is to explicate the ways in which lighting designers, programmers and directors work, drawing out and unravelling the latent processes of negotiation that occur in this particular workplace environment. Further, this research will contribute more widely to studies of collaboration and creativity and how language contributes to this process.

As Hunt (2015) notes, the technical rehearsal as a discrete part of the production process is an area that is currently under-researched. Indeed, as will be seen in section 2.1, it is a process that even specialist theatre production texts often fail to cover in any depth. The originality and application of this research to both theatre production and scenography studies more widely is evident in its dissemination so far and in a growing scholarly interest in light. In addition to delivering numerous conference presentations since 2015, I have also published sections of this research in the open-access journal *Behind the Scenes* (Zezulka, 2019b). While this research has been very intentionally framed within the nascent field of theatre production studies, there is potential interest here as well as opportunities for further research for those working in the field of applied linguistics: I have contributed a small excerpt of this research to an edited collection of work from the British Association for Applied Linguistics (Zezulka, 2019a), an

organisation in which the potential for overlap with “creative inquiry” (Bradley and Harvey, 2019) is beginning to be recognised, as applied linguists seek to broaden and expand the horizons of their field. The potential value of this research to professional theatre practice has additionally been noted by practising professional lighting designers, lighting programmers and directors, both those who have taken part in the fieldwork as well as those who have not. Through an extensive consideration of the conditions of practice and the linguistic tools that lighting professionals tacitly employ as part of their creative processes, the findings throughout this thesis build a compelling case for greater attention to be given to light and the creative contribution made by lighting designers to performance through an analysis of the latent structures at play in collaboration. The research will also demonstrate the practical and theoretical potential of uncovering how the language-in-use of creative professionals both influences and is influenced by the conditions of collaboration.

The thesis is framed by the following research questions:

1. How do lighting designers, lighting programmers and directors use language to articulate the role of light during the production period, and in what ways do they facilitate creative dialogue?
2. What are the challenges in translating artistic intention? How can lighting designers, directors and lighting programmers use language to anticipate and manipulate these challenges?
3. How do lighting designers exercise their individual agency within the wider team in which they work? How does language reveal and facilitate creative agency?

Together, these questions address lighting design as a process, “a continuous act up to and through the moment of performance” (Hunt; quoted in Palmer,

2013, p.240), focusing on the creation of the lighting design during the technical rehearsal, and the lighting designer's and programmer's positions within creative collaboration – all linked by the use of language. The research questions are explored in further depth in section 2.4.

1.1 How to navigate this document

The transcripts referred to throughout this document are reproduced in full in Appendix A, along with a transcription key. Excerpts have been provided throughout the body text for ease of reading; turn numbers are likewise provided for reference in the analysis. These smaller sections are occasionally repeated in order to explain and/or draw readers' attention to specific turn numbers or features in the transcripts. Cross-references are similarly used throughout in order to make comparisons across sections of the analysis or to point to similar or contrasting examples in the transcripts.

Each production and transcript is denoted by a letter and numbers: the longer observations by "D" (for "durational observation") and the shorter observations by "O" (for "occasional observation"), followed by a number, in the order in which they occurred; see section 4.6 for the temporal and methodological differences between these. Individual transcripts are identified by either "O" or "D", the production number, and the transcript number – for example, D4-2 is the second transcript from durational observation number four. Further explanation and context for each observation is given in Chapter 4 and in Table 1. An index of the transcripts and where they appear in the body text is provided at the end of Appendix A.

1.2 Chapter synopses

Chapter 2 begins with an examination of the research questions guiding the present investigation, as well as the objectives and rationale for this study. There then follows a brief overview of the main areas within/between which

this research is positioned: creativity and collaboration studies, and scenography, lighting design and theatre production studies. The literature review is distributed throughout this thesis, rather than being consolidated in a single chapter, in order to draw closer connections between the literature and its relevance to the topics being explored in each chapter. The main purpose of Chapter 2 is to provide an overview of the existing research context, including academic research, educational texts and books on industry practice, situating this research between and within the fields of theatre production, creativity and applied linguistics.

Chapter 3 continues this review of lighting design and theatre production by looking specifically at the conditions under which theatre directors and lighting professionals work and the relevance of these on the present study. Of particular interest is the section on technical rehearsals, in which I outline the specific reasons for focusing my research here and the special conditions of this unique workplace environment.

This leads into a discussion of the methodology and methods employed in this thesis (Chapter 4), beginning with a review of existing methodologies in theatre design and production. I also detail here the nature of the methodology and my reasons for drawing on and departing from the existing methods in this field, including the use of linguistic ethnography, workplace studies, and interpersonal pragmatics. The practical details concerning the method itself are then discussed, including the process for selecting the productions that form the fieldwork component of this thesis; ethics and informed consent; and methods for transcribing and coding – and in the case of the last of these, how these have changed considerably through the course of the research.

In Chapters 5 through 7, selected transcripts from the fieldwork are analysed in depth (the full set of transcripts is included in Appendix A for reference). The analysis itself is separated into three sections: People (Chapter 5), Process (Chapter 6) and Potential (Chapter 7). These broad headings are intended to group together similar linguistic concepts in the analysis rather than delineate or otherwise divide or separate these concepts. Indeed, in several instances, concepts will overlap or bleed into others – as we will see, the nature of creative collaboration is not straightforward or linear. The People section examines examples of interpersonal relationships, personal discourse and collaborative language and the importance of these in fostering and maintaining not only working relationships but also the environment in which these can benefit. The processes of creativity and collaboration throughout technical rehearsals are examined in the Process section, beginning with the production desk, the place in which the process occurs, then moves on to an analysis of how a shared language is constructed, problem-solving techniques and the use of silence. The title of the final section, Potential, refers to the potential of light as a dramaturgical and affective force, how lighting designers balance pragmatic concerns with aesthetic intentions, and how space and place both impact and are impacted by the many properties, qualities and capabilities of light.

Chapter 2: Research context

The study of light and lighting design in live performance is a growing area of academic study and scholarly inquiry – recent work by Palmer (2013), Abulafia (2016), Moran (2017) and Graham (2018) attests to this fact – however, it is still a relatively small area within scenography research and an even smaller part of the wider field of theatre and performance studies. The complementary field of darkness studies is likewise nascent but growing: Shyldkrot's (2019) recent doctoral research examines uncertainty in theatre in the dark, and the edited collection *Theatre in the Dark* (Alston and Welton, eds., 2019) considers darkness, shadow and gloom from a range of aesthetic and phenomenological approaches.

Methodologically, the field is expanding too: for instance, Abulafia (2016) and Graham (2018), albeit with different approaches, both focus on light as a “thing” to be read or experienced – Abulafia via semiotics and Graham through phenomenology and object-oriented ontology. Palmer (2013) takes a primarily historiographical approach to the creative potential of light on stage, while Moran (2017), through interviews with contemporary lighting designers, weaves a narrative that attempts to show how lighting designers approach their work creatively.

While the aforementioned texts are welcome additions to a hitherto overlooked area of critical study, there remain further questions to be asked. Within the wider literature on scenography, production processes have tended to occupy a secondary position, often overlooked in favour of “design artefacts – whether objects, materials, occasions, environments, or still and moving images” (Hannah and Harsløf, 2008, p.11) and the aesthetics

or reception of the scenographic product. Ethnographic studies of theatre⁵ processes are even more scarce and are concerned primarily with rehearsal room processes (e.g. McAuley, 2008 and 2012; Hazel, 2015, 2018 and forthcoming; Milde, 2019) or are centred around a specific director or company's work (e.g. Lesser, 1997; Atkinson, 2006; McKechnie, 2014), rather than theatre design and production⁶ specifically. These ethnographic accounts are explored in further detail in section 2.2. In this thesis, however, I will be shifting away from the teleological focus of much of the current research in scenography and instead exploring the often overlooked *processes* of creative collaboration that occur during technical rehearsals, using a linguistic ethnographic approach. In a further departure from existing research in scenography, the data that has been generated through this research has occurred *in-the-moment*, during the creation of the design itself, rather than as a reflection on that process or in response to an end product.

This research is grounded in existing studies within the field of lighting design for live performance, in particular contemporary practices in UK theatre production, and the wider field of scenography. It also draws on current research and practices in interpersonal pragmatics, discourse analysis, linguistic ethnography and workplace studies, as well as theories of creativity and collaboration. There is relatively little existing research on the processes of collaboration that underpin the practice of theatre lighting design, and there are currently no other studies that focus specifically on the use of language as a vehicle of agency during technical rehearsals; indeed, as Hunt (2015) notes, the technical rehearsal, as a discrete part of the production

⁵ I use the word "theatre" throughout to encompass several genres of live performance: plays, dance, opera and musicals.

⁶ Here, and in subsequent uses of this phrase, I mean those processes that specifically concern or focus on members of the design and/or production teams, rather than the act of "producing" theatre more generally.

process, has thus far received little scholarly critique or explication, linguistically or otherwise. This process is fundamental to the way theatre is made but has largely been ignored in both scholarly research and technical/design textbooks. Examining how technical rehearsals work, both as a discrete process and as part of the wider process of theatre-making, and articulating the hidden mechanisms at play therein, allows us to challenge existing models of theatre-making by bringing into question the nature of collaboration and how, when and by whom creativity is (allowed to be) enacted – specifically, in terms of this research, in relation to the lighting designer’s creative contribution. While the study of process may be currently underrepresented in scenographic research, it has a direct bearing on product, empowering lighting designers and lighting programmers as “generative artists” not limited “by a fixed position in a predetermined collaborative hierarchy” (Isackes, 2012, no pagination). Bourdieu refers to this process/product dichotomy as the “dialectic of the *opus operatum* and the *modus operandi*” (1992, p.52, emphasis in original), the result of practice and the mode of practice, respectively. This forms the basis for his concept of “habitus”, which he describes as “embodied history, internalized as a second nature and so forgotten as history” (p.56). The habitus, “which is constituted in practice and is always oriented towards practical functions” (Bourdieu, 1992, p.52), consists of systems of “structured structures predisposed to function as structuring structures” (Bourdieu, 1992, p.53). This thesis seeks to understand how the habitus of the technical rehearsal is constructed through the language-in-use of lighting designers and their primary colleagues at the production desk, the director and the lighting programmer, through a detailed look at the processes of creativity and collaboration.

These aims are articulated in more detail through three research questions (see section 2.4).

2.1 Scenography, lighting and theatre production

There is a recent growing academic interest in the field of scenography more widely, clearly evidenced by publications such as the *Performance and Design* series (McKinney, Palmer and Di Benedetto, eds.) published since 2017 and recent work by Hann (2018), Ross (2018), McKinney and Palmer (2017) and Thessman (2017), among others, as well as the *Theatre and Performance Design* journal (Collins and Aronson, eds.). This shift can also be seen anecdotally and in more informal conversations that are happening throughout the industry. The Society of British Theatre Designers' #TheValueOfDesign initiative has facilitated a growing campaign to advocate for the work of performance design(ers) more generally through events that celebrate, showcase and, to some extent, "demystify" design and the design process. The SBTD's Donmar on Design event (held at the Donmar Warehouse in London on 31 October 2018) specifically addressed the need for "alternative collaborations", including design-led work, and "increas[ing] the visibility of the design process to theatre staff and audiences" (Society of British Theatre Designers, 2018). On social media, the growing use of the #CreditTheDesigner and #CreditTheCreatives hashtags and the pressure placed on venues, producers and critics to recognise the significant creative contribution of designers have added to the force of this recent "scenographic turn".

Research into light in performance has seen a concomitant surge in publications, many of which are addressed below, and the focus in recent years has tended towards light's dramaturgical potential, its materiality and/or its affectivity. In contrast, the *process* of lighting design is currently under-represented in academic literature. Much of what does exist is anecdotal or in the form of reflective interviews, while most lighting design resources are perhaps more accurately described as handbooks or manuals

that describe the procedures and technology of lighting design. However, the articulation of process is essential for understanding and advocating for light as an integral and important element of the scenography of a production; process and product are complementary areas of study. In recent writing the art and dramaturgical potential of light as well as the techniques of lighting design have taken precedence, most notably in Palmer (2013), Crisafulli (2013), Abulafia (2016), Moran (2017) and Graham (2018).

The artistic process “enables the work, and [it is] the process that we appreciate when attributing creativity to that work” (Paul and Stokes, 2018, p.199). The tasks that facilitate the lighting design – including researching technical specifications, creating paperwork, attending rehearsals, meeting with the director, designer and wider production team, compiling reference material (e.g. photographs, drawings or other images), etc. – form a substantial part of the lighting designer’s unseen work. This preparation is necessary for the practical implementation of the lighting rig and therefore the lighting design itself. While I do not examine these pre-production processes in any detail in this research, I do recognise these as integral and essential parts of the entire creative process. They are, however, outside the scope of this thesis (though this was not always the case; see Chapter 4 for more detail on the reasons for this development). For the purposes of this thesis, I will concentrate on process over procedure, though the two are necessarily interdependent; however, as Slater notes, creative processes may “appear stable and neat from a distanced perspective [...], but on closer inspection a story of messiness, uncertainty and flux is revealed” (2015, p.72), making them difficult to articulate.

It is possible to trace the evolution of attitudes towards lighting design(ers) through a closer look at some of the language used in existing lighting

literature. Starting with what might be termed “manuals” or “textbooks”, these procedural texts include information on types of lanterns, beam angles, electrical theory and moving lights but also present what might be termed a “method” (after Stanley McCandless (1931, 1932)) of lighting, in most cases put forward as a “starting point” for novice or student lighting designers (or, sometimes, as an idealised way of explaining the role to a non-specialist). The fact that many “instructional” lighting design textbooks traditionally prioritise procedure over process is also indicative of the difficulty that many practitioners have in articulating both their creative process and the impact that light can make to a production, dramaturgically as well as affectively. Those sources that attempt to guide the reader through the creation of a lighting design demonstrate several assumptions about what lighting designers do, how they contribute to the creative process and what value they bring to a production.⁷ While recently published work has begun to redress this balance⁸, none explicitly tackles the language of collaboration, its contribution to the creative process or its potential to affect that process, something that makes this thesis unique among recent studies of light in performance.

Many of these books start with either a history of light on stage⁹ (e.g. Essig, 2005, and Fraser, 2002) and/or the profession itself or the technical apparatus that facilitates the design (e.g. Fraser, 2003; Moran, 2007 and 2018a; Reid, 1992 and 2001). These can be useful starting points for student or novice lighting designers. Though they may briefly mention or discuss the art or

⁷ These include texts by Bentham (1950 and 1968), Essig (2002 and 2005), Fraser (2002 and 2003), Moran (2007 and 2018a), Pilbrow (2010 and earlier editions), and Reid (2001 and earlier editions), among others.

⁸ Crisafulli (2013), Palmer (2013), Abulafia (2016), Moran (2017) and Graham (2018), in particular.

⁹ Even Crisafulli (2013) does this, despite the book’s emphasis on the poetics of light.

dramaturgy of light, these sources are primarily concerned with “practical topics [...], technical descriptions [...], and the procedures of hanging and focusing, plotting, cueing, recording, level setting, and board operation” (Knowles, 2004, p.31), with considerations such as dramaturgy, collaboration and audience reception taking a secondary position or, occasionally, ignored altogether.

In many of these sources, it is evident that lighting has traditionally been relegated to a “support” function, making the lighting designer’s role merely facilitative. Even if this is not quite so explicitly stated, the structures and systems within which a lighting designer is expected to work necessarily dictate light’s relegation. For instance, McCandless’ *A Method of Lighting the Stage* (1932) and *A Syllabus of Stage Lighting* (1931)¹⁰ focus primarily on the tools and techniques of lighting over the artistic contribution of light and the artistic capabilities of its designer. While the impact and legacy of McCandless’ method have no doubt been hugely significant, critics point to the formulaic nature of his approach as being too restrictive.¹¹ In *A Syllabus of Stage Lighting*, McCandless writes simply, “Once the artistic approach has been decided upon, then the practical problem of designing the visual effects [...] can proceed” (1931, p.4). He then goes on to detail the history and use of

¹⁰ Both of these sources, while no longer explicitly taught in the UK, remain highly influential texts, and the lineage of McCandless’ method can be traced throughout contemporary lighting design manuals (for example, Pilbrow, 2010 and earlier editions). See Palmer, 2013, chapter 10, for a detailed history of the tools and techniques of lighting design in the twentieth century, which stem largely from McCandless’ influence.

¹¹ In an informal conversation during my fieldwork, one head of lighting who has worked extensively in the United States told me of what they referred to as the “cut-and-paste general cover rigs” of American lighting designers. This formulaic approach, they claimed, makes it easier for associate lighting designers to focus, circuit and keep track of the lighting rig, though it seems to me that this approach is potentially limiting in terms of the lighting designer’s creativity (field notes, 15 May 2016).

the “apparatus” of lighting, including the construction of lanterns, electrical theory, the science and physics of light, and the means of mounting lanterns on and above the stage. Though he does later concede that lighting design is a form of “artistic expression”, he repeatedly maintains that the main purpose of lighting is “to convince an audience without its being aware of it as lighting, per se” (p.78). Gillette (1989) builds on McCandless’ work, though the earlier editions of his *Designing with Light* continue to offer a limited view of the ambition of light; he notes that “within the parameters of the production concept, stage lighting is usually designed to enhance the mood of the play as unobtrusively as possible” (p.7). The oft-repeated maxim that lighting is at its best when unnoticed is, thankfully, part of a (slowly) dying attitude towards light; theatre critic Lyn Gardner notes that lighting “no longer seems an afterthought, but is integral to the whole look and feel of the production” (2009, no pagination). However, not all critics are as comfortable discussing light as Gardner is: it was only after serving as a judge for the Knight of Illumination (KOI) awards in 2018 that “Britain’s longest serving theatre critic”, Michael Billington, “realised that lighting can fulfil different functions in different art-forms” and appreciated “the sheer diversity of possibilities within theatrical lighting” (2018, no pagination). This revelation points to significant changes in the function of light on stage and the aesthetics of the modern stage, in Billington’s case highlighted by engagement with professional lighting designers themselves (an ALD masterclass he and other critics attended) and by the focused seeing and analysing that being a KOI judge required of him.

Continuing in this vein, the changing expectations of light and of the lighting designer can be charted through a closer look at the literature. Fraser (1997, p.26), for example, lists what he sees as the three functions of stage lighting:

- to make the actors clearly visible so that their expressions and emotions can be easily projected to the audience
- to give actors and action a suitably dramatic appearance within the play's mood and setting
- to complement and highlight the sets and costumes.

These three objectives tell the reader much about how the role of the lighting designer was seen then and also, when compared to more recent writing, how this has changed. Fraser's 1997 list broadly relegates lighting to a service industry, secondary to the actors, the action, the sets and the costumes, representing a limited ambition for light in performance. The requirement for light to be "suitably dramatic", in my reading, implies an effect, something laid over the top of the "actors and action", deferring to other visual elements and not coming from within the production; light is relegated to something "added on". However, in later writing, Fraser (2002) has expanded these functions to a list of ten (pp.23–24) that include active verbs such as "punctuate", "embellish" and "create", in addition to "illuminate", providing light with a much broader, more engaged role to play.

Pilbrow, as well, often advocates for the role of light to go beyond a merely functional role, though there are some passages in his (revised) 2010 book, *Stage Lighting Design: The Art, the Craft, the Life*, that clearly demonstrate some still-prevailing attitudes towards light. For instance, he maintains that "lighting supports the storytelling process" (Pilbrow, 2010, p.9) but also that it is "clearly no part of [the lighting designer's] job to do anything but enhance the appearance of the set and costumes" (Pilbrow, 2010, p.36), and that in the case of artistic disagreements, the lighting designer must always defer to the director, the "leader of the team" (Pilbrow, 2010, p.36). This deference to the director and what is sometimes, reductively, referred to as their "vision" is an attitude that lingers from the early days of lighting

design as a profession and is symptomatic of the hierarchies that continue to persist. For instance, Fred Bentham, one of the earliest and most prolific writers on light in the UK, once advised, “The producer¹² must thoroughly brief his lighting artist as to the way he sees the play and the latter must accept this or resign” (Bentham, 1950, p.272). Although working practices have clearly changed since 1950, this absolute control afforded to the director continues in most contemporary theatre practice. Moran (2007, p.78; 2018a, p.84) advises that “when the lighting designer and the director significantly disagree, the lighting designer has only two real choices – do what the director asks or quit”. While he acknowledges that persuasion may be possible, this ultimatum only serves to perpetuate the existing hierarchy in theatre production. Interestingly, Moran follows this, in both editions of *Performance Lighting Design* (2007 and 2018a), with the provocation that “there is no reason other than tradition why the designers cannot lead the interpretation of the text onto the stage” (p.78 and p.84, respectively). Moran describes designers who would undertake this role as “a vanguard for a new practice that will refresh live performance for a much more visually orientated generation” (2007, p.78; 2018a, p.84). The fact that this is posited as a “new practice” in both editions of this book, eleven years apart, speaks volumes about the industry’s entrenched hierarchies and resistance to change. While the industry conditions that perpetuate these hierarchies are in some cases externally imposed (e.g. due to funding from government bodies or other third parties), the individuals within the system are not entirely exempt from the responsibility for this stagnant state of affairs. Indeed,

institutional realities, treated as objective and independent by members, are in fact created in and through those members’

¹² Bentham here is referring to what would be called “the director” today. See Rebellato (1999, pp.86–89) for a brief summary on the history of these professions.

practices in the everyday conduct of their affairs. 'The way things are' is in fact 'The way we make things to be'. (Richards, 2006, p.15)

There has been a notable shift in the recent literature on lighting towards an emphasis on the more creative aspects of the process – on the art rather than the technical craft. Richard Palmer's *The Lighting Art* (1994) begins to address the aesthetic versus the practical considerations of the lighting designer, prioritising design over technology, but with a distinctly technical bias, through an explanation of the psychophysics of light, colour and perception. Moran (2017) addresses this apparent opposition between art and technology in chapter 7 of *The Right Light*: "[s]everal text books on theatre lighting design have 'Art' in the title, but very few discuss the practice in those terms" (p.150). This perceived dichotomy or opposition between art and craft may seem like a mere technicality; however, this shift in literature implies a parallel shift occurring in the expectations of members of the creative team and in the types of hierarchical relationships in theatre design and production, which will manifest themselves in the ways in which these professionals communicate with each other. It is interesting to note that this appears to be changing in related disciplines as well: Deiorio's (2018) recently published *The Art of Theatrical Sound Design* includes chapters on the art of spatial design, artistic collaboration and communication for the artistic process. Vitale's (2019) *Introduction to the Art of Stage Management* addresses this duality of artist and technician in stage management roles, claiming that "in a constantly changing field like stage management, how you view yourself greatly impacts how you approach the work and how others view you" (p.10), an attitude that applies equally to working in lighting.

Palmer (2000) notes that "the fact that lighting designers need to concern themselves with the practical and technical also contributes to the way in which they are distanced from the artistic process" (p.2). The *Guardian's*

long-serving theatre critic, Michael Billington, after attending a lighting masterclass organised by the ALD, unhelpfully conflates a discussion of the “art” of lighting with the lack of technical knowledge that critics often possess, calling them “technical ignoramuses [who are] often woefully innocent of the crafts that make up theatre” (Billington, 2009, no pagination). This preoccupation with the technical in a way that prioritises its perceived impenetrability over light’s dramaturgical and affective potential does a disservice to both the profession and the material. Moran (2017) writes about the “intimidating” (p.22) nature of the specialist technical knowledge that is *seen to be* needed to understand light in performance. Recent studies, however, in particular Graham (2018), have sought to counteract this reliance on the technical to explicate the dramaturgical. Using an autoethnographic approach, she maintains that “reducing light downward to a list of its formal properties or an assessment of how a particular lighting state has been constructed” (p.54) fails to identify light’s potential contribution to a production. Instead, Graham draws on phenomenology and the embodied experience of light as an audience member to articulate its potential. As I am arguing here, and as will be seen in the analysis in Chapter 6, technical know-how is not a prerequisite for being able to talk about light. It can be, and often is, used, however, to confer or indicate in-group status for a variety of reasons.

Within this relatively sparse collection of work on the art of lighting design, there are a few references to the language used by lighting designers to articulate and express their ideas. In many cases, these are passing references, embedded within larger contexts of collaboration or working practices, rather than explicit studies of the linguistic habits of lighting designers. In two cases, these references are made in interviews: in Pilbrow (2010) during an interview with lighting designer Peter Maradudin (p.263–270),

and in Palmer (2013) during an interview by Nick Hunt with lighting designer Rick Fisher (pp.256–265).

About his time at Yale University, Maradudin states:

Just being in an environment where everyone is challenging you all the time to justify what you're doing—why did you do it, design it like that? What did the director say? When you got together in the room, what did you say to each other and what were the *words* that you used? That, actually, was the biggest thing, learning to talk about something that you couldn't describe easily and that you couldn't necessarily draw, and so, often, discussions would be about what words did you use. What was the language that you used when you were talking this over? (quoted in Pilbrow, 2010, p.266, emphasis in original)

Maradudin describes both one of the motivations for this research and one of the difficulties of working with light. This is a key skill for a lighting designer – and perhaps even more so for a lighting programmer, whose work is so dependent upon and mediated by technology. To be able to articulate what may be quite technically complex or artistically abstract ideas into words, into a vocabulary that can be shared among the creative team, is important in building not only a shared aesthetic language-in-use but also a metaphorical aesthetic language of light.

In order to demonstrate the difference between these two concepts, in Hunt's interview with Fisher, the latter refers to a shared aesthetic of light:

I have certain moments in a plotting session or a technical session where I'm lighting over, and I hear a director or designer say: 'Oh I like that' and if it's one of my favourite moments, I relax and think: 'Oh good, we've a shared aesthetic here'. [...] I think: 'OK we're beginning to work together here' and it takes a while sometimes to develop that language, it doesn't happen first time. It doesn't even happen second time sometimes, and sometimes you get to the end of the show and you haven't done it and it only slowly starts to come. (Fisher; quoted in Palmer, 2013, p.260)

Fisher's "shared aesthetic" here refers to a *visual* aesthetic rather than the shared *spoken* vocabulary (what I refer to as "language-in-use") that members of the creative team use to describe it. Although the latter is spoken and the former is visual, they are highly dependent on each other. This is shown particularly in the analysis in section 6.2 but the importance of both is interwoven throughout this thesis.

Moran's *The Right Light* (2017) includes interviews with nineteen prominent British lighting designers, some of whom were coincidentally also observed as part of the fieldwork for this research. Moran weaves the responses and experiences of his interviewees into a comprehensive picture of the industry and the lighting designer's place in it. He builds up a detailed account of the process (as well as the procedure) of lighting design through the experiences of professional practitioners: working with directors, designers, programmers and other colleagues; translating a text into light and using it both dramaturgically and practically; and the exercise of creativity, including challenges and limitations. Moran devotes an entire chapter to collaboration and another to the technical rehearsal, so important are these to the lighting designer's working practice. Though many of the lighting designers interviewed make reference to language usage in terms of their working process, Moran does not specifically focus on the language-in-use of lighting designers. He does, however, address the role that language may play in the perception and understanding of light by those outside the profession. He notes that "a particular difficulty arises when we try to describe the way in which light affects our experience" (p.25), a comment that may explain the topic's relative absence in the book.

There are two further references to the language-in-use of lighting designers that are worth noting. In a 2003 article in *American Theatre*, Strawbridge

addresses the difficulties in teaching lighting design, with specific emphasis on language-in-use: how do you talk about light, how do you demonstrate it, what can you do to help communicate lighting ideas? He discusses the problematic nature of words and their meaning and the frustration of describing something that cannot be seen. Although he suggests some alternative approaches (e.g. computer-aided drawing programs and lighting the set modelbox), Strawbridge recognises that language is necessary for the description of lighting, but the frame of reference needed to use it effectively only comes with practical experience of working in the theatre. Hunt (2018) takes up the argument for lighting scale modelboxes as a way to “experiment, test, develop and communicate lighting intentions in advance of the performance” (p.101). However, he notes that “[i]n the professional field [...] pre-visualisation is dominated by virtual software-based systems” instead (p.116). Strawbridge also claims that the success of the creative process often relies on the quality of the linguistic interaction and is largely determined by the particular people involved:

For a director and lighting designer to know that they are truly speaking the same language, it is necessary to have a track record, a bit of shared history. Having worked together before, a team will have a common vocabulary. The ambiguity of terms and expressions used to talk about light will be much less of an issue. Fewer words will be required. (Strawbridge, 2003, p.114)

As demonstrated in later chapters of this thesis, Strawbridge’s assertion that longstanding collaborators use fewer words and largely avoid ambiguity is not necessarily true. Interestingly, Strawbridge has only recently (2018) revisited this relatively brief article in the fifteen years since it was written, and much of the original text remains in the revised version. It has been updated to take into account advances in computer-aided design programs, but the argument itself has not been furthered in the intervening fifteen years.

Two further sources specifically address the distinctive experience of collaborating in theatre and attempt to take a holistic view of this process. Cohen's *Working Together in Theatre: Collaboration and Leadership* (2011) is a mostly anecdotal account about collaboration (from the point of view of an actor, director and teacher) and, according to Cohen, what it takes to make a successful collaboration. Cohen does not explicitly define what makes a collaboration "successful", but he seems to mean a production that is fun to work on, creatively challenging and at least moderately commercially successful. He draws on a variety of personal anecdotes and interviews with his colleagues as well as published work by other professionals to attempt to elucidate how theatre professionals – producers, directors, designers, actors, stage managers and technicians – work as a unit. While he occasionally muddles film and theatre practices, there are some interesting insights, including Cohen's thoughts on the best language for fostering collaboration. These claims come from his own personal experience and are not backed up by any further empirical data or substantiated with linguistic theory. He returns several times to two key points, both of which will be further explored in the analysis chapters. The first is the substitution of first-person singular pronouns (e.g. *I, me, my*) with first-person plural pronouns (e.g. *we, us, our*). The second is rephrasing or softening negative language into positive by, for example, phrasing demands or rebukes as questions or requests instead. Cohen claims that "[s]uch language modifications will help to level the collective 'playing' field [...] and will initiate, through its generous and yielding tone, a truly *participatory* collaboration" (p.142, emphasis in original). As with most of the sources surveyed in this thesis (Moran, 2007 and 2018a being notable exceptions) – despite the inclusion of a chapter entitled "The Presenting Stage", described as the "final putting-together" (p.175) of the production on stage – an in-depth (or even cursory, in this case) study of the

technical rehearsal process is missing. Cohen briefly discusses the role of the stage management and production/design assistants in this stage, but the book's analysis seems to end with the move into the actual performance space, despite what follows being potentially the most demanding time for the design and production teams.

In a similar vein, *Collaboration in Theatre* by Rozmowski and Domer (2009) is a largely anecdotal account of the authors' collaborations together over several years at Michigan State University. The book is split into three parts, and it is the first part, *Collaboration in Theory*, that is most relevant here. As with Cohen (2011), while there are some interesting ideas presented, this is done without any theoretical underpinning. Rozmowski and Domer start by addressing what they believe to be the definition of collaboration – “a meshing of ideas” (p.1) – something I will explore further in sections 2.3 and 5.3. They then discuss the need for collaborators¹³ to develop a shared vocabulary; they argue that “[c]learly expressing your position secures your role in the creative process” (p.6), though they offer no practical (linguistic or otherwise) solutions to how one should do this. The use of the word “position” here also demonstrates the authors' preference for a clearly defined hierarchy, and they conclude that the “usual chain of command for a production team begins with the script and flows directly into that of the director (for interpretation) and finally to each of the designer [*sic*] for their individual specialty” (Rozmowski and Domer, 2009, p.9), with the director positioned as the “arbiter of suggestions” (Rozmowski and Domer, 2009, p.10), echoing many of the positions of other authors noted above. While they do not define them as such, Rozmowski and Domer touch on some

¹³ This is the term favoured by Rozmowski and Domer, and so I use it here, despite my feeling that they are sometimes referring to “cooperation” rather than “collaboration” (for a distinction between these terms, see section 2.3).

elements of politeness theory and also the use of mitigated speech when communicating (and forging relationships) with collaborators, both of which will be addressed in Chapters 5 and 6 with examples from the fieldwork observations. Again, like many of the texts surveyed here, there is very little focus in this book on the technical rehearsal beyond a procedural overview and no mention of the lighting designer's role in the process. Despite the presence of some potentially useful anecdotes, this text is a fairly personal account of two people's work together rather than an attempt to examine issues of collaboration and creativity in any depth, particularly concerning the lighting designer or technical rehearsals.

Niermann's (2019) *Collaborating Backstage* is similarly anecdotal and, while the author touches on some of the concerns of this thesis, it is also a primarily personal account and much of the book focuses on intercultural communication, based on Niermann's work internationally. This experience has led him to develop a method for collaboration, which he describes as "a highly important tool" (p.1), rather than a process. Unfortunately, while there are useful and interesting individual insights into backstage working practices, this focus means the method is presented in an unhelpfully formulaic way. Again, as in other resources above, an examination of the technical rehearsal and the specific demands placed on designers and production staff is missing; the book is primarily a collection of anecdotes on how the author has formed effective working relationships across disciplinary or geographic boundaries.

Moving on to the role of the lighting programmer, there is very little literature to be found that explicitly addresses this role from any aspect, including its historical development or its contemporary manifestation. There are references to the importance of the programmer and their

relationship with the lighting designer in Moran (2017) and the role's historical roots in Palmer (2013, pp.225–247).¹⁴ Other traces can be found throughout some of the sources surveyed above, though these tend to be limited. The only book-length review of the contemporary lighting programmer in Western practice comes from the United States: Brad Schiller's (2016) *The Automated Lighting Programmer's Handbook*.¹⁵ This book is part manual, part practical guide, but is heavily geared towards programmers who work in concert touring and live music, where the roles of lighting designer, programmer and operator are often combined. Still, many of the principles apply to working in theatre contexts. For instance, in a short chapter on programmer and designer relationships, Schiller notes the importance of "learning to read [lighting designers] to determine how they work" (Schiller, 2016, p.136), though with limited analysis or practical suggestions on how a lighting programmer might begin to do this. There is not one specific section on the conditions of the production period or how to deal with these; instead, this information is dispersed throughout the book. For instance, in one of the final chapters, Schiller has compiled "words of wisdom from industry professionals" (2016, pp.139–159), who note that "[k]nowing the language of ideas and the vocabulary of vision [...] is a fundamental requirement for a designer and a programmer" (John Broderick, quoted in Schiller, 2016, p.149), "the rapport between designer and programmer will have a substantial bearing on the final result" (John Rayment, quoted in Schiller, 2016, p.146), and "[c]ommunication is one of the

¹⁴ For more in-depth information on the history of the lighting operator/programmer, see also Baugh (2005, especially chapter 10), Morgan (2005), Rebellato (1999, pp.89–94) and White (1999), among others.

¹⁵ As with lighting design, there are several (though fewer) texts that are primarily concerned with the technology as opposed to the art or craft of programming. These include Bell (2004), Cadena (2002) and Cadena (2010 and earlier editions).

most important jobs of a good programmer” (Timothy F. Rogers, quoted in Schiller, 2016, p.147). Clearly, forming relationships and being able to communicate effectively at the production desk are key concerns for many industry professionals, something this thesis will address.

Hunt’s work on the people and processes (2005, 2010, 2015), as well as the history and potential of lighting control systems (2011 and 2013), is essential in understanding the historical and contemporary role of lighting programmers in the UK. Hunt and Melrose (2005) describe the lighting operator as a “mastercraftsperson”, addressing not only the technical skill of those “who explore and implement the technological apparatus of the performance” (p.70) but also the “soft” skills of technical and production staff, as illustrated by the case study in the margin of the article. This shows, in particular, the importance of these skills in cultivating the necessary working relationships that are crucial in theatre production. The issue of agency is rarely addressed overtly in works about lighting design, though this case study does illustrate one way that lighting programmers can influence the production process. In Hunt (2013), the lighting operator’s creative agency is the focus, and Hunt proposes a system that starts with “the figure of the technician or designer” (p.296), thereby aiming to subvert forms of theatre-making in which “the performer is central to the making and interpretation of the artistic work” (p.296). His aim here is to investigate the lighting operator’s role in live performance, allowing them “a greater engagement with – particularly – the aesthetics of timing of light changes in relation to other performers and performance elements” (Hunt, 2013, p.311). Hunt (2011) advocates for an alternate model of console operation (what he terms the “thread/impulse model” (p.205)) that takes into account light’s dynamism and movement throughout a performance, rather than relying on the current default “state/cue” (p.205) model. This, he argues, would

allow for greater “engagement with the temporal dimension of light on stage” (Hunt, 2011, p.205), giving the operator “a significant degree of artistic control over the lighting for the performance” (Hunt, 2011, p.218). The potential for an operator being permitted this level of autonomy and responsiveness – and the difficulties in enacting it in the default mode of contemporary lighting consoles – is shown in section 7.3.

2.2 Theatre ethnographies

There are relatively few ethnographic studies focused on performing arts settings. Those that do exist do not take as their primary focus the language used among the design and production teams during technical rehearsals. There are, however, references to what was said, how and by whom, primarily in the setting of the rehearsal room. Each of the sources below details these interactions to some degree, setting up the timeliness of this research to delve further into the linguistic practices of theatre professionals.

Gay McAuley’s *Not Magic but Work* (2008 and 2012) describes a theatre rehearsal process from the “meet and greet” on the first day of rehearsals through to opening night, as well as intermittently throughout the run of the production. McAuley goes into extensive detail of the rehearsal room process, using Geertz’s (1973) concept of “thick description”, including the relationship between the director, actors and writer¹⁶; however, references to the design process are brief and the technical rehearsal period (on which this thesis is focused) is given only a cursory description and written mostly in terms of the effect on the actors. In this specific case study, the lighting designer’s contribution also appears to be minimised: McAuley (2012) writes that the lighting designer “could only begin his intensive work with the

¹⁶ More about McAuley’s methodology is described in Chapter 4.

lighting once the set was installed” (p.131).¹⁷ This is despite the decision made early on by the director and designer that “most of what they had been thinking of doing through the set could be better done by the lighting” (McAuley, 2012, p.52), a decision that appears not to have been taken *with* the lighting designer but rather *imposed upon* him. The focus of the book as a whole seems to be mostly on the time spent in the rehearsal room, and McAuley notes that the “technical production process was both spatially and temporally dispersed in relation to the actors’ work” (McAuley, 2012, pp.131–132), which may account for its relative absence. This comment of McAuley’s is revealing, as it exemplifies the hierarchies present in the academy’s understanding and, therefore, the perceived relevance of the technical rehearsal’s value to the overall creation of a production. The technical rehearsal is not seen to be the place in which “interesting” work happens. And, I would further argue, it is not, as McAuley claims, removed from the actors’ process, either spatially or temporally. While actors do acknowledge that, during the technical rehearsal, “the acting [is] a poor last” (Davies, 2003, p.154), this does not lessen the significance of and creative potential offered by the technical rehearsal for actors. Actor Simon Callow (2004), for instance, claims that:

[T]hese moments, not rehearsal at all, just wandering around, picking up a prop, sitting in a chair, pottering about on the set, are as creative as anything that’s gone before. It’s probably the first time you’ve had to just *be* the character [...]. [Y]ou can actually feel the

¹⁷ While McAuley’s text is now ten years old and the practices and understanding of light have arguably changed and, one would hope, improved, this idea of the lighting designer’s contribution beginning only in the production period persists among the profession’s outsiders. In a recent *Forbes* article, when referring to lighting designer Peter Mumford’s contribution to the Broadway productions of *King Kong* and *The Ferryman*, the author writes, “his real work as a lighting designer only begins once he’s in the theater” (King, 2018).

slow infusion of the character into your veins and bones. (pp.185–186, emphasis in original)

There is a practical dimension for the actor to the technical rehearsal, too, and this in turn influences an actor's characterisation, adapting to and working with the design and technical elements: "[Y]ou start modifying your performance, whether shrinking it to accommodate the restrictions [...] or joyfully expanding it in the light of the new possibilities offered" (Callow, 2004, p.182). Dismissing the technical rehearsal period because it appears to be "spatially and temporally dispersed in relation to the actors' work" (McAuley, 2012, pp.131–132), therefore, is both unhelpful and incorrect, drawing further attention to the lack of understanding of this part of the creative process and the privileging of the rehearsal room, directors and actors in scholarly literature.

There are two opera ethnographies that explore the inner workings of regional opera companies: Atkinson's *Everyday Arias* (2006) focuses on the Welsh National Opera (WNO), and McKechnie (2014) examines Leeds-based Opera North in her book of the same name. While both accounts include detailed descriptions of productions and the processes undertaken in the pursuit of opening night, they also focus on their respective companies as a whole. Atkinson traces WNO's working practices over several productions and provides some background to the company, while maintaining that the book should not constitute a history of WNO. McKechnie, on the other hand, organises her book into three "perspectives", the first of which is a detailed history of Opera North. Both books examine their respective company's productions over a period of several years, detailing the rehearsal process and company practices throughout. In terms of lighting design and the specific demands of the technical rehearsal period, however, Atkinson falls short: there are few references to lighting and any mention of design refers to

the set (and occasionally costume) design. The technical rehearsal as a discrete process or period of work seems to be missing entirely. The reason for this seems to be related to one of Moran's (2017) reasons why light "is so rarely written about": "Writers are intimidated by the apparent technical complexity of the *machine* that is needed to get the light on stage" (p.22, emphasis in original). This may also account for Atkinson's seeming preoccupation with the action of the rehearsal studio, which, for an ethnographer of an "esoteric, specialist cultural domain" (Atkinson, 2008, p.191), might be a more accessible environment. Atkinson writes that, in observing WNO's process, he aims to be well-informed about, rather than an expert in, opera rehearsal processes, the latter being unobtainable by an ethnographer without "tacit knowledge, tacitly acquired through a protracted engagement with concrete work and related activities" as well as "the capacity to put knowledge into practice" (Atkinson, 2008, p.192). There is no indication here that the author feels that light or the other design or technical elements are insignificant; in fact, it is quite the opposite. He writes that "the sets, lighting, and costumes [...] are clearly very significant in their own right, and are also among the mechanisms whereby the ideas of the production are translated into material reality" (Atkinson, 2008, p.46–47). It appears, then, that it is this translation process that Atkinson finds difficult to articulate, partially thanks to the "apparent technical complexity" (Moran, 2017, p.22) of that process.

In contrast, McKechnie's third perspective takes a dramaturgical view of a selection of productions "from the auditorium" (pp.1–2), but it is the second perspective that is of most interest to this research. In this section, McKechnie details the stage and piano rehearsals and stage and orchestra rehearsals and gives some sense of the nature of these rehearsals. As in McAuley (2012), details of the lighting design are given in relation to the actors – for instance,

how the use of sidelight makes it difficult for the actors to see and place themselves on stage (McKechnie, 2014, p.270), again, privileging this perspective. Most interestingly, though, McKechnie includes a comprehensive report of the backstage proceedings during a performance (McKechnie, 2014, pp.287–297), breaking down to some extent the “apparent technical complexity” (Moran, 2017, p.22) of the backstage/production process that Atkinson (2008) appears to struggle with. All of these actions – from the singers’ entrances, exits and quick changes to the cues called by the DSM – will have been meticulously plotted in the technical rehearsals, giving some idea as to the complexity of this process. Earlier on, McKechnie also hints at the potentially intimidating task that faces the creative team and cast in realising a production: following the model box showing on the first day of rehearsals, “they are tasked to go back to the ‘nothing’ that stands at the beginning of every rehearsal process [...] it is only a ‘nothing’ in practical terms, or a case of converting what is in everyone’s head to a physical and material realisation” (McKechnie, 2014, p.236). This process of the design being converted or “translated into concrete actions” (Atkinson, 2006, p.111) occurs primarily during technical rehearsals for the lighting designer, though of course their work as a whole begins much earlier. The “nothing” McKechnie writes about is experienced by the lighting designer not only at this initial read-through stage but also upon arriving at the theatre at the start of the production week. Lighting designer Jon Clark describes “sitting in an empty theatre looking at a space and having the fear that [I] won’t be able to crack it” (Moran, 2017, p.98). While the lighting designer’s work will begin long before, this process of transforming “nothing” into “something” is most clearly observed in the intense, concentrated time of the technical rehearsal. The effects of this unseen work of the lighting designer and lighting programmer will feature prominently in the following chapter and

in the analysis. The failure of others to recognise the importance of this unseen work or to engage with it, and the tendency of lighting designers and programmers to perpetuate their work as unseen (whether intentionally or not), is part of the reason that lighting designers in particular can feel creatively marginalised in the design process.

Hazel's (2015 and forthcoming) recent work in theatre ethnography uses a multimodal approach to investigate the action of a director and cast "doing notes". Hazel (forthcoming) analyses video excerpts of a notes session, focusing particularly on the "inscribed object" of the director's notebook, in which he writes his notes, and the delivery and reception of those notes with the actors present. While Hazel uses an ethnomethodology/conversation analysis (EMCA) approach, including analysing video footage (more on this in Chapter 4), and while the setting in which he is observing this interaction is different, it is interesting to note some similarities in the ways in which feedback, particularly from the director, is delivered and acted upon. As Hazel notes, this feedback shows "how members display understandings of how the staged action works [and] how it could (or should) work" (2015, p.54). Using EMCA allows Hazel to pinpoint these moments of reflection in the rehearsal room and how professionals work together to represent moments of "real-life" interaction on stage. Hazel's (2018) chapter tracks a theatre rehearsal process and the acting company's "process of discovery" (p.258), using EMCA to observe "constitutive practices for enacting types or roles and relationships [and] social identity production, including institutional identity formation" (p.257), something this thesis will also address. Again, while the focus is on the rehearsal room and its associated practices, the conditions of which vary from the technical rehearsal, it is a useful study of professional working practice and how these practices and

“exchanges figure within the broader representational enactment of a social setting” (Hazel, 2018, p.279).

Conversely, Milde’s (2019) research on “drama processes” (p.2) focuses on workshops and/or undergraduate circus performances (i.e. training environments) and, as such, is of limited value here when discussing the specific workplace practices of professional theatre practitioners: the environmental demands are significantly different, as are the stakes.

A “workshop exercise in which the director works with one actor at a time” (Milde, 2019, p.5) has a considerably different purpose for the individuals involved when compared to the demands placed on professionals in the creation of a professional production. For a start, the allowance for failure – whether critical, artistic or financial – is markedly different. This is not meant to be a judgement on the quality of the work that is produced, rather an acknowledgement of the different material circumstances in which the work is produced; these circumstances – and their implications for creativity – will necessarily shape the nature of both personal and professional relationships and the language-in-use of the individuals concerned. As a result, this particular research feels significantly removed from my own in terms of any potential parallels in the analysis.

In contrast, Taylor’s (2018) current doctoral research is perhaps the most closely connected to my own. Using a similar methodology (see Chapter 4), Taylor investigates the professional practices of costumers, using case studies from two large producing theatres in Australia. She interrogates the costume workshop as a site of creation and negotiation for both costume designers and technicians, using a linguistic analysis to explore how professional relationships are maintained throughout the creative process. Taylor examines these relationships within a changing framework of

costume practice in Australia generally, with particular reference to “the shared language of clothing” (Taylor, 2017, p.18) and how wider labour and fashion practices impact theatre costume design practices. Like me, she uses her extensive professional experience of this specific workplace to explicate the intricacies of its operation through a discourse analysis approach. There is a definite complementarity in our work, as demonstrated in our joint presentation at the Theatre and Performance Research Association conference (Taylor and Zezulka, 2018), and our shared approach and interest in these cognate areas demonstrates the timeliness and relevance of research in this area.

The methodologies employed in the preceding ethnographies, and their relevance to this research in particular, are explored further in Chapter 4.

While this study does not include any devised “ensemble” productions in the fieldwork, it may be helpful here to survey a sample of ethnographies in this field in the interest of fullness. It is helpful here to keep in mind what Barton (2008, xvii) identifies as a “distinction between collective and collaborative philosophies and frameworks, on the one hand, and devising techniques, on the other”. *Devising in Process* (edited by Mermikides and Smart, 2010) is a collection of ethnographic case studies about contemporary British theatre companies that devise new work as an ensemble. It covers a broad range of styles, ensemble structures and working practices. The authors focus on the development of ideas in the rehearsal room and on how groups of “artists” (as the members of Shunt refer to themselves “in order to avoid the demarcation of roles traditionally associated with theatre production” (p.19)) collaborate and facilitate shared ownership and authorship of their productions. Many of the companies surveyed work with a flatter hierarchy than is found in “traditional” methods of theatre-making –

like, for instance, the examples I have observed for this thesis – and range from a “loose collective” (The People Show, p.13) to companies led by pairs of directors (for example, Faulty Optic, Third Angel, theatre O and Gecko Theatre; see pp.16–17) and one with a “more authoritarian directorial approach” (Station House Opera; see p.19). It is interesting to note that, at least in this collection of case studies, in the descriptions of the productions and their related processes, lighting still seems to take a back seat to the overall concept or story. This may be due to the observers’ lack of knowledge of, or vocabulary to describe, lighting design and may account for its relative absence in this collection. There are some telling moments, however. For instance, in the chapter on Faulty Optic’s *Dead Wedding*, the lighting designer, Mark Webber, is referred to as “the final collaborator”, which (to me) signals the lighting designer’s place at the bottom of the company’s creative hierarchy. This is despite the fact that “lighting is an element integral to the show, providing emotional texture” (Moss, 2010, p.89) and that references to lighting – or at least its effects – abound throughout this chapter. In the chapter on Gecko Theatre, it is explained that the lighting designer (Jackie Shemesh) was only employed *after* the company received funding from the Arts Council. As a result, Shemesh was not involved in the devising process, and created the design in response to watching a run-through (Mermikides and Smart, 2010, p.15 and Smart, 2010, pp.180–181), in much the same way as a lighting designer in a “traditional” set-up might do.

Trial (2007) documents the devising process for Reckless Sleepers’ production *Schrödinger’s Box*. Similarly, the lighting design is barely commented on, except for a short paragraph about the technical elements (Brown and Wetherell, p.14). This is despite lengthy descriptions of the space itself and many images throughout showing the effect of light on the space.

Despite the book's intended emphasis on process over product, this lack of acknowledgement of the role of lighting design as creative rather than technical again signals the position of lighting at the bottom of this production's creative hierarchy.

In contrast, *Invisible Things* (Harradine, 2011), *Fevered Sleep's* account of the devising process for *An Infinite Line: Brighton*, devotes an entire chapter to light, and it is clear that the lighting designer, Jo Manser, was involved from an early stage. In this production, light was "used as a stimulus for music, for image, for action" and was placed "at the very start, or the very centre, of creative processes" (Harradine, 2011, p.87). However, Harradine, who took on the dual roles of director and designer, noted that this way of working proved to be costly in terms of the staffing requirements that this "technically resourced approach" (Harradine, 2011, p.90) necessitated and the lack of competence around the technology itself, which was "meant to be flexible and responsive" (Harradine, 2011, p.90) but which was also very time consuming.

As can be seen from the studies in the previous two sections, researchers have used a variety of approaches to attempt to unpick how theatre is made. These tend to be based around the rehearsal room (e.g. Hazel, 2015, 2018 and forthcoming; Moss, 2010; Smart, 2010), production workshops (e.g. Taylor, 2018) or companies as a whole (e.g. Atkinson, 2006; McKechnie, 2014). The technical rehearsal, however, with the exception of Hunt's (2015; also Hunt and Melrose, 2005) work, remains under-researched and often neglected in studies of theatre-making. There are likewise some sources that draw heavily on personal experience and anecdotes to attempt to articulate the authors' own or observed creative processes (e.g. Cohen, 2011; Niermann, 2019; Rozmowski and Domer, 2009) but unfortunately are not underpinned by any

theoretical or methodological rigour. This research, in contrast, is grounded not only by my “tacit knowledge, tacitly acquired through a protracted engagement with concrete work and related activities” and “the capacity to put knowledge into practice” (Atkinson, 2008, p.192) in this “esoteric, specialist cultural domain” (Atkinson, 2008, p.191) but also a rigorously developed methodology (see Chapter 4), engagement with scholarly material and critical theoretical approaches, and an iterative, reflective method of data analysis (see section 4.8).

2.3 Collaboration, cooperation and creativity

Having discussed the specific literature within scenography, lighting and theatre production, we turn now to studies in creativity and innovation (Boden, 2004; Hadamard, 1954; Wallas, 2014, among others), group creativity (Hill et al., 2013; Paulus and Nijstad, 2003, Sawyer, 2008) and collaboration (Bannerman et al., 2006; Bennis and Biederman, 1998; Hill, 2015; John-Steiner, 2000). While it is not within the remit of this study to provide a comprehensive review of the full field of creativity studies (nor is there the space to do so), I have selected below those sources that provide some context for the current study, moving from individual to group creativity and incorporating current debates around the definitions, motivations and conditions of creativity.

There has been a shift in creativity research from its emphasis on eminent individuals – people who show exemplary, world-changing creativity – to both group processes and “everyday” creativity. The process of creative innovation first posited by Poincaré (2003), and later expanded upon by Hadamard (1954) and Wallas (2014), deals with introspective or individual creativity. Their process consists of four stages – preparation, incubation, illumination and verification. Later theorists have expanded this process to

five stages – Csikszentmihalyi added a final elaboration stage (McIntyre, 2012, p.42) – or even seven stages: “preparation, activation, cogitation, illumination, verification, communication, and validation” (Smith and Smith, 2010, p.258). This process, while originally intended to describe solitary discoveries, has been adapted to collaborative processes of innovation, although some philosophers and cognitive scientists have since doubted its universality (Gaut, 2010, p.1035). The Wallas model has been widely critiqued, as it presents creativity as linear. As Claxton (2006b) states, “these ‘stages’ of the creative journey are neither clear cut nor sequential. Creativity is a non-linear *process*” (p.65, emphasis added). Crucially, Claxton further maintains that “the Wallas picture of creativity misrepresents the reality [...] in the virtual exclusion of the social world” (Claxton, 2006b, p.65). In contrast to Wallas, Hadamard and Poincaré, Negus and Pickering (2004) claim that creative innovation is a social activity, and this focus on the social nature of creativity, rather than the mythologised image of a “lone genius” (see also Montuori and Purser, 1999; Sawyer, 2003, 2008, 2012), is what aligns much of the current thinking on creativity with theatre production. The case studies in John-Steiner’s *Creative Collaboration* (2000), in particular, support the idea of creativity as a joint endeavour, challenging the work of previous theorists who present creativity and innovation as stemming from a single individual. While Csikszentmihalyi (1997) focuses on eminence, or “Big-C” creativity, at the other end of the scale is everyday, or “little-c”, creativity as explored by Craft (2000), Gauntlett (2011), Richards (2007) and others. Sandwiched in between these is “Pro-c” creativity (Kaufman and Beghetto, 2009), or professional-level creativity – the observations that form this research are examples of Pro-c creativity. Pro-c creativity is also exhibited in John-Steiner’s *Creative Collaboration* (2000), in which she explores the collaborative efforts of creative individuals in professional (art, music,

theatre) settings, going beyond the individualism that characterises much of creativity studies. John-Steiner explores creativity as a joint endeavour, challenging the work of previous theorists such as Hadamard (1954) and Wallas (1926). While John-Steiner's (2000) study does not include theatre designers or directors, it does examine creative partnerships in dance, between choreographer and dancer (Martha Graham and Erick Hawkins) and choreographer and composer (George Balanchine and Igor Stravinsky). While I will not draw on these extensively, this cognate area is relevant for my purposes here in that these partnerships share a similar workspace (theatre and rehearsal spaces) and end goal (the realisation of a performance) to that of a lighting designer and their colleagues.

John-Steiner argues that "collaboration thrives on diversity of perspectives and on constructive dialogues between individuals negotiating their differences while creating their shared voice and vision" (2000, p.6).

However, she later suggests that

shared vision [...] is crucial to successful collaboration, but is not always sufficient. For a partnership to be truly creative—to change a discipline and transform a paradigm—multiple perspectives, complementarity in skills and training, and fascination with one's partner's contributions are also essential. (2000, p.64)

Negus and Pickering likewise argue that "creativity involves the communication of experience" (2004, ix) whether that communication takes place between creators or with viewers, readers or listeners. They further assert that, after the acquisition of the rudimentary knowledge needed and followed by experimentation and practice, the skills needed to produce creative work should become so innate that the practitioner is working "naturally" rather than deliberately, a state that Csikszentmihalyi (1997) calls "flow". Sawyer (2003, 2008 and 2012) applies Csikszentmihalyi's concept of "flow" to group work, addressing the dynamic of group creativity

from a sociological perspective. In *Group Creativity: Music, Theater, Collaboration* (2003) Sawyer examines ensembles in performance using a symbolic interactionist approach. While Sawyer's focus here is on groups during the moment of performance (rather than in the preparation thereof), he draws on discourse analysis to examine processes of collaborative communication and negotiation among members of a creative team. I have taken a similar approach in this thesis. In *Explaining Creativity: The Science of Human Innovation* (2012), Sawyer examines flow in live performance by using a comedy improvisation group as an example. He identifies ten characteristics of group flow, "when a group is performing at its maximum effectiveness" (2012, p.245); these can be applied to the process of theatre production. Together, these ten characteristics describe successful communication (e.g. "close listening") and interaction between group members (e.g. "autonomy and authority", "equal participation" and "familiarity" that results in "tacit knowledge"), as well as the environment needed to facilitate creativity (e.g. "the real potential for failure [...] as a necessary and frequent correlate of innovation") (Sawyer, 2012, p.245). Clearly, the environment in which a creative act is taking place (not just the space itself but the people working in it – and, by extension, the language they use to facilitate this environment) is an important consideration. As this applies to this thesis, the space of the production desk, its geography and its effect on communication will be explored in section 6.1.

While Sawyer (2012) addresses only the creativity of the actor in his chapter on theatre, he does argue that creativity consists primarily of conscious hard work interspersed with moments of inspiration, a view shared by lighting designer Rick Fisher (Palmer, 2013, pp.256–65). Using his own practice as illustration, Fisher demonstrates how his designs come about in a gradual, cumulative way, built up over the rehearsal and technical period. Sawyer

maintains that “in a state of group flow [...] [i]nnovation emerges over time [...] [as a] constant series of small insights” (2012, p.245). This echoes Gauntlett’s position on how “creativity might be better understood as a process, and a feeling. [...] This might lead to fruits which others can appreciate, but those may be secondary to the process of creativity itself, which is best identified from within” (Gauntlett, 2011, p.17). This also aligns with more recent philosophical thinking on creativity as process, explored below (in particular in the work of Kieran (2018) and Paul and Stokes (2018)).

There is some debate about what characterises an endeavour as creative.

Most theorists agree that an action is creative if it produces something novel and valuable (Gaut, 2010, p.1039); it thus follows that a creative person is one who has the ability (and agency) to produce something novel and valuable.

The necessity for both qualities to be present does foster some disagreement among creativity theorists, however. For instance, Hills and Bird (2018) and Weisberg (2006) reject the axiological condition, claiming only novelty is required. In fact, there are problems with both sides as they tend to privilege product over process, not accounting for cases in which perhaps the output or product is not novel but the process by which it was created is. Creativity philosopher Kieran’s (2018) recent research, on the other hand, examines the first-person motivation for creativity and how creative people should practise creativity. Kieran’s approach gives preference to the creative individual’s agency and privileges process over output. He maintains that for an action to be creative there “must be features of the process and how they are responded to, explored and evaluated which are new to the agent, go beyond what is taken as laid out or given (e.g. by instructions, mechanised routines), and valuable” (Kieran, 2018, p.1). He argues that the creative process is closely aligned to the exercise of human individuality in three ways: individual potentialities (in which an individual’s particular

skills are engaged), individuality of mind (in which the individual is personally engaged and committed to discovering solutions through a first-person critical relationship), and individuality of interests (in which the individual's own interests are actively pursued). These three areas will be present in every creative act to a greater or lesser degree because, Kieran concludes, "being creative is an actual realiser of individuality" (2018, p.3).

Paul and Stokes (2018), like Kieran, argue for a process requirement in the study of creativity: rather than focus on products or outputs – what they refer to as "accomplishments" (Paul and Stokes, 2018, p.198) – they recognise that it is the "process that enables the work" (Paul and Stokes, 2018, p.199). While any "creative process proceeds towards a terminus" (Paul and Stokes, 2018, p.199), within "bounded periods of time" (Hazel, forthcoming), the process must also be constitutive of intentional agency, a necessary condition in their definition of what creativity *is*. Ontologically, Paul and Stokes (2018) maintain, "creativity is fundamentally [...] a process" (p.204) that must involve agency. As Thompson (2003) argues, "true collaboration is a verb not a noun, a process of engagement" (p.118), implying the necessity for not only creative agency but also professional agency. This argument for a focus on process over product and its relation to agency is clearly reflected in this research, and it is this focus that differentiates this research from the vast majority of existing studies in theatre design and production (as well as scenography more generally).

Paul and Stokes' (2018) agential condition could be initially seen to be problematic here (though it should be noted that they are by no means the only creativity scholars to insist on this as a requirement for creativity – see Sawyer (2000), Boden (2004) and Gaut and Kieran (2018)). Innovations often occur as a result of an accident or due to some other unpredictability in

the creative process (Austin et al., 2012), which goes against Gaut's (2010) and others' definition of creativity as something that must not be accidental – it must be produced through agential mechanisms. For lighting designers, the creative process of the technical rehearsal “almost always requires compromises and responses to material constraints and it is not unusual for the most compelling aspect of a production to arise almost by accident” (McAuley, 2008, pp.284–285). However, this does not imply that lighting designers and programmers lack agency when moments like this occur; they are, rather, the result of a process of trial and error – or, in the case of Hunt and Melrose's lighting programmer case study (2005), a sort of “intentional accident”. This process of trial and error makes use of two types of creativity, identified by Kotler as “aesthetic creativity” and “problem-solving creativity” (1967, pp.246–259). The former is attributed to those whose “creative products are extensions of their own personalities and embodiments of their personal responses to the nature of the world” (Zackariasson et al., 2006, pp.89–90). The latter, on the other hand, “is exemplified by scientists and businessmen [whose] creative products are solutions to problems” (Zackariasson et al., 2006, p.90). The work of lighting designers spans both ends of this seemingly oppositional binary; during technical rehearsals they are constantly acting on and reacting to the theatre space, practising “knowing-in-action” (Schön, 1983, p.49) and “reflection-in-action” (Schön, 1983, p.54) simultaneously. These processes are engaged in tacitly, though practitioners are often aware that they exist but are unable to explicitly articulate them.

The spaces and places in which creativity is more likely to flourish are rarely discussed (Kristensen, 2004, p.89); the “innovation-conducive conditions” (Austin et al., 2012, p.1506) of experimentation, accidental creativity, constraints and reflections can be and sometimes are designed into the

working environment, supporting “accidental innovation” (Austin et al., 2012, p.1505). We will return to the idea of the impact of space (and communication in that space) on creativity in sections 6.1 and 7.1.

Exemplary creative people (such as the lighting designers under observation here) tend to seek out work “at the edge of their creative potentialities” as these “have a certain baseline level of difficulty and interest for them” (Kieran, 2018, p.3). Furthermore, creative people will “question or challenge conventional practice [...] and are self-critically reflective” (Kieran, 2018, p.3) about their work and creative interests. This ideal is compromised in those hierarchical group arrangements in which “the higher-up person determines the creative end, which is then farmed out to” other individuals in the group (Kieran, 2018, notes from seminar discussion), such as in a “traditional” theatre hierarchy in which one person (usually the director or choreographer) is responsible for a production’s overarching aesthetic. When these decisions “trickle down” to those lower in the hierarchy, this potentially serves to diminish those creative agents’ contribution and can risk making them less likely to be intrinsically invested in the creative endeavour. A creative product, Paul and Stokes argue, “must also be the outcome of the right kind of process [...], one that non-trivially and essentially involves agency” (Gaut and Kieran, 2018, pp.13–14). Diminishing someone’s agency, therefore, diminishes their creative potential. The implications of this can be seen particularly in observation D3 in the interaction between the director and the lighting designer.

Amabile (1998) identifies three components of creativity: expertise, creative-thinking skills and motivation. She argues that creativity thrives in environments where these characteristics are encouraged. Similarly, Nijstad and Paulus (2003) observe that group creativity can become stifled “when

the group climate is restrictive, critical, and characterized by low levels of trust" (p.330). Moran (2010) illustrates the relationship between risk and trust in creative environments: she maintains that risk suggests an element of trust "because it is difficult to know the consequences of something truly new" (p.76). Furthermore, Hargie and Tourish (1997) claim that, in a work environment, "the reduction of uncertainty has been explicitly linked to the building of trust between interactors", and that this depends on the "quantity and quality of communication we receive from, and extend to, others" (p.360). Henry (2004) concludes that successful creative collaboration is more likely to occur when people's "intrinsic motivation is engaged in the task at hand; they trust those they are working with and they are free to network widely" (p.173), something that will be shown in Chapter 5.

Theatre working relationships in which the director (or another person of high status) takes a more authoritarian approach can perhaps be more accurately defined as "cooperation" rather than "collaboration".

The etymology of both words and the development of their usage may provide a useful starting point for comparison. "Cooperation" is the older of the two words, first appearing in the 1620s and from the Late Latin *cooperationem*, a "noun of action" meaning "a working together" (etymonline.com/word/cooperation). "Collaboration", from 1830, is also described as a "noun of action" and is from the Latin *collaborare*, to "work with" (etymonline.com/word/collaboration). In contemporary definitions, the Oxford Dictionary distinguishes between the two terms only in reference to the product or output of the work: cooperation is defined as "the action or process of working together to the same end", whereas collaboration involves "the action of working with someone *to produce something*" (en.oxforddictionaries.com, my emphasis). The focus on product over process that was identified earlier in this section is again evident in these

definitions. Despite having similar roots, the two words have come to mean, semantically if not always in practice, different ways of working with different relational expectations.

Collaboration is often seen as both intrinsic to and necessary for not only the realisation of a production but also the process by which that realisation occurs. Murray (2016), for instance, maintains that “all performance-making is hard-wired to be collaborative” (p.29), a view that can be found in a variety of theatre and performance literature (Bannerman and McLaughlin, 2009, p.66–67; Rozmowski and Domer, 2009; Syssoyeva and Proudfit, 2016, p.6; Fletcher and Irelan, 2015, ix). However, the use of the word “collaborative” here is problematic, as the realities of many working relationships may perhaps more accurately be labelled “cooperation”. Furthermore, using the word “collaborative” to refer to simply “working together”, as Milde (2019) does, actively conflates these two concepts in an unhelpful and, indeed, detrimental manner. The gap between cooperation and collaboration is more than etymological or semantic; it also points to a corresponding gap, and often conflicting or contradictory ontological positions, in the understanding of the processes of theatre-making.

Research into collaboration and collaborative processes has come from a variety of disciplines, and definitions therefore vary. The terms have been used “in a variety of inappropriate ways in both research and practice settings”, which “has hindered [collaboration’s] usefulness as a variable in studies which attempt to evaluate its effectiveness” (Henneman, Lee and Cohen, 1995, p.103). Roschelle and Teasley (1995) in their study of shared knowledge make a clear distinction between collaborative and cooperative problem-solving processes. They write:

Collaboration is a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem. [...] We focus on collaboration as the mutual engagement of participants in a coordinated effort to solve the problem together. (Roschelle and Teasley, 1995, p.70, emphasis in original)

It is interesting to note that Roschelle and Teasley primarily define collaboration in terms of a “result”; collaboration is seen as an outcome rather than a process. In the field of human resource management, Bedwell et al. counter this assertion and insist that “collaboration must be defined and described as a process rather than a structure or an outcome. [...] The emphasis should be placed on collaboration as a process that leads to outcomes rather than an endpoint” (2012, p.129). Any definition of collaboration, they maintain, “must go beyond the generic ‘working together’” and “must acknowledge the influence of time” (Bedwell et al., 2012, p.129). However, despite the acknowledgement of these important aspects, their definition seems to ignore or at least downplay the interpersonal nature of collaboration that is often the focus of theatre and performance studies, referring to collaborators as “two or more *social entities* actively and reciprocally engage[d] in joint activities aimed at achieving at least one shared goal” (Bedwell et al., 2012, p.130, my emphasis). Miell and Littleton, however, in the introduction to their book *Collaborative Creativity*, emphasise the importance of “studying the processes involved rather than a sole focus on examining the quality of the product of creative endeavours” and recognise that “creating collaboratively can be a highly emotionally charged and deeply personally meaningful process” (2004, p.1).

The distinction between collaboration and cooperation has also been explored in educational literature, seen in the terms “cooperative learning” – “people working in teams to accomplish a common goal” (Smith, 1995, no

pagination) – and “collaborative learning” – “a method that implies working in a group of two or more to achieve a common goal, while respecting each individual’s contribution to the whole” (McInnerney and Roberts, 2004, p.205; see also Oxford, 1997; Panitz, 1999; and Kato, et al., 2015). The latter gets closest to including the interactional qualities of collaboration explored by Laal and Laal (2012), who maintain, following definitions from Panitz (1999), that collaboration is *more than* cooperation and prioritises individuals; it is:

a philosophy of interaction [...] [that] suggests a way of dealing with people which respects and highlights individual group members’ abilities and contributions. There is a sharing of authority and acceptance of responsibility among group members for the groups’ [*sic*] actions. (Laal and Laal, 2012, p.493)

What is interesting about this definition in particular, and what makes it especially relevant here, is the interpersonal, relational considerations and the focus on interaction, including the attention given to individual and group agency and authority. However, this definition also falls short, in that it completely eschews any shared goal or outcome that is so prevalent in other definitions above.

In theatre and the arts more widely, definitions of collaboration are even more woolly and divergent. Rozmowski and Domer, for instance, describe it as a “meshing of ideas” (2009, p.1); Cohen (2011) and Milde (2019) as simply (perhaps reductively) “working together”. It is a concept that seems to be shrouded in mystery: Savage and Symonds note the “hazy nature of collaboration” and its “vague, alchemic magic” (2018, p.59). Moran and John-Steiner (2004), however, succinctly demonstrate what they feel are the differences between collaboration and cooperation that accounts for interpersonal relationships, product and process:

Social interaction involves two or more people talking or in exchange, cooperation adds the constraint of shared purpose, and working together often provides coordination of effort. But collaboration involves an intricate blending of skills, temperaments, effort and sometimes personalities to realise a shared vision of something new and useful. (Moran and John-Steiner, 2004, p.11)

The effect of this “intricate blending”, when done effectively, can have a profound effect on the working environment and, therefore, the decision-making abilities and creative agency of team members. As lighting designer Lucy Carter observed on a recent production period, the director

maintained this incredibly positive environment, where every note was a question, no ego ensued and we all felt safe to drive our ideas forward while listening and inputting into each other’s areas. I was delighted to note that I felt no stress whatsoever, which I observed resulted in my constantly thinking creatively around things and not panicking into making snap decisions without trying things first. (Carter, 2018b, p.12)

As alluded to above, “trickle-down” hierarchies, in which decisions are made by the director, or perhaps the director and set designer, and are then “passed down” to the lighting (or video or sound) designer, are rarely conducive to collaboration. In her exploration of devised and collective performance processes, Mermikides, quoting Harvie, goes so far as to suggest that existing theatre structures are “hierarchical and fundamentally resistant to practices of devising and/or collaboration” (Harvie, 2005, p.117; quoted in Mermikides, 2013a, p.51). She proposes that theatre production in the UK operates “in an economic context where ‘product’ is valued above process” (Mermikides, 2013b, p.162), in which marketisation forces an emphasis on the teleological. What Mermikides (and, indeed, Harvie) is perhaps implying is that the culture of “mainstream” theatre-making – the environment in which the creative process takes place, the ways in which things are done, and the attitudes of the people doing them – is inherently

unsuited to “true” collaboration. “In this model,” writes Isackes, “‘collaboration’ means working together within a clearly defined structure of power [...] [that] serves some interests and therefore by extension does not serve others” (2012, no pagination).

Anticoli and Toppano (2011) posit that the culture in which collaborative design occurs has a direct bearing on the methodology, level and type of contribution allowed by each designer, and the ways in which they achieve consensus. They distinguish between three forms of collaboration in which a designer may find themselves in the “collaborative construction of a shared conceptualization” (p.5):

- *multi-perspectival*: participants join together to work on a common design problem; they operate separately on the whole problem or on parts of the problem without interacting, then split apart unchanged when work is done. Effort is additive but not integrative;
- *inter-perspectival*: participants join to work on a common design problem; the interaction among them may forge a new conceptualization by linking or merging individual solutions. Effort is integrative but not constructive;
- *trans-perspectival*: participants joint [*sic*] together to *define* and solve the design problem in the context of application; the process is dynamic, flexible, transient, generative, reflective and social. Effort is constructive (i.e. new knowledge is produced). (Anticoli and Toppano, 2011, p.5, emphasis in original)

They go on to note that the “transition from one form to the next one entails the adoption of a richer and richer model of collaboration” (Anticoli and Toppano, 2011, p.5). What I have referred to as cooperation above aligns with Anticoli and Toppano’s multi-perspectival level of collaboration. Not all collaborations are created equal; what we call collaboration, in an idealistic way, may in fact fall elsewhere on the cooperation–collaboration

continuum¹⁸. According to Kozar (2010), “collaboration places more structural, interpersonal, and cognitive demands on individuals than more passive cooperative activities do” (p.17). This may be part of the reason that, as Harvie (2005) suggests, theatre structures are inherently resistant to collaboration: engaging in truly collaborative work places further demands on an already demanding and potentially unsustainable process, “within company structures that tend to reinforce the director’s priority and in response to a ‘market orientation’ that ultimately subjugates the performers’ [and, I would argue, the creative team’s] creative agency to the director’s ‘brand’” (Mermikides, 2013a, p.63). Agency in relation to the lighting designer and lighting programmer and their particular workplace conditions is explored further in the next chapter within a wider examination of the industry as a whole.

2.4 Research questions

The previous three sections have served to position this research within and between the three areas of theatre design and production studies; theatre ethnographies; and creativity and collaboration studies. Within the framework provided by these three areas of study, the research questions guiding this thesis aim to build an understanding of how lighting designers, lighting programmers and directors, in particular, work together during technical rehearsals through three interrelated lines of inquiry:

¹⁸ An extension of this line of enquiry is the problematic use of the word “collaborators” to describe the teams of people under observation here. Without wishing to further complicate this issue, I have, where possible, used the terms “members of the (creative/production/design) team” or “colleagues” to denote those people who work together either cooperatively, collaboratively or somewhere in between. The descriptions of the productions and their corresponding transcripts will, I hope, clarify where on this continuum each interaction occurred.

1. How do lighting designers, lighting programmers and directors use language to articulate the role of light during the production period, and in what ways do they facilitate creative dialogue?
2. What are the challenges in translating artistic intention? How can lighting designers, directors and lighting programmers use language to anticipate and manipulate these challenges?
3. How do lighting designers exercise their individual agency within the wider team in which they work? How does language reveal and facilitate creative agency?

Implicit in these questions is a number of assumptions and/or preconditions that necessarily need to be unpacked before continuing further. The first of these deals with the both the historic and current marginalisation of the potential of light and the expertise of the lighting designer in live performance – or, as lighting designer Lucy Carter bluntly puts it, “respect for what we do is crap” (Carter, 2018c, p.9). This is by no means applicable to all theatre companies, managements, directors or designers – and it is an attitude that is gradually changing, albeit perhaps only on an individual level. It stems from a systemic inequality in the way that theatre lighting designers are recruited, the resources they are provided with (particularly time and money), the recognition of their creative contribution (and, therefore, the way their work is valued), and the lack of attention given to the contribution of light in theatre research and scholarship. These systemic issues are explored in more detail in Chapter 3.

Second is the presumption that language is the most effective or conducive mode of expressing creative intent. I recognise that this may not always be the case. As we will see later, in the analysis, many times language is not sufficient (or, indeed, is deficient in some way) to describe either intention or

actuality. Personal idiolects or external reference points do not always align, even between colleagues with extensive experience working together. However, during the technical rehearsal, spoken language is the most *immediate* and efficient form of communication available to design and production team members who may not be located near each other (communicating via headsets from different parts of the auditorium or stage) and in an environment that is highly time pressured.

Third, language has the ability to foster or enhance creative and interpersonal relationships. Related to this is an idea that the facilitation of (or, perhaps, the willingness to facilitate) effective creative dialogue is a (pre)condition of collaboration. Both of these are addressed explicitly in the section on personal discourse in Chapter 5. The effect of interpersonal relationships on creative dialogue can be seen in particular in sections 5.2 and 5.3.

Finally, there is a continuing divide between art and craft – or, perhaps, more specifically, a wariness of technology – from those outside the profession. As Moran notes, this divide extends even to those working in lighting:

[T]hose who have no technical background in stage lighting find it hard to study it for the purpose of analysis, and harder still to write about. Those of us who do have a technical understanding have tended to write mostly for aspiring or established practitioners rather than for a general audience, and to focus on what might be called the “craft” of lighting design, rather than the “art”. (Moran, 2017, pp.26–27)

Moran, in drawing attention to the differences between writing about practical processes versus writing about creative processes (the latter being “harder [...] to write about”), implicitly perpetuates the art/craft divide by prioritising the technology of lighting in this comment. I would argue here,

however, not only that art and craft are interrelated rather than in opposition with each other but also that this assumed impenetrability of technological jargon should be no impediment to a discussion of light's material and affective qualities; indeed, it is not for many of the directors and lighting designers studied here. That is, an understanding of the mechanisms behind the production and manipulation of light in performance is irrelevant to an understanding of light's impact on a production. This is evidenced in many of the transcripts to a greater or lesser degree, particularly in instances of "collaborative discourse" (Koester, 2010a, p.75).

In order to articulate the effect of language on the creative process, I have employed a linguistic ethnographic approach, conducting eleven periods of fieldwork during which I observed lighting designers, directors and lighting programmers at work in theatres across the UK. I have detailed the reasons for this approach more fully in Chapter 4. This is unusual (see Taylor, 2018, for a similar approach) in research into scenographic or theatre design and production processes (as opposed to autoethnographic or reflective accounts of the end product) and is in contrast to previous work in this field, which relies primarily on reflective semi-structured interviews (Pilbrow, 2010, and Moran, 2017, for example). Research into scenographic *processes* has been taken up by only a handful of researchers; most prominently in lighting, Hunt's work focuses primarily on the lighting programmer (2013a and 2013b; Hunt and Melrose, 2005) and the physical environment of the technical rehearsal (2015). Similarly, applied linguistics research in theatre environments is relatively uncommon; Hazel (2018a, p.257) posits that this is because of the theatre's tendency to focus on the repetition of imagined and artificially constructed dialogue (i.e. a script) rather than on everyday talk. As noted in section 2.2, there are several ethnographies of the rehearsal room and its associated processes (McAuley, 2008 and 2012; Hazel, 2018 and

forthcoming; Milde, 2019), as well as company-wide ethnographies (Atkinson, 2006, and McKechnie, 2014)¹⁹. The present study, however, is the only ethnography to specifically focus on the language-in-use of theatre lighting designers at work during technical rehearsals, thus both diversifying and interlinking the fields of applied linguistics and scenography. Crucially, again in contrast to many existing theatre design and production studies, the data generation occurs concurrently with the creation of the design itself rather than as a reflection on that process or the product. This is significant as it affords a greater sense of what is happening at the moment of creation and how processes of creativity function at the production desk.

Interviews with lighting professionals, such as those in Moran (2017), Palmer (2013) and Pilbrow (2010), reveal both the difficulty of articulating one's creative practice, even reflectively, and the reliance of designers on the spoken word. In a departure from existing methods, therefore, I have chosen instead to analyse the linguistic patterns and tendencies of lighting designers at work, *during the creative process*, in order to study the ways in which lighting designers negotiate the creative hierarchy and personnel structure that uniquely characterise the theatre industry. In doing so, I have been able to explore the gap between what is said and written about theatre (particularly lighting design) as a creative collaboration – much of which is said or written following or otherwise *separate* from the process – and how the process actually happens as revealed through language, something that has not been previously addressed.

Through this linguistic methodology, the rationale for which is explained in more detail in Chapter 4, I explore how lighting professionals use language not only to describe their creative process but also to navigate and

¹⁹ See Chapter 4 for a more detailed look at the methods employed in these.

potentially exploit the constantly changing social processes of the technical rehearsal. The linguistic strategies used in these sometimes challenging environments are employed subconsciously, often tacitly practised rather than explicitly understood. The next chapter will explore the institutional and organisational workplace conditions that govern these social process and will explicate the position of the lighting designer and lighting programmer in the industry through a closer look at working practices (specifically those that are unseen), agency and authority, and hierarchy.

Chapter 3: Industry context

3.1 Introduction

While this research is clearly rooted in a scholarly context, as shown in the previous chapter, it is also a study of professional working practice, and therefore it is imperative to also understand the research questions in the context of the wider working environment. To understand the analysis that follows in Chapters 5 through 7, in particular, some contextual industry information is essential: “shedding light on specific and local practice is equally important if we want to go beyond understanding and explaining to contributing to change” (Sarangi and Roberts, 1999, p.2).

This chapter will examine several factors that contribute to the workplace conditions of directors, lighting designers and lighting programmers, primarily through a focus on the work and working practices that are unseen. Beyond applying this knowledge to this thesis specifically, an analysis of this unseen work is crucial to an understanding of how theatre is made. As Essin (2015) notes, the on-stage, visible labour that is seen by an audience “is balanced by and only visible through the equally skilled labor of [a] hidden workforce” (p.197). While Essin focuses primarily on the backstage technical staff and their choreographed movements during a performance, the point is no less relevant to the creative and production teams in the making of that performance by “physically, intellectually, and emotionally engaged professionals” (Essin, 2015, p.199). The work engaged in by lighting designers and programmers is literally unseen: pre-production work primarily takes place away from the rehearsal room; during technical rehearsals, designers and programmers work in the dark and at a distance removed from the performance space; the programmer’s physical work at the production desk may go unseen by the lighting designer, even if they are

sitting next to each other; and the ways in which ideas are translated to reality (that is, how mental images and talk are transferred to a performance space) are equally unseen. These unseen factors all contribute to this marginalisation as well as a lack of understanding of the professions, their processes and their contributions to performance.

3.2 Technical rehearsals

Technical rehearsals²⁰ are at the start of what is called the “production week” and mark the first time that the entire company (cast, creative team and production team) is in the theatre together. For the lighting designer, the technical rehearsals are often very “expos[ing] – ‘like standing naked on a table and asking “what do you think?”’, as [lighting designer] Mark Jonathan puts it” (Moran, 2017, p.27). I am specifically interested in technical rehearsals as they are “a period of often intense activity” (Moran, 2017, p.27) and “intense creativity but also of anxiety and strain” (Hunt, 2015, p.1). As my primary interest is in the language used during the process of creative collaboration, specifically at the point of creation, I have therefore focused my attention on this “cauldron of potential” (Moran, 2017, p.50). I am more interested in technical rehearsals and the work that occurs in the performance space than in the rehearsal room for several reasons: there is increased pressure on the lighting designer; the technical rehearsal is where the bulk of lighting designer’s work happens; it is a creatively exposing process for a lighting designer; there are significant constraints on time and resources; and, perhaps most importantly, light is dependent on space and time and so its realisation relies on being in the performance space. Lighting designers’ presence in rehearsals varies and is often not where the bulk of

²⁰ In opera, these are called “stage and piano” rehearsals and, later, “stage and orchestra” rehearsals.

their *active* creative work happens. Therefore, a study of rehearsal room processes would not be useful for research of this nature.

This is also the time when lighting is integrated into the production, unlike the bulk of other scenographic elements. As Rae (2004) maintains,

It is a common misconception that the technical elements of production are incorporated into the production in the 'technical rehearsal' just prior to performance. In practice, the technical elements are gradually integrated, along with other performance elements, during the rehearsal period. (p.107)

It is during the technical rehearsal period that light on stage is realised by the lighting designer and is first experienced in conjunction with other design elements, making this a critical moment in the creation of a theatre production. As the name implies, the focus of these rehearsals is on coordinating the technical and design elements with the actors, who by this point have spent several weeks rehearsing the production in a rehearsal room, perhaps with mock-ups of the stage space; these can range from a two-dimensional version of the set marked out on the floor in coloured tape through to fully realised rehearsal sets, complete with functional features such as doors and windows. Actors may also have had the opportunity to rehearse in their costumes, to engage with sound and video effects, and to familiarise themselves with their props. It is rarely practicable, however, to integrate the performance lighting into the rehearsal process for several reasons. Logistically, the infrastructure of many rehearsal rooms does not allow for the physical rigging and electrical setups required to replicate those in a performance venue. Even if this were possible, light is spatially and temporally dependent, its materiality inherently bound to not only other scenographic elements but also the architecture of the theatre space itself. It is this interdependency between space, time, material, environment and architecture that makes light's potential difficult to articulate outside the

actual performance space. The full extent of the lighting designer's contribution, therefore, remains largely theoretical until entering "the white hot pressure cooker that is the production period" (Levings, 2011, p.4). These conditions contribute to a further potential obstacle for the lighting designer: technical rehearsals tend to involve the most negotiation and adjustment as creative teams learn the artistic "language" of a production while refining the spoken language they use to articulate it.

Most production schedules include a dedicated lighting session, where – in theory – the lighting designer and their programmer have a chance to create potential lighting states and to get a feel for what the visual "language" of the production might be, before the main work of the technical rehearsals starts (see transcript D4-6 for the importance of this time). This demonstrates the inevitable links between light as creative material and its connection to time and space. This interdependence underlies the inherent difficulties faced by lighting designers in describing light's material and affective qualities – and therefore its scenographic potential – prior to the creative team's arrival in the performance space. The linguistic strategies employed by creative and production teams therefore serve a dual purpose in collaboration: first, to describe light's materiality as it relates to its dramaturgical and affective potential; and second, to help lighting designers use these descriptions to assert both their position in the creative team hierarchy and the position of light as an integral scenographic element.

Even on the most generous production schedules, lighting time is typically limited to three to four hours in total, allowing only a cursory start to plotting (though this time can be substantially longer on large commercial musicals, for instance). However, in practice these sessions very rarely happen as planned, and plotting time is seen as the most expendable of all

the sessions during the production week. Lighting designers often make concessions here to other departments by, for instance, shortening the amount of time they have exclusive claim to the space, or by plotting with elements of “working light” on stage, thereby compromising their ability to fully explore the potential of the lighting rig. All of this distraction impinges on the lighting designer’s ability to prepare adequately for the start of the technical rehearsal. It is not just the time that is important here, but also access to the space itself. Much like Lefebvre’s assertion that space is “a means of control, and hence, of domination, of power” (1991, p.26), so too is the access to it. That this crucial period of work for lighting designers is so often relegated and devalued in this way demonstrates both an inherent misunderstanding of the importance of time and space to light and the inability or unwillingness of lighting designers to defend the importance of it. This interdependence is demonstrated in particular throughout Chapter 7.

The lighting designer has to balance a complex combination of needs, requests and decisions, usually from several different departments simultaneously. This combination of technical, artistic and logistical knowledge comes from, and is necessitated by, the lighting designer’s position, both in terms of the physical space they occupy at the production desk and the operational space they occupy as a member of the design team (see section 6.1 for a more in-depth discussion of the production desk).

According to lighting designer Neil Austin, “[B]ecause you are on cans²¹ you are the most central because you are the one who understands what the other departments are doing, and how to solve [any] problems” (quoted in

²¹ A colloquialism for the headsets worn by design and production staff to facilitate communication throughout a venue, whether backstage, in the auditorium or in other parts of the building. Most theatres use at least two “channels” (A and B): channel B for lighting and channel A for all other departments.

Moran, 2017, p.21). This is evidenced in several examples from my fieldwork in which lighting designers are either tasked with or, in most cases, take charge of coordinating the timing of cues with other departments, in particular during scene changes, where lighting programmers also play a valuable role (see transcript O1-6, for example). This is a good illustration of the concentric layers of authority that occur throughout technical rehearsals (McKechnie, 2014, pp.263–264). McKechnie (2014) characterises the complex arrangement of interpersonal relationships that occur throughout the rehearsal process (from the rehearsal room to the stage) as a series of “concentric circles” (p.263), which are continually realigned depending on the stage of production and the environment. This is clearly evident in my fieldwork but also anecdotally. As McKechnie (2014) suggests, these circles are realigned at the start of the stage and piano rehearsals as the rehearsals move to the actual stage space, and the inner and outer circles are often dependent upon the activity being undertaken or problem being solved at a given moment. It is interesting to note, however, that McKechnie places the singers always at the centre, in the “nucleus” (p.263), even during stage and piano or stage and orchestra rehearsals. I would take this further and suggest that these “concentric circles” in fact include all members of the cast, creative team and production team, often in overlapping or simultaneous configurations, and with constantly changing nuclei.

This notion of concentric circles can be seen in the physical move to the theatre from the rehearsal room, which forces a concurrent shift in overall “authority from the director to the stage manager, who will be in charge of nightly performances” (Lyon, 1982, p.85). But more than this, there are smaller, sometimes imperceptible shifts in which any member of the creative or production team is effectively in control of the technical rehearsal at any given time. For example, when members of the stage crew are attempting to

coordinate their movement during a scene change, the assistant stage manager may be in control even though they are not the most powerful person on (or indeed off) stage. When the technical rehearsal resumes, control will shift again, perhaps to the stage manager or the director.

These shifts are “brought about by the dependence on a complex technical infrastructure” (Hunt, 2015, p.20), which characterises the work of the technical rehearsal in particular but also “the *collective* labor necessary to deliver a long-running production night after night” (Essin, 2015, p.199).

Workplace discourse studies have primarily concentrated on an in-house, localised labour force rather than on freelance workers.²² It is perhaps easy to deduce the possible reasons for this: the relative stability and consistency of a permanent workforce, the shared geography and proximity of workers, and the types of workplaces studied (education, medicine and law, primarily). Freelance workers comprise approximately six percent of the UK workforce (Kitching, 2017, p.2), with “artistic, literary and media occupations” the largest group (Kitching, 2017, p.5); literature and studies focusing on freelance workers are comparably sparse but gaining ground as companies move to a more mobile, casualised workforce. Despite theatre and live performance being an industry in which “freelance working has become deeply institutionalised” (Kitching, 2015, p.22), workplace studies in this area are few. In *Virtual Workers and the Global Labour Market*, Webster and Randle (2016) bring together a selection of studies that examine the changing global workforce with specific emphasis on what they term “virtual workers”. Virtual workers are “mobile and dispersed” (p.8) and “precarious” (p.10), with “boundaryless” lives (p.12); their work is “mediated by digital

²² “Freelance workers” are also variously referred to as “non-standard workers” (Ertel et al., 2005), “atypical workers” and “flexible workforce” (Edstrom and Ladendorf, 2012). See also Kitching (2015).

technologies” (p.8), meaning it can be “located and delivered almost anywhere” (p.8). While theatre lighting designers, programmers, directors and other creatives do not exactly fit this definition, their working conditions and those that characterise virtual work are strikingly similar: “back-door recruitment practices, work secured through personal recommendations, contract working, long and antisocial hours, gender inequality in pay, exclusion from professional networks, and barriers to access to opportunities” (Webster and Randle, 2016, p.11). Mermikides and Smart (2010) maintain that “the stability of a company [...] is determined to a large extent by its funding situation [and] inevitably impacts on its structure” (p.15). Regional and publicly subsidised theatres – where the bulk of my research takes place – face the same pressure. Lighting designers are now primarily freelance (the notable exception being at the New Vic Theatre in Stoke on Trent) as it is more economically viable for companies and theatres to employ them on a project basis. This contributes to the competing “rhythms” between creative freelance workers and the needs of their employers or clients. This mismatch of rhythms is responsible for the tension “between the needs of companies to control their creative workers and processes, and the conditions within which creative freelancers work best” (Webster and Randle, 2016, p.141). This tension characterises the working conditions that many lighting designers find themselves in, balancing

more than one job at any one time, and rush[ing] from one job to the other, working on a mixture of longer and shorter jobs simultaneously, though these often conflict with one another. The details of shorter jobs frequently disrupt the time and space that the freelancers need to devote to the longer one. Their attention is constantly distracted by emails from and meetings with multiple clients, sudden changes of mind and last-minute requested adjustments to work. These freelancers therefore find it hard to establish a satisfactory creative rhythm of work (Webster and Randle, 2016, pp.150–151).

This description characterises the working life of lighting designers and lighting programmers, with the former in particular balancing multiple productions at a time. Working on more than one production simultaneously and often across different genres, approaches or traditions, and with different creative and production teams, requires an ability to concurrently develop shared languages within these varying teams and to adapt to variations in personal and professional relationships. Ultimately, the ability to do this successfully also impacts on aesthetic practices as well, as will be seen in the analysis chapters (Chapters 5 through 7).

With the nomadism of a primarily freelance industry such as lighting design, there comes a fragmentation of the workforce. “Soft” transferable skills, such as the ability to communicate effectively, become increasingly important in a primarily freelance, project-driven industry such as theatre. Lighting designers very rarely work together, and rarely is constructive feedback given on their work or the process; there is often no time for Rick Fisher’s “post-design rationalisation” (quoted in Palmer, 2013, p.255). Given the lack of research and development time afforded to most productions, alongside squeezed technical rehearsal schedules, lighting designers also have no time or space for play or experimentation. As lighting designer Colin Grenfell notes,

Sometimes when you can be with a company from start to finish for a whole project, you can play around in the rehearsal room, and that’s just fantastic when that happens. But as budgets get squeezed tighter and tighter and [lighting designers] have to pack more and more shows in, it becomes harder to financially make that viable and earn a living. It’s a great shame. My favourite shows are the ones where you’ve been in the rehearsal room every minute of the rehearsals, but they become fewer and fewer, just because people can’t afford to pay you for that length of engagement (The next 50 years of lighting design, ALD seminar, 42:43–43:19).

Grenfell is describing the balancing act that lighting designers in particular must constantly engage in, juggling time, space and money to ensure that they can contribute to the creative process as effectively as possible. These considerations all have a direct bearing on the degree to which light can impact on a production as well as the degree to which the lighting designer (and their programmer) is either allowed to or feels comfortable with exercising their professional or authorial agency.

3.3 Agency and language

Agency is variously defined as “the socioculturally mediated capacity to act” (Ahearn, 2001, p.112), “deeds and doings” (Davidson, 2001, p.43), “autonomy” (Salter, 2009, p.36) and “decision making capacity” (Painter-Morland, 2011, p.84). These definitions have in common a focus on both capacity and ability, and implicit in them is the acknowledgement that the invocation of agency does not occur in a vacuum but rather as a response to or pre-emption of another act of agency. Bown and McCormack (2011) define creative agency, specifically, as “the extent to which the subject is responsible for producing the object” (p.255), forgoing the emphasis on the creative process. Hunt (2013a) argues that agency, however defined, is rarely applied to the “technician or designer – roles that in many performance traditions are seen to have creative agency of a secondary order” (p.296), often in service of or inferior to the creative agency that is attributed to performers, the director or the text. While this may often be the case, there are also examples – from my fieldwork and elsewhere – of lighting designers and programmers exercising considerable creative agency within the constraints of their working environments. There is potentially a marked discrepancy here between the assumptions about creative hierarchies, agency and power that dominate both professional practice and much of the current scholarship, on the one hand, and the actual influence that designers and programmers have

on a production and therefore the aesthetic, affective and material elements that make up its scenography, on the other. Indeed, the case study included in the margins of Hunt and Melrose's 2005 article "Techne, Technology, Technician" shows the lighting programmer's agency at work, albeit in a subtle and indirect way. It is entirely possible that lighting (and other) designers and programmers have much more influence than they or their collaborators give themselves credit for; if so, it is even more remarkable that they manage to do this both within the constraints of current working practices and without drawing attention to the fact.

The *perception* of agency plays a key role here and is intrinsically linked to authority and control. Howard (2006) describes a panel session, organised by the SBTD, populated by "invited directors" and "some senior designers [...] with a large enough reputation to make them able to speak out" (p.25). The directors, she writes, "declared that they never had 'any trouble' collaborating with designers, and described a life of sweetness and light with ideas flowing back and forth culminating in, as they saw it, riveting and groundbreaking productions" (p.25). However, when the designers were asked,

What emerged were two very different views of the same experience. When a director felt that there was a good 'shorthand' with the designer, the designer often had taken the easiest way out just to avoid conflict. 'Designer speak' and intricate subterfuge was quickly revealed. When a designer saw that the agreed space could be better used, the suggestion had to be framed within a question, "Do YOU think it would be a good idea if..." (Howard, 2006, pp.25-26)

Fausey et al. (2010) examine the effects of linguistic patterns in speech on notions of observed agency (as opposed to first-hand agency). The difference here, and in the Howard quotation above, has to do with *perception*: how others see us versus how we see ourselves. Through three studies using both

English and Japanese speakers, Fausey et al. (2010) demonstrate that “patterns in language help shape whether we construe someone as being the agent of an event” (p.2). Similarly, Konopasky and Sheridan (2016) point to a wide range of linguistic tools that can affect the perception of agency, including the mitigating effects of words such as “just” (p.109), “so” and “probably” (p.113); the distinctions between transitive and intransitive verbs in portraying causality (p.112); and how agency is weakened through the use of modal verbs (“have to” or “want to”, for instance). The analysis of these word-level linguistic markers can be usefully applied to this study of creative collaboration and in furthering the lighting designer’s agency through language, as they may help to identify underlying structures of power, agency and status.

Linguistically, there are several ways to either demonstrate the level of one’s own agency and authority or to surmise someone else’s, thereby allowing interlocutors to either perpetuate or subvert these expectations. These include the use of so-called powerless language, mitigation, rapport management tactics and deictics. There are, Richmond (2016) posits, different types of agency at play during the performance-making process: “authorial agency” (Isackes, 2012), “professional agency” (Eteläpelto et al., 2013) and “identity agency” (Hitlin and Elder, 2007). Isackes (2012) claims that “rigid hierarchy still characterizes most theatrical collaborations” with “the scenographer often relegated to the position of reactive artist” (no pagination). Within these hierarchical constraints, designers may exercise professional agency, closely linked to power, in how they “influence, make choices, and take stances on their work and professional identities” (Eteläpelto et al., 2013, p.61). As Ng and Bradac (1993) assert, language “does more than neutrally inform hearers or readers. It is inevitably an instrument for enacting, recreating, or subverting power” (p.1). Power and language are

inherently linked, argues Locher (2004); they also shape and are shaped by social practices:

Any exercise of power, as well as any interaction in general, will be shaped by the personal history of the conversants, their social status, their role in the then-present speech situation and their perception of themselves and their conversational partners. [...] Even in so-called conversations among equals, there will be a constant negotiation of status, role and image, which may lead to the exercise of power (p.5).

Power and control, while related, are discrete concepts, closely linked and sometimes overlapping – part of having power is having control. Bradac et al. (1994) identify two forms of control – control over self and control over others – and similarly, Fairclough’s (1989) definition of “power” is explicitly linked to control: “powerful participants *controlling and constraining the contributions of non-powerful participants*” (p.46, emphasis in original). Both power and control are dynamic and context dependent; according to Mercer (2000), however, “‘control’ refers to what we can actually hear or see happening in any particular situation” (p.95).

Power is jointly produced; as Foucault (1977, 1980) maintains, it is dynamic and the result of constantly evolving, negotiating and contested social relations. People who are powerful are perceived by others as having control over themselves and their behaviour, over other people, over resources, etc. (Bradac et al., 1994). Conversely, powerless people will be perceived as lacking control of those same things. One of the ways this power is outwardly manifest is through language use. So-called “powerless” language is often characterised by the use of tag questions, hesitations (“um” and “uh”) and hedges (“kind of” and “maybe”, for example).

Hedges and hesitations are frequently used in everyday talk and create disfluency in speech (Fox Tree, 1995), interrupting the flow of linguistic

information from speaker to recipient and affecting listeners' language comprehension (Corley et al., 2007). They are often used to mitigate or reduce the intensity or force of a claim, as shown in a study by Hosman (1989), who maintained that these language variables indicate uncertainty. This uncertainty can be perceived in two ways: as the speaker's lack of control or as the speaker being "nonauthoritative" (p.402). Hosman and Siltanen (1994) found that "speakers using hedges and hesitations are seen as less dominant and controlling" (quoted in Hosman, 2015, p.226) than those who do not. Similarly, "speakers who are too sure of their ideas, do not hedge, and do intensify may be perceived as dogmatic, unsociable, and dishonest" (Hosman, 1989, p.402). It is clear to see why these attributes would be undesirable in a creative collaborative working environment, particularly one as intense as technical rehearsals, which benefits from camaraderie, mutual respect and trust, especially given the potentially difficult working conditions.

Mitigation can be a useful tactic in attempting to downplay the potential impact of a speech act on the responsibilities (for either the speaker or the addressee) that result from it. It is a wide-ranging term used to cover a multitude of language strategies. Thaler (2012) proposes that mitigation is a way of modifying "illocutionary force" (p.907); Caffi (1999) specifies further, noting that mitigation is a "weakening" or a "downgrading", the opposite of "reinforcement" (p.882). Rapport management, which often includes mitigating tactics, refers to the use of language in relation to the maintenance and promotion (but also neglect) of positive social relations, not necessarily in the workplace, though its application to workplace interaction is clear. The concept draws on both face management (Goffman, 1967) and politeness theory (Brown and Levinson, 1987) but also "includes the management of sociality rights and interactional goals" (Spencer-Oatey, 2008, p.12).

Moran (2017) notes that, of the lighting designers he interviewed, “almost all of them talk about their own practice in the second person, frequently substituting ‘you’ for ‘I’” (p.21). While he puts this down to “the tendency to diffidence exhibited by most of the interviewees most of the time” (Moran, 2017, p.21), I believe this actually has more to do with collaborative aims than reticence. Recent research in *Science* (Orvell, et al., 2017) claims that speakers are more likely to use this “generic you” to make personal experience communal, distancing themselves from “I”. Paradoxically, the authors of this article also propose that “generic you” is likely to be used when speaking about norms or “express[ing] generalizations that are deeply self-relevant” in order to “move beyond one’s own perspective to create the semblance of a shared, universal experience” (pp.355–6). The examination of uses of first- and second-person pronouns is significant because the referential function of these deictic words gives them an inherent identity-creating role, and this identity is created by the speaker placing themselves in relation to other speakers/addressees, places or spaces through language. A shift in deictic usage or a deictic substitution can therefore indicate a change (intentional or otherwise) in the speaker’s identity or perceived or projected identity. Consider, for instance, Neil Austin’s description of the lighting designer’s role in choreographing scene changes:

You direct scene changes, you often choose exactly how it happens [...]. [As the LD] you’ve made most of those decisions, so actually you are the most central person in the production team [at these points]. And because you are on cans you are the most central because you are the one who understands what the other departments are doing, and how to solve those problems (Moran, 2017, p.21).

Austin is using the “generic you” here to describe not just his own personal experience and preference (he goes on to call this situation “a lovely moment

of collaboration" (quoted in Moran, 2017, p.21)) but also what he feels or perceives should be the norm during technical rehearsals.

The development of this "language of agency" is closely linked to the lighting profession's historic and continued marginalisation, as can be demonstrated through a closer look at the language used to characterise the practices and processes of lighting and scenography. Almost all scenography texts make reference to the word's etymology and history (McKinney and Iball, 2011; Aronson, 2017; McKinney and Palmer, 2017; Hann, 2018). In the *Routledge Companion to Scenography* (2018), for instance, both Aronson and Quigley, in their respective chapters, chart the etymological shift that "scenography" has undergone, with Quigley further positing that this recent "'scenographic turn' [...] echoes the 'linguistic turn' taken by many modes of inquiry in the twentieth century" (2018, p.81). Aronson likewise argues that "the vocabulary of scenography [is] fundamental to an understanding of the performative act" (2018, p.4). It is with this in mind that I would like to examine the position of light, in particular, within the wider remit of scenography in order to understand both its historic and current marginalisation.

Palmer (2015) charts the development of "the first scenographic turn of the modern theatre" (p.31), through a reappraisal of Adolphe Appia, who, with his revolutionary approach to scenography and his advocacy of light as a dramaturgical material, in particular, is often cited as "the most important turn-of-the-century innovator in the use of theatrical lighting" (Beacham, 1993, p.1). Curtin and Roesner (2015), in their examination of sound as a scenographic material, posit a second "scenographic turn" of recent years (see also Collins and Aronson, 2015). In the same article, Brown notes that as use of the term "scenography" gained currency in the early 1990s it was also

accompanied by other additions to the theatre design vocabulary, such as “dramaturgies”, “synergy” and “synaesthesia” (in Curtin and Roesner, 2015, p.112). This most recent “scenographic turn”, Roesner maintains, is:

[N]ot (just) a paradigm suggesting we should pay a bit more attention to the stage design of theatrical productions; it is a profound re-evaluation of the aesthetics, the dramaturgical function and the visceral experience of spaces and images for performances; an understanding of scenography as emancipated from merely illustrating or furnishing the realization of a dramatic text on stage (Roesner, in Curtin and Roesner, 2015, p.109).

Roesner, interestingly, goes on to link this shift back to the thinking and practice of Appia, in particular, noting how his ideas of light, rhythm and space have influenced current theatre practitioners working in sound.

In analysing Roesner’s definition of this most recent scenographic turn, there is a notable use of agential language that is similarly replicated in other texts on scenography. Descriptions of scenography and the practice of the scenographer, despite the absence of a suitable verb derived from these words (Baugh, 2013, p.240), are often characterised by active verbs denoting scenography’s – and the scenographer’s – potential in performance making. For instance, McKinney and Butterworth (2009) define scenography as “the *manipulation* and *orchestration* of the performance environment” (p.4, emphasis added). In her seminal work on scenography, Howard (2002) boldly claims that scenographers are “no longer being a servant but rather a leader, a creator or an initiator and a collaborator” (p.73). Moving away from the term “theatre design”, Irwin (2008) similarly describes scenographers as “instrumental in apprehending and negotiating the site’s materialities” (p.44). In all these examples, one can see the use of verbs and adjectives that denote an active, agential positioning: “manipulate”, “orchestrate”,

“integrated”, “lead”, “apprehend”, and so on. Note that this occurs in descriptions of both scenography and the scenographer.

In part, this agency has to do with the all-encompassing nature of the terms scenography and scenographic, itself a result of a lack of a concrete definition for either term (Aronson, 2018, p.1); however, both historically and etymologically, set design has been favoured in the use and understanding of both terms. The definitions of scenography vary widely: it is “sometimes used minimally, to cover only the design of the set, and sometimes maximally, to cover every functioning element of theatre structures” (Quigley, 2018, p.81). In both definitions, the set design and the role of the set designer are privileged; this can be seen in academic literature as well as industry-facing texts. The Society of British Theatre Designers, itself comprised mainly of set designer members, notes on its website that “theatre design or scenography is the design of the space in which a performance takes place [...] the space, costume and props that you see when you watch a performance” (SBTD, no date, no pagination), putting forward the term “scenographer” as merely an “alternative name for theatre design” (SBTD, no date, no pagination). The etymological conflation and simplification here, which in turn leads to the privileging of scenic design over other elements, seems to stem from the similarity between “scenography” and “scene” in English. The fact that analogous words with lighting, costume or sound-related roots have not emerged (Aronson, 2018, p.3) is perhaps telling as well.

In its maximal definition, then, “scenography” increasingly describes “a more integrated reading of performance that recognises the role played by all the elements of production in the creation of meaning” (Collins and Nisbet, 2010, p.140). Aronson (2018) writes that scenography is “the total

visual, spatial, and aural organization of the overall theatrical event” (p.10).

This leads to a personnel problem, however:

In more conventional forms of theatre, where each scenographic element is isolated and sub-contracted, as it were, to specialists, each contributor is easily identified (costume designer, lighting designer, etc.). If, however, scenography is the total visual–spatial–aural–sensorial creation, it raises an interesting question: who is the scenographer? (Aronson, 2018, p.10)

The scenographer, Baugh (2005) writes, is “the *artists* who have responsibility for all the visual and aural contributions of theatre and performance: the stage setting and properties, costume design, lighting and sound design” (p.84, emphasis added). This plurality is key to scenography and the basis for the oft-stated maxim that ties theatre so closely to ideals of collaboration. Despite the foregrounding of set design, which continues in contemporary theatre production practices, it is this holistic perspective that most recent texts take on scenography. This, however, is at odds with Aronson’s description of design elements being “isolated and sub-contracted” as they are in “conventional forms of theatre” (2018, p.10) and in particular in most of the case studies under examination in this thesis (O6 being the notable exception).

It is also interesting to note that the 2012 review *Mapping Technical Theatre Arts Training* combines design and production roles (as well as craft and management roles) under the broad heading of “technical” (Farthing, 2012, p.7). The author admits that this “hides the complexity and specificity” of the industry and that “[s]enior managers, directors, producers and others tend to use the term ‘technical’ to avoid having to deal with the peculiarities of what we do, and to reinforce old prejudices and hierarchies” (Farthing, 2012, p.7). Following Farthing’s logic, this would imply that the term “technical” is used in a derogatory manner by some, perpetuating the divide between

creative and production roles. In a similar vein, the 2017 *Workforce Review of Offstage Theatre* even further conflates all roles apart from acting (including directing and casting) into “offstage” roles. This amalgamation of the huge variety in design, production and management roles into a single category ignores the highly specialised knowledge and expertise the people in these roles possess. This is a prime example of language’s relationship to, and impact upon, power structures, and the ways in which lighting (and other) designers are perceived, even by those within the industry. Anecdotally, this results in a dismissal of the lighting designer’s creative contribution or the inability of outsiders to engage with it properly – and this lack of artistic recognition or wider acknowledgement impacts the ways in which lighting designers and their work is sometimes seen within creative teams.

The focus on the technical aspects of design is perhaps one reason for the apparent marginalisation of lighting designers, whether that comes from inside or outside the industry. This split between what is traditionally seen as art and technology may be due to a historical belief that “anything technical is out of the artist’s realm” (Wrench, p.25), according to a 1954 article in *TABS* magazine entitled “Who lights the set?”, a title that is itself telling of the prevailing attitude towards lighting designers and demonstrates how light was widely seen at this time to be purely functional and facilitative. The title also shows the (ongoing) divide between art and craft (and the implicit hierarchies in British theatre practice). The role of the lighting designer and the dramaturgical role of light have advanced considerably since then, though it is interesting to note that the hierarchical distinctions between art and craft have not, for the most part, though this is not confined to theatre design and production alone. Dormer, for instance, has observed that “The separation of craft from art and design is one of the phenomena of late-twentieth-century Western culture. [...] It has led to the

separation of 'having ideas' from 'making objects'" (Dormer, 1997, p.18).

This points to the traditional dichotomy between art and technology in lighting, as well as attempts to reconcile the two (and thus reject the hierarchy implicit in this) in what has been variously called the "creative technician" (Schechner, 1995, vii; quoted in Palmer, 2013, p.241), "technical artist" (Hunt, 2012; quoted in Moran, 2017, p.99) or "mastercraftsperson" (Hunt and Melrose, 2005).

The move, in the 1950s in the UK, to a specialist lighting designer coincided with the rise of the director and playwright, and with this came a change in the existing power relations of the creative and production teams. Rebellato (1999) points to professionalism and the related change in job titles and, in some cases, responsibilities (e.g. from "electrician" to "lighting designer") as "indicat[ing] much broader transformations" (p.83) in the industry. For lighting designers, this meant, among other things, vying for creative and authorial agency and input in a role that had traditionally been seen as "technical – to make the lights work as required by the Producer and Designer" (Guthrie, 1952, p.11; quoted in Rebellato, 1999, p.92). While this attitude is certainly no longer the case, it could be argued that the residual effects of this historical hierarchy still linger in contemporary practice. Very rarely does light – or the lighting designer – take the lead in a production, though this is often challenged in contemporary dance, for instance, where lighting designers tend to be appointed much earlier, and can therefore help to shape the "concept" or narrative in a way not generally afforded to lighting designers working with existing, or even devised, texts. This is in part due to a growing recognition of what Graham (2018) has termed "scenographic light" – "an affective use of light that works to generate meaning independently" (p.28).

The recent “scenographic turn” has occurred in part as a result of the recognition of the affective and dramaturgical potential of design and its impact on audiences, for example, as well as an effort by designers (set, costume, lighting, sound and video) to subvert the current hierarchies that not only constitute but are constitutive of contemporary theatre working practices. Linguistically, this can be seen in the ways in which lighting designers and the role of light (and thereby the teams responsible for its creation) are described in writing, both from the academy and from the industry itself, including those on the peripheries, such as critics or marketers.

Typically, the lighting designer will join the design team after the set designer and after the bulk of the production’s visual aesthetic has been decided on. In what might be termed a “traditional” hierarchy, the director and the designer work together to create the production’s “concept” and the visual elements that support this, including the set design. This work tends to happen before the start of rehearsals (see Knowles, 2004, pp.28–9) and, crucially, for the purposes of this thesis, before the appointment of the lighting designer. These hiring practices point to a continued perception of lighting designers as secondary contributors. They often lack access and input to the initial design conversations and therefore miss a significant opportunity to contribute creatively to the process. This has implications for the nature of lighting design: while light obviously maintains its potential to be a dramaturgical force and to aid the visual narrative, it does so reactively, rather than proactively, with the lighting designer responding to “the space that the designer has *given me*” (Fisher; quoted in Palmer, 2013, p.262, emphasis added). The lighting designer is typically responding to what is presented to them – usually drawings and a model of the set design – rather than being able to influence the design decisions from the very beginning. As

lighting designer Paule Constable says, “As a lighting designer I respond to the interpretation, the world that the designer and director have decided to make the piece within” (personal correspondence, 5 April 2010). This has led some, including set designer Michael Pavelka (2015), to suggest that “lighting designers can sometimes feel a bit marginalised [...], knowing that they often can’t make a concrete contribution until the physical design starts to take shape” (p.61). That this opinion is still upheld and perpetuated by some practitioners only serves to reinforce existing production processes and the continued (perceived or actual) marginalisation of the lighting designer (and video and sound designers, who often enter the process even later).

In *The Right Light* (2017), Moran introduces the “integrative lighting designer” (p.16), who works against this “traditional model of practice” and is “more regularly part of the discussions about the production from the beginning” (p.17). These designers aim to “reintegrate the creative use of light into the earliest creative discussions”, though Moran admits that “for many this remains an aspiration” (Moran, 2017, p.29). A closer look at Moran’s interviews reveals the actuality of the working practices that lighting designers face. For instance, while lighting designer Natasha Chivers aims to be involved in discussions earlier than is typical – i.e. at the initial “white-card”²³ stage – her design decisions are still responses to the director’s vision and the designer’s model: “looking at the designer’s research material, learning why the choices have been made, and finding out what has been discarded” (Moran, 2017, p.35). Moran later notes that being involved “right at the start of the process often well before even a white card

²³ This is a 1:25 scale model of a set design, made using white card, to give an initial indication of what set elements might be present and the logistics of how they will be used in the performance space. The term “white card” is often used to describe the meeting at which this model is presented.

model meeting [...] is quite unusual, and a lot of lighting designers say they would kill to have it" (Moran, 2017, p.39). Many of the lighting designers interviewed talk about their practice in reactive terms. Peter Mumford calls lighting design "the last creative act in the process of making theatre" (Moran, 2017, p.49), and Johanna Town states that lighting designers are "the third step" (Moran, 2017, p.32) in the creative hierarchy, noting that "the director's vision for the play [...] may actually be different to what I feel" (Moran, 2017, p.32). Mark Henderson states that he is "very driven by what I'm given as a set" (Moran, 2017, p.30), echoing Rick Fisher's comment above, while some lighting designers may "see the model box for the first time with the actors, which is quite scary" (Ormerod; quoted in Moran, 2017, p.43). Ormerod continues: "Sometimes you don't get booked until after the set's been designed, amazingly enough. Sometimes, you're actually not in the country when the set's being designed" (Ormerod; quoted in Moran, 2017, p.43). However, there are signs that these practices are beginning to change, demonstrating the timeliness of this research, as seen in the increased emphasis on process and working practices in industry-facing literature. Recent articles in lighting design magazine *Focus* have highlighted both how important early involvement in the process is becoming for lighting designers and the rarity with which this occurs. As lighting designer Elliot Griggs has observed in his own practice:

As performances become increasingly technical, with tighter integration between lights, music, sound, video, movement and set, the need for collaboration between creative teams is becoming far more necessary than before. Early design meetings, which typically would've involved just the director and set designer, are becoming meetings with the entire creative team. (Griggs, 2018, p.36)

Lighting designer Lucy Carter notes that, ideally, lighting designers would be paid a more representative fee for time spent on each project, a point Griggs also touches on, which would allow them to

commit more time to projects, which would in turn improve the collaborative experience. We could commit more time during the set design process so that we avoid the design being completed before we are involved and discover a difficult, if not almost impossible, set to light. We could have more time to develop our ideas with the designer and director so that everything is fully integrated and wholly of the concept. (Carter, 2018a, p.4)

In concluding the second edition of *Performance Lighting Design*, Moran (2018a) offers a series of provocations on the position of lighting designers. Among them, he states that “If as LDs we are going to be useful collaborators with our fellow creative team members, rather than technical facilitators, we need to be steeped in the dramaturgy of the pieces we light” (p.262). This is inherently dependent upon having the opportunity and ability to speak for and about light – with the director and other designers, in the rehearsal room, in production meetings, and during technical rehearsals – with the ultimate goal to, according to Moran, “make creating performance lighting more like making art” (2018, p.262). These distinctions are important because they govern the ways that lighting design is seen and lighting designers (and programmers) see themselves. The impact of these changing practices can be seen through language, for instance, in the comparison of creative conversations in observations D3 and D4.

3.4 Lighting programmers

The specific role of the lighting programmer in contemporary theatre seems difficult to define clearly. The ALD has published on its website a very basic document outlining what a lighting programmer should know, noting that this list forms “only the core part of the *syntax* required to enable someone to

input data into the desk” (Association of Lighting Designers, n.d., emphasis added), reducing the role to a merely procedural, functional one.

Interestingly, professional programmers in the UK seem reluctant to formalise any attempt at a job description, which ranges variously from a “data entry clerk” (anonymous, personal correspondence, 14 June 2018) to “acting as the interface between the designer’s vision and the technology of the lights and lighting console” (Halliday, n.d.). Both of these point to the programmer’s role as a mediator between design and technology, and both seem to prioritise the more practical, manual processes in which they engage. However, the job of the lighting programmer goes far beyond mere data input.

While some programmers may describe their role as simply to “follow the instructions of the lighting designer” (Hunt and Melrose, 2005, p.71), acting as merely a facilitator, those who are widely considered within the industry to be at the pinnacle of the profession (as the two programmers in D3 and D4 are) also act as “allies” to the lighting designer. As Schiller (2016) notes, the ability to form a successful working relationship with the lighting designer is “just as important as the knowledge and skill” (p.135) a programmer must also possess. They must be empathetic to the needs of the lighting designer and the other creative relationships in the theatre, and they must possess a clear understanding of their role in the process as a whole. Being an excellent programmer is not merely a case of manual dexterity and syntactical know-how; it encompasses a range of interpersonal skills and empathetic awareness.

Programmers often fulfil both creative and technical roles; the former is difficult to quantify, but this duality is evident in interviews and conversations with lighting designers. Lighting designer Paule Constable

maintains that being a programmer is “more than data input. It is a collaborative process” (quoted in Moran, 2017, p.101), and lighting designer Mark Henderson agrees:

They [programmers] are so vital for their speed and efficiency, but also for their input as well. [...] [T]hey know what the lights can do – probably better than I do. They work with them all the time. In that environment they are able to offer up suggestions and have an input, which is great. [...] The good ones really know their rig and how to help you get the best from it. (quoted in Moran, 2017, p.100)

The majority of the lighting programmer’s work occurs during the production period. They may also be involved in the research and development stage, helping the lighting designer and director visualise possible lighting states and explore potential routes before moving to the theatre. This is often the case on devised or technically complex productions. During the production period, the lighting programmer is most often situated at a production desk in the centre of the auditorium, next to the lighting designer – as previously noted, the production desk acts as a “point of command” during technical rehearsals (see Hunt, 2015). In much the same way that the lighting designer acts as a “bridge” between the artistic language of the director or choreographer (often positioned to the lighting designer’s left) and the technical or syntactic language of the lighting programmer and console (usually to the lighting designer’s right), the lighting programmer facilitates communication between the production desk and the lighting and other backstage crew (see section 6.1 for a more in-depth discussion of the production desk). The programmer must have detailed knowledge of the lighting console and simultaneously be aware of the needs of the production generally, feeding back any pertinent information to the lighting crew. In the UK, where the roles of associate and assistant lighting designer are not yet commonplace, very often the lighting

programmer fulfils one or both of these functions as well. According to lighting designer Lucy Carter, a good programmer is “more important to me than having an assistant, and they kind of do become your assistant because they’ve got a creative role too” (quoted in Moran, 2017, p. 101). It is clear that the lighting programmer possesses an exceptional combination of technical, artistic and logistical knowledge, which is facilitated by their physical location at the production desk and also by the operational space they occupy between the creative and production teams. Hunt (2015) posits that the production desk is not only a space from which the lighting designer and programmer control their operations but also a place where “communal relations are performed” (p.16). There is strong evidence for this in several of the transcripts, and the importance of engaging in relational dialogue in order to aid communication and collaboration will be explored further in sections 5.1 and 5.2; see also section 6.1 for a discussion of the production desk itself.

While the prescribed syntax of the console needs to be followed in order for the programmer’s (and therefore the lighting designer’s) instructions to be properly received and realised, lighting programmers also employ a high level of creative decision-making skills within these restrictions. Boden (2004) explains this dichotomy between machine and operator:

Many people would argue that no computer could possibly be genuinely creative, *no matter what* its performance was like. [...] It’s the programmer’s creativity that’s at work here, not the machine’s. The machine isn’t conscious, and has no desires, preferences, or values – so it can’t appreciate or judge what it’s doing. (p.7, emphasis in original)

The impact and importance of experience can be seen particularly in some of the transcripts from observation D1, and in the interaction between the lighting designer and the lighting programmer. When compared to other

programmers throughout this study, those with a wider understanding of the production process, of the implications of their work on other departments and of the larger issues of collaboration and creativity were better able to adapt quickly to the changing conditions of the technical rehearsal. In short, they were better able to empathise with, and speak the language of, their colleagues.

Both lighting designers and lighting programmers continually employ and draw on their tacit knowledge – of their workplaces, of their skills, and of their professional relationships and expectations. Tacit knowledge is a state in which “we know more than we can tell” (Polanyi, 1996, p.4), a type of embodied knowledge that is reflected in Schön’s (1983) concepts of “knowing-in-action” (p.49) and “reflection-in-action” (p.54), a kind of constant improvisation that relies on previously gained (and embodied) knowledge to solve problems as they arise. Although Schön does not focus on the arts specifically, there are many parallels to be found, for instance, in the way that lighting designers work, especially during production weeks. The reflective process advocated by Fisher (in Palmer, 2013, p.255) and demonstrated in the interviews in Moran (2017), for instance, is similar in many ways to the reciprocal processes of making and thinking described by Gauntlett (2011) in his work on developing creative research methods. Where it differs, however, is in its temporal, spatial and physical implementation. Gauntlett (2011) maintains that “through the thoughtful, physical process of making something [...] an individual is given the opportunity to reflect, and to make their thoughts, feelings or experiences manifest and tangible” (p.4). This process of reflection through doing (which, in turn, provokes further reflection that informs further doing, and so on) is clearly demonstrated in D4-2, in which the lighting designer and choreographer are discussing the visual impact and potential of a moving

lighting effect. Changes to the lighting state are being made on stage during this section of dialogue, and the discussion that occurs alongside this is both reflective and proactive, both attempting to solve and to anticipate limitations in the realisation of the lighting sequence.

This section has demonstrated some of the institutional and organisational conditions of work that should serve to contextualise this research within an industry setting, complementing the scholarly context given in Chapter 2. This was directly related to a wider perception of the professions, which in turn impacts the physical working environment, personal and professional relationships, how lighting professionals perceive themselves and their contribution, and how these are perceived by their colleagues. These factors both condition and are conditioned by the way language is used. The role of light and the lighting designer is therefore fundamentally tied to language, with a direct impact on how lighting designers are *allowed* to work within Western theatre practices and hierarchies. With both the research landscape mapped out and the industry itself surveyed, and in light of the issues addressed in Chapters 2 and 3, the next chapter will explain and justify the methodology specifically undertaken here in order to answer the research questions (section 2.4).

Chapter 4: Methodology

The preceding chapters have provided some context, both scholarly and industry focused, for this research, positioning it between but also drawing on several fields, namely scenography, theatre production, ethnography and creativity studies. This chapter will explore more closely some of the existing methodologies in these fields, particularly in theatre design and production as well as related and relevant studies in theatre practice more widely. I will examine both ethnographic and autoethnographic methods, including linguistic ethnography as a subset of the former, as well as discourse analysis as an analytical tool. I will explore how these existing methodologies impacted the development of those used in this research specifically, how they have evolved throughout the research process, and how they have been employed in answering the research questions set out in section 2.4. The methodology and methods I have employed in this research are not replicated elsewhere in studies concerning theatre lighting design, and the technical rehearsal remains, as previously stated, a rarely researched component of theatre-making.

My interest here, as detailed in previous chapters, is in how theatre practitioners use language as *part of* the process of creation, as part of “a reflective conversation with the situation” (Schön, 1991, p.76). McAuley (1998), in developing an ethnography of theatre rehearsal, describes this as “the shift in interest from the reified art object to the dynamic processes involved in [theatre’s] production” (p.75). This focus on process necessitated my presence in the environment *at the time the work was taking place*. This research addresses these spatial and temporal concerns through autoethnography and linguistic ethnography, using discourse analysis methods to analyse the use of language in action and to investigate issues of

agency, power and hierarchy that exist in contemporary theatre production processes, with a specific focus on the processes of lighting design within the setting of the technical rehearsal. This combination of approaches was developed alongside the fieldwork into a method that has helped to explicate the role of language within the social and professional context of the technical rehearsal. In so doing, this research positions the work of the lighting designer and lighting programmer as integral to the creation of live performance and the production desk during technical rehearsals as a valuable and useful site of knowledge production. The ethnographic approach I have undertaken gives the research an immediacy and timeliness that is underpinned by the use of my own professional expertise in interpreting, mediating and contextualising the range of encounters throughout the fieldwork and, in particular, in those subsequently analysed in Chapters 5 through 7. Taken both individually and cumulatively, the fieldwork extracts provide a means of examining the underlying structures and latent mechanisms of technical rehearsals. The ways in which I have approached this will be discussed throughout this chapter.

4.1 Scope of research

It will be helpful before progressing further into details of the methodology to set out the parameters of this research. The observations are divided into two types: durational and occasional. The durational observations lasted between four and nine days (32 to 61 hours each) and the occasional observations one to three days (four to 16 hours each); see Table 1 for more detail. The four durational observations span plays (D1), opera (D2), musicals (D3) and contemporary dance (D4). The occasional observations included plays (O1, O3, O4, O5), opera (O2, O7) and a site-specific installation (O6). The selection of these genres and productions was a deliberate choice as explained later in this chapter. All of the observations

took place in the UK – all but one in England – and with primarily British creative teams. Exceptions to this were D2 (in Scotland), O7 (American lighting designer), D3 (American director, designer and choreographer) and O3 (a German co-production with a UK-based Italian lighting designer). It is not, therefore, the goal of this research to generalise beyond the UK – and, in some ways, not beyond the specific productions under analysis here. The productions and analysis thereof are therefore intended to represent a “snapshot” of UK theatre production practices between January 2016 and October 2017.

All productions (even the site-specific O6) were situated in purpose-built theatres with permanent in-house technical staff and freelance creative teams. This dynamic has a direct impact on communication and collaboration, in particular in the formation of successful working relationships. All but one (D3, a commercial musical in the West End) was with a subsidised producing company or theatre. While the productions were conceived within the “traditional” framework of British theatre-making processes, this is not to say that there is a “British way” of making theatre or that the practitioners who work in this system are all governed by the same attitudes or approaches; even an individual will approach each project differently depending on its needs. As lighting designer Mark Jonathan puts it, “We have to be chameleons as well in how we relate to our other creative collaborators. [...] [H]ow dominant, positive or tacit we are, that varies with every creative relationship” (quoted in Moran, 2017, p.83). More detailed information about each observation is provided in section 4.6.

Anonymity became a condition of participation in this research (see section 4.7) for two reasons, one practical and one epistemological. Practically, many of the participants agreed to take part on the condition of anonymity. I do

not believe that this had anything to do with participants being necessarily uncomfortable about being recorded per se but rather with an expectation of inhibition on their part; in the early occasional observations, there seemed to be a sense from some participants that remaining anonymous would allow them to proceed “as normal” without altering their behaviour, knowing that anything they said or did would not be directly attributable to them. As a result, I felt it appropriate to anonymise *all* participants, which allowed me to present the transcripts and production information in a consistent format and respect the concerns of those who preferred to remain anonymous.

There was, however, an acknowledgement from some participants that they could still be identified by particularly deductive readers. When asked to sign the informed consent form, the director of D2 tellingly remarked, “Everyone will know it is me anyway” (field notes, 18 February 2017).

Epistemologically, anonymity was important in separating particular practices from specific people. Instead, I felt it important to observe and document a wide range of practice that would challenge existing research that focuses on a handful of practitioners, to whom Abulafia (2016, p.9) refers as “towering figures” in lighting, thus expanding current knowledge and thinking around the processes of creativity and collaboration that characterise technical rehearsals. This allows me to make connections between observations and practitioner processes that reflect a plurality of experiences, without these being attributable only to specific people.

Additionally, this research prioritises both text-based productions and verbal communication. Taking the latter first, the methodology relies almost exclusively on audio recordings, supplemented by field notes. For practical reasons as well as for maintaining anonymity, no video or photographic data was collected. Therefore, the analysis is reliant on the spoken words of the participants and my interpretation of them, within the environment in which

they occurred. However, in section 6.4, I have additionally analysed selected moments of “non-verbal” communication, in particular the use and meanings of silence.

With regards to the former point above, the majority of the productions that form the fieldwork component take an existing text as their starting point. The clearest exception to this was O6, a site-specific installation devised by the lighting designer, along with a composer and the lighting programmer. Less obviously, D4 drew extensively on – but did not duplicate – the company’s previous work, though the overall concept and the format of the performances themselves were both original and innovative. Therefore, with the exception of O6, all of the productions operated within the “traditional” hierarchy of roles, which places the director (or choreographer) at the top, and O6 was the only observation that “start[ed] from an idea or concept rather than a play text” (Harvie and Lavender, 2010, p.2).

The rationale for this was guided by the research questions (particularly question 1) and the explicitly defined research environment of the technical rehearsal. The processes employed by collective or ensemble theatre companies differ substantially from those in this study, which could, for want of a better word, be said to subscribe to a “traditional” way of working in the UK. Because of this gap, it felt disingenuous to conflate the two ways of working within this thesis, though there is perhaps scope to explore this difference in future research, using the methodology employed here.

Although there are no observations of collective theatre companies included in this study, there are some useful and interesting similarities to note, for instance the impact of funding and the range of the levels of the lighting designer’s involvement during the pre-production process. In section 2.2, I previously provided a short overview of ethnographic studies of ensemble

working practices and showed, despite how the structures of these companies are often perceived as less hierarchical than “traditional” theatre-making processes (or what Kazuschyk (2018) describes as “ultra-collaborative”), how there is sometimes still a tendency for lighting and the lighting designer’s contribution to be *portrayed* as “less equal”. Whether this is actually the case or, instead, dependent upon the ethnographer’s visual literacy and familiarity with the design process is debatable.

4.2 Theatre design and production

Although methods based in linguistics and observation have previously been applied in rehearsal room settings (e.g. Hazel, 2018 and forthcoming; Milde, 2019), the use of the methods employed in this thesis is currently nascent in theatre design and production research (see Taylor, 2018, for a similar approach in costume design), and the setting of the theatre technical rehearsal is as yet unrepresented in applied linguistics research. In some ways, this is not surprising. The “hidden” work that occurs in technical rehearsals, and for lighting designers more generally, is difficult to articulate and is often unseen and is therefore often overlooked or marginalised in theatre scholarship. For applied linguists, this work is doubly hidden, as it requires specialist knowledge of the setting and of the wider conditions of production that influence the ways in which theatre professionals are allowed to work, something I have specifically brought to this research through my extensive professional experience²⁴. While emerging scholars in applied linguistics are beginning to widen the scope of the field to include, for example, methods of creative inquiry (McKay and Bradley, 2016; Bradley and Harvey, 2019) and the impact of university theatre societies on

²⁴ This is detailed more fully in the introduction and includes nearly twenty years’ experience as a lighting programmer, lighting designer, director, stage manager, company manager and production manager.

international students (Ghosh, 2019), the intricate processes of theatre-making that occur during the technical rehearsal remain elusive.

An objective of this research is to explicate the ways in which lighting designers, programmers and directors work during technical rehearsals, drawing out and unravelling the latent processes of negotiation that occur in this particular workplace environment. Given my research questions, combining autoethnography with linguistic ethnography – observing professionals at work with particular attention paid to their language habits – through a discourse analysis approach seemed the most appropriate way to conduct this research, in contrast to previously existing studies in lighting. For instance, Moran's recent book *The Right Light* (2017) contains interviews with contemporary lighting designers in which they reflect on their practice and process, as does Pilbrow's *Stage Lighting Design* (2010), which is also framed around Pilbrow's professional experience. These, however, constitute part of a "post-design rationalisation" (Fisher; quoted in Palmer, 2013), an act of active reflection similar to McKinney and Iball's (2011) advocacy of "post-hoc reflection" by audience members on their "shared experience" in order to "explicate tacit understanding and [...] [develop] insights about knowledge which is embodied" (p.123).

McKinney and Iball (2011) note that "professional practice of scenography has been preserved and examined mainly through retrospective exhibitions and associated publications" (p.112). They note, in particular, exhibits at the Prague Quadrennial, which have traditionally relied on "models, drawings and photographs along with artefacts from the original production" (McKinney and Iball, 2011, p.112) as the principal methods by which practitioners attempt to show their process and invite reflection on the end product. However, the prevailing or "traditional" research methods in

scenography, they maintain, need to adapt to be more “responsive to the experiential and fluid nature of scenography” (McKinney and Iball, 2011, p.114). Light scholarship, in particular, suffers from the inadequacy of these “traditional” research methods. As Palmer (2018, p.51) notes, this is in part because of the difficulties inherent in documenting light and its scenographic contribution. Graham (2018) details “the shortcomings of three common forms of documentation: photography, video, and technical data” (p.86) and turns instead to autoethnography, including thick description and detailed, reflective field notes, drawing on her “own tacit knowledge of light as a productive tool with which to analyse and explore the impact of light on performance” (Graham, 2018, p.75).

The common methods that all of the ethnographic studies detailed here and in section 2.2 employ include some or all of participant observation, audio and/or video recordings, field notes, thick description, and interviews with key personnel. In formulating a methodology and methods for investigating my research questions, it was particularly important to sufficiently capture the linguistic element that the research questions are predicated on.

I therefore turned to linguistic ethnography, a subset of ethnography and an emerging field not yet explored in relation to technical rehearsals, alongside discourse analysis, to seek to address my research questions.

4.3 (Auto)ethnographic methods

This research employed both ethnography and autoethnography, terms and methods I will explore in more depth in this section.

Autoethnography “draw[s] upon the experiences of the author/researcher for the purposes of extending sociological understanding” (Sparkes, 2000, p.21). While this research is not, strictly, autobiographical – I am not the subject of the research and none of the fieldwork is from productions I was

personally involved with – I have drawn on my extensive personal, lived experience of professional theatre production, particularly having spent a majority of my working life in technical rehearsals. Autoethnography demands “unusually rigorous, multi-layered levels of researcher reflexivity” (Grant et al., 2013, p.1), the extent of which should be apparent in the sections that follow in this chapter. Drawing on Melrose’s concepts of “expert spectating” (2007a, paragraph 1) and “expert practitioner-specific modes of knowledge” (2007b, p.3), this approach has allowed me to articulate the “expert-intuitive operations” (Melrose, 2007a, paragraph 8) that characterise the creative process during technical rehearsals. In doing so, this research positions the lived experience of technical rehearsals as a valuable means of exploring the processes of theatre production and the production desk as a useful site of knowledge construction.

Using autoethnographic practices to explicate the nature of the production process means that I must necessarily draw on my own tacit knowledge of technical rehearsals and the nature of the relationships therein while simultaneously attempting to unpick those I am observing. Doing so may draw critiques on the subjective nature of my analysis of the data that is generated throughout the course of the fieldwork. However, it is precisely my positioning as an “expert-practitioner-researcher” (Melrose, 2005, p.12) that allows me to make informed, experience-based judgements on both the nature of the exchanges taking place and the environment in which they occur (and how these are reciprocally influenced).

More broadly within ethnography, Hammersley (2018) maintains that “there has been increasing variation in what the term [ethnography] is taken to mean” (p.1) and, rather than reinforce ethnography’s interdisciplinary relevance, this divergence of meaning may instead challenge its survival as a

methodological strategy. To mitigate against this, he proposes an attempt at a “thin” definition of ethnography based on common epistemological, ontological and axiological approaches of ethnography’s many variants (though he does conclude that axiological conditions should not be included in any definition of ethnography). Among the criteria that Hammersley maintains constitute ethnography are:

- the research questions should be developed and refined over the course of the research process, rather than being defined up front;
- a flexible approach should be adopted “not just to deal with obstacles but also to take opportunities” (2018, p.11);
- the case studies should comprise “an in-depth investigation of a small number of naturally occurring cases” (2018, p.11);
- participant observation should be the primary source of data;
- the data analysis approach is mainly qualitative; and
- in the writing up, “a flexible approach [should be] adapted to the research findings and the intended audience” (2018, p.11).

This generates a “thin” definition of ethnography that is wide ranging but still provokes questions about the role of ethnography and what ethnographers do (Hammersley, 2018, p.5). I will aim to address some of these below in a discussion of my specific methodology and methods.

Hammersley claims that the criterion for a “long-term data collection process” (2018, p.4) is potentially unclear (how long is long term?). The related issue of ethnography’s temporal dependence is explored in Hammersley and Atkinson (2007, pp.35–37). I will provide a brief answer to both of these issues here through a fuller discussion of one observation in particular: O7. I had originally intended this to be a durational observation, taking place from the plotting session through to first preview, matching the

temporal conditions of D1 and the other planned durational observations. However, I encountered some problems with access to the site: the lighting designer did not respond to my initial request in a timely manner, and there were health and safety policies that needed to be agreed in advance with the theatre's staff. This delayed the start of my observation by a couple of days – long enough to miss the plotting session, a crucial period in the technical rehearsals and to this research. Additionally, given the repertory nature of the company, the production period was broken up – some days there were no on-stage rehearsals. This made it difficult to obtain any continuity in the process. While Hammersley and Atkinson advocate establishing “adequate coverage of temporal variation” (2007, p.36) through a “selective approach” in which “periods of observation are complemented by periods of productive recording and reflection” (2007, p.37), the fragmented nature of this production schedule meant I never felt like the data from this observation had the same depth or relevance as I had gathered in D1 (despite the problems I encountered there as well) or that I had intended for the durational observations. This latter point is, admittedly, difficult to quantify. I had by this point completed six occasional observations and the quality and depth of data generated during O7 was roughly comparable to these, even though, in terms of time, it took much longer. So for me it became less about the length of time spent in the field (whether that was “long” or “short” term) and more about the quality of data collected and its relevance to my research questions, hence the decision to shift this production observation from durational to occasional.

Hammersley (2018) also questions the nature of “naturally occurring settings”. The productions that form the observations in this research would have occurred without my intervention and very likely in the same manner. There may be some value in the criticism that the particular workplace and

activity being undertaken during the observations is in itself not naturally occurring or is “contrived” in some way – the adherence to a strict production schedule dictated by an immovable opening night date, for instance, creates and imposes artificially created pressures and stresses (as noted in Chapter 3). However, these conditions are typical of the conventions of the particular workplace under observation here and would have been so without my involvement. Therefore, these can be seen to be “naturally occurring” within the restrictions of the specific work environment.

As Walsh (2011) argues, “individuals who actively engage in professional practice [...] [and who] are already socialised into the culture of the organisation where they will be undertaking their research” (p.41) – what Jarvis (1999) calls “practitioner researchers” – are well placed to undertake naturally occurring work-based ethnography. This leads to another of Hammersley’s questions about ethnography: “Is it ever possible to document ‘what actually goes on’, even through participant observation?” (2018, p.5). Clearly, my professional background and extensive experience in theatre design and production and my knowledge of the various tensions at play during technical rehearsals are valuable for making sense of the environment, the peculiarities of which an outsider might struggle to grasp in the same amount of time. However, this is not to claim that I can definitively say, with absolute certainty, what is “actually” going on in any given interaction. I can, of course, make an educated guess or infer intentions from my reading of the situation, from the language being used or, for instance, from paralinguistic cues such as body language, proxemics, posture or, perhaps most tellingly, what remains *unsaid*. The analysis of any such situation and the data generated from it (here, in the form of audio recordings and field notes) are necessarily filtered through my extensive

professional experience as a theatre practitioner and I cannot claim – nor would I want to claim – “objectivity” or detachment from the observations themselves. I did, however, aim to practise “unobtrusive” research methods (Lee, 2000) during the time I spent in the theatres. Thanks to my insider status and, in most cases, existing relationships with those being observed,²⁵ my presence – even in my identity as a researcher – was accepted (or even welcomed). I was constantly aware of my physical presence in the theatres and of the social and physical distance I kept from participants. I attempted, with varying degrees of success, to remain an observer and not cross into “participant” territory, not, as Ingold (2014, p.387) warns, to “acquiesce to [the] excision of knowing from being” but in order to not affect the process or the participants’ behaviour, particularly difficult given my position as what Taylor (2011) terms an “intimate insider”. Given my existing professional relationships with some of the participants, I was occasionally viewed as a fellow practitioner rather than an independent researcher, and I had to work hard to resist against slipping into that identity. I developed, as Copland (2015) describes it, “an ethnographic sensibility”, increasingly asking myself, “‘What’s going on?’ and ‘How do you know?’” (p.111). This sensibility was developed over the course of the research, not only during the observations themselves but also through repeated close listening to the recordings followed by detailed transcription and analysis (in turn followed by further listening and so on).

There were several occasions, most notably in D1 and D4, when members of the design and/or production team would share information with me,

²⁵ In most cases, this began with knowing the lighting designer or, in the case of O3 and O4, the venue’s head of lighting. This afforded me the necessary access into the technical rehearsal and those individuals were able to “vouch” for my presence in the environment, which was by and large accepted by the rest of the production team. The notable exception to this was observation D3.

unprovoked, or when research participants displayed “doing-being-observed” (Hazel, 2016), publicly acknowledging their awareness of my presence as well as that of the recording equipment (see transcript D1-1, for instance). I do not feel that these instances detracted from the quality of the data or the validity of the observation in any way – in fact, their impact was negligible.

The last of Hammersley’s (2018, p.5) questions that I would like to address here deals with data sources – which ones are to be used and how they are combined. As should be clear by now, the bulk of the data generated came from participant observation in the form of audio recordings and field notes, including my end-of-the-day reflections on these. Following the completion of D1, I interviewed the lighting designer over the phone in order to clarify some questions I had after beginning the analysis and to garner some further information about the process. While some of the information that arose from this interview was useful, most of it merely confirmed my inferences from the recordings or moments I had drawn attention to in my field notes. Upon further reflection, I also considered that interviewing, as a method in this particular study, was obtrusive (see Webb, et al., 1966, p.1, for their reasoning to support this claim²⁶), did not help to answer my research questions and, in fact, went against my research aims. As noted, I am primarily concerned with how lighting designers, directors/choreographers, and lighting programmers react *in the moment* and how this affects the creative collaborative environment as manifest through language. I therefore did not conduct any further interviews following this initial one.

²⁶ They claim: “Interviews and questionnaires intrude as a foreign element into the social setting they would describe, they create as well as measure attitudes, they elicit atypical role and response, they are limited to those who are accessible and who will cooperate, and the responses obtained are produced in part by dimensions of individual differences irrelevant to the topic at hand” (Webb et al. 1966, p.1).

The above descriptions place this study into a branch of ethnography that is often adopted in applied research, what Knoblauch (2005) refers to as “focused ethnography”. Knoblauch suggests that focused ethnography has arisen due to the “increasingly specialised and fragmented” (2005, no pagination) activities that occur in professional environments. According to Knoblauch, focused ethnography is characterised by “relatively short-term field visits [...] compensated for by the intensive use of audiovisual technologies of data collection and data analysis” (2005, no pagination).

Linguistic ethnography

As a subset of ethnography, linguistic ethnography is a relatively nascent field. Linguistic ethnography is an emerging interdisciplinary field that, as the name suggests, combines linguistics with an ethnographic approach. There is no single methodology or data collection strategy that defines the field (Shaw et al., 2015, pp.8–9). Though I have included it in this methodology chapter, it can be “more accurately described as a site of encounter where a number of established lines of research interact” (Rampton, 2007, p.585). Linguistic ethnographies are usually influenced by the background or existing knowledge of the researcher. Rampton (2007) notes that linguistic ethnographers tend to move into the field as “an attempt to find a way of adequately rendering quite extensive personal experience” (p.590). He describes this as “an overall shift from the inside moving outwards, *trying to get analytic distance* on what’s close-at-hand” (Rampton, 2007, p.590; emphasis in original). As a result, linguistic ethnographic workplace studies tend to focus on first- and second-language learning (L1 and L2) classroom settings (Maybin, 2009; Rampton et al. 2002; Tsui, 2012), the legal profession and law enforcement (Conley and O’Barr, 1990, 2005; Pogrebin and Poole, 1998), or medicine (for example, Bezemer, 2015;

Ordonez-Lopez and Edo-Marza, 2016 – see also Weldon et al., 2013, pp.1680–83 for a comprehensive literature review in this area).

There is a range of theoretical approaches and methodological strategies that have been employed in linguistics and/or ethnography in related studies. McKechnie (2014, perspective 2) employs observation, field notes and thick description to document the complex processes that occur backstage during an opera performance. Also in opera, Atkinson (2006) observes the inner workings of the Welsh National Opera from a social anthropological stance, also including thick description as well as his personal thoughts and reflections. Hazel (2015), in documenting the process of “doing notes” in a rehearsal setting, relies primarily on video recordings, which are then analysed using an EMCA approach. McAuley (2008 and 2012), after what she describes as “many years of experimentation and reflection on how best to approach the ‘hidden world’ of rehearsal” (2012, p.3)²⁷ takes a participant-observer approach to explore creative and authorial agency in the theatre rehearsal process. Hazel (2018 and forthcoming) and Milde (2019) both take a similar approach to their studies of rehearsal room processes, using a combination of observation and video and/or audio recordings, with Hazel (2018) adding still imagery to augment the transcripts. This is just a selection of work that has been done in the fields of theatre and ethnography and, while there is overlap in the methods used in these studies, there is also some divergence, depending upon the aims of the particular study.

There are relatively few ethnographic studies focused on theatre design and production settings, the notable exception here being Taylor’s (2018) linguistic ethnographic work on costume’s communities of practice in Australia, in which she investigates the costume workshop as a site of critical

²⁷ See McAuley, 1998, for a summary of this “experimentation and reflection”.

and aesthetic negotiation through the lens of the language-in-use of costume designers and makers. There are, however, currently no other (auto)ethnographic studies that deal explicitly with technical rehearsals and the language-in-use of the creative team therein. This is a fundamental element of the theatre production process, and a close examination of this hitherto overlooked area of research will yield, as this thesis will show, insights into the intricate and nuanced ways in which theatre professionals work together.

This research is an attempt to reconcile my personal experience of the industry (as advocated by Rampton, 2007), and of the profession specifically, with what I perceived as a researcher to be an appreciable gap in the way that both are seen (within and outside the industry) and understood. I was drawn to a linguistic ethnographic approach long before I had articulated it as such, and I always knew that this research would include multiple periods of observation and fieldwork. As lighting designers we “speak through our art form” but it is difficult to convey “how the [lighting designer] responds to the action and the emotion expressed on stage” (Jonathan, 2008, p.4). Having had significant professional experience of the production period, and thus knowing what a complex and multi-layered process it is, I knew also that I would need to be present in the space with those I was observing in order to make sense of what was happening (i.e., I would not have been able to leave a recording device at the production desk in the morning and pick it up in the evening) and that I would need to take detailed field notes that included a record of events as well as my impressions of them. The observations and field notes were strongly informed by my sensitivity to the environment itself, applying my expert, tacit knowledge of the specific workplace and of the technical rehearsal as a discrete and significant part of the wider theatre production process. This

sensitivity allowed me to pick up on or home into key moments that might have been otherwise missed without this underlying specialist knowledge. This expert knowledge allows me to make educated and experience-based judgements, based on and supported by evidence in the transcripts, concerning both the intuitive and deliberate (Bangert et al., 2014) processes of creative decision-making that are taking place. The specific methods I used to capture these interactions adapted as the fieldwork progressed; this is detailed in sections 4.5 and 4.6.

4.4 Discourse analysis

It is first important to acknowledge that there are many definitions of what constitutes “discourse”, given its applicability across several disciplines, both within linguistics and outside it. The *Oxford Dictionary of Philosophy* (2013) defines it simply as “a continuous stretch of language containing more than one sentence: conversations, narratives, arguments, speeches”, while the *Oxford Companion to the English Language* (2018) states that discourse is both “an occasional term for language and usage generally” as well as “a unit or piece of connected speech or writing that is longer than a conventional sentence”. (I tend to use the terms “talk”, “language” or “language-in-use” for these cases.) Discourse can refer to only spoken dialogue (Sinclair and Coulthard, 1975); broader definitions may include written texts as well (e.g. Gilbert and Mulkay, 1984). Broader still are definitions offered by Van Dijk (1997) and Gee (1990/2011a), among others, where there is a sociocultural dimension as well, which can include modes of thinking or socially constructed frameworks that define a person’s behaviour, as well as their spoken or written language. Koller (2018) states (following Fairclough (2015)) that discourse is “language use and social practice that is determined by social structures” (p.27); Ehrlich and Romaniuk (2013), after Schiffrin (1994), define it as “language embedded in social interaction” (p.460).

Fairclough (1981) characterises discourse not as a product but as a “*process* of social interaction” (p.24, my emphasis). In the broader humanities and social sciences, the concept of discourse is heavily influenced by the work of Foucault, for whom discourse is tied to power and the construction of social realities. For further applications, Mills (2004) provides a particularly comprehensive review of discourse in its various guises and uses. For my purposes here, I use the term “discourse” to describe spoken language²⁸ that is “socially *constitutive* as well as socially shaped” (Fairclough and Wodak, 1997, p.258; emphasis in original).

As shown, discourse analysis can take as its starting point a wide range of talk and other texts. In studying these, discourse analysis takes into account the context in which discourse (in the case of this research, talk) is produced. It “views discourse as constitutive of the social world [...] and assumes that the world cannot be known separately from discourse” (Phillips and Hardy, 2011, p.5). Chapter 3, through its focus on the wider industry and on technical rehearsals generally, has provided some of the wider social and professional context needed to understand the broader environment in which my fieldwork examples have occurred. The analysis of the individual transcripts in Chapters 5 through 7, on the other hand, will include more production- and people-specific details. These can also be found, briefly, in section 4.6.

Gee (2011b) provides many tools for analysing discourse, and some of these will be examined further in section 4.8 (data analysis). For now, I will discuss the reasoning for using discourse analysis as both methodology and method alongside ethnography.

²⁸ Only because the analysis here focuses on spoken dialogue do I omit writing from this definition.

Phillips and Hardy (2011) maintain that “ethnographies have been an important component of discourse analytic studies in showing how discourses are enacted in particular practices” (p.8). In discussing the complementarity of ethnography and discourse analysis, Hammersley (2005) notes that “the ideas and methods that have been developed by discourse analysts can be valuable resources for ethnographers, enabling them to engage in more detailed analysis of talk and texts” (p.15). Indeed, this is my purpose in combining the two approaches. Part of the original knowledge contributed by this research is the application of these approaches to a study of this nature. This is the first (and so far only) discourse-oriented ethnographic study of theatre technical rehearsals. Through this approach, I have been able to carefully observe a process that I was previously intricately familiar with, and this has allowed me to take a critical approach to a process, a setting and knowledge that I had hitherto taken for granted in my professional work – in ethnographic terms, to “make the familiar strange”. The focus on language-in-use meant that I could pay close attention to the specific demands of my research questions, namely facilitating creative dialogue, translating artistic intention, and revealing creative agency.

In addition to spoken discourse, I have also examined some paralinguistic features of talk, namely silence (see section 6.4) as, throughout the course of the observations, it became clear that interactional work was still occurring in these moments, despite the absence of talk. Of related interest was how the “rules” of silence during technical rehearsals are constituted and learned, and this is an area I believe is in need of further research (see section 8.3).

The pilot study in early 2016 was instrumental in exploring and beginning to cement both the methodology and methods for this research, and it is to this that this chapter now turns.

4.5 The pilot study

In approaching my fieldwork, I decided to first conduct a pilot study in advance of the transfer process at the end of my first year of study in order to test the viability of the methods and methodology I had chosen. While this initial observation was largely successful, there was necessarily a process of reflection and refinement that occurred following this pilot study and, indeed, continued as the fieldwork as a whole progressed.

Initially, I had intended the observation periods to span the entire pre-production period, including design and production meetings as well as the lighting rig and focus days. As I was unsure at the start what I would find and which portions of the observations would be useful or relevant to my research, I attended as much of the production period as possible, using this experience to shape and influence future fieldwork. This first observation occurred over nine days, which included two production meetings and seven consecutive days from the final rehearsal room run-through to the first preview performance.

In order to capture the language-in-use of the lighting designer, lighting programmer and director, I initially planned on using a single audio recording device to capture the talk that occurred over headsets. However, I quickly realised during the focus session of this first observation, just prior to the lighting plotting session, that I would need two devices in order to capture all of the relevant talk: one to record the headsets and one to record the talk that occurred around the production desk, what I came to refer to as “ambient” talk. This was necessary due to the director’s movement throughout the auditorium – they were not on headset and came to stand next to the lighting designer to converse face to face if needed, as happened in all of the subsequent observations – and the lighting designer would

frequently remove their headset to speak to another member of the production or design team. As Hunt (2015) argues, and as I will show in Chapter 6, the production desk often acts as a hub of activity during technical rehearsals, given its central location in the auditorium. The second recording device allowed me to record and subsequently analyse this additional “ambient” talk around the production desk, without which the directors’ contributions would have been significantly minimised.

I kept detailed field notes and reflected upon these at the end of each observation day. These field notes include direct quotations and points of interest (including time signatures from the recording devices where applicable), as well as any thoughts or questions I had, and detailed descriptions of the setting – in particular, the geography of the production desk and the proximity of members of the production team to each other, as this varied between (and occasionally within) productions; there is more on this in section 6.1. My location behind the lighting designer and programmer (i.e. out of their field of vision), often in complete darkness, meant that my note-taking was never intrusive or even necessarily noticed by those I was observing. Occasionally, I took photographs or short videos of the set design or of the production desk layout; these were used solely as aide-memoires rather than as part of the material to be analysed, due to the restrictions around anonymity (see ethics discussion below).

Other ethnographic studies of theatre processes (e.g. Hazel, 2018 and forthcoming; Milde, 2019) have also made use of video recording in the data collection and analysis. However, I decided against this. The desire of participants to be kept anonymous (see below regarding ethics and informed consent) as well as practical considerations of filming in the dark meant that this was not a practically viable option. Additionally, as the research

questions I posed focused on talk rather than paralinguistic features, I felt video recording was extraneous to the data collection process. However, I did note some of these moments in my field notes and these are detailed further in section 6.4.

The amount of data generated from the first observation was overwhelming (approximately 120 hours of recordings across two recording devices, plus field notes from each day). Additionally, the circumstances of the production meant that a large portion of the data was irrelevant or redundant: there were technical problems with the large moving pieces of the set, and the scene changes were therefore continually “re-choreographed” and reworked multiple times prior to the public dress rehearsal. This meant that the range of the data that was generated narrowed as the production got closer to press night, as most of the conversations and notes sessions came to focus solely on the scene changes. The focus here was on more practical, technical matters (mostly for the production manager and set construction team), rather than dramaturgical ones, and thus were of less relevance in this study, in contrast to, for instance, the discussions of temporality that took place in relation to scene changes in O1.

In D1, the lighting designer’s availability in the weeks preceding the production week was limited due to their work commitments elsewhere. The creative team on this production had worked together several times previously, and therefore the director was not worried about the lighting designer’s absence from production meetings or the fact that the team only had one design meeting prior to the start of rehearsals. This had been agreed previously, “[o]n a phone conversation I had with [the director] months before, when I said I was too busy, really, to do it [light the production]” (interview, 6 April 2016). This lack of time, coupled with the creative team’s

familiarity with each other, meant that sometimes conversations or intentions were implied rather than spoken; the team quite often relied on their implicit knowledge of each other's working styles and habits instead. According to Sawyer (2012), "Some degree of familiarity is necessary, because it results in *tacit knowledge* that enables better communication. But too much familiarity means that there is no possibility of unexpected connections that result in new ideas" (p.245, emphasis in original). In comparison to some of the other observations, and particularly surprising given the amount of time I spent in technical and dress rehearsals, there is relatively little of interest in the transcripts from D1 (see Appendix A for selected transcripts). This is clearly demonstrated in the focus on the logistics of the scene changes, as noted throughout my field notes, which came to take priority over any creative discussion about the story-telling potential of the scene changes.

While it was useful, especially when considering this as a pilot study, to spend a prolonged period in rehearsals and observe developments over time, after analysing and reflecting on the data generated I felt that shorter periods of observation could potentially be just as effective and would also allow me to observe more productions over two years. The optimum period of data generation seemed to be in the first and/or second day of technical rehearsals; thereafter, the data (at least in this first observation) become repetitive and quickly reached saturation, a problem frequently encountered in ethnographic research (Fusch and Ness, 2015, p.1408). Therefore, I subsequently undertook seven shorter "occasional" observations in addition to the already planned three further durational observations, making a total of eleven productions observed over eighteen months. These covered a wide range of production styles (opera, dance, musical and theatre) and a variety of venues (in-the-round, end-on, thrust, site-specific and two "flexible"

spaces). Including the pilot study, the ethnographic portion of this research took two forms: seven short “occasional” observations and four longer “durational” observation periods.

4.6 Further fieldwork

The first two occasional observations (O1 and O2) followed the same methodology as the durational observation; however, due to the huge amount of recordings, the time-consuming nature of transcribing, and the occasional unwillingness of participants to be recorded, I decided to take a more descriptive approach to the later occasional observations, relying exclusively on field notes, which included direct quotations, and thick description. O7 was the exception to this, as previously noted in section 4.6.

An iterative cycle of reflexivity became crucial both to refining the research methods employed and to analysing my findings. When scheduling subsequent observations following D1, I was much more selective about the time I spent in rehearsals and which days I attended; for instance, I did not attend any further production meetings following those for D1, as I had judged these to be irrelevant to answer my research questions. This selectivity was necessary to avoid what Hammersley and Atkinson (2007) term

‘the “it’s all happening elsewhere” syndrome’, [...] where the researcher feels it necessary to try to be everywhere at once and to stay in the setting for as long as possible. As a result of this, a great deal of data is collected but little time is left for reflection. (p.159)

I adapted the recording technique to suit each venue and became more adept at reading the multiple and interwoven strands of communication that I was observing. As I undertook more observations, I gained a more nuanced awareness of potential areas of analysis, both while the observation was in progress and when reflecting on each production as a whole and in relation to the others. I simultaneously developed better methods for taking field

notes with more specificity, which made the transcribing process more efficient in later observations. Over the course of the fieldwork, the methods I employed became more clearly defined in relation to the aims of my research questions. This was a result of a constant cycle of reflection on the efficiency of the methods and my skills as a researcher in effecting them, the critical examination of any limitations or problems I had encountered, and then, in light of these, honing the methods in preparation for the next observation. It is perhaps, then, unsurprising that there is a higher number of transcripts taken from D4, the last observation I undertook, as I had by that point developed a robust and efficient process for recording both the audio and my reflections on it in the moment, with a greater ability to identify what was “relevant” in relation to my research questions. This production also provided the most potential for light to contribute in a dramaturgical sense and thus there were more overt opportunities for the lighting designer to exercise their professional agency.

In selecting subsequent observations, I chose to focus specifically on those practitioners who exhibit “Pro-C creativity” (Kaufman and Beghetto, 2009, pp.4–6). This was a personal judgement on my behalf, not determined by (for instance) length of career or number of awards won or other external metrics. In the pilot observation, D1, I knew the lighting designer and had previously worked with them closely over many years. I had also previously worked with the director (though several years ago). I specifically chose this production due to a range of factors that were key in establishing this as a methodological test: my existing connection with the lighting designer (they were an early advocate of this research project and, given our longstanding professional relationship, I was already familiar with their style of working); the production conformed to a very “traditional” way of working and hierarchy; and the venue employed full-time, in-house staff, including an

in-house programmer (rather than a freelance one). These conditions made this a kind of “control” observation and served as a methodological “test”. In later observations, based on these criteria, I began to systematically choose the observations – known as “judgment sampling” (Collins, 2010, p.179) – based on certain relationships (e.g. a lighting designer and a programmer, choreographer or director who had previously worked together many times, or never before) or on the style or scale of the production (e.g. a new dance piece or a revival of a large-scale musical). I aimed to develop a wide-ranging data set that would expose me to a mix of production styles, relationships, working practices and experience. The full extent of the data that was collected is summarised in Table 1.

Durational observations

This section will outline each observation in brief. Further context will be provided in the analysis of each transcript in Chapters 5–7.

The first durational observation (D1, for short) took place in February 2016 over eleven days. This included three production meetings and eight days from the final rehearsal room run-through to the first preview performance (as noted in section 4.5). The lighting designer, director and set designer had worked together on several productions previously; however, this was the lighting designer’s first show in this venue. This was also the programmer’s first professional production, as they had recently graduated from a degree course specialising in lighting programming. On occasion, the lighting designer, director and designer would retreat to a corner of the auditorium to have conversations, which I was not invited to nor included in. This did not feel like an intentional exclusion but rather something they would have done regardless of my presence. As noted previously, many of the later conversations were concerned with the logistics of the scene changes,

responsibility for which the director had delegated to the assistant directors. Despite the effect that this had on the data I collected, the resulting slower pace of the technical rehearsal suited the inexperience and lack of speed on the part of the programmer. The lighting designer frequently had to provide detailed instructions to the lighting programmer, often in the form of the console's syntax. This occasionally led to some tension, and this is borne out in the frequent interruptions and overlaps made by the lighting designer. See, for example, transcripts D1-5 and D1-6 and further discussions in sections 5.2 and 6.4.

Durational observation 2 (**D2**) was with an opera company in February 2017. I attended for four days, starting with stage and piano rehearsals and continuing into the start of stage and orchestra rehearsals²⁹. Due to the sensitivity of recording live music, I was asked to sign a separate confidentiality agreement for this venue. This had no impact on the quality or quantity of recordings I would have otherwise made. The set designer was unfortunately ill and unable to be present at these rehearsals; according to the lighting designer, "We are all piecing it together as best we can" in their absence (field notes, 15 February 2017). The assistant designer was present, but their input was minimal, and in fact they do not feature at all in the recordings from this production. The effect of this can be seen in the level of decision-making and leadership the lighting designer took throughout the production week. The director and lighting designer had worked together many times previously; they were both familiar with the venue and known to the in-house staff.

²⁹ See McKechnie, 2014, pp.231–232 for a diagram and short description of an opera production schedule.

D3 occurred in February and March of 2017 across six days of the technical rehearsal period (two consecutive days each week for three weeks) and was a West End musical with entirely freelance creative and production teams. The lighting designer had never worked with the designer or director before, though their relationship with the lighting programmer was very well established. This led to an interesting dynamic in which the programmer had significant decision-making power and would often pre-empt or second-guess the lighting designer. The lighting programmer was (and still is) one of the top programmers in the UK and very well respected throughout the industry; this position and clout no doubt facilitated their expansive remit and level of responsibility within the team. This production also employed both an associate and an assistant lighting designer, which is fairly uncommon in UK theatre practice.

In **D3**, the associate lighting designer was primarily responsible for calling the followspots, though they often offered creative suggestions or input to the lighting designer. The assistant lighting designer was not present on any of the days I was observing as they were also acting as associate lighting designer on another West End production at the same time for the same lighting designer.

The director did not give their consent to be recorded (in fact, they were quite hostile to my being present at all) and, as a result, they do not feature in any of the transcripts. Instead, I have focused my attention for this production on the relationship between the lighting designer and programmer and specifically the programmer's agency and authority.

Observation **D4** took place at the end of September and beginning of October 2017. I arrived in the middle of the second week of what was essentially an extended plotting session. This was a new dance piece that was

unconventional in form as its structure was designed to vary for each performance. The first two weeks of plotting and rehearsal took place in a theatre space that was not the final performance venue. It was much smaller in terms of stage height and width as well as audience capacity. The move to the larger performance venue (in particular, the production desk being moved from the stalls to the balcony level) had a huge impact on the visual aesthetic of the production and accounts for many of the later discussions. (See section 6.1 for more on the impact of this move.) The choreographer, lighting designer and programmer had worked together on many productions; in fact, the lighting designer and choreographer's relationship spans more than two decades. As with D3, the programmer was freelance and their long-standing relationship with the lighting designer afforded them a large amount of creative and problem-solving input. Although the atmosphere was generally friendly and pleasant, there were tense moments on occasion. These tended to stem from overwork or tiredness, as noted by the programmer in a conversation we had during a break, as well as a conversation that took place during one morning session (see transcript D4-6).

Occasional observations

There were seven occasional observations; five were one day or session each, one was two sessions, and one was five sessions (**O7** – the reasons for this anomaly are explained in further depth below).

The first (**O1**) occurred at the end of March 2016. The lighting designer and director had worked together several times before and the venue was one they were both very familiar with. The location of the production desks facilitated easy movement around the auditorium and the stage itself. The director was heavily involved in the design process during the technical

rehearsal and was in constant contact with the lighting designer, both over headset and face to face.

Several occasional observations took place in May 2016. The first (**O2**) was a new opera production in a flexible studio space. I attended two sessions for this observation; the first was an evening plotting session (the third such session of the day) and the second was a stage and piano rehearsal the following evening. While this specific venue could be configured in a variety of formats, the production was presented end-on as it was going on to tour to several proscenium arch venues. The main visual element of the design was large, pixel-mapped letters that spanned the entire width of the set's lower level; these were used in a variety of ways by the cast (sitting or standing on them, hiding behind them, etc.) as well as to demarcate areas of the set. Of particular note in this observation was the layout of the production desk, its location in the space, and the number of people it accommodated – and the impact of these factors on communication; this is explored in further depth in section 6.1.

O3 and **O4** took place on the same day in different theatres at the same venue. I spent the morning in what is usually termed the “main house” space – the larger of the two spaces. This was a co-production³⁰ with a European theatre and was being remounted with the same creative team, which I was surprised to learn, as it seemed to me that the director and lighting designer had never met by the way they greeted each other at the start of the morning. This was the only day of tech, and the production opened the following day. Lighting states had been plotted in advance a couple of days earlier. Some members of the production team were bi- or

³⁰ A co-production pools the resources of at least two producing theatres or companies for a specific production.

multi-lingual and there was constant switching between languages. The environment was generally very calm; timekeeping in particular seemed relaxed, considering the tight schedule. The lighting designer often shared concerns and ideas with the programmer, who acted much like an associate, taking notes and offering suggestions.

In the afternoon, I moved to the smaller studio theatre (O4), which was arranged with seating along the length of the space, giving a wide playing area and a shallow seating block. This meant that the production desk was located very close to the stage, and the director's and lighting designer's conversations could easily be heard by the actors. While the programmer was very quick and clearly competent, they were primarily simply responding to the lighting designer's commands; there was much less involvement on the part of the programmer when compared to the main space.

O5 was interesting to observe given the style of communication between the director and the lighting designer. This production took place in the same venue as O1 but with an entirely different creative and production team. The morning session was dedicated to lighting notes and the afternoon and evening to technical rehearsals. The director rarely appears on the recordings and only once approached the production desk to speak directly to the lighting designer. The physical distance and lack of proximity between the director and lighting designer was more pronounced than in O1 and seemed to have a direct impact on their face-to-face communication. Their conversations tended to be limited to formal breaks and primarily concerned logistical rather than creative matters. The lighting designer seemed to have much more creative autonomy than in many other director-lighting designer relationships I observed; given the limited face-to-face interaction between the director and the lighting designer, it is difficult to be sure of what factors

influenced this. They had not worked together before, but the lighting designer is known for attending as many rehearsals as possible, so perhaps this contributed to the clearly high levels of trust and creative alignment apparent in their professional relationship. As a result, the general atmosphere was very relaxed; the lighting designer and programmer were very friendly and had clearly developed a system of working together in which the programmer was free to offer a limited amount of input and suggestions, and the lighting designer used the programmer's knowledge of the venue and console to work as efficiently as possible.

The one site-specific performance I observed was **O6**. This production was essentially an installation devised by the lighting designer; therefore, there was no director or choreographer and no actors. The lighting programmer did not attend on the day that I was there, so this observation is limited in terms of communication between team members. However, the language that the lighting designer used in describing the project is hugely indicative of their background and their approach to lighting design generally.

Examples of how this manifest in the lighting designer's descriptions of the light and its movement can be found in section 7.2.

O7 was another opera production, this time in a large receiving venue, and was originally intended to be the second durational observation. However, there were delays in both the lighting designer replying to my request to observe and receiving the health and safety paperwork required by the venue; this meant that I joined the production period after the bulk of the lighting plotting had been done. Because the production was playing in rep, the lighting needed to be reset after each turnaround. The first session I attended was one of these resets in the afternoon, followed by a stage and piano rehearsal that evening. The next day I also attended the afternoon and

evening sessions: notes in the afternoon, and stage and orchestra rehearsals in the evening. The last session I attended was an open dress rehearsal four days later. The repertory nature of the schedule meant that the sessions were quite fragmented and, combined with my delayed arrival, that I struggled to obtain an amount and quality of data I thought sufficient to make this a durational observation. There were only two sessions of substantial data, both recorded and in my field notes. In terms of staffing, a member of the in-house lighting team would be relighting the production on tour and was therefore very involved in the focus, reset and stage rehearsals, and fulfilled the roles of both associate and assistant lighting designer. This observation was a typical example of how this company operates. However, as noted above, it was more suited as an occasional observation given the timing constraints and fragmented data collection process.

*Observations and transcripts at a glance***Table 1: Observations**
Durational observations

Ref.	Date	Activities	Type of production	Primary participants	Hours observed	Recording mode
D1	18 January 2016	Modelbox showing	Play	Lighting designer	61	Audio recording x2 Field notes
	3 March 2016	Production meeting	New writing	Director		
	5 March 2016	Rehearsal room run-through	Producing venue Main stage	Lighting programmer Chief electrician Set and costume designer		
	6 March 2016	Lighting focus (AM) Lighting plot (PM)				
	7–9 March 2016	Technical rehearsals				
	10 March 2016	Dress rehearsals				
	11 March 2016	Work on stage (AM) First preview (PM)				

Ref.	Date	Activities	Type of production	Primary participants	Hours observed	Recording mode
D2	15 February 2017	Lighting plot Stage and piano rehearsals	Opera Producing venue	Lighting designer Director Lighting programmer	34	Audio recording x2 Field notes
	16 February 2017	Technical and lighting notes Stage and piano rehearsals Work on stage				
	17 February 2017	Cue to cue Stage and orchestra rehearsals				
	18 February 2017	Cue to cue Stage and orchestra rehearsals				
D3	28 February 2017 1 March 7 March 8 March 14 March 15 March	Morning sessions: technical and lighting notes Afternoon and evening sessions: technical rehearsals	Musical Commercial (West End) Large-scale Receiving venue	Lighting designer Lighting programmer Associate lighting designer	41	Audio recording x1 (headset only) Field notes
D4	26 September 2017 27 September	Lighting plot Technical rehearsal	Contemporary dance	Lighting designer Choreographer Lighting programmer	32	Audio recording x2 Field notes

Ref.	Date	Activities	Type of production	Primary participants	Hours observed	Recording mode
	1 October 2 October	Lighting focus and plot Cue to cue	Receiving venues (tour)			
O1	29 March 2016	Technical rehearsals	Play Producing venue Main stage	Lighting designer Director Lighting programmer	10	Audio recording x2 Field notes
O2	20 April 2016	Lighting plot	Opera New writing Producing/receiving venue Studio space	Lighting designer Director Lighting programmer Set and costume designer	7	Audio recording x2 Field notes
	21 April 2016	Stage and piano rehearsal				
O3	16 May 2016	Morning session of one-day tech	Play Co-production New writing Producing venue Main stage	Lighting designer Director Lighting programmer	4	Field notes
O4	16 May 2016	Afternoon session of first day of tech	Play New writing Producing venue Studio space	Lighting designer Director Lighting programmer	4	Field notes

Ref.	Date	Activities	Type of production	Primary participants	Hours observed	Recording mode
O5	18 May 2016	Morning and afternoon sessions of last day of tech (dress rehearsal in evening)	Play New writing Producing venue Main stage	Lighting designer Director Lighting programmer	7	Field notes
O6	30 May 2016	Morning and afternoon sessions of rig and focus day	Installation Site-specific Receiving venue	Lighting designer	7	Field notes
O7	10 October 2016	Focus and reset Stage and piano rehearsal	Opera Receiving venue	Lighting designer Director Lighting programmer/reighter Set and costume designer	16	Audio recording x1 (headset only) Field notes
	11 October 2016	Notes session Stage and orchestra rehearsal				
	15 October 2016	Open dress rehearsal				

I have aimed in the observations to account for a range of performance styles, creative relationships and working practices, maintaining a deliberate diversity of examples.

As noted in the previous section, some of the observations were more productive than others. This was due to a number of factors. The first of these concerns timing, mostly in terms of production schedules. The clearest example of this is O7 and the impact scheduling, as well as delays to my arrival, had on the quality of the data collected. Neither O3 nor O4 were particularly useful in answering the research questions, although O3, with a multilingual creative and production team, did present some potentially interesting further research directions into translation and translanguaging. As described above, as the methodology developed and I became more familiar with the existing data and the connections between observations, I also developed a more defined sense of the research itself. D4 was therefore a particularly fruitful observation but not only because of my development as a researcher. D2, D4 and O1, in particular, where a majority of the examples come from, demonstrated light's potential as a creative medium as well as collaborative relationships in which this potential is both overtly recognised and given the time and space to be explored. This is not to say that this was necessarily lacking from the other observations, just that it was not as clearly manifest in either the language used or the process itself. For instance, D4 had the luxury (one rarely afforded to non-commercial productions) of what was essentially an extended lighting plotting period in a theatre space (albeit not the performance space) with the dancers. The choreographer had both a very sophisticated visual vocabulary and an interest in the technical mechanisms of realising this in light, giving the lighting designer and programmer the time and space to discover the language and grammar of light in relation to the choreography. Contrast this

with D3, for example, in which more time was available for technical rehearsals (three weeks as opposed to D4's two), but the pressure and apparent lack of empathy from the director and the pace of the rehearsal led to instances such as D3-1 and D3-2. In D2, for all the professional conflicts between the director and stage management, the director clearly trusted the lighting designer, who had considerable creative autonomy. This is demonstrated in the extent to which they controlled the technical rehearsal and acted as a bridge between all departments, orchestrating the visual coherence of the production. Equally, in O1, light was afforded much greater potential to contribute dramaturgically than was apparent in some of the other occasional observations. In D4 and O1, in particular, this influence may have been due to a minimal set design that not only allowed light and the lighting designer to make a considerable contribution but also *relied on* this contribution to construct the visual language of the production. It is interesting to note, as well, that the choreographer and director, respectively, of these two productions had by far the most interest in the intricacies of the lighting designer's process and how light was realised on stage. This is evident in the detailed questions they asked and the amount of involvement they had in the construction of each lighting state and the transitions between them, demonstrating the importance of collaborative dialogue *as part of* the technical rehearsal.

4.7 Ethics, informed consent and access

A copy of the informed consent form that was signed by all participants can be found in Appendix B. Access to the theatres and technical rehearsals was obtained via the lighting designers involved. I initially approached the lighting designers who then either put me in contact with the relevant theatre staff and the rest of the creative team or negotiated access with these people on my behalf. There were two occasional observations scheduled at

the same venue that did not happen; I had arranged these through the lighting designers as I had the others, but the venue did not allow me access, despite the agreement of the productions' lighting designers, designers and directors. In most cases, all participants were happy to take part in the research. However, in one durational observation (D3), the director did not consent to be involved. This "ethically important moment" (Guillemin and Gillam, 2004) became a significant factor in directing my attention away from the lighting designer–director relationship and towards the (in this case) more interesting dynamic between the programmer and the lighting designer. As a result, this observation became more focused on the lighting team, specifically the relationship between the designer and programmer.

In order to gain consent from as many participants as possible, I included in the ethics document the proviso that the recordings would not be shared with anyone other than my supervisors. The musical director on D2 had concerns about my recording live music, which would bleed through onto the headset recordings, and the company therefore required an additional signed confidentiality agreement that prohibited me from sharing the audio recordings with anyone. All participants agreed to be included anonymously; therefore, as much identifying information as possible has been redacted from the transcripts, with any clarifying information included between square brackets (see section 4.8 for transcript conventions).

4.8 Data analysis

In this research, I have taken a discourse analysis approach. By examining each research question in detail, it will further become clear why this approach was chosen and how it was employed throughout the data analysis.

Research question 1 focuses on the methods by which lighting designers, lighting programmers and directors use language in situ in a specific workplace setting, and it further asks what methods could be employed to do this more effectively; it is both retrospective and prospective:

How do lighting designers, lighting programmers and directors use language to articulate the role of light during the production period, and in what ways could they do this more effectively in order to facilitate creative dialogue?

By working through examples from my data in order to build a picture of certain aspects of the talk-in-interaction of lighting designers, programmers and directors, it becomes possible to see how some linguistic practices – what or how or when utterances occur – are not only integral to the working conditions but also help to constitute the workplace environment itself. This can be seen in particular in Chapter 5, in which personal and professional discourse is examined through several examples, showing how creative relationships are both created and maintained through talk. These linguistic practices are often the result of tacitly embodied norms that are the product of not only personal working practices but also the institutional and organisational contexts in which they occur.

Research question 2 continues with this line of inquiry:

What are the challenges in translating artistic intention? How can lighting designers, directors and lighting programmers use language to anticipate and manipulate these?

I am particularly interested in how members of the creative team jointly construct their talk during technical rehearsals, how their shared understanding of the process and of the design itself is constituted through language, and how design challenges shape the creative team's language-in-use. As with the other research questions, this will be examined throughout the thesis; however, Chapter 6 in particular will deal with the

challenges of creating a shared aesthetic at the production desk. Likewise, Chapter 7 will discuss the potential of light through an examination of its properties and how these are translated by lighting designers, directors and lighting programmers into a shared visual language.

Research question 3 addresses agency alongside the use of language:

How do lighting designers exercise their individual agency within the wider team in which they work? How does language facilitate this relationship?

Though the issue of agency is explicitly mentioned in this question, implicit in the study of relationships and workplace teams (particularly those that are collaborative in nature) are the related topics of hierarchy and power. The discourse analysis approach taken here is predicated on a definition of discourse “as language use as social practice that is determined by social structures” (Koller, 2018, p.27). However, as Koller also notes, this language use “is restricted by power (e.g., seniority at work), material practices (e.g., office design) and institutions (e.g., organizational structures)” (2018, p.27). The first two of these, in particular, are considered throughout this thesis, but also in Chapters 3 and 5 specifically. Chapter 3 has already offered some context of the industry-specific factors that influence language use and social practices, and Chapter 5 explores these in depth through an examination of personal and professional discourse and how these are enacted throughout technical rehearsals.

As noted, this study draws on several existing linguistic fields to explicate the underlying mechanisms of an aspect of the theatre production process. The methodology employed here uses discourse analysis to investigate the naturally occurring language-in-use of theatre practitioners. All three research questions focus on “naturally occurring” language (here defined as that occurring within the confines of the technical rehearsal), the ways in

which it is used, and what it is being used to do. The third research question, in particular, focuses on agency, both individual and collective, specifically in relation to power and hierarchy. Discourse analysis has provided a method of analysing conversation that has allowed me to examine how these specific professionals (lighting designers, directors and lighting programmers) construct talk and make linguistic choices in interaction, taking into account the sociopolitical conditions of the technical rehearsal, the environment in which said talk is constructed. This provides a solid basis from which to analyse how lighting designers and programmers both talk about their work and their process and how they use language within the structures of the creative team and within the specific environment of the technical rehearsal. The “the interactional machinery underlying conversation” (Hazel, 2018, p.280) is under consideration here as well. These conditions, previously explored in Chapter 3, will be shown throughout the analysis to be fundamental drivers in understanding how creativity and collaboration are enacted – through a focus on language – during technical rehearsals.

Transcribing and coding

Because of the amount of data gathered, I had to decide, based on my research questions and the aims of my research, how much data would be transcribed and how detailed that transcription would be, omitting details or features that would not be used in the analysis (Koester, 2010a, p.72).

Therefore, only extracts from the recordings have been transcribed, depending on the extent to which particular exchanges influenced either the immediate dynamic of the situation or had a potentially longer-term or more pronounced impact on the process as a whole. Mundane instructions from the lighting designer to the programmer – for instance, basic plotting and syntax instructions – are often not included, but sections of conversation between the lighting designer and the programmer that include collaborative

discourse (Koester, 2010a, p.75), problem-solving, or shifts in the working dynamic have been included. The conversation extracts I have chosen to transcribe and analyse all impact in some way on the working relationships of the people involved, the effectiveness of their communication, and therefore the resulting direction of the technical rehearsal – either individually or when considered as part of a sequence or pattern. Crucially, they additionally demonstrate particular linguistic strategies that illustrate the underlying mechanisms at play in enacting and sustaining professional relationships.

Any “rich points” that were identified were then transcribed; these are “sections of data which stand out as being unusual in the interaction in some way, which seem to the researcher different or difficult to understand” (Copland and Creese, 2015, p.48). Agar describes rich points as “run[ning] the gamut from incomprehensible surprise to departure from expectations to glitches” (Agar, 2006, no pagination; see also Agar, 1996, p.26). In most cases, the rich points in my observations consisted of exchanges that I had noted in my field notes that seemed at the time to be significant or interesting, even if I was not yet sure what exactly made them so. Some of these were discarded while some went on to form substantial parts of the analysis (see Chapters 5–7).

This selectivity is “endemic to data collection” (Miles and Huberman, 1994, p.56) and necessitated periods of reflexivity during the fieldwork and data analysis stages in order to make sense of the data. This “messiness” (Murchison, 2010, p.181) was due in part to the volume of data (see Table 1), but also to the specialised nature of it and my research questions.

The language used during technical rehearsals among the creative and production teams is specific to both the setting and the activity and can often

include technical specifications or jargon. As an experienced lighting designer and programmer myself, I was able to quickly gain an understanding of what was happening in a particular situation (especially in cases where there was some creative or professional tension), to empathise with the aesthetic considerations of those I was observing, and to draw on my accumulated artistic and technical knowledge. My background and experience of working in theatre in many different capacities, coupled with my training as a researcher and my interest in linguistics and language-in-use, helped when “unpicking” the data and in deciding which sections were relevant to this study. The nature of using audio recordings means that a substantial part of the analysis is predicated on my interpretation of the situation; however, my extensive professional experience of technical rehearsals – as a lighting designer, lighting programmer and director – as well as my physical presence in the research environment gave me the necessary background to enable this understanding.

The selection of transcribed material was likewise a recursive process, whereby the identification or analysis of existing sections led me to identify linguistic strategies to be aware of in each subsequent observation. I began to make connections between observations, and the constant process of transcribing–analysing–reflecting made me increasingly aware of how the observations related to each other and what sections would be most useful to analyse. The data gathering and data analysis phases of my research have constantly overlapped. This ongoing analysis informed the conditions of subsequent observations and allowed me to develop a “theoretical sensitivity [...] based on being steeped in the field of investigation” (Urquhart, 2013, p.16) and the context in which the observations occurred. Using my existing knowledge of the environment in which the interactions

took place and my knowledge and experience of the roles being performed, as a researcher I was able not only to extract what I felt to be key moments in the data but also to understand what was significant and important to those I was observing.

I had originally intended this study to be primarily corpus-based and to take a mixed-methods approach, starting with quantitative statistics from the data that would support and complement a qualitative analysis. Corpus linguistics focuses on the analysis of naturally occurring language-in-use – traditionally in text but also in transcribed spoken talk. Corpora are often used in second-language teaching and other branches of applied linguistics, as well as by dictionary editors, grammarians, syntacticians and others interested in the evolution of language. Although there are many existing corpora for researchers to draw on (the most relevant of which would be those focused on workplace discourse, such as the Corpus of American and British Office Talk (ABOT) and the Cambridge and Nottingham Business English Corpus (CANBEC)), I am interested here in language use in a specific setting among a specific group of people engaged in specific actions; existing corpora are too broad and do not address this specificity. I had intended the transcripts of the recordings taken from the fieldwork to form a small, specialised corpus of language-in-action to analyse. While there were some useful tactics to be gained from a corpus linguistics approach – for instance using frequency counts or concordance lines – ultimately these were most useful as starting points early on in the analysis. For instance, frequency counts can help identify potential sites or patterns for further analysis. Corpus linguists also make use of concordance lines, which allow researchers at a quick glance to notice patterns of collocates – words (or constructions) that appear frequently to the left or right of a given term. This shows not only patterns but also any outliers or special cases that should be

investigated separately. Using software to quantify frequencies or concordances, for example, did initially help in identifying areas or patterns for deeper qualitative analysis. For instance, it quickly became apparent that colour was the quality of light that was most referred to by both directors and lighting designers; in the analysis of O1 alone, colour was referenced sixteen times more than any other quality. However, the identification of these corpus-supported elements was not enough on its own to draw any useful or interesting insights. The significance of these occurrences could only be evaluated properly by observing the context in which they occurred, the nature of the relationships between participants and how they impacted on the proceeding interactions.

When it came to coding, I researched several computer-assisted qualitative data analysis software programs and determined that MaxQDA would suit this process best, due to its useful search and retrieval functions, auto-coding and the MaxDictio module, which allowed for frequency counts and “key word in context” analysis and included several visualisation tools.

I began the data analysis stage with a deductive approach (Miles et al., 2014, p.81) by using Provisional Coding and Descriptive Coding (Saldaña, 2016). I devised an initial list of codes prior to the first observation, based on key words, phrases and concepts that I expected to find during fieldwork. These included words or phrases related to the properties and objectives of light, taken from Pilbrow (2010, pp.4–9). I also coded the transcripts by speaker and type of discourse – collaborative or unidirectional (Koester, 2010b, p.75) – so that I could easily filter out “non-collaborative” talk if required. I continued to use these codes until I had become wholly familiar with the transcripts, developing others inductively (Miles, et al., 2014, p.81) at the same time. Some codes were added after the first observation had concluded,

then were retrospectively applied. However, I found that applying the codes I had prescribed in advance was not especially useful as they did not necessarily reflect what was in the transcripts themselves but rather what I had expected to find in them.

I coded the first three observations (one durational and two occasional) as described above in order to give me enough data to start some initial analysis. In addition to the identification and application of codes, I also made use of MaxQDA's memos function, recording my thoughts and potential routes for analysis among the transcripts. However, when attempting to analyse the transcripts, and particularly when retrieving sections by code, I found the fragmentation of the data difficult to contend with. The transcripts and codes alone gave me very limited information in terms of context, and though I had my field notes and memos to assist, it was rather difficult to discover common threads both within and between productions in this medium.

I had reached what Hornberger (2013) refers to as a "methodological rich point": "those times when researchers learn that their assumptions about the way research works and the conceptual tools they have for doing research are inadequate to understand the worlds they are researching" (p.102). Despite the potential usefulness of corpus techniques such as frequency counts and concordances, in order to answer my research questions, I needed to analyse the data in a far more qualitative and subjective manner than the software was allowing for; in Catterall and Maclaran's (1997) words, I needed to code "the moving picture as well as the snapshots" (no pagination). The corpus alone could not provide the information needed to sufficiently answer my research questions. This led to a period of critical reflexivity – "a complex dialectic between the researcher, the research

process, and the research outcome(s)" (May, 1997, p.200), as a result of which I moved away from a corpus-based approach.

I continued extracting sections of the transcripts and compiled a detailed spreadsheet, noting the file the extract had come from, its timestamp, who was speaking and some brief notes about what was said, and I continued to upload the extracts to MaxQDA, mostly for organisational reasons. I found it useful to have all the transcripts in one place, and it was easy to switch between transcripts as needed without opening multiple Word documents. However, I gradually moved away from using the software towards a greater reliance on a combination of my field notes and reflections, both on individual observations and the cumulative body of fieldwork. While I was not analysing live performance per se, I felt the current methods were insufficient for capturing the "liveness" of the production process. This led me to consider the primary reason for my presence in the theatre during these observations: in order to make sense not only of the spoken language but also the circumstances and context in which it occurred – and how these had affected each other. According to Rampton, et al. (2015), "the researcher's own cultural and interpretive capacities are crucial in making sense of the complex intricacies of situated everyday activity among the people being studied" (p.16). I was also, at this point, grouping transcripts around common linguistic elements rather than what was happening in the interaction – I was describing what these elements were rather than what they were doing. This method of organisation proved to be limiting in terms of the connections I was able to make within – and across – observations in relation to creativity and collaboration.

Before commencing the last three durational observations, I re-evaluated the existing transcripts in an attempt to identify common characteristics, events

or features. I manually coded these by printing out the transcripts, colour-coding them and physically separating them into groups, after which I was able to define a list of themes that had reoccurred in the observations to some extent and then grouped these together into three larger categories. The result of this is the headings that make up Chapters 5–7. With this revised list of themes, I was able to concurrently clarify my approach to capturing my observations and converting them into written notes and doing so in a way that more clearly captured the myriad of happenings, both descriptively and reflexively, and in a way that better enabled me to answer my research questions. This is not to say that the initial round of coding had been for naught. In fact, the detailed – in some cases, word-level – coding process meant that I was already very close to the transcripts, and it therefore made this second round of coding and the resulting analysis much easier and more revealing than it might have been otherwise. I have detailed elsewhere (sections 4.5 and 4.6) how my confidence as a researcher has developed throughout the fieldwork and data gathering process as well.

A note about transcripts

In transcribing excerpts from my fieldwork, I have aimed to replicate conversations as clearly as possible for readers. I have not used the Jeffersonian (or indeed any other) notation system, though I have provided a key at the end of this section and at the start of Appendix A for reference. The highly specialised nature of the language used in the recordings can occasionally be difficult to follow without complicating the transcripts with phonetic renderings. As the research questions demonstrate, I am also less interested in any phonetic, paralinguistic or prosodic details; where these are relevant I have noted them in the analysis. As Nevile maintains, “Transcriptions are always only ever representations of reality, not the

reality itself, and these representations are valuable if they do the work analysts ask of them" (2004, p.24). The purpose of these transcripts in this thesis is to detail the talk-in-interaction between lighting designers, lighting programmers and directors and to do this as clearly as possible.

Participants agreed to take part in this study on the condition of anonymity (see section 4.7 on ethics and informed consent); therefore, speakers are identified by their production role rather than by name or initials. Where someone has been referred to by name by another speaker, I have redacted this and replaced the name with the production role in square brackets. On the rare occasion that other identifying information has been included, this has been similarly redacted and any clarification provided within square brackets.

In keeping with the premise of anonymity, and therefore attempting to resist Walford's assertion "that modern interconnected life does not allow ethnographers honestly to give anonymity to research sites or individuals within them" (2018, p.519), all participants are referred to in the singular "they". While this practice is considered non-standard or ungrammatical by some publications, particularly in formal writing, this is the simplest way to ensure that participants remain anonymous and also helps to avoid the inadvertent identification of participants. This is especially important due to the specialised nature of the industry being studied and the participants being observed, some of whom might be easily identified otherwise. Additionally, singular "they" removes gender bias and any inherent assumptions that come with this. While many studies have addressed differences in communication styles between men and women, it is not something I have chosen to focus on for this research (though it could form the basis for subsequent research using a similar methodology). As Kitinger

(2008, p.121) has noted, conversation analysis research on gender differences in communication has yielded inconclusive results. Aries (1996, p.19–20) maintains that any notable difference in speaking style between men and women is, in fact, often an illustration of a “fundamental attribution error” and any differences in speech patterns or language use are more likely to be due to societal factors than personal characteristics. Arguably, this reinforces the decision to remove gender details from the transcripts herein: “[W]hat we perceive to be gender differences may not be gender differences at all; they may be differences due to role or status” (Aries, 1996, p.193–4), the latter being the more relevant factor in this research.

The transcripts are available in full in Appendix A. Speaking turns have been numbered throughout the transcripts for ease of explanation and reference.

Transcription key

KZ	the researcher
LD	lighting designer
LX	member of the lighting department
[pause]	pause of less than two seconds
[long pause]	pause of more than two seconds
<u>underline</u>	emphasis (either pitch or volume)
[<i>italics</i>]	clarification, usually to denote actions or gestures
en dash (–)	speech is cut off or overlaps with next turn
ellipsis (...)	speaker trails off or elongates word
[...]	missing section of speech
[???	inaudible or indecipherable speech

As noted above, names and other identifying elements have been redacted and replaced with the speaker's production role or other clarification in square brackets.

4.9 Analysis overview

In following chapters, examples from across multiple observations from my fieldwork are presented and grouped together by situation or type of interaction. These comprise a sample of the interactions that had an impact on the collaborative environment at the time that they occurred. As previously noted, a full set of transcripts is available in Appendix A and will be cross-referenced throughout as necessary.

As we will see throughout the following chapters, these multiple functions of language are shown in a variety of ways in creative collaboration. Chapter 5 (**People**) will focus specifically on the connection between personal and professional discourse and the ways in which these are used in enacting workplace relationships. This chapter will examine instances of positive communication (complimenting and disclosing, in particular), conflict, and swearing and humour as integral examples of relational talk. The nature of creative relationships is then detailed, through a focus on cooperation, collaboration, agency and autonomy.

In Chapter 6 (**Process**), the processes of creativity and collaboration are examined, building on the ways in which lighting designers, lighting programmers and directors develop new and expand upon existing shared vocabularies, particularly at the start of the technical rehearsal process. Beginning with an examination of the production desk as the principal place in which these interactions occur, how its scenography impacts collaborative relationships and how it perpetuates culturally engrained perceptions of power in its layout, this chapter will draw on examples of tacit and

embodied knowledge in problem-solving, showing how design and production team members construct a shared visual and verbal language, and how silences may be used strategically to assert or subvert power.

Chapter 7 (**Potential**) is concerned with the aesthetic and dramaturgical potential of light and how this is balanced with more pragmatic concerns, for instance in the choreography of scene changes. Light as material is discussed, with particular attention on the use of affective language and light's ability to mediate the stage picture for dramaturgical effect. This will necessarily involve a discussion of the importance of both space and place and their impact on light, as well as the reciprocal impact of light on space and place.

In order to understand the context in which these transcripts occur and the nature of the productions from which they are taken, the key characteristics of each are included in Table 1.

Chapter 5: People

The preceding chapters have served to provide a clear context and rationale for this research, situating this thesis within both the wider scholarly literature and the professional theatre industry. This research sits at a crossroads between existing studies in scenography, theatre lighting design, theatre production, collaboration and creativity. Methodologically, this research is both a departure from and an extension of those methods found in theatre design and production more widely, combining ethnography and autoethnography with discourse analysis, within the setting of the technical rehearsal. To turn now to the analysis of the gathered data, this is grouped into three interrelated chapters. The current chapter will specifically examine the people involved in the technical rehearsal, focusing namely on the lighting designer, the director and the lighting programmer, and addressing the ways in which they construct, enact and maintain personal and professional discourse through an examination of their language-in-use. This is integral to an understanding of how directors, lighting designers and lighting programmers work at the production desk during technical rehearsals. This section starts with an examination of what constitutes personal and professional discourse and how these are both employed in workplace discourse. The reason for starting here is to examine how people establish a foundation upon which they can “build solidarity and enact and negotiate power and identity through their discourse in the workplace” (Vine, 2010, p.329). The chapter continues with a more detailed look at specific linguistic tactics that are employed throughout the transcripts. The effects of the positive communication tactics of complimenting and disclosing are balanced by an examination of the ways in which conflict is managed or militated in a high-pressure environment. Swearing and humour are shown to be effective in promoting team solidarity; however,

they can also be used negatively or to subvert existing hierarchies within the team. Further examples of collaboration and cooperation (see section 2.3) and their effects on professional relationships are discussed, as is the importance of professional agency and autonomy. Overall, this chapter will examine how lighting designers, lighting programmers and directors both establish and maintain working relationships in order to facilitate creative dialogue and how individual and group agency are exercised within the constraints of the technical rehearsal, addressing all three research questions.

5.1 Personal and professional discourse

The role of language goes beyond merely imparting information or knowledge. The talk used by the creative team during technical rehearsals is clearly varied as well as socially mediated, determined by – or at least contingent upon – environment, the speakers' interactional goals, behavioural conventions, implicit and explicit social positions, etc. (see Spencer-Oatey, 2008, p.15). Below, I briefly outline two types of discourse – personal and professional – that are found in the transcripts and show how they are both employed during technical rehearsals. While workplace discourse tends to be primarily task oriented (transactional talk), it is not exclusively so. The ways in which professional colleagues use personal discourse (relational talk) have a bearing on identity (Koester, 2004), collegiality (Holmes, 2000b) and sociability (Ragan, 2000). By making this distinction between relational and transactional talk I do not wish to set up the two in opposition, as to do so would “gloss the complexities of how participants use language in relating” (Arundale, 2010, p.150–151). Rather, this is simply a way of dividing up the information into more manageable sections.

It should go without saying that no communication is completely impersonal: all speech acts have a relational aspect (Watzlawick, et al., 2011,

p.51). "Personal discourse" describes any talk that is not explicitly transactional in nature; this includes "social talk" (Holmes and Stubbe, 2015, p.15), phatic communication, and small talk about one's family, hobbies, home life, commute, etc. The use of personal discourse in the workplace is important because it helps establish relationships, build trust, and facilitate communication and collaboration. The limited time available in the technical rehearsal means that this process is much more compressed than it might be in other "traditional" workplaces, for instance in offices. Parallels can be seen here in medicine, where surgical procedures are often performed by "transient teams" in which "shared practices [...] must be negotiated afresh on each occasion" (Kneebone, 2016, p.3).

Examples of personal discourse in the observations are seen mostly at the start or end of sessions, for example just before or after the lunch or dinner break, and first thing in the morning as a routine greeting as members of the creative and/or production teams arrive for the day. They also occurred during lulls in the plotting session or technical rehearsal, as in transcripts D2-1, D2-3 and D4-6, or to boost morale during a particularly long or arduous section of the production. Identifying why and what instances of relational talk occur during technical rehearsals will help to build an understanding of how personal and professional discourse are not only interrelated but also how the former is necessary for enacting the latter.

While there are, of course, boundaries and limits to the level of acceptable personal discourse in which professionals may engage, being able to integrate the relational aspects of personal discourse with the transactional nature of professional discourse is crucial. As alluded to earlier, the dynamic of freelance lighting designers working with in-house teams (including programmers, as is often the case in producing theatres) makes this an

especially acute concern here in building and maintaining effective working relationships. According to Roberts, et al. (2008), failure to integrate personal with professional discourse puts colleagues at a disadvantage; they are “seen as lacking consistency and credibility and [as] untrustworthy” (p.87).

Examples of relational discourse are discussed in further detail in the next section, in which I will show how three strategies in particular – positive communication, conflict, and swearing and humour – are used to establish interpersonal relationships between theatre professionals during the technical rehearsal. While the aims of each strategy differ on a micro level, being able to recognise and enact these strategies may be useful in navigating the asymmetrical power relationships that are found in theatre hierarchies.

As I will show below, relational or phatic discourse is clearly a useful way of establishing trust and rapport among professionals, but it does not fully account for or explain the particular ways in which creative teams “do” collaboration – the transactional talk of professional discourse. Professional discourse can be described as “what the professionals routinely do as a way of accomplishing their duties and responsibilities” (Sarangi and Roberts, 1999, p.6). Drew and Heritage (1992) describe institutional interaction as consisting of primarily goal-oriented talk that is “characteristically asymmetrical” (p.47) and includes in-group markers such as lexical choice, “inferential frameworks” (p.22), or phatic communication, defined as that which “does not convey much cognitive information [...] [but] is always loaded with social information” (Schneider, 1988, p.11). These can be seen in several of the transcripts analysed in the following sections.

Gunnarsson (2009) maintains that “the language and discourse used by professionals within a field reflect their expert knowledge and skills” (pp.5–

6) and that the use of this specialised language distinguishes experts in one field from those in another; someone may be a professional in one field but a non-professional in another. This is reflected in Linell's (1998) distinctions between "intraprofessional discourse, i.e. discourse within specific professions", "interprofessional discourse, or discourse between individuals from or representatives of different professions" and "professional-lay discourse" (Linell, 1998, p.143). The boundaries here, in both a wider sense and as specifically related to this research, are blurry and are not to be construed as definite or absolute. For instance, in comparing the relationships between the lighting designer and the director in D1 and O1, there is a marked difference in the level of technical detail the lighting designer provides, either as explanation or when problem-solving. For example, both productions employed MIDI technology as a way of linking lighting and sound cues together, ensuring that the timing of the cues in relation to each other was consistent (for instance, in syncing thunder and lightning cues with each other). Both the directors' level of engagement with the cueing process during the technical rehearsal and their respective levels of technical competency and interest necessitated different linguistic approaches by the lighting designer (the same for both productions). In the case of D1, the use of this technology was only mentioned by the lighting designer in passing and not spoken of directly to the director, who simply "expected[ed] us to do whatever we wanted to do in order to make it the way we wanted it to look" (interview with the lighting designer, 6 April 2016). While the director was very obviously a professional, their disinterest and removal from the lighting designer's talk made these interactions an example of Linell's (1998, p.143) interprofessional discourse. The director of O1, in contrast, was very interested in knowing the detail of how the lighting was created. They had an understanding of and interest in the lighting

designer's creative process and the practicalities of how the lighting states were constructed and cued. This meant that the lighting designer could adjust their vocabulary and speak to them in a way that was perhaps closer to "intraprofessional discourse" (Linell, 1998, p.143), characterised by the use of technical jargon or other specialised language as well as "identifiable linguistic features which are not only durable, but also legitimate and authoritative" (Sarangi and Roberts, 1999, p.6). In other words, the use of professional discourse demonstrates professional competence and clearly signals this capability to others. Professional discourse helps individuals to acquire or maintain credibility, to show competency and to demonstrate professionalism, and it also helps in establishing identity by designating members of that profession's in-group.

5.2 Relational talk

In workplace discourse, while speakers primarily orient to task-based discourse, relational talk is necessary for the development of professional relationships and as a basis on which to build successful transactional talk. Koester (2004, p.1425) demonstrates how relational talk can be used in the workplace:

- To contribute to a positive working relationship by showing affiliation and solidarity.
- To demonstrate why the task is important, and thereby validate its performance.
- To perform a discursive action (e.g. an account) indirectly and thus avoid or defuse awkward or conflictual situations.
- To negotiate institutional and discursive identities.

While Koester makes only a brief link to face in her article, it is clear to see how this, along with politeness (Brown and Levinson, 1987; Bargiela-Chiappini and Harris, 2006; Holmes and Schnurr, 2017) and rapport management (Fletcher, 1999; Spencer-Oatey, 2008), are related to relational

talk. The following sections will explore the necessity for relational talk in developing interpersonal relationships through three linguistic strategies: positive communication, conflict, and swearing and humour. The ability to cultivate positive working environments through effective relational talk can help people to shape their professional relationships (Holmes, 2000b, 2003), as will be shown below.

One clear example of relational talk can be seen in transcript D2-3. This occurred during a lull in the stage and piano rehearsals. The programmer takes a personal interest in the lighting designer's wellbeing in relation to their accommodation:

D2-3

- 1 Programmer: How are you getting on with your digs,
[LD]?
- 2 LD: With the what?
- 3 Programmer: Your digs.
- 4 LD: Yeah, better.
- 5 Programmer: Yeah?
- 6 LD: Yeah, they're fine. I mean, it was kind of
corporate and anodyne but near the river so it's
good for getting [to work] in the morning. Um...
it's quieter than where I was before, which is...
good. That's the problem 'cause it was right on
[Street], my front room window, and it doesn't
matter what you do there you're going to hear...
- 7 Programmer: Yeah, it's noisy.
- 8 LD: Yeah.

Though this exchange occurs during a working session, it is purely relational in nature. Relational talk such as this helps to establish a personal connection, demonstrated here through the programmer's sympathetic response in turn 7 as well as their invitation for further information in turn 5.

Relational talk “helps people manage important relationships at work and creates collegiality” (Mirivel and Fuller, 2018, p.216).

Positive communication

Positive communication research is an emerging interdisciplinary field that seeks to address a wide range of communicative concerns. Mirivel and Fuller (2018) propose a “heuristic model of positive communication” (p.216) for establishing effective workplace interactions through relational talk. They maintain that “workplace contexts are created by the conversations that people have and the ways in which they engage with one another” (p.223), going so far as to suggest that “relational talk can therefore strengthen professionals’ competencies” (p.224). Their model includes six speech acts – “greeting, asking, complimenting, disclosing, encouraging, and listening” (p.217) – and I will be concentrating on two of these (complimenting and disclosing) below.

According to Mirivel and Fuller (2018) the act of *complimenting* is “a communicative act that impacts a person’s identity” (p.219). This is substantiated by studies by Pomerantz (1978), Holmes (1986) and Golato (2003) that analyse recordings of naturally occurring talk-in-interaction. Holmes (1986) defines a compliment as

a speech act which explicitly or implicitly attributes credit to someone other than the speaker, usually the person addressed, for some “good” (possession, characteristic, skill, etc.) which is positively valued by the speaker and the hearer. (p.485)

There are three rather different instances of compliments in the transcripts: D2-4, D3-7 and O7-5. The first, from D2, was noted in my field notes and occurred in conversation with the lighting programmer at the end of a busy stage and orchestra session.

D2-4

- 1 Programmer: [The LD] keeps taking things [lights] out and it just looks amazing. [They] must think I'm a kiss-arse because I keep saying how beautiful it is.

While the programmer seems happy to compliment the lighting designer's work, there appears to be some worry about how the lighting designer might feel about this or how they might respond ("They must think I'm a kiss-arse"). There is no evidence for this judgement in the rest of the recording; for instance, in D2-5, the lighting designer barely seems to register the programmer's compliment (turn 2):

D2-5

- 1 LD: Can you make - take 503 please down to 30.
[Long pause.]
- 2 Programmer: I think it does work.
- 3 LD: And take 803 please down to 20. [Pause.] And lose 803, thank you. [Pause.] Lose 503. [Pause.] What have I got that I'm not uhh... what's on there?
- 4 Programmer: 504's still on for the rain.
- 5 LD: Ah, let's just lose it?
- 6 DSM: LX cue 12 [long pause] go.
- 7 Programmer: Update?
- 8 LD: Ah, yes please.
- 9 Programmer: Cue only?
- 10 LD: Uh, cue only, yes, thank you.
- 11 Programmer: 12 running.
- 12 LD: Yeah. And we should trace that.
[Long pause.]

The sequence occurs during a stage and piano rehearsal. The compliment in turn 2, which is not as overt as the programmer suggested in D2-4, appears

to go unnoticed by the lighting designer, who continues plotting, “taking things out”, (turn 1, transcript D2-4). In turn 3, the lighting designer continues with the action initiated in turn 1, in what would usually be seen as a “dispreferred second”³¹. However, “agreeing with a compliment would be equivalent to self-praise which is also face-threatening” (Sifianou, 2012, p.1560), a dilemma of compliment response, as also shown in the next example. We can see in the way that the lighting designer conducts themselves in the other transcripts from this production that they are generally amiable, are often self-deprecating and use swearing (see the analysis below of D2-2, in particular) to downplay their status. Ignoring or not responding to compliments is, therefore, in character and consistent with this behaviour elsewhere, making their dispreferred response an accepted alternative here.

Similarly, in O7-5, the lighting designer responds to a compliment from the designer in a way that distances them from the compliment itself:

O7-5

- 1 Designer: There was something you did at the end of that scene that just...
- 2 LD: I just added a bit of my backlight.
- 3 Designer: Yeah, it just made it...

When responding to compliments, English speakers

are under two concurrent constraints that are not simultaneously satisfiable: compliments are assessments, and since assessments are usually followed by an agreement with the assessment as a preferred next turn (Pomerantz 1984), a form of acceptance should follow after the compliment has been given. At the same time, it has been shown that when speakers praise themselves, such behaviour

³¹ Preference here refers to the structure of the talk (how it is constructed) rather than how the speakers feel about the response or about each other.

is routinely sanctioned (Pomerantz 1978). (cited in Golato, 2003, pp.102–103)

One way of attempting to satisfy both of these criteria is to provide “the history of the object of the compliment (i.e. where or how one obtained it)” (Golato, 2003, p.118), which is precisely what the lighting designer does in turn 2. However, this has the effect of actively downplaying their agency and their role. In turn 2, “just” serves a mitigating function, minimising the lighting designer’s contribution and almost seeming to separate their work and their creative agency from the effect of the light itself. As in D2-5 above, this has a self-effacing effect as the lighting designer offers a downgraded assessment of their involvement in the affective potential of the lighting state being referred to, as if the light were acting independently of the lighting designer’s creative actions and intentions. The designer’s language reflects this in their switch in pronouns: in turn 1, “There was something *you* did” (emphasis added), but in turn 3, “*it* [the backlight] just made it...” (emphasis added). Following self-effacing or self-deprecating turns (such as in turn 2), the preferred response is disagreement, though “a dispreferred can be couched as preferred” (Glenn, 2019, p.241) as it is in turn 3. The designer starts with an agreement marker (“Yeah”), then matches the lighting designer’s mitigating “just”, perhaps sensing the potential for embarrassment or expecting another self-effacing remark from the lighting designer. The compliment responses in both of the above examples are neutral at best (O7-5) or even dispreferred (D2-4). To offer a “preferred” response in either case would potentially be face-threatening (Sifianou, 2012, p.1560), which could serve to upset the dynamics of the team.

Compliments such as in D2-5 and O7-5 (and their responses) help to create cohesion and to construct positive working relationships (Holmes and

Marra, 2004). The following compliment in D3 takes a slightly different form and has a different impact:

D3-7

3 LD: Right, just, struggle, followspots, best you can. We're all struggling so that's fine.

4 Programmer: I think they're doing a great job.

5 LD: Well, yeah, I know, but, you know...

The lighting designer and programmer have been plotting a sequence while the associate lighting designer has been instructing the followspot operators on a separate channel and the dancers have been rehearsing on stage with the choreographer. This exchange prefaces the first time this particular scene will be run with all the elements coordinated together. The lighting designer opens with a self-deprecating remark in turn 3; by including themselves in "We're all" and repeating the word "struggle", they have indicated that their expectations are low for this initial runthrough, pre-signalling their leniency should anything not be executed as planned. By downplaying their position as the "leader" of the lighting team through this self-deprecating remark, the lighting designer is able to present themselves as a team player, engendering solidarity among the team by "attacking their own face while at the same time signaling that they are in control of the situation by making fun of their own weakness" (Kim, 2014, p.83). However, the programmer seems to undermine the lighting designer's position in turn 4 by setting their turn directly in opposition: "I think they're doing a great job." The emphasis on "great" directly contradicts the lighting designer's assessment that everyone is "struggling" (turn 3). It is difficult to know what the lighting designer is thinking in the long pause that follows this exchange, during which everyone is preparing to run the sequence; however, the use of multiple discourse markers in turn 5 ("Well, yeah, I know, but, you know...") suggests

a lowered status. Though the programmer may have intended their comment as a form of supportive encouragement, it seems to have the opposite effect by undermining the lighting designer. The lighting designer initiates their turn with the discourse marker “well”, which prefaces a self-repair sequence (Lerner and Kitzinger, 2019). This sequence begins with two agreement markers (“yeah, I know”), which are followed by a negation (“but”), and finishes with an “addressee-oriented hedge” (Stubbe et al., 2003, p.361). Through this sequence, the lighting designer essentially retracts their initial assessment about how “we’re all struggling” (turn 1), as this is directly contradicted by the programmer. This further, self-initiated attack to the lighting designer’s face is necessary in order to preserve the team morale.

Disclosing personal information, Mirivel and Fuller (2018) suggest, “serves positive relational functions at work” by “deepen[ing] relationships” (p.220). Willemyns et al. (2003) have agreed, claiming that accommodative relational talk such as self-disclosure can “lead to positive relationships and increased trust” (p.124). The exchange that takes place in D4-6, for instance, helps to create a sense of solidarity between the lighting designer and the programmer. By this point, they (along with the choreographer) had worked nine out of ten days, and the strain of consecutive long days was beginning to take a toll, though the atmosphere was generally friendly and pleasant. This exchange occurred on the second day that I attended; my field notes from the first day indicate some tension and abruptness from the lighting designer in the way in which they dealt with both the choreographer and the programmer, which, at the time, I surmised might be due to overwork. This was confirmed in D4-6 the next day near the start of the morning session. Sensing the lighting designer’s frustration – and possibly wanting to ensure that they had not been the source of that frustration – the programmer sent a text message to the lighting designer the night before, on their way home,

asking if they were OK, noting that the lighting designer had been behaving a bit “weird”.

D4-6

- 1 LD: In what way was I weird yesterday?
- 2 Programmer: [*Laughs.*] Just later -
- 3 LD: I was just surprised by your text and I was like, I don't know what else to say. I wasn't particularly stressed -
- 4 Programmer: You weren't stressed, no. I just, I don't know.
- 5 LD: I did feel extremely tired and that I couldn't - I didn't have the energy to do the kind of nice chatty bits.
- 6 Programmer: It wasn't even that, it was just a bit, I don't know.
- 7 LD: Abrupt?
- 8 Programmer: Yeah.
- 9 LD: Well, I get like that.

From the lighting designer's first two turns, we can see that perhaps they were unaware of their “weird” behaviour the day before. Having worked with the lighting designer on many previous occasions, however, the programmer had picked up on a verbal change in the lighting designer but was clearly unable to fully articulate what it was, just that it was “weird”. The lighting designer admits to not being “particularly stressed” (turn 3); this is perhaps attributable to the amount of time they had been allotted in the space. As noted previously, the creative and production teams worked for two weeks in a theatre space, with the dancers, serving as an extended technical rehearsal period with extra plotting time built in. While this did not occur in the actual performance space (more on this in section 6.1), it did give the lighting designer, programmer and choreographer, in particular, a

creatively receptive environment in which to explore their ideas, one that was not constrained by time in the same way that many technical rehearsals are. However, the successive long days have clearly had an impact on the lighting designer: “I did feel extremely tired and that I couldn’t – I didn’t have the energy to do the kind of nice chatty bits” (turn 5). The lighting designer concedes that perhaps they were a bit “abrupt” (turn 7) and the programmer agrees. Turn 9 feels oddly out of place here, given the nature of their existing relationship; perhaps the lighting designer feels that this is necessary to justify their behaviour, in a way that provides little opportunity for the programmer to challenge it.

This first section of the transcript demonstrates the importance of relational talk – “the nice chatty bits” (turn 5) – on professional relationships.

The programmer confirms this in the next section:

D4-6

10 Programmer: But that’s fine, yeah, but I just wanted to...

11 LD: It’s fine. [???] I think also ‘cause you and I haven’t had our chances in between to be –

12 Programmer: Just to sort out –

13 LD: To be chatty.

14 Programmer: It’s not even that, it’s just having some time on our own to sort stuff out.

15 LD: Yeah.

Again, the lighting designer acknowledges the importance of “be[ing] chatty” (turn 13) “in between” (turn 11) the busier periods. The programmer is also concerned with “having some time on our own to sort stuff out” (turn 14); presumably this means having time to work on the smaller details of the lighting, both artistic and logistical, without the choreographer or other distractions present. Both are voicing their respective frustrations with the

production period – this one in particular, though these could easily apply to others as well, seen also in the next section of this transcript (detailed below). In any case, what the lighting designer and programmer are clearly articulating here is the importance of building and enacting personal relationships as a necessary part of the technical rehearsal. Not only does this *process* (as it is always ongoing) serve to provide some, albeit momentary, respite from the intense work of the technical rehearsal, it also serves as a foundation on which to create high-quality professional relationships built on “trust, respect, and a willingness to share information, resources, and perspectives” (Phillips et al., 2009, p.710). This is further shown in the level of self-disclosure from both the programmer and lighting designer in the next section of this interaction.

D4-6

- 16 Programmer: Like, I always feel under pressure.
17 LD: I know. Don't we all.
18 Programmer: Yeah, I know. Yeah. [Pause.] It's fine.
I just wanted to make sure you were alright.
19 LD: It is also in those moments that you do your
best work.
20 Programmer: I know.
21 LD: While you're waiting around, you know, when
someone's expecting a million percent from you -
22 Programmer: Yeah.
23 LD: You do your best work.
24 Programmer: Yeah.
25 LD: That's what I think.

The programmer admits that they “always feel under pressure” (turn 16) and the lighting designer empathises, but with a caveat: “we all” feel under pressure (turn 17). This may have been an attempt by the lighting designer to share the programmer's concerns, but it has the effect of making the

programmer drop this topic altogether (“It’s fine”, turn 18) and redirect the focus back to the lighting designer (“I just wanted to make sure you were alright”, turn 18). This suggests that the programmer felt that perhaps their concern about constantly feeling under pressure was not particularly noteworthy, given that everyone is “in the same boat”. The effect of the prevailing working conditions during technical rehearsals (“always feel[ing] under pressure”, turn 16, being one of them) are even more pronounced for lighting programmers, who spend a significant majority of their working time in technical rehearsals. In a recent article for *The Stage*, lighting designer and chair of the ALD Johanna Town notes:

The expectation to work under intense pressure for periods of 15 to 18 hours per day, six out of seven days per week, with lunch and coffee breaks squeezed to put extra work in on the console, is standard. Yet the stress of excessive working hours due to tight production scheduling, combined with thoughtless working conditions, means life and a career as a lighting programmer is not sustainable for some. The physical demands of working at that level are simply not being respected. The intensity of the work is causing burnout and serious mental health issues. Programmers are finding themselves physically unable to function after weeks of tech. (Town, 2019, no pagination)

According to my field notes for this production, the programmer had come to the realisation, after years of working in the industry, that the lifestyle was “not sustainable” as they were currently at the end of a sixth consecutive 96-hour working week (field notes, 1 October 2017). While the lighting designer agrees with the programmer’s feeling constantly under pressure, they maintain that it is “in those moments that you do your best work” (turn 19), even “when someone’s expecting a million percent from you” (turn 21). These appear to be references to the lighting designer’s experiences in technical rehearsals generally and not necessarily specific to this production. This feeling is in line with research that shows that people with a high

personal need for structure – such as that dictated by a technical rehearsal schedule – are quicker to find solutions to problems, which is helpful under stressful conditions such as time constraints (Schultz and Searleman, 1998, p.309). There is a balance to be struck, however: another study by Kelly and Karau (1993) found that when there was only mild time pressure on the task, rather than severe, group members exhibited greater levels of creativity. Longer technical rehearsal periods (as in this observation), therefore, could help in decreasing the amount of pressure felt by lighting designers and lighting programmers, with the added effect of increased creativity.

Returning to disclosures, that the lighting designer and programmer feel comfortable talking to each other about issues such as these, particularly in the place where those concerns are manifest, speaks volumes about their existing relationship, as well as the potential for building on that relationship. Thus, we have a very clear example here of the necessity for cultivating and engaging in relational talk and its relevance to professional relationships. This may be what Moran (2017) is getting at when he writes about the lighting designers he interviewed, “It seems that [...] for the work they judge their best, something has developed over the preceding weeks of rehearsals – or years of working together – that allows a high level of empathy to exist in the creative crucible of the tech” (p.72). There is more to it here, however, than empathy. There is a process of personal and professional solidarity, a “buying-in” of each other’s expertise and experience, and an active synthesis of creative and aesthetic intention and execution. Relational talk is the foundation on which this process – and what Moran refers to as “empathy” – is built.

Disclosure is presented slightly differently in transcript D1-3. The lighting designer is vocalising their worry about how to light a scene in a way that will satisfy both themselves and the director:

D1-3

- 1 LD: I just don't know how to do the first scene as dark as [the director] wants it when it's such a comedy. [Pause.] Nothing's right. Maybe once we get the tables and chairs in I can really wrap that up 'cause at the moment it looks -
- 2 KZ: Yeah, I know what you mean.
- 3 LD: Try just to find the right place to put in the... [Pause.] I think I'll have to lift the cover if I'm covering to that bay. 'Cause he doesn't look too bad, does he? And they've got all red uniforms on. This can be darker. [Pause.] I wonder if I can go as deep as one of those other oranges, just to be... I don't sort of want to lose [one scene] - I want that to be the really disgusting one.
- 4 KZ: Yeah, yeah...

What makes this exchange most different from that detailed in D4-6 above is both the audience for and the nature of this disclosure. The programmer for this production was very inexperienced and, as a result, perhaps unable to empathise with the lighting designer's concerns; whether this is factual or simply the perception of the lighting designer is largely irrelevant as it produces the same outcome. The lighting designer's turns in D1-3 were primarily directed towards me, as an "insider researcher" (Walsh, 2011, p.42), with a similar knowledge base and extensive experience of not only the industry and setting but also the creative anxieties that lighting designers face, particularly at the start of the technical rehearsal (D1-3 occurred during the initial plotting session). Because I was attempting to remain detached

from the process as much as possible and to retain my status as an observer, my responses to the lighting designer's concerns in D1-3 are minimal (turns 2 and 4). The lighting designer therefore redirects their disclosure to the chief electrician, to whom they admit:

D1-3

15 LD: Yeah, I was really worried about all that centre cluster, which is why I was being so generical about it.

16 LX: Yeah, makes sense.

The lighting designer is looking for reassurance that they have made the right decisions with the lighting rig, this time from a practical rather than a creative perspective. The lighting designer's first two turns are punctuated by descriptive or qualitative words and phrases: "dark", "comedy", "right" (turn 1), "too bad", "red uniforms", "darker", "deep", "oranges", "disgusting" (turn 3). This is in stark contrast to the following turns in which the focus is more on the rig itself (turn 5), the number of lanterns (turns 7 and 10) and colour scrolls (turn 13), and the practicalities of covering the space adequately. Having received little response to their disclosure of creative self-doubt in turns 2 and 4 from either me or the programmer (for different reasons), the lighting designer turns to the chief electrician and discloses the same self-doubt, this time wrapped up in practical concerns. The chief electrician allays their concerns by stating that the "general cover seemed to be about usual" (turn 12), confirming the shortage of colour scrolls (turn 14), and noting that the layout of the centre cluster "makes sense" (turn 16). This disclosure, therefore, is more closely related to professional than relational talk, though it serves a similar purpose. By disclosing these concerns, the lighting designer can draw on the expertise of the people around them, signalling that they are open to receiving advice (as also seen in transcript

D1-2). According to Vine (2004, p.33), “asking for advice acknowledges the addressee’s position, their ‘expert’ power”, a concept she borrows from Spencer-Oatey (2008, p.35): “if a person, A, has some special knowledge or expertise that another person, B, wants or needs, A can be said to have expert power over B”. As Vine clarifies, expert power is “related to [an individual’s] skills and expertise rather than their job level within the organisation” (2004, p.28). This is particularly important in creative collaboration in that it allows the normative hierarchical structures that are present to be subverted: by drawing on the “expert power” of the rest of team, the lighting designer is inviting collaboration by simultaneously downplaying their status. This works to the lighting designer’s advantage as well as that of the team as a whole. By drawing on the collective “expert power” of the entire team, the lighting designer – particularly in situations of self-doubt and worry, as in D1-2 and D1-3 – can harness their communal knowledge. However, they can also continue to assert their “legitimate power”, defined as “if a person, A, has the right (because of his/her role, status, or situational circumstances) to prescribe or expect certain things of another person, B, A can be said to have legitimate power over B” (Spencer-Oatey, 2008, p.35). In D1, the lighting designer’s exercise of “legitimate power” can be seen in later transcripts, which will be discussed in more detail in the following section – and, in particular, how their interactions with the programmer differ from the above two examples of interactions with the other members of the lighting team.

Conflict

Niermann (2019) argues that “[c]ollaborating with close friends/colleagues [...] tends to be effortless and constructive because the creative repertoire is more clearly expressed” (p.46). However, this is not always the case. People who have collaborated together before will likely have a pool of shared

experience to draw on, and it is to be expected that this shared knowledge will grow with each production. Unfortunately, this does not always make working together “effortless and constructive”, as Niermann claims, overlooking the distinction between professional conflict and creative conflict. In fact, “in effective collaborations, conflict is another tool to deepen understanding” (Moran and John-Steiner, 2004, p.20). This dichotomy and tension between having a large pool of shared knowledge to draw on while still experiencing some creative conflict can be seen in many of the excerpts from observation D4, arguably the most productive of all my observations. (Unfortunately, it also works counterproductively, as in D3.)

Workplace interactions frequently occur in relationships characterised by asymmetrical power relations (Heritage, 1997), such as that in observation D1 between the lighting designer and the programmer. More so than in any of the other observations, the disparity in status, expertise and experience in this working relationship was significantly pronounced. This can be seen in the first few turns of D1-4, which takes place at the very start of the lighting plotting session, in creating the show’s preset lighting state (i.e. when the audience is being seated, before the performance begins):

D1-4

- 1 Programmer: How bright do you want the houselights?
- 2 LD: Uh, what's - what's - how low can I have them?
What am I allowed them at? You don't know, do you?
- 3 Programmer: I don't know.

The fact that this exchange occurred so early in the process is probably related to the relatively low level of frustration (as compared to later transcripts) shown by the lighting designer in turn 2: “You don’t know, do you?” The programmer was inexperienced, but this did not mean that the lighting designer expected less expertise or skill from them. The lighting

designer did not often make allowances for this disparity in skill, instead using it to assert their own status. The programmer's lack of knowledge and experience was often the source of tension, at best, and rudeness, at worst. Here, the lighting designer has assumed the programmer's ignorance before allowing them to reply, which perhaps signals an underlying tension already and, in fact, seems deliberately antagonistic. This is in contrast to the interaction in D1-2, in which the lighting designer solicits the electrician's input then yields to their expertise:

D1-2

- 1 LD: So, the idea of these... is to... light to do some crosslight. [...] And I'm imagining with both of them I can get the full width of the stage, is that right?
- 2 LX: Oh, in which case I'll do far side with this one then.
[...]
- 6 LX: Into the prosc, then, yeah?
- 7 LD: Yeah. Is that what you sort of standard do for crosslight there? Into that -
- 8 LX: Yeah.
- 9 LD: OK. Great.

The lighting designer had never worked in this venue before, which may contribute to the level of trust they placed in the in-house staff and their reliance on their venue expertise. Equally, the in-house staff have also demonstrated their "expert power" (Spencer-Oatey, 2008, p.35) to the lighting designer, which has worked to engender professional trust. This is also seen in lighting designer's interactions with the lighting team in the last half of D1-3 as well as in D1-4.

Below, I will show how the tension between the lighting designer and the programmer escalates through transcripts D1-5 and D1-6, both of which are from later technical rehearsal sessions.

D1-5

- 1 LD: [*To the programmer*] And while we've been sitting around all this time, all that should have been cleaned up. In blind.
- 2 Programmer: Yeah.
- 3 LD: I shouldn't be telling you to do these jobs; you should be doing them naturally. Less sitting around.

The lighting designer's frustration here seems to stem from the lighting programmer's failure to do what the lighting designer sees as a fundamental part of their job. The lighting designer is displaying their "epistemic 'status' [...]: who knows what, who has rights to know what, and to what degrees participants are well-informed, ill-informed or loosely or strongly committed to what they are saying" (Glenn, 2019, p.225). By affiliating themselves to the lighting designer in turn 2, the programmer is acknowledging the lighting designer's epistemic authority. To do otherwise could manifest in a potential disagreement. The conflict here is professional rather than creative and continues to escalate in transcript D1-6:

D1-6

- 1 LD: [*To the programmer*] You alright?
[Long pause.]
- 2 Programmer: Would you like me to make it [the beam] bigger?
- 3 LD: Just make it a little bit bigger. [Pause.] Whoa. [Pause.] OK, now, uh, make [channel] 1 copy from [channel] 2. 'Cause then it'll get shutters and size and everything.

- 4 Programmer: Recall... from... Would copy work better?
- 5 LD: Uhhhh... [*SIGH*] Uh, you need to do 2 copy from [pause] copy to, if you want to [long pause] 2 copy to 1. That's what you want to do if you want to use copy. [Long pause.] Ah. [Pause.] So they've obviously been rigged the opposite way round so now pan it over the table. [Long pause.] Come on. [Long pause.] They're waiting for us so we need to be working quicker. [*Replying to someone on channel A*] That's not the point. Still needs to work quicker. [*To the programmer*] And lift it onto the table. [Long pause.] OK. And uh... put it into 50 percent frost.
- 6 Programmer: Both?
- 7 LD: Yeah. [Long pause.]
- 8 Programmer: Do you want me to make 1 a bit bigger?
- 9 LD: No. [Long pause.] It's something else, it's the colour that's the problem. [Long pause.] Uh... put them into, uh [long pause] put them into 1 2 - Lee 124, see what they think that does. [Pause.] You'll have to take it off the colour picker, doesn't exist. [Long pause.] That's correct, that was correct, yeah. [Long pause.] And put that at, uh, 30. [Pause.] 20. [Long pause.] 10. [Long pause.] 15.

The programmer yields to the lighting designer's epistemic status in an attempt to downplay this continuing professional conflict. In each of their turns in this sequence, they explicitly ask for the lighting designer's input and guidance, whether concerning programming syntax (as in turn 4) or aesthetic considerations (turns 2, 6 and 8). This epistemic stance – the use of interrogative syntax – allows the programmer to display their own epistemic

status relative to that of the lighting designer and to the topic of discussion (Heritage, 2013, p.559; Glenn, 2019, p.225), with the aim of minimising conflict. The effectiveness of this strategy can be seen in the lighting designer's turns 5 and 9. Turn 5 starts with an exaggerated sigh from the lighting designer, followed by more indicators of frustration that publicly threaten the programmer's face: "Ah"; "Come on"; "They're waiting for us"; "Still needs to work quicker". This pattern of speaking is common when the speaker holds "a higher position in the institutional hierarchy than their addressee(s), and the addressee's obligations are clear; i.e. the required action is a routine part of their responsibilities" (Holmes and Stubbe, 2015, p.34). By turn 9, however, the lighting designer has moved from these short, staccato-like commands and asides to the more "typical" instructions of plotting, even including some encouragement in the statement "That's correct, that was correct, yeah". Though it turns out to be the wrong question to ask, the programmer in turn 8 references back to the start of this excerpt (making the beam on channel 1 "a bit bigger"), perhaps in order to show that they have been following the "thread" of the exchange. They also frame the question in a way that shows they are subordinate to the lighting designer: "Do *you* want *me*" (turn 8, emphasis added). They have constructed a similar question in turn 2 ("Would *you* like *me* to"), which received a positive response from the lighting designer; perhaps they are hoping for the same in turn 8.

The other durational observations also operated in what felt like to me as an underlying state of conflict and disagreement. In D2 and D3, in particular, this tension seemed to operate on a professional level; much like in D1, there were disagreements about how and to what level of competence people were expected to execute their professional responsibilities. The lighting teams in both instances worked to militate the effects of this (on both professional and

creative levels) in different ways. In contrast, the disagreements in D4 seemed to be of a more creative nature; that is, the choreographer, lighting designer and programmer were able to verbalise and discuss creative or logistical differences without evidence (at least linguistically, or in my field notes) of any “negative assessments” (Glenn, 2019, p.227) of each other’s skill, knowledge or ability.

In D2, although the lighting plotting time had been compromised due to issues with the set and the set designer’s absence, I felt, as an outsider, that the sessions across the four days seemed very efficient and unpressured. However, according to the lighting programmer, who was a member of the in-house staff and had worked with the lighting designer a couple of times before, the production was very behind schedule and the environment was a bit stressful as a result. I only saw this manifest in the director’s language and behaviour, which at times could have been described on the surface or at first glance as impolite or rude, that is, face-aggravating or face-threatening (Bousfield and Locher, 2008; Bousfield, 2010). On the issue of face and face-work, Goffman (1967, pp.10–11) maintains that

Just as the member of any group is expected to have self-respect, so also he is expected to sustain a standard of considerateness; he is expected to do this willingly and spontaneously because of emotional identification with the others and with their feelings. In consequence, he is disinclined to witness the defacement of others. [...] The combined effect of the rule of self-respect and the rule of considerateness is that the person tends to conduct himself during an encounter so as to maintain both his own face and the face of the other participants.

In D2, the director’s critiques were often directed at stage management, who, by virtue of being on stage rather than in the auditorium, did not receive these comments directly. The director’s comments were instead filtered by the lighting designer via cans to stage management, often with solutions

(also provided by the lighting designer) attached. The director's outbursts do not tend to feature on the recordings, as they would often, though not always, retreat to a corner of the auditorium, usually with the assistant set designer or production manager, to express their frustrations. The lighting designer would then, usually without being explicitly told by the director, relay the problem and a potential solution to stage management or other necessary personnel. Of the strategies that Goffman proposes for preventing any threats to one's face is simply to avoid them altogether or to practise "certain protective measures" (1967, pp.15–16). This may have been what the director was attempting to do here. Rather than these instances necessarily constituting overtly face-threatening acts (Brown and Levinson, 1987, p.65) or face attacks (Tracy, 2008), as I initially presumed, these instances of "reasonable hostility" (Tracy, 2008) may have – perhaps unintentionally – formed a series of *face-saving* acts on the part of the director. By privately voicing their frustrations and then allowing these to be relayed over the headsets to a relatively (when compared to a full auditorium and stage) private audience, while being softened or mediated by the lighting designer, the director was not, therefore, seen to be openly attacking the professional competence of the stage management team, thereby saving both their own face and that of the stage management.

In D3, the atmosphere was often overtly very tense, particularly during the first two days: on at least two occasions, the director shouted at the lighting designer and was openly rude and disrespectful. Unlike in D2, these outbursts were directed at the lighting designer at the production desk; however, like in D2, the director offered no solutions and often had trouble articulating the precise nature of their objections, leaving the lighting designer to attempt multiple iterations of each potential solution in order to decipher the director's meaning. The programmer's input and skill were vital here in providing a

flexible framework in which the lighting designer could work, enabling them to respond to the director's demands in a fluid, dynamic and improvisatory way. The programmer also took on perhaps more responsibility for "shielding" the lighting designer from the director's professional hostility than might usually be expected from someone in this position. Transcript D3-1 (see section 5.3) is a clear example of this.

Swearing and humour

Swearing and humour can both perform similar relational tasks in workplace discourse. In the observations here, they primarily function as solidarity markers, promoting team cohesion and unity. Several of the transcripts demonstrate this level of conviviality among established teams. According to the programmer in D4, the atmosphere is usually "stressed but nice and we talk a lot of shit" (field notes, 2 October 2017). As seen in D3-1, team members often engage in playful banter ("let me know when you're being shit", turn 7) and sympathetically share grievances (the director "doesn't listen", turn 6). The relaxed nature of this dialogue, at least in this setting, helps to establish team morale, downplay status and promote a more friendly workplace setting. This is particularly important given the long hours and intense nature of the work that occurs during technical rehearsals. The existing team dynamics are equally important in determining how acts of swearing might be received (Mak, 2018, p.231). In the case of D2-2 and D3-1, there seems to be no offence caused. In fact, these instances have the opposite effect, being used instead as forms of "positive politeness" (Daly et al., 2004, p.952).

D2-2

- 1 LD: Could you put 4... Is that complete? It's just quite interesting, that first state. Can you put 38 through 40 at 50, just, uh, and 33 and 34 at 20.

- [Pause.] Great. Thank you. And could you put 401 and 402 in this, please, in 203 - I'm going to change that - and at 50 percent. [Pause.]
- 2 DSM: Standby on LX cue 45.
[Long pause.]
- 3 LD: And that's an... up... date... uhhh, that's a replot. I'm just gonna let it track 'cause that's all just going to turn into a complete clusterfuck. Um... And could you put 41 and 42 into 205-
- 4 DSM: LX cue 45...
- 5 LD: -at 20, please.
- 6 DSM: Go.

In describing their work as a “clusterfuck” (turn 3), the lighting designer is possibly use swearing as an “acceptable way of contesting or mitigating actual or perceived status differences and of defusing any tension associated with this” (Daly et al., 2004, p.960). Instances of self-deprecation are also shown in transcript D2-2, which occurs while plotting over rehearsals on stage. This follows on from the excerpt above and shows a sustained series of self-deprecating remarks from the lighting designer:

D2-2

- 13 DSM: Sorry. LX cue 49 go. That was late.
- 14 LD: God knows what's going on there now.
- 15 Programmer: Ahh, we've got some live colour happening on 92-
- 16 LD: Yeah...
[...]
- 27 LD: It's a bit of a mess, but anyway.
[...]
- 32 LD: Yeah, that was all a bit of a mess that middle section, but we'll get there.
- 33 Programmer: Yeah.

34 LD: It's in there.

There are three instances of self-deprecation in this transcript, which all come from the lighting designer: lines 14, 27 and 32. Kim (2014) states that "self-deprecating language, in which speakers lower or humble themselves toward their addressees, does not contribute to achieving the goal of communication" (p.82); that is, it is relational rather than transactional. In this case, it is interspersed with humour (see lines 20 through 23 in the full transcript) and seems to be used by the lighting designer to downplay their status, promoting a feeling of egalitarianism among the team. The talk that happens around these three instances has a sense of urgency about it and the lighting designer and programmer, in particular, try to keep up with the action on stage. It may, therefore, also function as an attempt by the lighting designer to pre-empt any criticism of the lighting states as they do not have adequate time to consider them before moving on to the next one. Other transcripts from this observation support the idea that the atmosphere was rather convivial, at times with a conspiratorial tone, as in D2-1 and later on in D2-2:

D2-1

- 1 Director: What are we going to do about that trap
[door] opening?
- 2 DSM: [*Whispers, on cans*] I don't think lighting can
help that.
- 3 LD: Most problems you can solve with light.
- 4 Programmer: Bit of [Lee] 201 and a bit of gaffer
tape. Sorted. [*Chuckles.*]
- 5 LD: Yeah. 202, generally, in mine. 202 and a CP61.
- 6 Programmer: Oh, yeah, OK.

D2-2

- 29 Programmer: This is good fun.

[LD and DSM laugh.]

30 DSM: Enjoying yourself, [Programmer]?

31 LD: It's quite nice to [suddenly whispers] be able to do our job. Call me old fashioned.

The use of in-group shorthand in D2-1 ("201 and a bit of gaffer tape", turn 4; "202 and a CP61", turn 5) and the whispered comment by the lighting designer in D2-2 further cement the feeling of solidarity among this team.

Swearing serves a similar purpose in transcript D3-1:

D3-1

5 LD: It's the conversation we had last night.

6 Programmer: But [the director] doesn't listen. Don't worry; I'll just be really shit at programming today. And then we'll just go back to the...

7 LD: Just let me know when you're being shit and when you're not being shit.

[Laughter.]

8 Programmer: Thanks, [LD]. I would hope that you would notice.

[Laughter.]

The lighting designer's comment in turn 7 could potentially be taken as an insult in another context in which the interlocutors were not as friendly with each other. Here, however, "it is as if they are saying 'I know you so well I can be this rude to you'" (Daly et al., 2004, p.960). The insult is not taken seriously, and in fact the programmer makes a joke out of it.

The lighting designer's later attempts at humour, interestingly, seem to fall flat. Over the course of transcripts D3-4 and D3-5, the lighting designer invokes a similarly sustained series of self-deprecating remarks as in D2-2 above. This is seen in turn 2 of D3-5, in which they describe themselves as "stumbling in the right direction" and in D3-4 in which they voice their

unfamiliarity with the production. In D3-7, however, the dynamic changes and the programmer undermines the lighting designer's position:

D3-7

3 LD: It's only day two. [Long pause.] Right, just, struggle, followspots, best you can. We're all struggling so that's fine.

4 Programmer: I think they're doing a great job.

5 LD: Well, yeah, I know, but, you know...

The effect of this is described previously in the section above on positive communication. What follows, however, demonstrates the effect that the programmer's talk has had on the team dynamic. The lighting designer attempts to make a joke in turn 7:

D3-7

6 DSM: All the little lighting trees are sparkling.
The light trees...

7 LD: They are starting to sparkle, yes, um... [Long pause.] You know you grow a light tree from a bulb, not from... [Long pause.]

8 Programmer: I think we made them all sparkle to prevent people from walking into them. [Pause.] Idiots. [*Laughter*]

The joke itself is a demonstration of in-group language, playing on the dual meaning of "bulb" as something planted in the ground but also a shortening of "light bulb". After a long pause, the programmer calls people "idiots" (turn 8) for walking into the light trees, which draws laughter from the rest of the lighting team. While this may seem innocuous, the programmer's insult actually serves to ensure their position in the team as, at least temporarily, funnier and thus more personable than the lighting designer. This serves to undermine the lighting designer's position at the top of the

lighting department hierarchy; the fact that no one laughed at their “bulb” joke (turn 7), which was instead followed by a long pause, in contrast to the laughter that ensued after the lighting programmer’s rather simple insult, is perhaps already indicative of this shift in the hierarchy. In fact, a look at the other transcripts from this observation will show this is part of an ongoing campaign (whether intentional or not) by the lighting programmer throughout this observation: in D3-1 through the programmer leading the subversive action against the director (turn 6); in D3-3, in the programmer’s frustration with the lighting designer (turn 4); in D3-4, in the programmer’s defensive response to the lighting designer in turn 4; earlier in D3-7 (turns 1 through 5, as described above); and in D3-8, in which the programmer both pre-empts and overrides the lighting designer’s instructions. The lighting designer is thus forced to maintain their authority in the midst of these constant challenges from the lighting programmer, while also defending their creative integrity to the director (as described in section 5.3 below).

5.3 Creative relationships

Moran and John-Steiner (2004) argue that “[r]elationships require a certain stability for participants to anticipate preferences and acts and to find common ground” (p.14). Building a creative partnership can take years; collaboration is more than what Bratman (1992) calls “shared cooperative activity”. That is not to say that cooperation and collaboration are mutually exclusive states of being or at opposition with each other. Rather, they can be seen as points on a spectrum (see below and section 2.3 for more on the distinction between the two). Goffman (1967) maintains that “tacit cooperation will naturally arise” in all social interactions as individuals seek to maintain “positive social value” (p.5) or “play the face-saving game” (p.31).

Investing in a long-term relationship clearly has implications for the communicative potential of lighting teams. About her relationships with designers, director Katie Mitchell states, “I don’t like new relationships because you have to waste a lot of energy shaping the relationship and you can’t work so easily because you’re learning the person” (Rebellato, 2010, p.329). Likewise, director Michael Grandage says that developing and creating an aesthetic with a small group of people is “the single most exciting part of being a director” (quoted in Shepherd, 2012, p.190):

I use about four or five designers, only about two lighting designers and two composers – and that’s over fifteen years. You start to develop a language with these individuals that comes out of a deep understanding with each other. If each time you start a fresh relationship, you’re spending quite a lot of time just getting to know each other. If you start a project with people who all know each other’s tastes, the new bit is the play. And then you pool all your collective knowledge in the interpretation. (Grandage; quoted in Shepherd, 2012, p.190)

As both Mitchell and Grandage allude to, the time it takes to effectively learn and become comfortable with a new designer means that the relationship will necessarily not have the same depth and wealth of commonality as a more established relationship. Still, the time and effort needed to cultivate this level of collegial intimacy should be seen as a valuable investment in a creative relationship. Similar to the director–designer dynamic explained above, in-house programmers working with freelance designers may take longer to establish effective interpersonal relationships and a shared vocabulary that facilitate collaboration.

Collaboration and cooperation

The distinction between cooperation and collaboration, and the ways in which they are dealt with, as detailed previously in section 2.3, can be further explicated through several contrasting instances from my fieldwork.

In transcript D1-2, during the focus session, the lighting designer actively involved the lighting crew in the creative decisions that motivated the placement of lanterns and their focus. This not only allowed the lighting designer to take advantage of the in-house team's more detailed knowledge of the venue, including its limitations and possibilities, but it also gave the lighting team a sense of shared ownership of the creative process: they became intrinsically invested in the lighting design through this seemingly minor allowance from the lighting designer. The lighting designer was then better placed to take advantage of the cumulative knowledge of their team in executing their design. In contrast, the director of D3 behaved in a fairly dictatorial manner. The lighting designer was provided with images from the production's previous incarnation and often seemed to be simply reproducing what had come before, reducing their role in many cases to that of a facilitator. Not only did this prove frustrating for the lighting designer (as well as the associate lighting designer and the lighting programmer), it was also largely self-defeating for the director, who was in effect actively denying themselves access to the lighting designer's creativity and expertise. In instances when the lighting designer – or, indeed, the lighting programmer³² – did attempt to exercise some level of creative agency or input over and above mere facilitation, this was curtailed by the director (see the discussion of transcript D3-1 in section 6.3 for more details on how this played out during the technical rehearsal). According to my field notes, this led to another instance in which creative decisions were mooted against the director's wishes (transcript D3-2). In both instances, members of each team might maintain that they were working collaboratively; however, it is clear

³² For instance, multiple moving effects created by the lighting programmer were cut from the show at the director's insistence.

from the latter example that more than mere cooperation is needed for collaboration.

This continuum between cooperation and collaboration can be further demonstrated in transcript O5-1. As the transcript below shows and as also noted in my field notes, the programmer would frequently pre-empt syntax patterns. For example, after being asked to record a cue, the programmer always followed this by pressing [TIME] and waiting for the lighting designer to give them the cue time. There was clearly a pattern that had been established that the programmer had learned and was responding to.

The programmer similarly pre-empted the lighting designer's instructions concerning more aesthetic matters, as in O5-1 below. This occurred during a plotting session before the penultimate technical rehearsal session started. While the lighting designer and programmer are working closely together here, and the programmer is clearly exercising a degree of input, this interaction is more cooperative than collaborative:

O5-1

- 1 LD: So in this cue we should bring up...
- 2 Programmer: 33?
- 3 LD: Yep, 33.

These instances are examples of cooperation or perhaps what Kutz calls "jointly intentional action": "the action of individuals who intend to play a part in producing a group outcome" (2000, p.16), rather than true collaboration. Collaboration is "a fundamentally different kind of interaction from the simple exchanges that occur among work acquaintances" (Moran and John-Steiner, 2004, p.11). It is not merely enough in collaboration to simply participate in a joint activity as part of a group (as in O5-1), even if participants are responsive to and support each other's actions (as in Bratman's (1992) shared cooperative activity). In these examples, the

programmer is using their knowledge of what has come before and using this to respond to the present in an instinctive manner. The ability to both learn and act on the lighting designer's preferences in a way that is not obtrusive or does not overstep professional boundaries is a key skill for the lighting programmer and demonstrates a tacit understanding of the underlying professional and organisational structures at play during the technical rehearsal. The difference I wish to articulate here between cooperation and collaboration (and, perhaps, as a result, shared thinking) lies in the nature of the exchanges, as well as the nature of the relationships. In O5-1, the programmer continues the lighting designer's incomplete utterance in turn 1; this continuation is known as a "compound contribution", or what Pickering and Garrod (2009) refer to as a "complementary response", which implicitly indicates that the interlocutors share a common ground. As Richards (2006) warns, however,

It would be tempting to interpret such intimately coordinated talk, woven tightly from repetition and shared completion, as evidence of shared thinking, but this would be illegitimate. (p.168)

Richards (2006) cites Edwards' (1997) assertion that coordinated talk is not a guarantee of joint intentionality, nor of shared cognition. Clark and Brennan (1991) maintain that in order to advance dialogue in a way that allows for cross-person compound contributions such as these, a process of "grounding" must occur (p.221). Grounding involves responses of confirmation or acknowledgement – for example, "yes" or a nod – that indicate understanding. It is part of an iterative process in which a common ground between interlocutors incrementally emerges. The lighting programmer's continuation in turn 2 of O5-1 ("33?") is both a way of demonstrating that they have grounded what has come before (in this case, a lantern that has been brought up in a similar state or used in a similar way previously) and of using that

knowledge to further their common ground with the lighting designer. This cooperative action occurs in response to the lighting designer's initiation "So in this cue we should bring up" (turn 1), and the lighting programmer's reply is built off this prior turn based on patterns in programming syntax that have previously occurred. The lighting designer maintains control over the programmer's continuation, as seen in the confirmation in turn 3 ("Yep, 33"). Other examples of grounding can be seen in many of the transcripts: in turns 2, 4, 8, 10, 13, 14, 16, 18, 20, 22, 28 and 33 of D4-1, for example, as well as many others.

Consider, however, a similar exchange in D3 in which the programmer also pre-empts the lighting designer's instructions:

D3-8

- 1 LD: Can we just add, uh, into this... uhhh... [Long pause.]
- 2 Programmer: The [location] prosc?
- 3 LD: No. [Long pause.] Look, we've got it in.
- 4 Programmer: I've just added it in.
- 5 LD: No, no, no, that's not what I meant, though, that's brilliant, but can we also bring in 43 and 46 and just light a bit further up into those guys up there?

In the previous exchange from O5-1, the programmer was pre-empting an established pattern and using their initiative to anticipate a syntactic, practical request. In contrast, the programmer in D3-8 is effectively acting as the associate lighting designer and taking creative rather than practical decisions. While the lighting designer agrees with what they have done ("that's brilliant", turn 5), it is also not what they had in mind; the programmer has anticipated the lighting designer's instructions incorrectly ("No, no, no, that's not what I meant", turn 5). There is a danger in this type

of relationship, in which the boundaries in professional expectations are blurred, of the programmer imposing their own aesthetic over that of the lighting designer's. This ambiguity is due in part to the lack of an established job description in the UK for both lighting programmers and associate/assistant lighting designers; programmers, in particular, sit – sometimes awkwardly – in the space between the creative and production teams or, indeed, in both teams simultaneously. Despite this ambiguous demarcation of responsibilities, this interaction more clearly demonstrates a collaborative – rather than cooperative – approach to the process than does that in O5-1.

There are many instances as well of how decisions that affect a production's aesthetic are essentially made unilaterally by the director, either bypassing collaborative discourse entirely or by attempting to frame a request in a kind of "pseudo" collaborative way by soliciting others' input to a problem with minimal intention to utilise it. Take, for example, transcript O2-2, which is also described in further detail in section 6.4.

O2-2

21 Director: - do you know what I mean?

[Pause.]

22 LD: Well, it's very useful for these lights as well, actually.

23 Director: It is, but if one of them's doing the work, then it wouldn't matter, would it?

24 LD: Yeah. Yeah.

25 Director: I just think it could be a really valuable thing to have in all the time.

26 LD: Yeah.

[Long pause.]

27 Director: OK, let's plot this in.

There is a short pause following turn 21, in which the lighting designer is perhaps contemplating their response or considering the director's suggestion. When, in the long pause following turn 26, there is no further disagreement voiced, the director swiftly brings the conversation to a close, using their "legitimate power" (Spencer-Oatey, 2008, p.35) to shut down any further disagreement or disparity in opinion. Such a move, according to Schegloff and Sacks (1984, p.73), is necessary to mark the boundaries of the conversation. Without this definite closing, the long pause that precedes this turn may be interpreted as merely a silence or pause in the lighting designer's final utterance (turn 26). Rather than allowing for the lighting designer to continue this utterance, however, the director closes the conversation and effectively controls its parameters, signalling to the lighting designer (and designer) that no response, insofar as it would be a continuation of the exchange that has come before, is necessary, thus shutting down any further attempts at collaborative discussion.

Agency and autonomy

As Eteläpelto et al. (2013) claim, professional agency "has mostly had very positive connotations for creativity [...] motivation, well-being, and even happiness" (p.45). Even more importantly, they state that "professional agency is needed especially for developing one's work [...] and for the renegotiation of work-related identities in (changing) work practices" (Eteläpelto et al., 2013, p.62). The importance of allowing professional agency to be exercised can be seen across several of the transcripts, analysed below.

The design for D4 included some complicated pixel mapping sequences that sometimes proved difficult to realise, even given the lighting programmer's considerable skill and expertise, and were often equally difficult to articulate (see also transcripts D4-1 and D4-2). This level of complexity, however,

meant that the programmer exercised a high degree of autonomy in how they programmed these sequences to obtain the desired end product. However, this sometimes led to a blurred sense of the ownership of the work. The lighting designer explained the effect they wanted to the programmer, who spent several minutes creating the desired effect. When showing it to the choreographer, the lighting designer said:

D4-3

- 1 LD: And then what I've done is - and that's a group of lines on each side. Then I've added another group of lines that goes here as well, so you multiply. And then all the lines go all in that direction.
- 2 Choreographer: Why did you do it that way?
- 3 LD: Because I just felt like we were doing diagonal sweep this way a lot, but we can reverse it and they all go that way - that doesn't matter.

When it transpired that the choreographer wanted to try the effect in reverse:

D4-4

- 1 LD: At the moment, they're going that way, so I'll have to reverse it if you want that.

What the lighting designer has done in both these examples is replace what should be a first-person plural pronoun (e.g. we, us) with a first-person singular pronoun (e.g. I, me). The lighting programmer has, in fact, done the work; they have spent a significant amount of time and effort in translating the lighting designer's ideas and abstract language into syntax, numbers and cue lists. Using the first-person singular here ("And then what I've done is", "Then I've added", D4-3, turn 1) denotes both ownership and proximity, shifting the perceived identity of the lighting designer, and therefore that of the lighting programmer, whose work has been appropriated by the lighting

designer. This raises interesting questions about authorship and ownership of creative work, which are related to the cooperation/collaboration spectrum discussed in section 2.3. One of the challenges of collaborative working identified by Moran and John-Steiner (2004) is the issue of ownership, both a motivator of and source of conflict in creative collaboration. As Mermikides notes, “there is occasionally an uncomfortable ambiguity in the way in which the authorship of group-created work [is] represented” (2013a, p.62). Moran and John-Steiner point to two fundamental factors that therefore must underpin all collaborative work: “sharing and trust” (2004, p.21). These qualities can be seen in the relational talk of transcript D4-6.

In the excerpt below from O2-2, there are several instances of hedges (“I mean”, turn 19, and “I just think”, turn 25) and tag questions (turns 21 and 23) that follow the director’s main criticism in turn 19, as if they are still anticipating disagreement from the lighting designer. However, the opposite happens: either the lighting designer actually agrees with the director’s proposal or they merely *decide to agree* with it, perhaps realising that the director’s mind is made up. This deployment of “powerless language” to exercise control can also be seen in the director’s use of tag questions – formulated in such a way that expects agreement from the lighting designer.

O2-2

19 Director: I mean, it will keep the shadows, but, yes, but also if we – because, frankly, there’s tonnes of light, even if we ended up losing it, that just slightly goes to the middle of the slash and not much to the edge of the stage –

20 LD: Yeah.

21 Director: – do you know what I mean?

[Pause.]

- 22 LD: Well, it's very useful for these lights as well, actually.
- 23 Director: It is, but if one of them's doing the work, then it wouldn't matter, would it?
- 24 LD: Yeah. Yeah.
- 25 Director: I just think it could be a really valuable thing to have in all the time.
- 26 LD: Yeah.
[Long pause.]
- 27 Director: OK, let's plot this in.

Tag questions are utterances such as "isn't it?" or "don't you think?" that are tagged onto a sentence, often at the end (see turn 23 in O2-2 above, for example). Several studies have linked tag questions to a decreased perception of the speaker's competence (Bradac and Mulac, 1984), credibility (Hosman, 1989) and persuasiveness (Holtgraves and Lasky, 1999). However, despite the association of these linguistic characteristics with a non-assertive speaker, the term "powerless" can be misleading. Thomas (1989), for instance, notes that tag questions can be used to elicit "forced feedback" in exchanges "when no *verbal* acquiescence is proffered" (p.150; emphasis in original) by the subordinate participant in a conversation. Similarly, Harres (1998) found that tag questions are used by doctors (i.e. those in a powerful position in a medical context) "to elicit information from patients" and "to establish rapport [...] yet also to maintain *control* of the interaction" (p.111; emphasis added). This is the case in transcript O2-2, particularly towards the end of the exchange (turns 21 and 23). Throughout this conversation, the lighting designer and designer respond to each of the director's turns almost exclusively with solely "Yes" or "Yeah"; even those turns that are longer than this still begin with "Yeah" (turns 4 and 16). Turn 22 is the only reply from the lighting designer or designer that doesn't begin with "Yeah",

though it does begin with the discourse marker “Well”. To me, this turn is about the lighting designer not simply allowing the director to unilaterally implement their proposal; by claiming that this change would be “very useful for these lights as well” and tacking on the intensifier “actually” (turn 22), the lighting designer also attempts to “own” this change. However, in their next turn the director effectively halts this through the use of the tag question “would it?”, reflecting their provocative claim that the lighting designer’s assertion in turn 22 “wouldn’t matter” (turn 23). This is a clear example of how so-called “powerless” language, when used by those in powerful or authoritative positions, can continue to control the creative landscape.

A study by Blankenship and Craig (2007) found that the perceived credibility of the source of the tag question (that is, the speaker) increased persuasiveness: “credible sources who used tag questions paired with strong arguments resulted in more favorable attitudes than high credibility sources who did not use tag questions” (p.115). The authors concluded that there are contextual factors, such as the *previously* perceived credibility of a speaker and the quality of their argument, that can change the influence of a tag question, traditionally seen as a marker of powerlessness, to one of powerfulness – at least in the perception of the utterance’s recipient.

Transcript D3-1 demonstrates one strategy for realigning control and authority in order to support the whole group. In D3-1 we can see a clear example of how the lighting programmer – a role that often sits between the creative and production teams or, indeed, in both simultaneously – uses their professional agency to support the work of the lighting designer and wider production team.

D3-1

- 1 LD: This is the new, slower tech style, isn't it?
- 2 Programmer: We are, absolutely. And I am more than happy to cop some of the flak for that. I will go slower if I need to go slower.
- 3 LD: It's just - it's a request from everybody.
- 4 Programmer: Good. I just - it's mad.
[...]
- 5 LD: It's the conversation we had last night.
- 6 Programmer: But [the director] doesn't listen. Don't worry; I'll just be really shit at programming today. And then we'll just go back to the...
- 7 LD: Just let me know when you're being shit and when you're not being shit.
[Laughter.]
- 8 Programmer: Thanks, [LD]. I would hope that you would notice.
[Laughter.]

This transcript comes from the second day of technical rehearsals, after a particularly hurried first day. In speaking with the lighting team before the start of this session, I learned that the design and production team felt that the speed of the first day had not given them adequate time to focus on the design elements, specifically lighting, or some of the more technical, pragmatic elements such as scene changes. This had been discussed in the pub after rehearsals had finished on the first day, without the director present, and there was a general feeling among the creative and production team that the director was more concerned about the dancers and the choreography than the design.³³ The creative team, therefore, along with the

³³ This is further evidenced later in my field notes. There were several flown set pieces with built-in, individually wired lamps, and the programmer had previously spent an entire session programming a variety of effects for these. The director

deputy stage manager, decided to forcibly slow down the technical rehearsal to ensure enough time was spent on the technical and design elements from day two.

During the exchange in D3-1, the director was located at another production desk in the stalls, closer to the stage, and was not on headset, so was out of hearing range. As stated, the director had not been consulted about the proposed change of pace, and the creative team (led by the lighting programmer) was effectively subverting the director's authority in a subtle but highly coordinated way. This subversion of power and authority can be linked to the related idea of control, as below.

As we can see in D3-1, occasionally the person in the "powerful" position (that is, higher in the normative theatre hierarchy – here, the director) does not exercise control over the conversation or situation. Scheepers et al. (2011) argue that "power in groups also implies *responsibility* for the outcomes and goals of the group" (p.239, emphasis in original), particularly in groups with high levels of interdependence in decision-making. This can clearly be seen in D3-1: the lighting programmer takes responsibility for the conditions in which the artistic and technical output of the wider team may be realised by taking control of the situation with the group goals in mind; they are exercising their individual agency for the benefit of the larger group of which they are a part.

immediately rejected the use of the effects, saying, "Oh no. They should be static. The animation comes from the dancers" (field notes, 7 March 2017). The lighting designer eventually convinced the director to let them include some subtle movement, but this came with a caveat from the director: "We'll see what it looks like. I just don't want it to compete with the dancers" (field notes, 7 March 2017). The persistent imposition of limitations such as these led to another instance of potential subterfuge that threatened to occur against the director's wishes (transcript D3-2).

It is notable that it is the lighting programmer who either has been designated or has volunteered to lead this shift in control. The programmer states, “I will go slower if I need to go slower” (turn 2), and while this is clearly a deliberate choice on the part of the programmer, the blame for the lack of speed can easily be apportioned to the lighting console itself – the interface between the programmer and the actual lighting fixtures on stage and, crucially, an inanimate object. The level of sophistication of both the console and the lighting equipment provides the programmer with a “buffer” for what could be seen by an outsider as the programmer’s lack of skill or ability; the potential capacity for the technology to fail or be otherwise difficult to manipulate (independent of the programmer) provides a convenient and “safe” way for the programmer to maintain their professional standing without fear of repercussions. The fact that this labour is both largely unseen and not understood by those without this specialist knowledge adds to this defence. The programmer is also clearly free to choose when to “be really shit at programming” (turn 6), meaning they must constantly “read” the situation and respond accordingly and in a way that does not upset the overall dynamic of what is already a fairly tense environment (see section 4.6 in reference to the director’s treatment of the lighting designer); they will only “go slower *if* I need to go slower” (turn 2, my emphasis).

What is also particularly striking about D3-1 is the extent to which the programmer is willing to take responsibility and potentially endure criticism (or “cop some of the flak”, turn 2) from the director for their actions, thereby saving the lighting designer’s personal and professional face should they be challenged. Goffman (1967) maintains that such face-saving action is easier for those whom he calls “socialized interactant[s]” (p.36) or those who have learned the ritualised actions, conventions and interchanges that take place

in interactions. This is a clear example of how “face is closely related to a person’s sense of identity or self-concept: self as an individual (individual identity), self as a group member (group or collective identity) and self in relationship with others (relational identity)” (Spencer-Oatey, 2009, p.14). By virtue of their being “lower” in the traditional hierarchy than the lighting designer – particularly from the director’s point of view – the lighting programmer is one degree removed from the director, so can act as a “buffer” for the lighting designer. Even though the lighting programmer is often physically located at the production desk next to the designer, they can be seen to be an “invisible presence” or “non-present” other, as directors usually interact with the lighting designer rather than with the programmer. This, again, affords the lighting programmer an ability to act in ways that would potentially be seen as inappropriate or even in direct conflict with those “higher” in this production’s hierarchy (see also in Hunt and Melrose, 2005). The programmer’s willingness, therefore, to put the designer’s artistic and professional integrity above their own in defence of the production’s aesthetic needs speaks volumes about the programmer’s empathy – an attribute that far exceeds the minimum expectations of their role – and is a manifestation of their professional territory and standing, which allow them to take this decision to the benefit of the lighting designer and the production as a whole. The longstanding nature of the programmer’s relationship with the lighting designer affords them this flexibility in challenging the hierarchy that is usually at play within both the lighting team and the larger production team.

For those who have a more occasional working relationship than that shown in D4, subverting this established hierarchy – or asserting one’s own creative agency – can be a challenge. O2-2 occurred during an evening plotting session, the third such session of the day. I will examine this transcript in two,

interrelated ways: first, focusing on the mitigating strategies used (hedges, hesitations and delays) and second, in terms of the ways in which both parties advocate for their own aesthetic preferences. Throughout this transcript, the director is attempting to get the lighting designer to agree to a change, though it is unclear what exactly the parameters of this change are until quite late in the exchange. The set for this production was on two levels, with silvery slash curtains on three sides around the lower level. On stage left and stage right were hung trapeze lighting bars, just over head height, in order to provide side light. It is this arrangement that the director is referring to in O2-2.

This excerpt starts in a way that suggests the director may have already been thinking for some (indeterminate amount of) time about an appropriate way to bring up this topic. It is part of a rapport management strategy that Spencer-Oatey (2008) calls a “mitigating supportive move” (p.22), in which a request is prefaced by a “preparator”.

O2-2

- 1 Director: I have a question for you-
- 2 LD: Yeah.
- 3 Director: Which is... [Pause.] Uhhhh... [Pause.] I'm wondering whether - is it the upstage one that is the slash [curtain] that goes across the lights?
- 4 LD: Yeah. Deliberately.

The director uses a preparator (“I have a question for you”), which gives a very clear signal that this marks the start of a new topic and a shift of focus, rather than being related to or a continuation of anything that has come before this. In conversation analysis, this is known as a “pre-expansion”, which helps to “limit the likelihood of overt misalignment or disagreement” (Glenn, 2019, p.218). The emphasis on “you” is presumably designed to get the lighting designer’s attention and/or to clearly signal a change in

addressee. Immediately preceding this the director had been doing some work with the stage managers (who were filling in, or “walking” in place of the actors), placing them in specific locations on the stage to check both lighting and sight lines. This activity may have triggered the interaction in transcript O2-2; equally, it could have been something that the director had been contemplating for a while. Either way, turn 1 marks a very clear transition in the director’s attention and the focus of the technical rehearsal.

The director starts their next turn (3) with a false start that trails off (“Which is...”), which is followed by a pause, then an elongated hesitation (“Uhhhh”), another pause, a hedge (“I’m wondering”) and a question. Turns 1 and 3 are merely the start of what is a series of delays, hedges and a significant amount of talk on the part of the director before arriving at the crux of their concern, which finally occurs halfway through turn 19. To get there, however, the director employs multiple scoping and mitigating tactics. There are multiple hedges – for instance, “I’m wondering” occurs twice (turns 7 and 13) and “just” occurs three times in one turn (turn 13). The director attempts on several occasions (turns 9, 13 and 15) to employ “strong hints: [the] utterance contains partial reference to objects or to elements needed for the implementation of the act” (Blum-Kulka and Olshtain, 1984, p.202). The delay in getting to the director’s point in turn 19 may be exacerbated by the lighting designer’s reply in turn 4. The addition of the word “Deliberately”, which is added by the lighting designer swiftly after the standalone “Yeah”, is perhaps pre-emptive: the lighting designer may suspect, due to the directors’ hesitations, that the ensuing conversation will involve moving or perhaps even cutting the curtain or the lanterns or otherwise altering the lighting.

O2-2

- 3 Director: Which is... [Pause.] Uhhhh... [Pause.]
I'm wondering whether - is it the upstage one that
is the slash [curtain] that goes across the lights?
- 4 LD: Yeah. Deliberately.
- 5 Director: Is there one on one side and one on the
other?
- 6 LD: Yeah.
- 7 Director: And that's what you've got, [PM], one on
each side? I'm just wondering, [designer]...
- 8 Designer: Yes.
- 9 Director: Whether we should have had a touch of one
of them at a much lower level on a lot of the time.
- 10 Designer: Yes.
- 11 Director: I mean, I love the fact that you can have
it - the slash -
- 12 Designer: Yeah.
- 13 Director: You know. I'm wondering whether at some
point we should just go through and look at a lot
of these interior scenes and just touch it in
because it just gives a kind of life to the space.

The director's questions in turns 3, 5 and 7 are part of a process of information gathering, confirming the information they need to continue with their line of inquiry. These questions could be a genuine attempt at confirmation (i.e. the director is ensuring they have the correct information before proceeding), or this could be a conspicuous "demonstration" of this confirmation on their behalf, making it obvious to the listening lighting designer that the director has the information relevant to the upcoming request. In turn 7, the director redirects their attention, first to the production manager (PM). Without a verbal confirmation from the PM (there may have been a nod or other affirmative gesture), the director redirects once again,

this time to the designer, and sets out their plan to “just touch [the curtain] in” (that is, so it is more visible) in order to give “a kind of life to the space” (turn 13). There are two possible, interrelated, reasons for this redirection. The first is that the change the director has in mind (moving the curtains and/or the downstage lanterns, and increasing the intensity on the upstage lanterns) will affect the aesthetics of the stage space. This is clearly the designer’s domain as well, and the director recognises this is a decision that they cannot make unilaterally. The second potential reason has to do with the hierarchical placement of the designer over the lighting designer. The lighting designer has already, in turn 4, indicated that the placement of the lanterns offstage of the slash curtain is intentional and is therefore perhaps less likely to be amenable to change; therefore, the director is already expecting a dispreferred response to their upcoming request. By going over the lighting designer’s head, as it were, the director is perhaps hoping that the designer will be more acquiescent. As it happens, the director encounters little resistance from the designer. Directives and requests such as in this sequence, claims Spencer-Oatey (2008, p.19), need to be carefully managed. These “rapport sensitive speech acts” have the potential to “affect our autonomy, freedom of choice and freedom from imposition” even if “we simply feel inconvenienced or imposed upon, but do not feel we have lost credibility or been devalued” (Spencer-Oatey, 2008, p.19). The director navigates this request carefully through a series of mitigations as shown above.

O2-2

15 Director: And then it hits the sides as well.

16 LD: Yeah. But also it’d go through the slash and create shadows.

17 Director: Uh huh. Yeah. I’m hoping when that one’s hanging properly -

18 LD: Yeah.

19 Director: I mean, it will create shadows, but, yes, but also if we - because, frankly, there's tonnes of light, even if we ended up losing it, that just slightly goes to the middle of the slash and not much to the edge of the stage -

20 LD: Yeah.

21 Director: - do you know what I mean?

[Pause.]

22 LD: Well, it's very useful for these lights as well, actually.

23 Director: It is, but if one of them's doing the work, then it wouldn't matter, would it?

24 LD: Yeah. Yeah.

25 Director: I just think it could be a really valuable thing to have in all the time.

26 LD: Yeah.

[Long pause.]

27 Director: OK, let's plot this in.

Having notionally received the designer's agreement through a series of "Yeah"s, the director returns to the lighting designer in turn 15, in which they offer up a potential benefit for the lighting: the light would "hit the sides" of the stage as well. The lighting designer responds with what they see as a consequence of the director's plan: the light would "go through the slash and create some great shadows" (turn 16). This is clearly of secondary importance to the director; they are concerned with the "tonnes of light" in the centre of the stage and "not much to the edge of the stage" (turn 19). It is in this turn that the director finally gets to the heart of the exchange, but they do not abandon their mitigation strategies altogether until turn 25. In turn 19, having not, up until this point, received much leeway from the lighting designer, the director is forced to be more direct than they have been in the

preceding turns (“because, frankly, there’s tonnes of light, even if we ended up losing it...”, turn 19). Their tone then softens slightly in turns 21 and 23 with the addition of the tag questions (“do you know what I mean” and “wouldn’t it?”) and even further with the return of a mitigating “just” and the modal verb “could” (with emphasis) in turn 25.

In the final section of this transcript we can see the outcome of this interaction with particular focus on orders and directives and how these contribute to rapport management.

O2-2

- 22 LD: Well, it’s very useful for these lights as well, actually.
- 23 Director: It is, but if one of them’s doing the work, then it wouldn’t matter, would it?
- 24 LD: Yeah. Yeah.
- 25 Director: I just think it could be a really valuable thing to have all the time.
- 26 LD: Yeah.
[Long pause.]
- 27 Director: OK, let’s plot this in.

How this final section of the interaction is analysed has much to do with how one defines a directive and how this differs from a request – and if either are, in fact, occurring here. Saito and Cook (2018) provide a range of definitions from other researchers, noting that many have settled on something akin to “getting an addressee to do something” (p.203), blurring the boundary between a directive and a request. I am here using Craven and Potter’s (2010) definition of directives: “an action where one participant *tells* another to do something” (p.420, emphasis in original). They distinguish this from a request: “an action in which one participant *asks* another to do something” (p.420, emphasis in original). The analysis of this exchange can therefore point

to clues about the relative power of the speaker and the addressee (Ervin-Tripp, 1976) by examining the addressee's right to refusal (Vine, 2004), the expectation of the addressee to comply (Vine, 2004) and the speaker's level of entitlement (Curl and Drew, 2008; Craven and Potter, 2010).

The lighting designer finally picks up on the director's requested change and its implications in turn 16: the director wishes to move the downstage lanterns offstage of their respective slash curtains to mirror the upstage lanterns, and also for the intensity of the upstage lanterns to be increased. The former is confirmed in turn 17: "when that one's hanging properly" implies that the downstage lanterns are not currently in their "correct" (changed) position. The latter is confirmed in turn 23: increasing the intensity of the upstage lanterns means that these would be "doing the work", hopefully mitigating the effect of the shadows created by light from the downstage lanterns. What is interesting here is that the director does not have to explicitly demand or request that the lighting designer make these changes; the expectation to both agree to them and to act on them is implicitly understood through the preceding conversation due to the behavioural expectations of the speakers' roles and positions in the hierarchy. Furthermore, the lighting designer, despite their warning about shadows (turn 16), appears to have no right of refusal in this transaction. Even their attempt to rationalise the change in turn 22 is met with a dismissal from the director ("it wouldn't matter, would it?", turn 25). Despite the absence of a clear directive, due to the large number of mitigations, this exchange exhibits the characteristics of directive usage identified by Vine (2004, p.28): the speaker holds a higher status, the hearer has no right of refusal and the directive results in a benefit to the speaker. Interestingly, Vine does categorise both directives and requests as "control acts" (Vine, 2004, p.28).

In the final turn (turn 27: “OK, let’s plot this in”), the director is referring to the lighting state that is on stage (which, as noted, they had been working on prior to the exchange in O2-2), not the moving of the lanterns or the increased intensity levels, which have not happened yet, though there is clearly the expectation that both of these things will happen. Again, the director does not have to explicitly request or demand that these changes are made. This is instead used as a way to signify that the discussion is over and that the technical rehearsal can recommence. The discussion is thus bounded by very clear beginning (turn 1) and ending (turn 27), at least for the director.

However, because “directive acts commit the speaker or interlocutor to a certain verbal or non-verbal behaviour in the future” (Schneider, 2010, p.255), this conversation will result in additional work for the lighting department, and the expectation will be that this work is completed before the start of the next session (in this case, the next morning). As a result of the director’s concerns here, the trapeze bars were cut and replaced with small booms, placed offstage of the slash curtains. While this did aid the aesthetic of the stage design, placing the lanterns offstage of the slash curtain also created some shadows across the stage (as the lighting designer noted would happen in turn 16).

5.4 Summary

The preceding three sections in this chapter are linked by their focus on the people and interpersonal, interprofessional and intraprofessional (Linell, 1998) ways in which language is used during the production period. The transcripts and explanations thereon join and extend existing research in rapport management and sociability rights (Spencer-Oatey, 2008), power and politeness in the workplace (Vine, 2004; Holmes and Stubbe, 2015), control and status (Vine, 2010), interpersonal pragmatics (Locher and Graham, 2010),

and the nature of creative relationships (John-Steiner, 2000; Moran and John-Steiner, 2004).

The examples in this chapter have demonstrated the importance and interrelation of personal and professional discourses on the working relationships that comprise technical rehearsals. As we have seen, both are integral to building and maintaining effective working relationships. In section 5.1, the transcripts demonstrated how personal discourse is an essential foundation for enacting professional rapport and trust. Section 5.2 looked more closely at some of the linguistic strategies that were used in the observations – in particular, in terms of positive communication, conflict, and swearing and humour – and the effects that these forms of talk had on developing positive working relationships, building solidarity, defusing potentially tense situations, and negotiating status and hierarchy. In section 5.3, creative relationships were analysed by observing the continuum that exists between cooperation and collaboration – and how these are enacted – and the effects of agency and autonomy on the working environment of the technical rehearsal.

In attempting to answer my research questions, this chapter addresses questions 1 and 3 most explicitly. The importance of personal discourse (relational talk) links all three of my research questions: in encouraging creative dialogue, articulating artistic intention and facilitating relationships. In particular, the somewhat thorny issue of what is meant by “effectively” in research question 1 and the role of language in navigating individual versus group agency in research question 3 have their roots in the use of relational talk in establishing positive workplace relationships and rapport between colleagues. This foundation is crucial and is the basis on which effective professional discourse is built.

On a personal level, lighting designers, directors and lighting programmers have a variety of linguistic strategies to draw on to enable and facilitate dialogue at the production desk. Individually, these may seem insignificant, but taken together they form the basis for cooperative working practices, for the creation and maintenance of an environment in which lighting designers and lighting programmers can enact creative and authorial agency, and for productive creative discussions, including those with degrees of conflict. Specifically, this chapter argues that the construction of personal and professional relationships is a process that is essential for creative collaboration and shows how this is enacted through language. This process can clearly be traced through, for example, the transcripts that come from observation D3, in which the lighting designer and lighting programmer (who exercises considerable professional and creative agency) are continually vying for authority. There is no single strategy that characterises their interactions; rather, it can be seen in the way that compliments are both given and undermined (D3-7), in how the programmer pushes the limits of their professional agency (D3-1 and D3-8), and in how swearing and humour are used to subvert professional hierarchies (D3-1 and D3-7).

The positive communication strategies (Mirivel and Fuller, 2018) of complimenting and disclosing were shown to have an effect on personal relationships, forming the foundation on which professionals can “build solidarity and enact and negotiate power and identity through their discourse in the workplace” (Vine, 2010, p.329). Compliments, however, were also offset by downgraded assessments (as in O7-5), self-deprecation (for example, from the lighting designer in D2-1 and D2-2) and subversions of authority through humour (D3-7), providing empirical evidence of the challenges inherent in compliment response (Golato, 2003; Kim, 2014; Pomerantz, 1984; Sifianou, 2012).

Professional conflict, while perhaps not particularly conducive to a harmonious work environment, can nevertheless be instrumental in bringing to light the ways in which colleagues balance their interactional goals with carefully managing relationships, i.e. how people get things done at work in the face of conflict or in less than ideal working conditions. For instance, there were marked differences in the overt enactment of conflict related to status in D1 and the avoidance of this overtness as a face-saving exercise in D2. In both cases, the sources of conflict were eventually resolved; however, in the latter, this was done while maintaining a workplace environment that did not suppress collaborative ways of working and professional agency, whether intentionally or otherwise.

Swearing and humour were shown to be particularly effective at levelling the status of group members and for building and maintaining good working relationships and solidarity between colleagues quickly. The “jocular abuse” (Holmes and Stubbe, 2015, p.117) demonstrated in observation D3, in particular, served to mark in-group membership and build camaraderie among colleagues. This ability is particularly useful for lighting designers and programmers who find themselves having to constantly negotiate new institutional and organisational boundaries as a necessary part of their careers. This solidarity helps form the basis for a collaborative workplace culture, enabling higher-status individuals to “do power” in a socially acceptable way while also allowing lower- or equal-status members of the team to challenge authority in a face-saving way. The ways in which this impacts the dramaturgical potential for light as a scenographic material will be furthered explored in Chapter 8; for now, it is noteworthy that observation D4 served as an excellent example of both a positive working environment and one in which light (and by extension the

lighting designer) was allowed – even encouraged – to take prominence in the production.

The exercise of agency, autonomy and power was shown to be the result of a delicate balance between managing conflict, displaying status and building trust (research question 3), building on the previous sections in this chapter. However, these are also fluid and dynamic, constantly in flux throughout technical rehearsals. This is demonstrated most clearly by tracing the interaction in transcript O2-2. While “interaction is by and large cooperative” (Levinson, 2006b, p.45) as individuals seek to maintain “positive social value” (Goffman, 1967, p.5), there are several ways that this was shown to be accomplished while maintaining positive working relationships. In O2-2, for example, the director very clearly overruled the lighting designer’s (and designer’s) authority in matters related to their specific discipline, but this was not particularly challenged by the lighting designer, whose talk in this exchange was characterised primarily by restrained agreement, despite stating their position in turn 4 (“Yeah. Deliberately.”). The lighting designer manages this interaction by containing the potential for conflict, despite the clear aesthetic disagreement, by appearing amenable and thus retaining the director’s trust and a positive working relationship with them.

In Chapter 6, the analysis will turn to the processes involved in technical rehearsals: how problems are solved through the strategic use of language (and/or silence), how shared visual and aesthetic languages are co-constructed through spoken language, and how the production desk facilitates communication across the design and production teams, building on the personal and professional work shown in this chapter.

Chapter 6: Process

The previous chapter explored strategies of personal (relational) and professional talk, showing the ways in which lighting designers, lighting programmers and directors build, enact and maintain these relationships throughout the technical rehearsal process. This provides a foundation on which to build the argument of the current chapter, namely that the creative and practical value of the technical rehearsal is reliant upon processes of trial and error, and an openness to experimentation, discovery and mutual understanding, and that language can be used to either facilitate or disrupt these processes.

This chapter will begin with an examination of the production desk, in order to contextualise the place and space in which the creative process occurs during technical rehearsals, particularly in how the geography of the production desk impacts upon collaborative relationships and how it perpetuates culturally engrained perceptions of power in its layout. The ways in which design and production team members construct a shared language – both visual and verbal – are examined in the following section. This section draws on examples of creative alignment and misalignment in descriptions of light and the challenges of balancing creative and technical forms of talk, as lighting designers continually adapt to the abilities and experience of their colleagues. Several strategies for problem-solving are explored, as is the strategic use of silences in headset talk. An examination of these specific elements of the process will shed light on the ways in which directors, lighting designers and lighting programmers continue to enact and maintain personal and professional relationships as discussed in Chapter 5 and the many ways in which they are constantly navigating issues of hierarchy, authority and power throughout the process of the technical

rehearsal. This chapter will thus demonstrate the importance of understanding the latent, hidden processes at play during the technical rehearsal as a fundamental part of theatre-making.

6.1 The production desk

The places of priority during technical rehearsals (that is, the auditorium production desk(s) and backstage areas) are primarily the domain of the creative and production teams. The auditorium, a place most often associated with audience reception, becomes simultaneously a place of creation *and* reception, in which creative teams respond to the combination of the action on stage and the limitations and potential of the space in order to create their response to it. Or, as Hunt notes:

While the production desk might seem to be the point of command for the technical aspects of the production, it and the surrounding auditorium is also the site of reflection, review and imaginative engagement with the yet-to-be. (2015, p.18)

Due to its central location, the production desk acts as a “‘nerve centre’ or ‘point of command’” for the production team as well as a “centre of social space and activity” (Hunt, 2015, pp.15–16), placing the lighting designer and programmer in the literal centre of the production activity. The lighting designer is able to interact with all departments via a headset over an intercom system that connects all members of the production team. On most productions, there are two channels of communication: A and B. On larger shows, there can be four channels, with at least two of these devoted to lighting (followspot operators, instructed by the associate lighting designer, are usually on the second lighting channel). Channel B is traditionally the “lighting channel”, used by the lighting designer, programmer and other

members of the lighting department. The deputy stage manager (DSM)³⁴ also has access to this channel if needed. Channel A is for all other production staff, and the lighting designer and programmer will also have access to this channel, primarily to speak to stage management or the sound department. Therefore, the lighting designer and programmer both occupy a privileged position: both physically in the middle of the auditorium and virtually in the middle of communication.³⁵ They are able to listen and respond to multiple conversations and requests from all departments; only the DSM has similar overview, though they often do not listen to the lighting programming on channel B. This also means that conversations tend to overlap, as interlocutors drop in and out of discussions as needed, and so focused, concentrated listening is often required.

In an end-on or thrust space, the lighting designer sits at a production desk in the centre of the stalls, with their programmer to their right and access to the director (who may be moving around the space) on their left. Though there is no “rule” about this layout, it does seem to be fairly standard. As an interesting aside, during a technical rehearsal session, the choreographer of D4 noted that in left-to-right reading populations, the left side of the stage (stage right) tends to be a more powerful position. Playing on this culturally engrained position, they asked for a lighting effect to sweep across the stage from “right to left [...] so the power relation feels really strong” (27 September 2017). This power arrangement may also account for the director typically being on the left of the production desk with the lighting designer

³⁴ The DSM is responsible for “calling” the show during performances and therefore for coordinating all of the lighting, sound, crew and other cues during the technical rehearsal.

³⁵ Hunt (2015) tracks the development of the production desk from the location of the royal box in Renaissance court theatre that gave those seated there “a commanding view” of the stage.

to their right and the programmer to their right, in descending order of power. The impact of the location of the production desk can be seen in observation O2. In this observation, the production desk was one long table that stretched the width of the auditorium space. As the auditorium seating was flexible, there were no audience seats set out and therefore the director was free to move from one end of the production desk to the other, which they did often. The lighting designer described themselves as a “conduit” between the director, “who has very strong ideas” (field notes, 20 March 2016), and the programmer and rest of the lighting team. While this was often the case, both metaphorically and geographically, the director did speak to the programmer directly to voice their preferences or concerns, something that rarely occurred in other observations; elsewhere, this only happened in D4 with any regularity. The reasons for this varied, however: in D4 because of the nature of the established relationship that the programmer had with the director and in O2 because of the layout of the production desk itself. Hierarchically, bypassing the lighting designer in O2 meant that the director could communicate their requests directly to the person who would ultimately implement them (the programmer). Given the nature of the exchange in O2-2 (section 5.3), the director may also have seen this as a way of encountering less resistance to their requests.

The location of the production desk also impacts on a production’s aesthetic as well as the ways in which people communicate around it. In observation D4, the first two weeks of rehearsal were spent in a theatre space that was not the final performance space. Here, the production desk was in the stalls, in the centre of the space, just above the stage height so that the floor could be easily seen. In the third week, the team moved to the performance space, where the production desk was on the left-hand side of the circle level, much higher than in the previous venue. This meant that the flown set pieces and

lighting bars were almost at eye level; practically, because the “space [is] much larger and the rig [is] higher, discrepancies in rigging [are] much more noticeable” (field notes, 1 October 2017). There are several instances in my field notes in which I have indicated the impact this had on the resulting talk. The lighting designer makes multiple changes to the heights of the lighting bars, which move in and out during the performance, for aesthetic reasons but tells the production manager the changes are due to accommodating sightlines (field notes, 2 October 2017). In the evening session of the same day, the choreographer asks how the projection looks. The lighting designer hesitates, then says, “Yeah, it looks good” (field notes, 2 October 2017), even though they have not seen it yet. This, I surmised at the time, was an attempt to manage the choreographer’s expectations by preempting their response to the projection from the new location of the production desk. But it also appeared to be part of a time management strategy by the lighting designer, dismissing the projection and not allowing themselves to be distracted from their primary concern: the lighting design. The choreographer comments on how the space has changed their view of the overall design, calling the flown set and lights “ugly” and “horrible” (field notes, 2 October 2017), and they decide to alter the heights of the flown pieces, despite the lighting designer’s objections, as this takes time away from their work on the lighting design itself.

6.2 Constructing a shared language

Alignment and misalignment characterise many of the transcripts here and, anecdotally, much of creative collaboration. Aligning members of a team creatively, i.e. getting everyone “on the same page”, is a continual process of negotiation and clarification rather than a static state or end goal, with “different participants contribut[ing] to a shared project that could not be

completed by any one of them alone and which depends on their shared input” (Richards, 2006, p.170). The interactional process of

[p]roposing a solution thus becomes a collective action – what Lerner (1992) calls an interactional achievement – by which different actors and situations are brought together and articulated in order to produce a solution. (Cooren, 2004, pp.536–537)

Building a shared spoken or visual language with fellow creative team members is not by any means a straightforward process. Of “theatre people”, Rae (2019, p.204) writes:

We encounter them in events, discourses, anecdotes, archives, images, artefacts, memories, gestures, and print, electronic and online media – and it makes of us objects, bodies, subjects, constituents, consumers, participants, practitioners. What theatre means to any given individual results from an agglomeration of these elements that is at once unique and idiosyncratic, shareable with any number of other given individuals, politically differentiated, and subject to continuous variation and revision.

We have seen in Chapter 6 how closely personal and professional discourse are related and some of the strategies that directors and lighting professionals employ in establishing these relationships. In addition to this, the ability to communicate effectively, not only in order to share ideas but also to reach an eventual consensus, is important to building a successful creative relationship. However, “for an interdisciplinary group, this ability can be impaired by the differences in the group members’ professional vocabulary and the concepts they use” (Mamykina, et al., 2002, p.97). On a smaller scale, however, when talking about the specifics of what the lighting for a particular production should be or, more importantly, what the light should be *doing* (Graham, 2018; Hann, 2018), building an effective shared vocabulary is crucial. Lighting designer Mark Jonathan explains the importance of not taking this communication for granted:

[T]he choreographer [David Bintley] said, 'You always know what to do.' I said, 'I only know what to do because you talk to me. I need to know what's in your head and what's going on.' (Laughter)
 [From his point of view] the relationship was so comfortable, it was like, 'I don't even need to talk to you.' (quoted in Moran, 2017, p.82, bracketed text in original)

In D4-1, the choreographer, lighting designer and programmer are attempting to devise a sequence of cues for the start of a section. Note in particular the extended discussion and the multiple attempts at explanation that occur up to turn 30.

D4-1

- 1 Choreographer: Is there any way we can try one where - so it goes all the way like that, then it does the second one, and when the third one starts the first one goes away? So, what, what's, what's happening with this one is this, you get the whole thickness, you get the whole volume of the space. What I get with the other one is I get the space sliced in planes. What I would love to try and get is almost like an Anish Kapoor thing, where you go - you get the thickness, you get the volume -
- 2 LD: Yep.
- 3 Choreographer: And then you get a thickness behind, and then you get a thickness behind starting there but this one going away, so it recedes -
- 4 LD: Yeah.
- 5 Choreographer: So the thickness is developing and receding at the same time.
- 6 Programmer: So once the second bar -
- 7 LD: So once the second bar is completed, 1 disappears and 3 comes in.
- 8 Choreographer: Yeah.

9 Programmer: Once the second bar is completed it carries on and then we start disappearing the same way?

10 LD: Yeah.

11 Choreographer: I - I'm not sure you do that. I think you just - I think you just really - don't you do that -

12 LD: Just fade it away?

13 Choreographer: Yeah.

14 LD: OK.

15 Choreographer: I think that's better than that.

16 LD: Yeah, OK. I thought that that was what -

17 Choreographer: No, so what I see is a line.

18 LD: Yeah.

19 Choreographer: And a line...

20 LD: Yeah.

21 Choreographer: And a fade, and a line, and a fade and a line...

22 LD: Yeah.

23 Choreographer: So I still see the line going backwards but I see it -

24 LD: I think that's better -

25 Choreographer: - the feeling should be upstage.

26 LD: - than tracking it away.

27 Choreographer: But I thought that was - that's - that was very beautiful, wasn't it? As a thing.

28 LD: Mmm.

29 Choreographer: Don't you think?

30 LD: Yeah. As a way to introduce - those things are always really good to introduce sections or to transition, I think.

[Nine minutes later - after some programming and one run of the sequence with music.]

- 31 LD: I think it should be red. If it's Anish Kapoor
it should be red. We shouldn't do "womb pink". Um,
I think -
- 32 Choreographer: Can we just try it with pink?
- 33 LD: Yep. [*To the programmer*] Can we change it to
womb pink, then? And run it again.
- 34 Choreographer: Is womb pink actually a colour?
- 35 LD: Yeah, so, we took the colour palette photos -
- 36 Choreographer: Is that it?
- 37 Programmer: Yep.
- 38 Choreographer: Really?
- 39 LD: Yep. There's two pinks. There's that and then
there's - what do I call it?
- 40 Programmer: Acid pink.
- 41 LD: Acid pink.
- 42 Choreographer: Yeah, no, I like the other one.
- 43 LD: Yeah. Womb pink.

A number of things are happening in this excerpt. The first is the reference in turn 1 by the choreographer to sculptor and visual artist Anish Kapoor. The lighting designer signals their agreement several times, leading one to assume that the choreographer and lighting designer share a common understanding of this reference. However, over the course of turns 11 to 26 it is apparent that this reference to Kapoor's work alone is not enough, and that the lighting designer has perhaps not linked the choreographer's reference to "thickness" and "volume" (turn 1) with their reference to Kapoor. It further appears that initially the lighting designer has a different idea to the choreographer and it takes at least two explanations (turns 1-14 and turns 17-26) from the choreographer for the lighting designer to apprehend their meaning. In the last third of this excerpt (turn 31 onwards), the lighting designer's understanding of the reference to Kapoor becomes

clearer. They state that “if it’s Anish Kapoor it should be red” (turn 31). This is a clear reference to the bold, deep colours apparent in many of Kapoor’s works and specifically his frequent use of red (for instance, in *My Red Homeland*, *Blood Mirror* and *Destierro*). The choreographer, on the other hand, despite Kapoor’s strong connections to colour specifically, seems to be referring to his use of mirrors and the effect this has on movement. The choreographer instead opts for a pale pink colour over the lighting designer’s suggested red, implying that it is not the colour element of Kapoor’s work that they are interested in; in fact, their first reference to Kapoor in turn 1 demonstrates this, with the choreographer’s multiple references to space (“the whole volume of the space”/“the space sliced in planes”).

However, the reference to Kapoor was ultimately helpful in establishing a starting point for discussion and the ensuing exploration of light, even though the end result might have not aligned with the lighting designer’s original understanding of this reference. The choreographer, however, remains conciliatory throughout, never specifically demanding anything or being authoritarian. Phrases such as “Can we just try it with pink?” (turn 32) and “that was very beautiful, wasn’t it? As a thing” (turn 27) suggest that the choreographer remains open to exploration and the lighting designer’s input (though they ultimately get their own way).

Moran (2019) notes the difficulty of developing a shared spoken language around light in particular: “It can be hard to describe light and therefore hard to discuss it, but it is not impossible” (p.45). A simple demonstration of one of the ways in which this difficulty can be overcome can be seen in transcript D1-4, in which the lighting designer describes the quality of the houselights as “dirgy”:

D1-4

- 4 LD: [LX], what's the standard level for the
houselights if you don't want them too bright?
- 5 LX: Uh, you can probably go a bit lower than that.
You haven't got the back row floods on.
[Programmer fades the houselights down.]
- 6 LD: Whoa. That feels a bit dirgy to me. Up a tiny
bit... yep.

This portmanteau of “dirty” and “dingy” became a useful shorthand for describing the feeling of one of the locations in the production, a quality the lighting designer struggled to reconcile with the comedic nature of these scenes, as seen in transcript D1-3:

D1-3

- 1 LD: I just don't know how to do the first scene as
dark as [the director] wants it when it's such a
comedy.

Despite the fact that the actual meaning of “dirgy” has nothing to do with dirtiness or darkness³⁶, this word encompassed the qualities that both the director and lighting designer were attempting to represent. The “look” the director and lighting designer had agreed on for these scenes was established early on – both D1-3 and D1-4 occurred during the plotting session before the start of technical rehearsals – and could only have been achieved through a shared sense of the location in which the scenes took place and the shared vocabulary (“dirgy”) that had developed around this in order to describe it. Most interestingly, however, in this situation is the new *meaning* (what Patel, et al. (2016, p.75) call “recharacterising”) that was

³⁶ Though “dirgy” does not appear in “mainstream” dictionaries such as Oxford, Collins or Merriam-Webster, an internet search yields several results that define it as the adjective form relating to a funeral dirge.

ascribed to this devised-yet-already-existing word, which seemed to be understood by every member of the team. The pragmatic interpretation of this word in situ had diverged substantially from its semantic definition. Though it was used several times in conversation during the course of this production period, its meaning was never questioned, explained or qualified further; it may be that this word had been devised during an earlier design or production meeting, for instance. This could have been an intentional act of neologising or purely accidental. Either way, it is clear that this word, in this context, carried a meaning that was not just understood by the design and production team but had been co-constructed by them. Without reviewing the lighting designer's future productions in equal depth, it is difficult to say with much certainty if this word appears in their descriptions of other scenes in later productions with a similar feel. However, often in devising a shared language among teams, "the vocabulary needs to be task-dependent, custom or unique to the team and the environment" (Mamykina, et al., 2002, p.98) so it is perhaps unlikely that this particular word reappeared in the lighting designer's subsequent vocabulary. There does not exist a "standard" vocabulary to describe light qualitatively³⁷; even those words that we may think of as "universal" (for instance, the descriptive names assigned to gel colours by their manufacturers) may vary when we consider these in relation to human perception and/or memory: what a gel manufacturer calls "daylight blue" may bear no resemblance to one's recollection or perception of the colour of daylight. Quantitatively, there is arguably more precision – describing the gel colour in terms of its wavelength and light output, for instance – but this way of speaking is rarely

³⁷ In architectural lighting, the work of Johanna Enger has interesting parallels here. Enger's doctoral thesis is the development of a qualitative typology of light as traditional quantitative measures are not "sufficient to describe the overall experience of a light environment" (Enger, 2017, p.98).

used in creative discussions, largely because it is inaccessible and potentially intimidating to non-specialists.

Moran (2019) notes that lighting designers “working in live performance often need to develop two ways of talking about their specialist subject – the specialist language used among fellow lighting practitioners and a more general language used with other members of the creative team” (pp.45–46). However, the degree to which the language used is “specialist” (and what *kind* of specialist) or “general” varies hugely depending on the people in the team. To use the example above, the word “blue” on its own may suffice, or a descriptor may be added (“daylight”), or the gel number might be referred to (Lee 165), or specific colour-mixing values might be needed (and these vary between lighting fixtures) – or perhaps some combination of these. It is slightly reductive of Moran to suggest, as in the quotation above, that creative team members will necessarily require a more “general” language than the “specialist” language of the lighting professional. While this may by and large be the case, it may be unhelpful to assume one style of speaking is required over another based purely on the hearer’s job role.

For instance, the director in O1 was especially interested in the practicalities of the lighting design and how it was constructed in terms of timings, cue placements and how cues across departments were synced (for example, the sound and lighting cues were occasionally linked by MIDI). Arguably, this interest may not necessarily have been in the lighting design itself as a singular or more significant scenographic element but rather in how it affected and was affected by other production elements. For instance, where, when and over what period of time a lighting cue occurs will affect the rhythm of the production, a key concern for the director and the actors (more about this in section 7.3), as well as the placement of other cues in relation to

it, likewise a key concern for sound and video designers. The ability to understand the roots of the director's (or, in dance, the choreographer's) concerns will help the lighting designer adapt their language and gauge how "specialist" or "general" it should be. For instance, in transcript D4-7, the lighting designer, lighting programmer and choreographer are attempting to plot a sequence that will serve as the ending to a section. The choreographer had a very sophisticated visual language (as seen in transcripts D4-7, D4-8, D4-9 and D4-10 and throughout my field notes) and often pushed the technical capabilities of the lighting designer and programmer, as well as of the lighting console itself, as shown in D4-7.

D4-7

13 LD: [*To the programmer*] We can't randomise cues, can we?

14 Programmer: No, 'cause that's what programming is.

15 LD: I mean, we can change it so that it's in a different order...

[Long pause.]

16 Choreographer: Can't you do any programming that's algorithmic?

17 LD: No.

18 Choreographer: That's so weird, isn't it? In this day and age.

This promotion of light's capabilities by the director has a clear impact on the lighting designer's professional and authorial agency, as well as their creative relationship with the choreographer, as seen in turn 27 of D4-6, in which the lighting designer states: "I find the processes with [the choreographer] really hard, but actually I always come out of it going, 'God, I never would have done that if it hadn't been -'", contradicting Niermann's claim of an always "effortless" (2019, p.46) process between long-term

colleagues. It is, however, in this case at least, a very constructive and productive process.

Transcript D4-2 demonstrates both the different kinds of shorthand that exist within teams and the difficulty with which these are sometimes enacted.

D4-2

12 Choreographer: You know, if they all went like that
[gestures with hands] in different ways.

13 LD: Yeah, we haven't done the jerking -

14 Choreographer: The jerking in different colours.
See what that does.

15 LD: You know "angel wings", [programmer]? Oh, that was wobbly. [Pause.] We just want the bars to each individually go forwards and backwards. [Pause.] So we've got the upstage points and we've got the downstage points. We've also got that effect we did where they were streaming - they were moving like this [demonstrates] individually. Maybe we just need to make them snaps?

The lighting designer's reference to the "wobbly" "angel wings" effect in turn 15 refers to a previously conceived and recorded effect made by the lighting designer and the programmer specifically for this production, which has then been given a name that is known only to them; this in-group language helps to align them as a team. The words used to describe these abstract concepts, along with intermedial references, such as to the work of Anish Kapoor noted above, come to mean something particular to the particular people using them, in relation to the particular production and at a particular moment, which not only helps to denote the team's in-group status but also provides the creative prompts that will stimulate the joint

action of the creative team. In-group identities can be denoted in more subtle ways, for instance through the use of personal pronouns, as shown in O1-1:

O1-1

17 Director: Are we plotting?

18 LD: Yeah, we are.

19 Programmer: It dropped down to two four... 245.

20 LD: No, no.

21 Programmer: [*Muttering*] OK. Sorry. Yep.

22 LD: We're good? Thanks.

In O1-1 the director has not been involved in the preceding (and is not involved in the subsequent) conversation between the lighting designer and programmer. It is therefore notable that they use the first-person plural pronoun “we”, thus including themselves in this particular part of the process; the second-person pronoun “you” would have been more appropriate here. This “we” is known as an “inclusive we” (speaker plus hearer) as opposed to exclusive (speaker minus hearer) (Fillmore, 1996, p.223), thereby implying speaker–addressee proximity. “We” is a key deictic that is used to indicate identity in workplace settings (Drew and Heritage, 1992; Bargiela-Chiappini and Harris, 1997; and Poncini, 2004), due to its versatility (Handford, 2014). On a practical level, this interruption from the director may be an attempt to speed up the technical rehearsal by “checking in” with the lighting designer: nine turns before this excerpt, the programmer says they are standing by, waiting to run a sequence. Thirteen turns later, as soon as the exchange between the lighting designer and the programmer is completed, the programmer again says to the DSM that they are standing by, waiting to run the sequence they have just been plotting. In O1-3, the director again “checks in” with the lighting designer about a change they have made on stage:

O1-3

- 1 LD: What do you want it to go to?
- 2 Director: 'Cause it went to blue just now, didn't it? It went to a very pale light - I'm not sure about that. Do you - are you - are we thinking of gradually losing the warmth?
- 3 LD: Yeah. I mean, you saw it happen over five seconds, where it should - the timing should be forty seconds.
- 4 Director: Right, right. Great.

On the surface and taken out of context, O1-3 appears to be merely another instance of a shift in proximity, whereby the director is including themselves in the creative process of the lighting designer. While this is the case, it also demonstrates yet another function of the shift from second to first person. When examining O1-3 within the wider context of the whole day, it is actually part of a sequence of exchanges about the colour temperature of each scene; in fact, all of the excerpts from the second and third hours of the technical rehearsal are concerned with colour temperature in some way. Despite the director's apparent agreement to these changes, there is nevertheless some hesitation on their part ("I think I do"/"I think so", transcript O1-5). The changes in colour temperature that follow (for example, in O1-5) are often met with requests for clarification from the director. This attempt at clarification is clearly shown by the self-correction from "you" to "we" in O1-3. By again making themselves part of the inclusive "we", the director is asking for clarification and demonstrating uncertainty but in a way that still maintains their control or creative input over the lighting designer's decision. This perhaps indicates a lack of confidence, which the director is attempting to mitigate by controlling their perceived proximity to

the process. However, this could also be a subtle act of persuasion, a strategic way of ensuring that their ideas are acted upon.

Incomplete utterances appear frequently throughout the transcripts; often these are used to invite simultaneous co-creation. For example, there are two incomplete utterances in the first half of D4-2:

D4-2

- 1 Choreographer: What about taking the side lights out?
- 2 LD: [*To the programmer*] Try taking out the Miros. [Long pause.]
- 3 Choreographer: That's not really right, is it?
- 4 LD: No... [Pause.] There is a thought, there will be an idea, just...
- 5 Choreographer: Yeah, I think it needs a little bit - it needs like a virus feel.
- 6 LD: It's definitely... yeah. It definitely needed the -
- 7 Choreographer: It needs light. It needs air or something.

The incomplete utterances here – “There is a thought, there will be an idea, just...” (turn 4) and “It’s definitely... yeah. It definitely needed the –” (turn 6) – are both by the lighting designer. These could suggest, particularly as the lighting designer stops abruptly without completing their thought, that the lighting designer is uncertain about how to proceed, or perhaps it is an attempt to buy some thinking time. The choreographer does not complete these utterances per se, but instead offers alternative suggestions, which is perhaps the lighting designer’s intention. In pedagogical practice, teachers often use “designedly incomplete utterances” (Koshik, 2002) in order to elicit responses from students, starting the utterance in such a way that invites a

prompted response. While this exchange clearly does not have a pedagogic purpose, the choreographer's responses to the lighting designer's utterances (in turns 5 and 7) have the effect of "forward[ing] the projected turn or its action" (Lerner, 1996, p.239). The choreographer has not co-opted the lighting designer's turn; rather, they are helping to co-produce it. That is, the lighting designer and choreographer are simultaneously co-constructing the lighting state on stage through their dialogue, through "a process of discovery and having ideas *through* the process of making" (Gauntlett, 2011, p.4; emphasis in original). This appears to be an example of "cumulative talk" (Mercer, 2000), in which "speakers build on each other's contributions, add information of their own and in a mutually supportive, uncritical way construct shared knowledge and understanding" (p.31).

On a more micro level, this process is also similar to Lerner's examples of jointly produced "sentences-in-progress" (1991, p.441), except that here the choreographer does not so much finish the lighting designer's sentences as move them in a tangential direction. For instance, in turn 6 of D4-2, the lighting designer uses the past tense "needed", implying that a past solution or attempt at a solution was beneficial in some way; there was some quality belonging to a previous version of this lighting state that was desirable (perhaps the inclusion of the side lights referenced in turn 1). The choreographer uses the same verb in turn 7 but in the present tense, indicating a move towards an untried solution and redirecting the lighting designer's attention away from previous attempts. This is clearly evidenced in the lighting designer's change of focus in turn 8 away from the state as a whole and towards an individual element within it.

Where concrete references to the work of other artists or past productions exist, these provide only an initial starting point for discussion, and there is

still potential for this approach to be flawed (as in the Anish Kapoor reference previously cited). However, this is most often cited by directors and designers as the start of their creative discussions in the pre-production period. For instance, director Katie Mitchell (2008) advocates using images to communicate within the creative team, using films or photographs as a frame of reference. Similarly, according to lighting designer Johanna Town the starting point for her design decisions generally involves “talk[ing] about reference material and things to read and all the usual stuff” (Moran, 2017, p.84), which would include sourcing visual references for discussion.

Rozmowski and Domer (2009), writing about their own collaborative research process, maintain that directors should “not seek actual imagery to be used in the production. [...] Rather, find things that evoke the mood or feeling you want” (p.29). This relatively established (and perpetuated) starting point to the collaborative process is of course useful and necessary; however, it is equally important not to rely solely on visual material but also to be able to articulate the qualities of that visual material to which one may be particularly drawn. Indeed, this is a crucial skill even for long-term collaborators in helping to both create a shared visual language and a common language-in-use.

For most design teams, this process of creating a shared visual language starts long before the technical rehearsal, allowing a shorthand to develop over several weeks (or sometimes years) and to reach a sufficient level of recognition and common understanding among a creative team. The ways in which this happens and the degree of success this has varies, of course (as demonstrated in the examples below); however, this familiarisation and the acquisition of this assimilated shorthand are critical to a lighting designer’s process. As well as a keen visual sense, lighting designers must possess an ability to use language to respond to and critically engage with their colleagues, both in relation to or in the absence of visual material or other

references. Without the ability to combine these skills, according to lighting designer and programmer Rob Halliday, this can occasionally be problematic:

[P]eople often fall back on references to other genres – “I want it to look film noir”, “I want it to look like Picasso” – or even to commonly “accepted” forms of theatre (“I want it to look musical”), or even to the work of other practitioners (“I want it to look like a Paule Constable show”). While appearing to provide a common framework for discussion, it’s actually quite risky because two people’s understanding or interpretation of “film noir” (for example) may be quite different – often just leading to the follow-up question “so what exactly do you mean by film noir?” (personal correspondence, 28 December 2014).

Similarly, the director Katie Mitchell (2008) advocates using images to communicate with her design team. While she does suggest establishing a “common language” (p.75), this is a visual language rather than a spoken one, using films or photographs as a frame of reference. Unlike Halliday, she does not address the inherent difficulty in this tactic: what one person responds to in an image will not necessarily be what another responds to, and without language to clarify or explain one’s reaction to it, there is the risk of misunderstanding. She does, encouragingly, advocate involving the lighting designer in all creative conversations early on and throughout the process in a way that enables them to contribute to decisions about the production’s aesthetic (Mitchell, 2008, p.85).

The “rules” that govern a production’s aesthetic tend to be agreed upon prior to the technical rehearsal. These will determine, among other things, the design of the lighting rig, which must be finalised before moving into the performance space. Different teams, however, will approach this differently. The lighting designer in D1, for instance, has developed a very clear system for determining these “rules” early on:

[W]hen I go to a design meeting, I make a decision then. And then I make very good notes on that, and then I try and design it [...]. I know that I can put certain things up that will do X, and that's what it will look like, and then of course you want to play inside that box in order to not be stale, but I suppose I've now got something that I know I can always put up that will work to a degree. (interview, 6 April 2016)

The lighting designer on D3 voiced similar sentiments, particularly in reference to working with this director:

With someone like [the director], it's not a conversation. You have to come prepared. You have to prep it to within an inch of its life – or at least I do. (field notes, 17 February 2017)

In D4, however, the extended plotting time allowed the lighting designer and choreographer the space and the time to discover some of these “rules”, and thus the visual “language” of the production and individual sections within it. One such example of this can be seen in transcript D4-8, in which the choreographer explains their idea of “serialism”, a concept they have borrowed from music:

D4-8

- 1 Choreographer: I think what I need to see in this is this notion of serialism. So, um, serialism can't have complexity, um... It's building complexity, rather than complexity that starts, so if you think about it, you, you, you prime the eye to see something over time and then you do variations [pause], otherwise, it's, it's too much to process while watching dancing –
- 2 LD: Yep.
[Pause.]
- 3 Choreographer: Do you know what I mean?
- 4 LD: Yep.
[Pause.]

The choreographer here is referencing the patterning feature of serialism, in which the composer “organi[s]es pitches into a row and [uses] them systematically” (Hart, 2008, p.1). An original “tone row” is defined by the composer (here, analogous to the lighting designer); once defined, “the possible transpositions and inversions of the row can be organized into matrices” (Hart, 2008, p.1). In music, this can include playing the sequence backwards, inverting the intervals between the notes or doing both in combination. While serialism originally focused on pitch alone, later composers also serialised other elements, including rhythm and dynamics (Ball, 2011. p.25). The choreographer is suggesting this technique can be used to “prime the eye” in order to later “build complexity” (turn 1) into the lighting sequence. The choreographer goes on to explain their motivation behind using serialism as a framework for this particular piece:

D4-8

- 7 Choreographer: Then you can run it as a sequence?
 But I think before we need to do what is the...
 [Pause.] At least one of those sequences needs to
 do the priming - just one direction -
- 8 LD: So just seeing something repetitive -
- 9 Choreographer: Just something really repetitive so
 you forget -
- 10 LD: Yeah.
- 11 Choreographer: - forget watching it. Not looking
 for variation and just watch the choreography.
- 12 LD: Yeah. [Pause.] 'Cause you set up what the rule
 is.
- 13 Choreographer: Yeah, you set up the rule and then
 you break the rule, and you go, “oh god, that
 rule’s broken” -
- 14 LD: Yep.

The choreographer here is suggesting serialising the start of the lighting sequence, using the repetition in the movement of the lighting to, paradoxically, draw the audience's attention away from it. This repetition in rhythm (as well as movement, intensity, colour, etc.) sets up a constraint or a "rule", as they refer to it later on (turns 12 and 13) for this piece. This constraint benefits not only the audience, who "forget watching" the lighting and "just watch the choreography", but also the lighting designer and choreographer, who now have a defined framework or structure on which to "hang" the lighting sequence. All later discussions about this sequence will inevitably be framed in light of this constraint and the possibilities therein.

6.3 Problem-solving

For set and costume designers, "processes of drawing and constructing scale models are processes of evaluating and developing ideas, of thinking visually and spatially" (McKinney and Iball, 2011, p.123). Lighting designers, however, have to do this in the performance space as they do not usually have similarly tangible materials to experiment with or the time or opportunity to explore their material in the same way as a set or costume designer. However, Hunt (2019) proposes the lighting laboratory, often used in pedagogical settings, as a potential for exploration here: a space that lighting designers (and others) may use to "investigate light as an expressive material in its own right, to learn about light's affective potential as an autonomous medium not purely in service to other performance elements" (no pagination). There remain, of course, limitations to this way of working, just as with the use of computer-aided drawing programs, though the lighting laboratory may be more useful as a way "to prototype lighting schemes" (Hunt, 2019, no pagination) and assist with problem-solving.

Problem-solving is therefore usually done in the moment, generally as a reactive event. In D4-2, the lighting designer and choreographer are discussing the potential of the light and its movement in the scene; changes to the lighting on stage are being made by the programmer during this section of dialogue. The transcript as a whole, and this small excerpt in particular, demonstrates how lighting is both a process and a product, or in Hannah and Harsløf's words, both a "doing" and "a thing done" (2008, p.13).

D4-2

- 1 Choreographer: What about taking the side lights out?
- 2 LD: [*To the programmer*] Try taking out the Miros.
[Long pause.]
- 3 Choreographer: That's not really right, is it?
- 4 LD: No... [Pause.] There is a thought, there will be an idea, just...

It is clear in the first few turns that the current lighting state (that is, what the choreographer and lighting designer are looking at on stage) is unsatisfactory, but the desired state proves elusive. The choreographer suggests a solution in turn 1 ("What about taking the side lights out?") and, after a long pause, both the choreographer and the lighting designer concede that the lighting state is still "not really right" (turn 3); the lighting designer's agreement is prompted by the choreographer's tag question "is it?" in turn 3. This is followed by a series of suggestions, rebuttals and responses from both speakers while they attempt to create the "right" lighting state together. The lighting designer's assertion in turn 4 that "there will be an idea" is presented in a positive sense, "setting the tone" for the rest of this exchange as being positive in nature. The emphasis employed in turn 4 by the lighting designer confirms this; they are both reassuring the choreographer that a

suitable solution will be found and indicating that they are open to working together to mutually create and co-construct said solution. This turn also demonstrates how the creative process of lighting relies on the “doing” of lighting; the lighting designer has to “do” creativity in order to be creative. The technical rehearsal is necessarily characterised by multiple iterations, trial and error, and rejected ideas; this applies to all departments to a greater or lesser extent. Light, however, as the “thread that binds a performance together [...], generates the conditions in which a work is experienced” (Graham, 2018, p.155). Therefore, it is inextricably tied to the performance space and other scenographic elements. While difficulties or problematic sections can be talked through outside the performance space (as often happens during meal breaks or in the pub at the end of the day), the only way to assess the creative or practical viability of solutions is to view them in the performance space. This, however, also has limitations: all elements, including the actors, must be present. This can be seen in the last turn of O7-2. After altering some cues, the lighting designer turns to the director and, while the cues are running, narrates the action on stage in the absence of the acting company.

O7-2

26 LD: OK, stand by.

27 Programmer: Standing by.

28 LD: And go. [Pause.] [Actor] moves [*to the director*] and then [actor] crosses and [actor] now... goes to... [Long pause.]

29 Director: I really like that.

30 LD: Let's try it tonight.

Members of stage management are often called upon to “walk” during notes sessions such as these; this production employed a large chorus, however, and it is physically impossible for one or two people to mimic such a large

group as they move across the stage. While the lighting designer narrates the action (turn 28), it is safe to assume that both they and the director are imagining various actors in their positions onstage at the same time. Without the actors actually physically present, however, the best the lighting designer can do is “try it tonight” (turn 30), during the stage and orchestra rehearsal.

Koester (2010a) refers to the kind of talk that occurs in problem-solving situations as “collaborative” discourse. She contrasts this with “unidirectional” discourse, which consists of instructions or requests.

Unidirectional discourse usually involves “a discursively dominant speaker imparting information or instructing/directing another participant” (Koester, 2010b, p.25), whereas collaborative discourse is more egalitarian.

Collaborative discourse in the technical rehearsal seems to lend itself to a concept in conversation analysis called dispreference. In conversation analysis terms, preference is structural and refers to utterances or responses that are expected – for instance, in common question–answer pairs – rather than its more everyday definitions of something liked or given advantage to. The preference for self-repair – that is, correcting one’s own speech – in everyday conversation is well documented (e.g. Schegloff, et al., 1977). In other-repair the speaker corrects a turn that is not theirs, and this is seen as a less preferred choice than self-repair (and particularly in *other-initiated* other-repair) because a speaker should be in full control over the formulation of their turn. However, it appears that the opposite is more often true in situations of creative problem-solving in collaborative discourse. There is an example of other-initiated other-repair in D4-2:

D4-2

- 1 Choreographer: What about taking the side lights out?
- 2 LD: [*To the programmer*] Try taking out the Miros.

[Long pause.]

- 3 Choreographer: That's not really right, is it?
 4 LD: No... [Pause.] There is a thought, there will be
 an idea, just...
 5 Choreographer: Yeah, I think it needs a little bit -
 it needs like a virus feel.
 6 LD: It's definitely... yeah. It definitely needed
 the -
 7 Choreographer: It needs light. It needs air or
 something.

Here, the choreographer both indicates a problem in the talk ("Yeah, I think it needs a little bit -", turn 5) and resolves the problem ("it needs like a virus feel", turn 5). According to Pomerantz (1984) and later substantiated in a study by Svennevig (2007), there is a preference in other-initiated repair for trying the least complicated solution first. Svennevig, following Schegloff et al. (1977), divides repair into three types, in order of preference: problems of hearing, problems of understanding and problems of acceptability. Through the results of his study, he finds that problems of acceptability, which include the acceptability of the "linguistic utterance" as well as its "social action" (Svennevig, 2007, p.337), are often initially addressed as problems of hearing or understanding. This is the most likely course of action, as "correcting someone else is displaying a deficiency in their contribution and thus constitutes a face-threatening act" (Svennevig, 2007, p.345). However, as demonstrated in D4-2, creative collaborative discourse favours the opposite, at least in this setting. While there are instances of problems of hearing (as in turn 51 of O2-1) and problems of understanding (as in turn 1 of D4-1) in other transcripts, repair of problems of acceptability occurs often as the preferred response. This may be due to a number of factors: time is limited at this stage of the process and identifying the problem straight away may be

the most efficient use of time; in long-standing creative partnerships such as in D4, there is less threat to the speaker's face as disagreements are understood to be creative rather than personal in nature; and a genuine desire on the part of both speakers to co-create and co-facilitate a joint understanding of the "design space" (Eckert and Stacey, 2000, p.525). These face-saving strategies are also demonstrated in the use of positive and negative scoping, as described below. It is clear here that the desire to maintain the collaborative nature of the interaction overrides the linguistic "preferences" in both self- and other-repair that are found in everyday talk.

Taylor (2018) considers what she calls "negative scoping", following Alexander's (1973) assertion that articulating or justifying design preferences is often easier to do through establishing what is wrong as opposed to what is right (pp.22–23). Using negative scoping, creative and production team members can edit out the information or qualities that are irrelevant or undesired, narrowing down the potential possibilities. In an iterative fashion, this rejected information feeds into the next solution that is offered, and in theory the offer is further refined with each cycle of negative scoping. To this I will add "positive scoping", the process of offering alternative, potentially desired options, rather than negating undesired ones. This works in a similarly cyclical fashion and likewise allows designers and technicians the opportunity to clarify and hone their understanding of the "design space" (Eckert and Stacey, 2000, p.525). Both positive and negative scoping happen throughout D4-2, with the choreographer both offering suggestions and attempting to edit out undesirable characteristics.

D4-2

8 LD: What about the virus?

9 Choreographer: It's too fiddly up top.

10 LD: Yeah.

- 11 Choreographer: It has to be something that's just like BOOF. That kind of like [pause] quite full force BOOF.
[...]
- 12 Choreographer: You know, if they all went like that [*gestures with hands*] in different ways.
- 13 LD: Yeah, we haven't done the jerking -
- 14 Choreographer: The jerking in different colours. See what that does.
- 15 LD: You know "angel wings", [programmer]? Oh, that was wobbly. [Pause.] We just want the bars to each individually go forwards and backwards. [Pause.] So we've got the upstage points and we've got the downstage points. We've also got that effect we did where they were streaming - they were moving like this [*demonstrates*] individually. Maybe we just need to make them snaps³⁸?

There is an adjacency pair in turns 8 and 9, starting with the lighting designer's question "What about the virus?", referring to a moving effect that is part of this lighting state. The lighting designer uses this common reference point of a virus – part of the shared visual vocabulary that has developed over the course of this production, much like the reference to "angel wings" in turn 15 (see section 6.2) – to help establish what parameters the lighting is bound by. The choreographer is not keen on the existing virus effect, as evidenced clearly in turn 9. However, their response in turn 9 is not a direct rejection of the effect but rather an articulation of what is wrong with the "virus", an example of Taylor's (2018) "negative scoping". Taylor also identifies the use of the word "too" as a way to soften the effect of a rejection.

³⁸ A further discussion on timing and temporality in relation to this transcript is in section 7.3.

However, in contrast to where it occurs here, Taylor notes that “too” is often used as part of a question, allowing the recipient of the offer to easily reject it or offer an alternative solution without threatening the offeror’s face. Here, though not formulated as a question, it serves a similar purpose in allowing the choreographer to focus on a specific quality of the effect – its movement, which is “too fiddly” (turn 9). Rather than dismiss the effect outright, they are able to identify a specific quality about it, and the lighting designer uses this information to eventually arrive at a potential solution in turn 15.

D4-2

- 1 Choreographer: What about taking the side lights out?
- 2 LD: [*To the programmer*] Try taking out the Miros.
[Long pause.]
- 3 Choreographer: That’s not really right, is it?
- 4 LD: No... [Pause.] There is a thought, there will be an idea, just...

There is only one outright rejection of an idea or action in this transcript: the choreographer’s “that’s not really right” in turn 3. However, the tag question “is it?” plus the intensifier “really” serve to soften this rejection in a face-saving act on the part of the choreographer. Further, the quality “not really right” is so vague as to be not very helpful, so it is interesting that the choreographer and the lighting designer both agree on this without any further parameters being articulated. It may, however, simply be the presence of the tag question that invites the lighting designer’s agreement here, as “interlocutors design their utterances [...] so that they will elicit agreement” (Sifianou, 2012, p.1555).

D4-2

- 5 Choreographer: Yeah, I think it needs a little bit
- it needs like a virus feel.

- 6 LD: It's definitely... yeah. It definitely needed the -
- 7 Choreographer: It needs light. It needs air or something.
- 8 LD: What about the virus?
- 9 Choreographer: It's too fiddly up top.
- 10 LD: Yeah.
- 11 Choreographer: It has to be something that's just like BOOF. That kind of like [pause] quite full force BOOF.

As in turn 4, the creative misalignment in turns 5 through 7 and 11 through 15 is also presented primarily in the positive. For instance, the choreographer says that the lighting state "needs air or something" (turn 7) rather than "this lighting state doesn't feel very airy" or a comparable utterance. A similar thing occurs in turn 11: by stating what the lighting state needs, the choreographer is offering a suggestion, however obscure, rather than stating what the lighting state currently lacks. This serves in both instances to preserve the interpersonal relationship of both the choreographer and the lighting designer, as consistent outright rejections from either party could be harmful to their professional relationship.

D4-2

- 12 Choreographer: You know, if they all went like that [*gestures with hands*] in different ways.
- 13 LD: Yeah, we haven't done the jerking -
- 14 Choreographer: The jerking in different colours. See what that does.
- 15 LD: You know "angel wings", [programmer]? Oh, that was wobbly. [Pause.] We just want the bars to each individually go forwards and backwards. [Pause.] So we've got the upstage points and we've got the

downstage points. We've also got that effect we did where they were streaming - they were moving like this [*demonstrates*] individually. Maybe we just need to make them snaps?

The effect of this alternating positive and negative scoping is seen in the lighting designer's moment of inspiration in turn 13, spurred on by the choreographer's suggestion in turn 12, and followed by their assent in turn 14. The lighting designer then has the confidence to instruct the programmer in the execution of their idea (turn 15), something they had not done since turn 2. This clearly demonstrates the shifting nature of the hierarchies present during the production period. Whereas the choreographer has been the primary offeror up to turn 12, the lighting designer then takes over from turn 13 onwards. The combination of the choreographer's suggestions through positive and negative scoping and the lighting designer's knowledge of the existing "design space" (Eckert and Stacey, 2000, p.525) allow the lighting designer to resume control of the creation of the lighting state from turn 13.

In transcript O1-6, we can observe another tactic for initiating problem-solving strategies. There are multiple uses of the incipient speech marker "so", which preface both the director's and lighting designer's multiple attempts at articulating solutions.

O1-6

- 5 LD: Yeah, it needs to feel like a burst into the -
he's bursting into the door. Yeah. So -
- 6 Director: So do we keep it - do we need to time it
earlier than the chandeliers 'cause [actor] was
still - he reached the - yeah, and he was speaking,
it was dark on him. So I'm just thinking how we

need - unless we start [actor] on the stage once everything's set?

7 LD: No. Well, you should be able to make it a crossfade. It's about getting the - [SM], am I correct in saying it's about getting the doors open quicker and stuff, isn't it?

8 SM: Yeah, we just need to move [actor] earlier.

9 Director: Can we try that?

10 LD: So he - 'cause it's - am I correct in saying - correct me if I'm wrong, [SM] and [director], but you - it's about a steady start, isn't it? And then when you know your cue is, you then walk faster, don't you, is that...? So you're already halfway down the aisle but you're conscious that the other people are still acting, and then you - yeah, yeah - so it's getting that rhythm.

Bolden (2009) claims that "so" prefacing (as seen in turns 5, 6 and 10 above) "is used on utterances that launch or pursue courses of action oriented to (by the interlocutors) as enacting their *agendas*" (p.976, emphasis in original) in order to "introduce recipient-attentive matters" (Bolden, 2009, p.977).

In other words, "so" prefaces utterances in which the speaker is pushing their own interactional agenda in ways "that underscore their concern for or interest in their conversational partners" (Bolden, 2006, p.662). This is the case in all six uses of "so" in this excerpt from O1-6. In turn 5, just as the lighting designer is about to make a "so"-prefaced suggestion, they are cut off by the director, who initiates their own suggestion through the use of "so" (turn 6). As the director attempts to both work through the problem and arrive at a solution, they employ "so" twice: "So do we keep it" and "So I'm just thinking how we need" (turn 7). In both instances, the director uses "we", indicating, as Bolden (2006) shows, their attentiveness to their fellow

interlocutors as well as other third parties not in the conversation (e.g. the actor to whom they repeatedly refer). This use of “we” also has the effect of inviting input from, in particular, the stage manager and the lighting designer in devising a workable solution. The lighting designer’s use of “so” in turn 10 has a slightly different purpose, however. In this turn, three uses of “so” preface three different attempts by the lighting designer to articulate their preferred solution, which has to do with the actor’s timing (see section 7.3 on temporality for more on this). This “so” prefacing seems to indicate that what follows “has been relevantly pending” (Bolden, 2009, p.974); the lighting designer’s suggestion in turn 10 is projected by their previous turn (turn 7) and acts to “resume a previously closed action trajectory” (Bolden, 2006, p.666). The stage manager’s suggestion in turn 8 and the director’s request in turn 9 to “try that” have signalled to the lighting designer the director’s agreement that the actor should move earlier. However, we can see in turn 10 that the lighting designer has a much more nuanced solution (the actor varying the speed and timing of their entrance to match the rest of the scene change activity), which they had attempted to address in turn 7. The accuracy hedge (“am I correct in saying”) and the tag question (“isn’t it”) in this turn seem to have the effect of diminishing their request, as the stage manager responds by suggesting an “earlier” move for the actor (turn 8) rather than a “quicker” move (turn 7). In both turns the lighting designer uses the accuracy hedge “am I correct in saying”; what they seem to mean in actuality is “*I am* correct in saying”. The repetition of this phrase makes it clear that this is an intentional strategy by the lighting designer to downplay their knowledge, possibly because their suggestion concerns a member of the acting company, traditionally the realm of the director, and the coordination of the scene change, traditionally overseen by the stage manager. In order to not overstep these professional boundaries, thereby also potentially

engaging in a face-threatening activity, the lighting designer employs the “powerless” language of accuracy hedges and tag questions to advance their own agenda. In contrast to their usual inclusion in studies of powerless language (e.g. Bradac and Mulac, 1984; Ng and Bradac, 1993; Hosman and Siltanen, 1994; Blankenship and Craig, 2007; Craig et al., 2015; Hosman, 2015), the tag questions here seem to be used to elicit the desired response from the hearer, that is, agreement (as in D4-2 above).

Recalling Moran’s (2019) assertion that lighting designers “working in live performance often need to develop two ways of talking about their specialist subject – the specialist language used among fellow lighting practitioners and a more general language used with other members of the creative team” (pp.45–46), we can see in D4-7 a clear example of how language use is not as dichotomous as this.

D4-7

- 1 Choreographer: Finish on black or flash?
[Long pause.]
- 2 LD: Black.
- 3 Choreographer: It doesn’t really matter, actually.
[Long pause.]
- 4 Choreographer: If – if you had a random selector of black or flash and we just [???] and it was [*mimes pressing buttons*] black black black flash black flash flash flash black flash –
- 5 LD: HMIs, don’t forget. Or we – or we always go back to HMI –
- 6 Choreographer: We always go back to HMI.
- 7 LD: So sometimes it’s flash with the HMI –
- 8 Choreographer: Sometimes it cuts out –
- 9 LD: Sometimes it’s black HMI.
- 10 Choreographer: Yeah, how would that work?

[Pause.]

11 LD: It randomises it.

12 Choreographer: Yeah. It's not in the same order.

13 LD: [*To the programmer*] We can't randomise cues, can we?

14 Programmer: No, 'cause that's what programming is.

15 LD: I mean, we can change it so that it's in a different order...

[Long pause.]

16 Choreographer: Can't you do any programming that's algorithmic?

17 LD: No.

18 Choreographer: That's so weird, isn't it? In this day and age.

In this excerpt, we can clearly see the level of sophistication with which the choreographer understands the potential for light, in a way that is not evidenced in other observations. This allows for a fluid exchange of ideas that are both creative and technical in nature: the choreographer expresses their creative idea through an embodied representation of the programmer's interaction with lighting console (turn 4) and a desire for "programming that's algorithmic" (turn 16) to match the rhythm of the choreography.

Reformulating or recasting requests or questions is an often-used problem-solving strategy. This occurs when there are problems of understanding or anticipated opposition to a speaker's turn, initiating a repair sequence. This can be seen throughout O7, in the director's varied requests for "more light":

O7-1

1 Director: Can we get some more light on [character]?

[*LD hesitates.*]

2 Director: Or do we have to get him to stand somewhere else?

O7-3*

1 Director: Can we have more light on [actor]?

O7-4*

1 Director: Can we just have a tiny bit more on [actor]?

In O7-1, the director clearly senses some upcoming disagreement from the lighting designer and so reformulates their request, in a way that is more conciliatory and has an element of compromise (the actor can move as well as or instead of the lighting state being amended). This hesitation, however, may also stem from a degree of ambiguity in the request. A request for “more light” can mean several things: that the state is not balanced, the contrast is incorrect, someone or something else on stage is too bright, the colour is too warm or too cold, and so on. The hesitation may not have been a signal of disagreement from the lighting designer but rather an attempt to quickly parse this request and discern the director’s underlying concern.

One final problem-solving strategy I would like to address here is that of private speech. Private speech is often described as speech for oneself rather than for others and is common among children as they develop language skills (Diaz and Berk, 1992). Its use in adults is less well documented, though, as it tends to decrease in frequency with age as “in our society a taboo is placed on self-talk” (Goffman, 1981, p.81). However, it occurred with some frequency in my observations, particularly from lighting programmers. An example of this is in transcript O7-2, in which the lighting programmer verbalises their actions:

O7-2

- 1 LD: So... what do we need to do in terms of
presetting that?
- 2 Programmer: I think if you - basically we just need
to swap what's happening in the previous cue
instead of three...
- 3 LD: Oh now we would actually in [cue] 10 have
[channel] 302 up...
- 4 Programmer: Right, and then it crosses into this -
- 5 LD: It crosses into this.
- 6 Programmer: OK. Uh...
- 7 LD: Which I think is better and it's also a more
interesting choice, that way.
- 8 Programmer: OK, so lose frost for a second. Right,
frost out, update preset 34, keep going, [???] take
that from, put it back in... there, so this is an
update on [cue] 10.5...? [Pause.] Yes? Up... [Long
pause.] 'Kay, uh, and... mark... time to fade out,
but that needs to mark... when to preset-
- 9 LD: So what preset did you put it into?
- 10 Programmer: Uh, thirty... four, same as the other
one.

The programmer seems to use this tactic in order to organise or make sense of their thoughts and coordinate their actions with them. Speech of this nature can also be seen in transcript D4-5, albeit in a very brief exchange. In both cases, the use of private speech follows a question from the lighting designer in which they have not provided enough information (D4-5) or there is too much information that needs to be "sifted" through (O7-2). Using private speech seems to be a way of clarifying intention and attempting to systematise one's actions, ostensibly for one's own benefit. However, an argument could be made that, in O7-2 in particular, the programmer is

verbalising these actions to make them “visible” to the lighting designer, who can then interject if they are not being executed properly. It seems unlikely that this is the case, though: the lighting designer’s interjection in turn 9 would suggest that they have not been paying attention to the programmer’s private speech in turn 8, in which the programmer updates preset 34 (confirmed in turn 10).

6.4 Silence

Although this thesis has so far focused on spoken interaction, it would be remiss to completely ignore that which is not spoken as a meaningful contributor to communication and collaboration. In this section, I will examine moments of both non-verbal communication (for example, gesture and gaze) and silence to show how an analysis of these moments can help “to better understand that which is taken for granted and its impacts on social relations” (Poland and Pederson, 1998, p.306).

As detailed in Chapter 4, though I had originally intended this thesis to focus solely on talk – that is, spoken dialogue – I came to realise through the course of the observations that what is left or remains unsaid is equally as important and essential to effective communication during the technical rehearsal.

While I did not make use of video recordings (the reasons for which are detailed in Chapter 4), my field notes contain several instances of non-verbal communication that were significant for various reasons. Therefore, this section will focus on two related phenomena: pauses in speech and non-verbal communication.

As other scholars have noted, silence is often overlooked in qualitative analyses of spoken (transcribed) texts, because it is often seen to be the “opposite of speech” (Poland and Pederson, 1998, p.293) or “an absence of communication” (Kawabata and Gastaldo, 2015, p.5). Furthermore, in

qualitative research, such as interviews or focus groups, silence is often considered to be problematic, characterised as a failing on the part of the researcher (Kawabata and Gastaldo, 2015; Mazzei, 2007; Morison and Macleod, 2013; Poland and Pederson, 1998; Verouden et al., 2016). However, this is not always the case in the talk that was observed here. As Braithwaite (1990) argues, understanding the rules of silence – “where, when, and how to be silent, and the meanings attached to silence” (p.321) – is fundamental in becoming a member of a particular group. Silence – whether the result of strategic omission, passivity, powerlessness, hesitation or lack of knowledge – is worth exploring as an “integral part of the fullness of expression” (Kawabata and Gastaldo, 2015, p.1).

Korkiakangas et al. (2016) note that in many industries “communication practices that involve speech have been standardized” (p.234), giving teams sufficient information “about ‘what is going on’, what others are doing and what action one should take in a given situation” (p.235). Standardised talk during technical rehearsals can be seen in many places: for instance, in the shorthand used by the DSM to denote individual departments, in the order of the words used by the DSM to call cues (always in the form of “stand by + department + cue number(s) or “department + cue number + go”), and in the response expected from those operating (a confirmation that they are “standing by”, for example). The rules around silence, however, are sometimes less clear.

There are often periods of silence of varying lengths during technical rehearsals. Unlike in most naturally occurring talk, where silences tend to be filled with “small talk” or other “filler” talk (see Malinowski, 2014 [1946] on phatic talk as well as Laver’s (1974) elaboration thereon), silence in technical rehearsal talk is not usually regarded to be “problematic talk” (Jaworski,

2000), nor is it necessarily indicative of unease or awkwardness. Indeed, there are occasions when the “rules” of the technical rehearsal require silence; for instance, unless the lighting designer and programmer are plotting or otherwise amending lighting cues, it is generally forbidden to talk “in a standby”, that is, in the period between the DSM giving “stand by” and “go” commands. Likewise, there are times when talk would be distracting or counterproductive to the work at hand, for instance, when intensely observing (or perhaps listening to) the action on stage or in a period of focused concentration. A lack of response – a silence – outside these conditions can indicate several things and can be used by interlocutors in different ways, as will be shown in the examples below.³⁹

One feature of conversation analysis that is worth exploring here in particular is sequence organisation. This refers to the ways in which participants in verbal interaction structure their turn-taking in conversation, for instance in the use of adjacency pairs. These occur when an item of talk (the first pair part) initiates a relevant and recognisable response (the second pair part) from another speaker; questions and answers are a good example of this. Research in operating theatres (Weldon, et al., 2013; Korkiakangas, et al., 2016; Bezemer, et al., 2016) has shown that not only is the response itself important but also when it is delivered, for example, whether a reply (either verbal or actional) anticipates a request, overlaps a request, or is delivered after a period of silence. Korkiakangas, et al. (2016) also note how instances of non-response in an operating theatre, in particular in those that include a “lack of visual access and absence of acknowledgement”, can “create momentary interruptions as the surgeon disengages from the operating

³⁹ See also the discussion of O2-2 in [section 6.3], in which the director interprets (deliberately or otherwise) a long pause to mean agreement from the lighting designer and thus terminates the conversation.

field” (p.245). While the operating theatre is an arguably more high risk environment than a theatre auditorium during technical rehearsals, there is a similarly high level of focus and concentration needed and a similar potential for things to go wrong – indeed, the structure of the technical rehearsal is predicated on multiple iterations of trial and error.

Technical rehearsals are often characterised by varying degrees of “unseen” labour. As Essin (2015) argues, this is partially due to the physical location of the lighting designer and lighting programmer, “distanced and isolated from the stage”, performing work “mystified in its technical complexity” (p.209). Even though the on-stage action might have come to a visible standstill, during a technical rehearsal, work continues in the background: for instance, the DSM might tidy up the cues in their prompt book, the lighting programmer might correct or amend any programming, and the lighting designer may use the time to update their paperwork or think about upcoming scenes. Creative and production team members spend the technical rehearsal in a constant state of readiness (Hunt, 2015, p.17), continually processing and responding to the events occurring on stage and in their ears over the headset system; they are never simply passive observers or listeners.

The importance of this unseen work (and knowing when and how it needs to be done) is demonstrated in transcript D1-5:

D1-5

- 1 LD: [*To the programmer*] And while we've been sitting around all this time, all that should have been cleaned up. In blind.
- 2 Programmer: Yeah.
- 3 LD: I shouldn't be telling you to do these jobs; you should be doing them naturally. Less sitting around.

The lighting designer here is very explicitly describing the work of the programmer that would otherwise go unseen, even to the lighting designer⁴⁰. The statement “I shouldn’t be telling you to do these jobs”, with the emphasis on “telling”, demonstrates the multiple levels of unseen work and tacit knowledge at play during technical rehearsals.

While the programmer audibly responds with “Yeah” in turn 2, I would argue that this only serves to fill what would otherwise be an awkward pause rather than acting as an agreement per se. The programmer has little to contribute to this conversation that is essentially a series of commands from the lighting designer rather than a discussion. To leave a pause in turn 2 – that is, to not reply at all – would potentially only damage this already tenuous professional relationship. As previously noted, the programmer was inexperienced, and this lack of experience showed in several aspects of their work: first, the slow rate at which their working relationship with the lighting designer developed; second, the mismatch between their skillset and the expectations of the lighting designer; and third, in a lack of understanding of the “rules” of response while using headsets, one of the many aspects of the habitus of the technical rehearsal. Bourdieu (1990) maintains that the habitus tends “to guarantee the ‘correctness’ of practices and their constancy over time, more reliably than all formal rules and explicit norms” (p.54). The lighting programmer’s lack of material experience of the technical rehearsal is clearly seen in the resulting lack of awareness of the conventions of talk that govern the technical rehearsal. This is not a criticism of the lighting programmer, per se; the habitus is “the active presence of the whole past of which it is the product” (Bourdieu, 1990, p.56),

⁴⁰ It is interesting as well, that this unseen work of the lighting programmer happens “in blind” (see D1-5, turn 1), i.e. without affecting the “live” state on stage.

built up over time, and the cumulative product of experience, embodied tacitly. The effect of this lack of habitus is seen in the pauses that make up the lighting designer's turns in D1-6:

D1-6

- 1 LD: [*To the programmer*] You alright?
[Long pause.]
- 2 Programmer: Would you like me to make it [the beam] bigger?
- 3 LD: Just make it a little bit bigger. [Pause.] Whoa.
[Pause.] OK, now, uh, make [channel] 1 copy from [channel] 2. 'Cause then it'll get shutters and size and everything.

The lighting designer starts this exchange, part of a longer plotting sequence, by “checking in” with the programmer. The long pause that follows and the fact that the programmer does not answer the question but rather replies with a question of their own would suggest that they are not, in fact, “alright” and are instead perhaps a bit unsure or apprehensive and looking for confirmation from the lighting designer that they are executing their requests in the correct manner. In moments such as this, which occurred frequently throughout this production, when the lighting designer requested some unfamiliar or complicated programming from the programmer, these requests were often followed by long pauses. The pauses, however, were not completely devoid of communication. The programmer developed two particular physical habits that filled these silences, as noted in my field notes:

[The programmer] started this morning still very unsure, however, and I noticed two ways in which this manifests itself physically. [They] play with [their] hair, sweeping it to one side, at the start of a command that [they are] unsure of how to execute. If [they are] in the middle of a line of syntax or of entering a series of commands, [they] push [their] sleeves up. In both cases, these seem to be ways

of buying [themselves] time – either until [they] find the correct button or remember the correct syntax, or until someone else (either [the lighting designer] or [another member of the lighting team]) steps in to tell [them] what to do. (field notes, 8 March 2016)

Although they were sitting next to each other at the production desk, the lighting designer may not have been aware of these physical manifestations of anxiety from the programmer. Looking at later turns in D1-6, there are clues here in the pauses and the surrounding talk that tell us where the lighting designer's gaze is focused and the effect that the change in focus has on the fluency of their talk.

D1-6

- 2 Programmer: Would you like me to make it [the beam] bigger?
- 3 LD: Just make it a little bit bigger. [Pause.] Whoa. [Pause.] OK, now, uh, make [channel] 1 copy from [channel] 2. 'Cause then it'll get shutters and size and everything.
- 4 Programmer: Recall... from... Would copy work better?
- 5 LD: Uhhhh... [*SIGH*] Uh, you need to do 2 copy from [pause] copy to, if you want to [long pause] 2 copy to 1. That's what you want to do if you want to use copy. [Long pause.] Ah. [Pause.] So they've obviously been rigged the opposite way round so now pan it over the table. [Long pause.] Come on. [Long pause.] They're waiting for us so we need to be working quicker. [*Replying to someone on channel A*] That's not the point. Still needs to work quicker. [*To the programmer*] And lift it onto the table. [Long pause.] OK. And uh... put it into 50 percent frost.
- 6 Programmer: Both?

7 LD: Yeah. [Long pause.]

The two pauses in turn 3 occur while the lighting designer is looking at the stage, in particular at the beam of light from the lantern the lighting programmer is manipulating via the console, as they concentrate on the visual and aesthetic “look” of the lighting state on stage. During the first pause in turn 3 the size of the beam is changing (hence the “Whoa” when it gets to – or past – the desired size), and in the second pause, the lighting designer is surveying the stage and possibly working out their next instruction. In both cases, their attention is fixed on the stage and on the creative elements of the design. However, their attention clearly shifts in turn 5, with the “Uhhhh...” that trails off into an audible sigh of frustration, while they shift into thinking about the syntax of the lighting console. What follows in the rest of turn 5 is a rather long and uninterrupted set of instructions from the lighting designer in which they are clearly frustrated, seen particularly in the emphatic directive “Come on” and the interjection with someone⁴¹ on channel A that the lighting programmer “needs to work quicker”. At no point does the lighting programmer interject here, leaving long pauses in which the lighting designer’s frustration seems to increase. In observing silence in relation to power in operating theatres, Gardezi et al. (2009) categorise this type of silence as an “absence of communication” (p.1393) and suggest that this may be motivated by a “fear of exposing a lack of knowledge” (p.1393). This exchange highlights the lighting programmer’s novice status and the asymmetrical power dynamic in this relationship and, given the lighting designer’s previous impatience with the programmer (see

⁴¹ Surmising from the lighting designer’s response, this is most likely the DSM trying to reassure the lighting designer (and perhaps the lighting programmer) that they are not singularly holding up the progress of the technical rehearsal. The lighting designer’s assertion that “they’re waiting for us” seems to have been refuted, though the lighting designer still maintains “that’s not the point”.

D1-4, turn 2 and transcript D1-5, in particular), this may be a strategic use of “self-protective silence” (Gardezi, et al., 2009, p.1394) from the programmer. This may also be indicative of the programmer’s internalisation of institutional hierarchies, in which they are, by default, subordinate to the lighting designer, what Bourdieu (1977, p.3) calls a “structured disposition”. The use of silence functions as a “structured disposition” in the habitus of technical rehearsals, the tacitly embodied awareness of one’s place in the social and professional hierarchies that occur in this institutional setting. With limited previous exposure to and experience in this setting (a lack of “symbolic capital”, to use Bourdieu’s (1986) words), coupled with the uncertainty with which they execute the lighting designer’s commands, the programmer lacks the confidence and the agency to counter or resist this imposed institutionalised hierarchy and so it is perpetuated in this relationship. However, later in D1-6, the programmer’s silence seems to paradoxically become an active strategy of self-preservation as well as an act of powerlessness.

D1-6

6 Programmer: Both?

7 LD: Yeah. [Long pause.]

8 Programmer: Do you want me to make 1 a bit bigger?

9 LD: No. [Long pause.] It’s something else, it’s the colour that’s the problem. [Long pause.] Uh... put them into, uh [long pause] put them into 1 2 - Lee 124, see what they think that does. [Pause.] You’ll have to take it off the colour picker, doesn’t exist. [Long pause.] That’s correct, that was correct, yeah. [Long pause.] And put that at, uh, 30. [Pause.] 20. [Long pause.] 10. [Long pause.] 15.

When, after a long pause, the programmer does try to offer some input (turn 8), they are dismissed straight away by the lighting designer. The lighting designer's subsequent turn is punctuated with multiple pauses of varying lengths, but the programmer remains silent throughout. These silences are thus also a silencing: removing the lighting programmer's agency, stifling their input and, possibly as a result, discouraging personal and professional investment in the product of their labour.

Contrast this to the programmer in D3, who, as noted previously, was very experienced and thus more instilled into the habitus of the technical rehearsal, thereby possessing a larger amount of symbolic capital than the programmer in D1. They share a similar exchange as above in transcript D3-8, in which the programmer offers a suggestion and is almost immediately rebuffed by the lighting designer:

D3-8

- 1 LD: Can we just add, uh, into this... uhhh... [Long pause.]
- 2 Programmer: The [location] prosc?
- 3 LD: No. [Long pause.]

This occurs while rehearsals are happening on stage, and the lighting designer is trying to "light over" the rehearsal (Moran, 2017, pp.56–57) before the actors move on to the next section. Realising that the lighting designer is struggling to quickly recall either channel numbers or a preset, the lighting programmer proffers a suggestion in turn 2, which the lighting designer immediately rejects. However, unlike in D1-6 above, this does not lead to a series of silences; in fact, the programmer continues to offer alternatives, even going against the lighting designer in turns 3 and 4:

D3-8

- 3 LD: No. [Long pause.] Look, we've got it in.

- 4 Programmer: I've just added it in.
- 5 LD: No, no, no, that's not what I meant, though, that's brilliant, but can we also bring in 43 and 46 and just light a bit further up into those guys up there? [Long pause.]

Despite having their suggestion rejected rather decisively in turn 3, the lighting programmer goes ahead anyway. The lighting designer in turn 5 concedes that what the programmer has done is "brilliant" and then pursues another, presumably their originally intended, course of action. As the actors on stage move on to the next scene, the lighting designer shouts to the choreographer to ask the actors to "hold that position" (turn 5), repeating the request on cans to the DSM. It is unclear from the recording what prompts the lighting designer's "Help me" at the end of this turn, though one can surmise that their original request to the stage has been ignored. The programmer, sensing the lighting designer's frustration and desire to complete this task as fast as possible, offers yet another potential solution in turn 6:

D3-8

- 6 Programmer: Do you want me to just - I've got a forestage cross wash, [LD], would that be helpful?
- 7 LD: Show us. [Pause.] Show us your forestage. [Pause.] Whoa. [Pause.] Up a little bit. [Pause.] OK. It's the people up above that I'm concerned about.
- 8 Programmer: Oh, I didn't realise, I'm so sorry.
- 9 LD: Yeah, no, that's what I meant. I mean, what you did was great. [Pause.]

The lighting designer agrees to the programmer's offer and, while it's not quite right (turn 7), they do acknowledge that what the programmer "did

was great" (turn 9). There appears to have been some misunderstanding over what exactly the lighting designer had wanted (the programmer apologises in turn 8), and this may have contributed to the lighting designer's sharp rebuttal in turn 3. This is clarified over the next few turns:

D3-8

10 Programmer: So which ones are we missing?

11 LD: Go back into the cue. [Pause.] Right, so now add in 43 and -

12 Programmer: Where would you like them, sorry?

13 LD: On - crossing on to that group over there.

14 Programmer: The upstage or the midstage?

15 LD: Upstage.

16 Programmer: Great, thank you.

[Long pause.]

17 LD: OK. [Pause.] I mean, you can sort of get both.

That's great. [Pause.] And then let's do the same -

18 Programmer: Yeah, I'm just gonna do a nicer job of this and then we'll totally do that.

The programmer's tone becomes increasingly forceful and impatient over these last few turns. They cut off the lighting designer in turn 12 in order to obtain the information they feel they need in order to carry out the lighting designer's request, emphasising certain words to make this clearer ("Where", turn 12; "upstage or midstage?", turn 14). Even the "thank you" in turn 16 feels backhanded rather than sincere. In the long pause between turns 16 and 17, the programmer is moving the light into place with no instructions regarding beam size, shape, frost or colour from the lighting designer. While there are pauses and silences throughout this transcript, they feel very active, as though work is happening during them, even when this is not stated as explicitly as it is in turn 18.

6.5 Summary

This chapter explicated the ways in which lighting designers, directors, and lighting programmers navigate the many and varied complex processes that make up the technical rehearsal and how language can be used to either facilitate or disrupt these processes. The analysis started with how production and design teams construct a shared language – both spoken and visual – and establish the rules of this language. The technical rehearsal is predicated on processes of trial and error, and an openness to experimentation, discovery and mutual understanding is needed for this to succeed (building on the importance of personal and professional relationships as established in Chapter 5). One way in which this was demonstrated was in the development of new or appropriated words that become unique to a production’s shared idiolect (e.g. “dirgy” in observation D1); because they are so specialised, these words are often “attached” to the production rather than becoming part of a designer’s vocabulary for future work. Therefore, using this production-specific vocabulary serves to denote team members as part of an in-group, building on the work in the previous chapter on personal and professional discourse. Specialist versus general language use was examined and found to be largely dependent on the knowledge, skill and interest of team members. Like many of the linguistic phenomena under examination here, this was fluid and changeable. An example of this in practice was seen in the contrast between the director in O1 and the choreographer in D4. This was clearest in transcript D4-7, in which the choreographer was able to employ what might be termed “specialist lighting language” regarding the technicalities of lighting programming and the capabilities of the lighting console. The use of this shared language proved to be integral not only to problem-solving but also for signalling a willingness (and indeed, perhaps, an expectation) on the part of the choreographer to encourage the potential

of light, something that will be discussed further in Chapter 7. This is not to say, however, that this degree of specificity in language is always necessary for this to happen. In contrast, in D4-2, the choreographer is able to convey their thinking through alternating cycles of positive and negative scoping (Taylor, 2018), tag questions, intensifiers and onomatopoeia, from which the lighting designer attempts to decipher a solution. As has been clear throughout several of the transcripts, technical know-how is not a prerequisite for being able to talk about light. By tracing the interactions in D4, for example, despite the choreographer's comparatively sophisticated aesthetic vocabulary, it is clear that they oscillate between "specialist" language (for example, in D4-7) and "general" language (for example, in the discussion of "white" in D4-10). However, the effect was similar: engaging in these conversations about light in a way that conveys fluidity and openness to possibility was also shown to be crucial in matters of problem-solving in collaborative discourse (Koester, 2010a and 2010b). In the following chapter this will be seen to be equally important in promoting the meaning-making potential of light on stage.

Interestingly, conversations during technical rehearsals seem to favour dispreference, that is, structurally less likely occurrences of language use. This was shown in particular in the use of repair, specifically other-initiated other-repair and in problems of acceptability. These, I posited, are preferred in creative collaboration because of the time constraints (Friess, 2011) of the technical rehearsal, because of contextual considerations such as the nature of the repair and the relationship of the interlocutors, and because of a mutual desire for co-creation and facilitation. Initiating a repair sequence, such as that in O7-1, helps speakers to quickly identify both the source of the problem (the intensity of the light) and how to fix it (moving the actor) (Robinson and Kevoe-Feldman, 2010, p.232). In a time-constrained setting

such as the technical rehearsal, this can help facilitate creative dialogue (research question 1), translate artistic intention (research question 2), and facilitate creative agency (research question 3).

Using the incipient speech marker “so”, alongside tag questions, hesitations, accuracy hedges and other “powerless” language, further allows speakers to show “their concern for or interest in their conversational partners” (Bolden, 2006, p.662) while also ensuring their own interactional agendas are enacted. This was seen in transcript O1-6, in particular, in which the lighting designer attempted to persuade the stage manager and director towards a preferred course of action by employing “so” plus powerless language markers. Alternating between the two tactics helped downplay the forcefulness of what could have been seen as the lighting designer impinging on the professional domain of the stage manager and the director. These tactics in combination helped maintain team cohesion while allowing the lighting designer, in particular, to exercise a larger degree of agency within the wider team without damaging professional relationships.

The strategic use of silence was examined in section 7.4, considering pauses in dialogue as well as what remains unsaid at the production desk. In marked contrast to previous research in which silences have been dismissed as the “opposite of speech” (Poland and Pederson, 1998, p.293), “an absence of communication” (Kawabata and Gastaldo, 2015, p.5) or “problematic talk” (Jaworski, 2000), this section demonstrated the communicative potential of silence and effect of non-verbal communication, i.e. what is unsaid, either through choice, necessity or imposition. This included a short analysis of gaze and gesture and their effect on talk but also how the use of silence can affect agency, power and status, whether this is an active act of self-preservation or a passive act of being silenced. This was clearly

demonstrated by the lighting programmer in D1, who strategically employed periods of silence that served to preserve their professional relationship with the lighting designer in moments of problem-solving. While the physical proximity of the lighting designer and the lighting programmer at the production desk can be beneficial to conducting non-verbal acts of communication, the metaphorical distance created through disparity in professional and creative agency can stand in sharp relief to this. The geography of the production desk, the “point of command” (Hunt, 2015, p.15) for the lighting designer and the lighting programmer, was shown to impact not only channels of communication (as in O2) but also the visual and aesthetic considerations of space and time (as in D4), which have a direct bearing on light’s potential as a dramaturgical scenographic element; these will be explored further in the following chapter.

All of my research questions were addressed to varying degrees in this chapter. Building on the findings in the last chapter, the focus here turned to transactional, task-based talk that enacted interactional agendas in order to help explicate the processes of creativity and collaboration during technical rehearsals. There were shown to be a myriad of linguistic strategies in use for articulating the role of light and facilitating creative dialogue (research question 1). Many of these can be broadly grouped under the heading of “co-creation”: incomplete utterances, dispreference, positive and negative scoping, and strategies for constructing shared visual and spoken vocabularies. In-group language and the demonstration of linguistic proximity helped further cement these processes of co-creation, exploration and mutual understanding.

In some cases, talk or visual references were shown to be insufficient for establishing creative alignment, for example in the Anish Kapoor reference

in D4. In these cases, practitioners engage in “thinking through doing” (Gauntlett, 2011), as in the processes of trial and error that happen so frequently during technical rehearsals. Gauntlett (2011) suggests that “thinking and making are aspects of one unified process. The craftsperson does not do the thinking and then move on to the mechanical act of making; on the contrary, making is part of thinking, and [...] feeling; and thinking and feeling are part of making” (p.23). The challenges in translating artistic intention (research question 2) were shown to be exacerbated by this misalignment, in which visual references or the use of descriptive language did not always evoke the same meaning for participants. Modifying or designing one’s speech to fit the needs of the addressee was an important strategy; this was done through restating requests, using alternative vocabulary, altering the degree of “specialist” talk, and the lighting designer acting as “conduit” (O2 lighting designer, field notes, 20 March 2016) or “chameleon” (Jonathan, quoted in Moran, 2017, p.83). In situations with asymmetrical power dynamics such as the technical rehearsal, silence and so-prefacing were seen to be effective ways in which to elevate or “level” one’s status in relation to the rest of the team (research question 3). Silence, in particular, served interestingly paradoxical functions: it could be used to either actively deny agency to another member of the team, to preserve and maintain one’s status without diminishment (even if being externally silenced), and to promote one’s own agency and raise one’s status.

Chapter 7 will build on both the personal and professional discourse and relational considerations presented in Chapter 5 and the complex processes that underlie the technical rehearsal presented in this chapter to explore the ways in which these impact the dramaturgical potential of light, through an examination of light’s materiality, affect and temporality in the language-in-use of lighting designers, directors and programmers.

Chapter 7: Potential

The arguments in the preceding two chapters have, in a way, inevitably led to this final analysis chapter. In Chapter 5, the ways in which personal and professional relationships are built, enacted and maintained were shown to be crucial in facilitating creative dialogue (research question 1) and in revealing and promoting professional and authorial agency (research question 3). Chapter 6 continued with this line of questioning, examining the challenges in translating artistic intentions (research question 2) through shared language tactics (research question 1) and problem-solving strategies (research question 2). In this chapter, the focus extends to the potential of light as a meaning-making material and the lighting designer's creative agency in employing light in a meaningful way.

While it is widely recognised by both practitioners and academics that light is an important scenographic material, the authorial agency (Isackes, 2012) that is granted to scenography and the scenographer is rarely equally applied to those who make up their constituent parts. This is partially due to the fact that, as Hann (2019) argues, "set designers have historically cemented their status as lead designers through the holistic qualities of scenography" (p.49). Creative and dramaturgical agency may occasionally be attributed to light as a scenographic element, but authorial agency is rarely granted to lighting designers themselves. Even if the potential role of light in performance is seen as a spectrum, from mere illumination on one end to "scenographic light", to borrow Graham's (2016) term, on the other, more often than not it is described in a way that is divorced from the authorial agency and creative contribution of the lighting designer.

Notably, there has been a shift recently in the language used to describe both light in performance and the lighting designer as an authorial agent. This

change in language can be seen in more contemporary descriptions of light in performance, both in academic literature and in theatre criticism, for example. Graham's (2016) notion of "scenographic light" eschews traditionally limited notions of light's potential, in favour of a more active contribution to meaning-making. As Graham (2016) alludes to, however, when it occurs, this positioning is only afforded to light as material rather than the lighting designer as practitioner, denying them the same affordances of authorial agency as the scenographer. Despite the noted inclusion of light and the lighting designer in academic definitions of scenography and the scenographer, respectively, the authorial agency afforded to the *people* in practice in these pairs is often unequal, with lighting designers occupying an often inferior position. This occurs in other design disciplines as well, with the notable exception of set design, as outlined in Chapter 3. What makes the lighting designer an interesting case is the conditions of their work as described in Chapter 3 and elsewhere in this thesis: the conditions of the technical rehearsal, the intangible nature of light, and light's reliance on time and space.

Pilbrow (2008), in what is still a widely used and influential lighting design textbook, notes his five objectives of light. Despite this being seen as a limited notion of light's potential, active words are employed in the descriptions of light. Of the first, selective visibility, Pilbrow writes that "light acts as a pointer to the audience, telling them where to look" (p.7). Likewise, in revealing form (itself an active verb), light is used to reveal "the three-dimensional shape of the actor [...], *thrusting* the performer into appropriate prominence" (p.8, emphasis added). The last three objectives include composition ("painting the stage with light", p.8), mood ("light has an undeniably powerful effect upon our state of mind", p.9) and information ("conveying to the spectator a sense of place and time", p.9). However, this

potential for the active contribution of light in performance is undermined by language used elsewhere in descriptions of the lighting designer: “it is the designer’s duty to light the actors clearly” (p.7), “what the audience should see must not only be lit adequately but also correctly” (p.8), and “lighting supports the storytelling process” (p.9). In short, in this model, light as a material has (or is imparted) agency but the lighting designer does not (or is limited in their agency).

Graham (2016) maintains that “creative marginalization restricts the ability of light to influence performance” (p.74); that is, the marginalisation of the profession(al) has a direct bearing on the ambition of light as a formative scenographic element, as seen when comparing D3 and D4, for instance. The director of D3 continually restricted the lighting designer’s creative agency, thereby limiting the potential for light to contribute in a meaningful way, beyond mere spectacle. In contrast, the choreographer in D4 actively encouraged experimentation by the lighting designer and lighting programmer, thus freeing up light to become a key meaning-making scenographic material. Demonstrating the creative contribution of the lighting designer as integral to the creative process, as this research does, in turn opens up the possibility of light to act as an agential force in contemporary theatre practice.

Crisafulli (2013) notes a shift from “the widespread idea of light as a surface element, an afterthought to be dealt with in the final days of rehearsals, something that gives the performance its ‘fancy wrapping’ or spectacular effects” to “light [as] an element which is structural, constructive, poetic, and dramaturgic” (p.18). Both of these attitudes have been demonstrated throughout the transcripts so far to varying degrees, but in this chapter, I

will be focusing on those excerpts that clearly and emphatically demonstrate the latter, even when those qualities may be difficult to articulate.

It may be no surprise that the bulk of the examples in this chapter will come from observation D4, a contemporary dance production. Light – and therefore the lighting designer – in contemporary dance is often afforded a much more active and dramaturgical role, shifting towards a view of light as a material “thing”, what Graham, borrowing from Heidegger, articulates as an “object oriented ontology” (2018, chapter 4) of light. The potential for light – and the lighting designer – when it is viewed in this manner can be seen throughout this chapter. The first section will attempt to explicate the intangible and often inexpressible instinct of the lighting designer when dealing with light’s affective capabilities. The second section will examine the ways in which light’s materiality can be invoked during technical rehearsals, with the third section dealing with the temporal qualities of light. It is these qualities in particular that give light its potential for authorial agency and, in turn, give lighting designers (and, to a lesser but still vital extent, programmers) authorial as well as professional agency.

7.1 Affect

This section will concern itself with two types of affect – dramaturgical and metaphorical – both important components of the lighting designer’s vocabulary. There is an example of each in observation D1. The first concerns the lighting designer’s use of the word “dirgy”, previously discussed in section 6.2 in relation to developing a shared aesthetic vocabulary. In D1-4, the lighting designer is attempting to envelop the audience and auditorium in “dirginess” before the performance begins, dramaturgically linking the on- and offstage spaces, however implicitly. In this excerpt, the lighting designer is directing the programmer in plotting the level of the houselights.

This exchange, so early in the lighting process, is significant because this “starting feel” helps to establish a baseline for all future lighting decisions.

D1-4

6 LD: Whoa. That feels a bit dirgy to me. Up a tiny bit... yep.

[...]

9 LD: That feels alright. Great, we'll start with that.

The lighting designer uses the word “feels” in both turns, invoking what might loosely be termed an instinctual feeling. During the technical rehearsal period, much of what lighting designers do is guided by instinct. Lighting designer Lucy Carter, for instance, says that during the technical rehearsal, “I sit at my production desk and almost it’s an instinct to decide what to do. Afterwards I think, but that’s just my version, there are many other versions that could have been, it was my version that I created in the moment” (Moran, 2017, p.48). Instinct does not come passively; it is the result of considerable effort and experience. Even for experienced, established lighting designers, while the importance of instinct is often acknowledged, it can be problematic to articulate an instinctual response and harder still to justify (when needed) the decisions made in the moment. This difficulty is evident in the lighting designer’s use of “alright”, a word that is laden with ambiguity.

There are multiple instances of this ambiguous language throughout the transcripts, in which lighting designers must rely on instinct or intuition. This can often lead to challenges in translating or understanding artistic intention, necessitating either multiple attempts at explanation or further clarity, as shown in D4-2 (this transcript is also examined in more detail in section 6.3):

D4-2

- 5 Choreographer: Yeah, I think it needs a little bit - it needs like a virus feel.
- 6 LD: It's definitely... yeah. It definitely needed the -
- 7 Choreographer: It needs light. It needs air or something.
- 8 LD: What about the virus?
- 9 Choreographer: It's too fiddly up top.
- 10 LD: Yeah.
- 11 Choreographer: It has to be something that's just like BOOF. That kind of like [pause] quite full force BOOF.

The choreographer's use of "or something" in turn 7, along with "something that's just like", "kind of like" and "BOOF" in turn 11, is fairly vague in terms of practical solutions to the conundrum of this lighting state. What these ambiguous phrases do suggest, however, is a feeling of the effect the choreographer is aiming for: light and airy (turn 7) but also "full force" (turn 11). The choreographer is, in fact, referring in every turn of this excerpt to the "feel" of this section of the production, even though that word is only explicitly used in turn 5. Their assertions that the scene "needs light" and "air or something" (turn 7) evoke light's ability to both seem weightless (light and airy) and give an impression of space and volume. This invocation of materiality (examined in more detail in the following section) is couched, however, in language that instead focuses on the feeling (the "virus feel", turn 5) that the lighting state needs to evoke. The onomatopoeic nature of "BOOF", with the added emphasis, induces a visceral feeling that is potentially in conflict with the previous suggestions of "light" and "air" that the choreographer states are needed. The lighting designer, however, manages to draw on both of these seemingly oppositional feelings with an

effect that is “streaming” (turn 15) but also “snaps” (turn 15) in. The ability of the lighting designer to turn seemingly imprecise and potentially contradictory language such as this into a creative solution is an important skill, particularly during technical rehearsals. There is often limited time in which to have protracted conversations, and lighting designers (as well as programmers) must be able to extract a tangible resolution from such intangible language.

Unlike in architectural or urban lighting design, which is heavily dependent upon photometrics and calculations (see Livingston, 2014, chapter 13 for examples) in order to determine the “correct” intensity, direction, colour, distribution, etc. of light in a space, theatre lighting designers rely primarily on “informed intuition” (Rink, 2002, p.39). Theatre lighting designers and programmers work “in the moment”, improvising and creating in response to a myriad of constantly changing stimuli, what Schön (1991) describes as “a reflective conversation with the situation” (p.76). The speed at which this occurs in a technical rehearsal means it is often done subconsciously, with designers and programmers drawing on their own embodied, tacit knowledge of both art and craft. This probably accounts for the lighting designer’s use of “alright” (D1-4, turn 9), a word whose meaning is ambiguous but is also somehow enough to justify this creative decision in the moment, something that cannot (or, indeed, need not) always be articulated clearly. As lighting designer Rick Fisher remarks:

Sometimes it’s when you just kind of feel: ‘Oh that’s working ... that’s a moment ... I can see people the way I want to see them’ or: ‘Oh there’s the right atmosphere.’ It can be when a colour comes up. It can be when an angle of light hits somebody or something that people get excited about. You feel it among your colleagues or sometimes you just feel it yourself, you think: ‘Oh that feels right for this moment.’ (quoted in Palmer, 2013, p.260)

There are several examples of this “feeling” verbalised throughout the transcripts, for instance in D2-2 and O7-2 in the lighting designers’ use of the word “interesting”:

D2-2

1 LD: Could you put 4... Is that complete? It’s just quite interesting, that first state. Can you put 38 through 40 at 50, just, uh, and 33 and 34 at 20. [Pause.] Great. Thank you. And could you put 401 and 402 in this, please, in 203 - I’m going to change that - and at 50 percent. [Pause.]

O7-2

5 LD: It crosses into this.
 6 Programmer: OK. Uh...
 7 LD: Which I think is better and it’s also a more interesting choice, that way.

In neither transcript is “interesting” defined or elaborated on by the lighting designer; equally, no definition or elaboration is requested. The lighting designer of O7 only adds that the change is “better”, again relying on instinct, personal aesthetics and an understanding of the “design space” (Eckert and Stacey, 2000, p.525). In O7, the programmer will be relighting the production on tour, and it might have been helpful here for them to know what about this particular choice was “more interesting” or “better” than previous choices. It may also be, however, that the programmer/relihter agrees with the lighting designer’s assessment of “better” and therefore does not require an explanation because they are creatively “on the same page” as the lighting designer. What is more likely, given the surrounding talk, is that the programmer is preoccupied with the logistics of the actual programming of the change (which they work out verbally in some detail in turn 8 – see

section 6.3) that the aesthetic reasoning behind it is of less priority at this particular stage.

The feeling of something being a “better” choice is likewise found throughout the transcripts. In D4-9, the choreographer trails off without explaining what is “better”, leaving the lighting designer to fill in the – creative and linguistic – gaps:

D4-9

24 LD: So we never reach -

25 Choreographer: No -

26 LD: - full, yeah.

27 Choreographer: No. I think it's better if it's always... [Pause.]

28 LD: So what happens then is the energy that it has before it gets to full, if that's good then we can work on an effect that keeps going like that.

However, in D4-1, there *is* an articulation of what qualifies as “better”, providing some linguistic clues for the lighting designer and allowing them to understand and translate the choreographer's intentions into light:

D4-1

11 Choreographer: I - I'm not sure you do that. I think you just - I think you just really - don't you do that -

12 LD: Just fade it away?

13 Choreographer: Yeah.

14 LD: OK.

15 Choreographer: I think that's better than that.

16 LD: Yeah, OK. I thought that that was what -

17 Choreographer: No, so what I see is a line.

18 LD: Yeah.

19 Choreographer: And a line...

- 20 LD: Yeah.
- 21 Choreographer: And a fade, and a line, and a fade
and a line...
- 22 LD: Yeah.
- 23 Choreographer: So I still see the line going
backwards but I see it -
- 24 LD: I think that's better -
- 25 Choreographer: - the feeling should be upstage.
- 26 LD: - than tracking it away.

The lighting designer is initially unconvinced by, or perhaps does not understand, the choreographer's suggestion, as seen in the question in turn 12 and the clarification sought in turn 16. The choreographer then attempts another explanation of what they are visualising in turns 17 through 25, checking the lighting designer's comprehension along the way (turns 18, 20 and 22). With this additional explanation, the lighting designer then concedes, "I think that's better than tracking [the light] away" (turns 24 and 26). The choreographer then clarifies further by referencing the "feeling" they are trying to evoke: the line should be "going backwards" (turn 23) and "the feeling should be upstage" (turn 25). Looking back at the start of this exchange, the choreographer had asked for "a thickness" (turn 3) that creates a sense of the "volume of the space" (turn 1) – they bookend the logistical explanation with this sense of "feeling", highlighting its importance.

The importance of space – and of being able to draw on an embodied feeling of it – can be seen in D1-2:

D1-2

- 7 LD: Yeah. Is that what you sort of standard do for
crosslight there? Into that -
- 8 LX: Yeah.
- 9 LD: OK. Great.

- 10 LX: Depends what they do, depends how far they think the prosc -
- 11 LD: Let's go to there and - I just need to feel this space a bit, don't I? I can just readjust them.

In turn 11, the lighting designer very clearly notes the importance of space and how integral this is to the behaviour of light. More than this, though, is the importance of the lighting designer's understanding of the space, which they "need to feel" (turn 11). This process of "feeling the space" relies on an embodied knowledge of the space and is just one facet of the tacit knowledge that must be accumulated and acted on by the lighting designer in a relatively short, high-pressure period of time.

The ephemerality of light and the therefore individual, subjective and embodied responses to it are clearly seen in this section. These are communicated through potentially abstract, and often contradictory, words, phrases and emotions. In each case, through an understanding of the interplay between light and space, the lighting designer is able to translate this "feeling" (whether in a haptic or metaphorical sense) into the material of light. It is to this materiality that we now turn.

7.2 Materiality

The materiality of light is difficult to qualify and often eludes direct description. Edensor (2015) maintains that light "transcends the cognitive and moves into the nonrepresentational, the realm of the affective and sensual" (p.139), highlighting the visceral and often inexpressible impact of light in performance. The focus here on the technical rehearsal – i.e. the moment of creation of/for a lighting design/er – and its inherent limitations are both indicative and symptomatic of this elusiveness. Paradoxically, light is an immaterial material; its materiality is obtained by proxy, by coming

into contact with an object in space. Light's materiality is inherently bound to the spatial and temporal conditions in which it is employed. The difficulty of separating light from other objects in the performance space can be demonstrated simply in turn 1 of transcript D1-1:

D1-1

1 LD: It's a bit weird looking at those pools without any furniture, isn't it?

[...]

4 LD: I think I could run them higher once I've got furniture to plonk them onto. [The director] wants to play this scene really dark, but I don't think we'll get away with it 'cause we need the comedy.

The lighting designer here is noting the "emptiness" of the pools of light they have been focused around the stage. Without the furniture that will eventually be placed in the light, it is difficult to know if what has been plotted is useful or not, though it serves as a valuable starting point; as the lighting designer notes, they could probably "run them higher once I've got furniture to plonk them onto" (turn 4). Instead, the lighting designer has to rely on their tacit knowledge as well as their ability to imagine objects (including actors) in the space in their absence, a sometimes challenging thing to do. The lighting designer continues in D1-3:

D1-3

1 LD: I just don't know how to do the first scene as dark as [the director] wants it when it's such a comedy. [Pause.] Nothing's right. Maybe once we get the tables and chairs in I can really wrap that up 'cause at the moment it looks -

The lighting designer voices their frustration, not only with the lack of furniture on stage but also with the impact this has on their design:

“Nothing’s right”, noting that the furniture (and, indeed, the costumes and the actors – see turn 3 of D1-3) is integral to their ability to light this scene. In this production, the style of which might loosely be termed as “representational”, light’s potential feels somehow restricted, tied down by the necessity for (and, at this stage, absence of) these functional stage objects. When compared to descriptions of light in, for instance, O6 and O7 – performance installation and contemporary dance, respectively – there is a marked difference in the language used to describe light. Light’s material qualities are foregrounded and light is often described as an object in itself, rather than as its effect – or, to borrow from Graham (2018) and Hann (2018), what the light *does* rather than what it *is*: how it is “formative to all contemporary theatre-making” (Hann, 2018, p.5). In D4-1, for instance, the choreographer describes the light as “slicing” the performance space into “planes” as it comes into contact with the haze that fills the space:

D4-1

1 Choreographer: Is there any way we can try one where – so it goes all the way like that, then it does the second one, and when the third one starts the first one goes away? So, what, what’s, what’s happening with this one is this, you get the whole thickness, you get the whole volume of the space. What I get with the other one is I get the space sliced in planes. What I would love to try and get is almost like an Anish Kapoor thing, where you go – you get the thickness, you get the volume –

The choreographer contrasts this “slicing” with building up the “volume of the space” through a series of “thicknesses”. These descriptions not only give a weight and a tangible quality to the light, but importantly they allow light to play an integral role in the dramaturgical meaning-making of the piece.

As in the examples from D1 above, the stage space is free of other scenographic elements at this point in the rehearsal; the dancers are also absent. However, in contrast to D1, this absence frees rather than impedes the lighting designer's process, and light becomes an active agent, "developing and receding" (D4-1, turn 5) as it moves through the space. In a later example from the same production, the lighting designer evokes similarly physical language to describe what the light is doing:

D4-9

- 9 LD: OK, so can we start from there? OK, yeah, so this is just looping videos, that's, just loads of random, and then we could make something that makes it come away and collapse a bit more then carry on -
- 10 Choreographer: So what are you guys thinking about, what am I looking at?
- 11 LD: Can we go to black, [programmer]? I'm showing you versions of pixel maps that we've -
- 12 Choreographer: But where's this going?
- 13 LD: So this is in [??] - [*to the programmer*] and go - [*to the choreographer*] where it introduces that and if we like the way that introduces, we could make that whole thing where it keeps ebbing and flowing and -
- 14 Choreographer: What does that look like?

In turn 9, the lighting designer describes the light as "collapsing", giving the light a physical quality, as if it were a dancer. This physicality is seen as well in turn 13, in which they propose an "ebbing and flowing" of light. There are plenty of other examples of this from my field notes: the choreographer praising the "behaviour of the light" and how it "evaporates out of the space" (field notes, 2 October 2017) or asking the dancers to "feel the beams

of light” (field notes, 27 September 2017). This materiality is also directly linked to temporality, in particular the movement of light between the static “states” that characterise the typical “state/cue model” (Hunt, 2011, p.210) of both the design process and the default operation of most lighting consoles. This will be explored further in section 7.3 below.

O6 was conceived as a piece in which the lanterns (the physical apparatus) as well as the light functioned as actors and action, with both becoming performing objects. The lanterns were static, arranged in rows facing the audience, so that the filaments and lenses were visible. My field notes detail a “personification” of the lanterns and the light, and the language used by the lighting designer reflects this. For instance, the lighting designer and programmer had given all the lanterns names “as if they all have different personalities” (lighting designer, field notes, 30 May 2016). One of the lanterns was a large five-kilowatt Fresnel on a floor stand that the lighting designer referred to as the “grandfather light” because it “tells off” all the other lights. Some of the lanterns, according to the lighting designer, “don’t look like they’d be friends with the ones next to them. Those beamlights look like bullies” (field notes, 30 May 2016). This anthropomorphising of the lanterns resulted from a desire to represent “the energies of people without having people present”, showcasing a “hidden world, hidden people, hidden creativity” (lighting designer, field notes, 30 May 2016). O6-1 demonstrates the potential for light in a piece such as this, where light acts as autonomous actor:

O6-1

1 LD: It’s going to be dark down here so it’ll feel pretty oppressive. But once they [the lights] start sweeping and dancing and evolving...

Despite, or perhaps because of, the absence of human actors, there is a clear story being told in this piece. According to my field notes, words frequently used by the lighting designer included “evocative”, “artistic”, “nostalgic” and “kinetic”, the last of these particularly in reference to the “kinetic energy of light” (field notes, 30 May 2016). The lanterns, although static throughout, as well as the light, are treated as dancers, and the language used by the lighting designer in their descriptions of them clearly reflects this, as in O6-1.

Though this may seem an extreme example, far removed from the “traditional”, text-based productions that comprise the rest of my observations, I include it here to very clearly demonstrate the relationship between language and light, in particular the *agency* of light and the lighting designer. This demonstrates the potential of light as an active agent and, by extension, the dramaturgical agency of light and the authorial agency of the lighting designer (that is, the person creatively responsible for the material’s use). However, I do not mean to intimate that this is the only way in which this agency can be promoted, nor does the lack of this kind of language *necessarily* diminish the active potential of light or the work of the lighting designer. In observation O3, for instance, the light played an integral role in the demarcation of the stage space, directing the audience’s attention to specific areas or places on stage – providing what is commonly referred to as “selective visibility” (McCandless, 1932; Pilbrow, 2010), but what Graham (2018, p.104) more usefully expands to “mediation”. The director, however, paradoxically, did not want to “see” the light, saying, “The lighting is visible – I don’t want to see the beams” (field notes, 15 May 2016) and “I really notice the light against the wall – I don’t want to notice it” (field notes, 15 May 2016), attempting to divorce light’s materiality from its affective or dramaturgical impact. Unsurprisingly, perhaps, this was largely

unsuccessful; the lighting designer's request to "get all the dust out of this space magically" (field notes, 15 May 2016) would seem to confirm this.

The examples in this section demonstrate how the materiality of light is inherently bound up in the materiality of other performance elements, whether that is solid items of furniture – or the lack thereof (as in D1-3), an ephemeral material such as haze (as in D4-1), or the actual lanterns themselves (as in O6). However, as Hann (2019) reminds us, "theatrical materialities are encountered and conceived *in time*" (p.77, emphasis in original), and so the final section in this chapter will consider how lighting designers, lighting programmers and directors account for and deal with the temporality of light in the technical rehearsal.

7.3 Temporality

As we have seen in the previous two sections, and indeed throughout this thesis, light's materiality and its affective and dramaturgical capabilities are inherently bound to space and time. While there are often many, sometimes imperceptible, movements of light within a scene, the most obvious place that this link to temporality can be observed is in between scenes, in the scene changes.

Transcript O1-6, for example, references the timing of a scene change, in which the stage manager, director and lighting designer are attempting to coordinate the actors' entrances and exits with the change in lighting. As noted in previous chapters, because of their position, both geographical and operational, lighting designers quite often find themselves best placed to comment on and affect the overall rhythm or temporal "feel" of scene changes.

O1-6

1 LD: Hello. Hello, [director]. Hello.

2 Director: [Actor] had started, but he wasn't lit yet, so I'm just trying to work out what the timings need to be. 'Cause I think it all needs to - it all -

3 LD: It's happening quicker, isn't it?

4 Director: It all needs to happen quicker.

The coordination of movement in time and space is an integral part of the technical rehearsal. However, there appears to be a discrepancy here in the director's sense of the solution versus the lighting designer's. The lighting designer asks if the scene change is "happening quicker" (turn 3) and the director replies that it "needs to happen quicker" (turn 4), repeating but slightly altering the lighting designer's assessment. In later turns, it transpires that there are three potential, related, temporal-based solutions to integrating the action of the scene change with the lighting: whether the change in lighting happens quicker (turns 3, 4 and 7), whether the cue is called earlier (turns 6 and 8) or whether the actor varies their movement in response to the light (turn 10).

O1-6

5 LD: Yeah, it needs to feel like a burst into the - he's bursting into the door. Yeah. So -

6 Director: So do we keep it - do we need to time it earlier than the chandeliers 'cause [actor] was still - he reached the - yeah, and he was speaking, it was dark on him. So I'm just thinking how we need - unless we start [actor] on the stage once everything's set?

7 LD: No. Well, you should be able to make it a crossfade. It's about getting the - [SM], am I correct in saying it's about getting the doors open quicker and stuff, isn't it?

- 8 SM: Yeah, we just need to move [actor] earlier.
- 9 Director: Can we try that?
- 10 LD: So he - 'cause it's - am I correct in saying - correct me if I'm wrong, [SM] and [director], but you - it's about a steady start, isn't it? And then when you know your cue is, you then walk faster, don't you, is that...? So you're already halfway down the aisle but you're conscious that the other people are still acting, and then you - yeah, yeah - so it's getting that rhythm.

The lighting designer's preferred solution is to amend the actor's timing rather than that of the lighting, as seen particularly in turns 7 and 10. In turn 7, the lighting designer starts with a dismissal of the director's idea to stop the actor from speaking until the shift in lighting occurs. They further maintain that "you should be able to make it a crossfade", using a "lighting" word ("crossfade", turn 7) to describe this act of coordination. The lighting designer's response to a practical problem on stage is answered in a technical way, translating the director's turn 6, which is really a question about timing and the placement of cues, into "lighting" vocabulary. Note, however, that they also use the modal verb *should* and the second-person pronoun *you* to express this possibility, thus firmly maintaining that the onus should be on the actor to synchronise their movement with the light, rather than the other way around.

The lighting designer then confirms this with the stage manager in turn 7 in such a way that "disarm[s] potential attacks on the factualness" (Partington, 2003, p.65) of this suggestion, through the use of an accuracy hedge ("am I correct in saying"), further cementing their control over the situation while simultaneously offering their preferred solution ("getting the doors open quicker"). In turn 8, the stage manager attempts to re-establish their control

with their own suggestion, with which the director appears to concur (turn 9). Their potential solution, however, aims to move the actor earlier rather than quicker, and the lighting designer remains unsatisfied with this, reiterating their concern and preferred solution in turn 10 in more detail, alongside another accuracy hedge, two tag questions and multiple hesitations. The lighting designer uses these three types of “powerless” speech to exert control and influence over the situation in a strategic manner such that their creative relationships remain intact, while at the same time achieving their desired outcome. Throughout this exchange, and indeed afterwards, there is no indication from the director or stage manager that their positions have been threatened or that they have lost face. The lighting designer’s strategic use of language has allowed what could have been a significant face-threatening act to be conducted with minimal impact on their professional relationships.

There are other clear demonstrations of the importance of time and the movement or change between cues throughout the transcripts. For instance, the director in O1 queried lighting changes on several occasions with the lighting designer, for instance in O1-3:

O1-3

- 1 LD: What do you want it to go to?
- 2 Director: 'Cause it went to blue just now, didn't it? It went to a very pale light - I'm not sure about that. Do you - are you - are we thinking of gradually losing the warmth?
- 3 LD: Yeah. I mean, you saw it happen over five seconds, where it should - the timing should be forty seconds.
- 4 Director: Right, right. Great.

Had this change occurred initially over the intended forty seconds instead of the console's default time of five seconds, the director may not have raised this as a concern. Their question in turn 2, "are we thinking of gradually losing the warmth?", points to their expectation for this change, and the lighting designer confirms the slower speed to the director in turn 3.

Elsewhere, what seems initially like a complicated problem is solved by the apparently simple alteration of the timing of a transition:

D4-2

15 LD: You know "angel wings", [programmer]? Oh, that was wobbly. [Pause.] We just want the bars to each individually go forwards and backwards. [Pause.] So we've got the upstage points and we've got the downstage points. We've also got that effect we did where they were streaming - they were moving like this [*demonstrates*] individually. Maybe we just need to make them snaps?

This solution is, in fact, hinted at in the preceding speech, in the choreographer's turn 11: "It has to be something that's just like BOOF. That kind of like [pause] quite full force BOOF." The onomatopoeic word "BOOF", repeated twice, each time with emphasis, carries with it a sense of timing: something quite sudden, impactful and "full force" (turn 11). The lighting designer gets closer with the suggestion of a "jerking" effect (turn 13), again a word that conjures up a sense of time, of short, staccato movements. Therefore, while the pattern of the moving effect in this cue (described by the lighting designer in turn 15) and the intensity of the change ("full force", turn 11) are important, what ultimately proves to bind all of these properties together is the timing: "Maybe we just need to make them snaps?" (turn 15).

Timing is critical to the affectiveness of light. There are other instances throughout that are not as explicit as these but are equally demonstrative of the inherent link between time and light. Time is integral to light's aesthetic and dramaturgical potential, and this can be seen in how language is used to evoke and promote this fundamental relationship.

In turn 10 of O1-6, the lighting designer advocates for the actor to vary their speed as they walk down the aisle (or the "runway" as it is referred to in O1-2). This is perhaps related to the prevalence of what Hunt (2011) calls the "state/cue model", which is the default way in which the lighting is constructed over the course of a production through the intermediary of the lighting console. Hunt describes this model as "emphasizing the discrete, unitary nature of lighting changes: each change is distinct from the others, and changes proceed in a defined order through the duration of the performance" (2011, p.209–210). This, he maintains, "privileges the *spatial* distribution of light on stage over the *temporal*" (Hunt, 2011, p.210, emphasis in original). Because the default for the lighting console is to move between these discrete states in a steady, linear way, there is limited possibility for variations in timing such as the lighting designer is proposing for the actor:

O1-6

10 LD: So he - 'cause it's - am I correct in saying - correct me if I'm wrong, [SM] and [director], but you - it's about a steady start, isn't it? And then when you know your cue is, you then walk faster, don't you, is that...? So you're already halfway down the aisle but you're conscious that the other people are still acting, and then you - yeah, yeah - so it's getting that rhythm.

Without building multiple cues or manipulating each channel or group of channels individually, for instance, the lighting designer and programmer are unable to anticipate and match the actor's rhythm, which may change with each performance, and therefore this responsibility falls outside their capability. Such complex programming – “a steady start”, “you then walk faster”, “getting that rhythm” (turn 10) – would take up valuable time during the technical rehearsal that could be better spent elsewhere. It is more than a practical concern, however; the lighting designer is defending this scenographic moment, the affect (and effect) of which is to some extent determined by the actor's temporal sensibility. There is a complex interdependence here between the movement of the actor, the speed of the lighting change and the point at which the change is enacted by the DSM and lighting operator. Although light is the material through which visual and spatial elements of a production cohere, its temporal potential is also limited by the technology used to manipulate it. This is seen in D4-7, in the choreographer's question about “programming that's algorithmic” (turn 16). The “state/cue model [...] privileges the static over the dynamic” (Hunt, 2011, p.205); programmers “can't randomise cues” (D4-7, turn 13), because that is not “what programming is” (D4-7, turn 14). A lighting designer's ability, then, to use light “to shape time and space, to become a dramatic structure, and serve as a means of unfolding or producing ‘actions’” (Crisafulli, 2008, p.93) is thus dependent upon and shaped by this dominant mode of programming – or, as Hunt concisely puts it, “*The aesthetic values we hold for light on stage are intimately bound together with the design of lighting consoles*” (2011, p.206, emphasis in original). The flexibility demanded by early lighting designers seems to have been lost. As Thayer notes, “A truly flexible control board should make possible any change when the change is needed whether or not it was planned for in advance and without time-

consuming operations” (1961, p.30). He goes on to say that “Flexibility is not, as is often implied, merely the capacity to execute precisely complex lighting changes” (Thayer, 1961, p.30). It would appear that that sentiment remains.

7.4 Summary

This section has shown how lighting designers, in particular, communicate about light’s affective, material and temporal qualities during the technical rehearsal. This was tied to the creative marginalisation of the lighting designer, again through a focus on what is unseen in their work. By being able to explicate the hidden processes of feeling, intuition, instinct and tacit knowledge in the work of the lighting designer as integral to the creative process in turn opens up the possibility for light to act as an agential force in contemporary theatre practice. These unseen processes were shown to contribute to an understanding of light as material through, for instance, physicalising or anthropomorphising the light.

Throughout this chapter, there was an emphasis on space and time as fundamental to light across all three sections. In addressing research question 1, in particular, lighting designers use multiple tactics to articulate the role of light; however, these were more abstract than have been seen in previous chapters. References were made to air and atmosphere, more ambiguous terms were used (“better” and “interesting”, for example), and sometimes multiple or repeated attempts were necessary to make one’s meaning clear (as in the scene change discussion in O1-6). This is indicative of the challenging nature of working with light as a material, something this thesis has addressed throughout, particularly in comparison to other design disciplines with more tangible materials at their disposal. Much like Böhme’s description of atmospheres as “vague, indeterminate, intangible” (2013, paragraph 4), light is often “elusive, bound to the temporal construct of

performance and to the modalities of its interaction with other objects” (Graham, 2018, p. 86). The linguistic – and physical, in the sense of the lighting console – difficulties encountered in this chapter confirm this state of affairs.

In all three sections, the challenges of translating artistic intention (research question 2) were apparent. Lighting designers, in particular, were able to counter some of the ambiguity that characterised the majority of the talk in this chapter by drawing on their own embodied, tacit knowledge of light as material, its physical properties, and how it interacts with and is influenced by other scenographic elements. Of the three analysis chapters in this thesis, the creative processes examined here are perhaps the most difficult to explicitly summarise. This is due in part to the difficulties of describing the three properties that form this chapter. However, the problem-solving strategies (research question 2) and shared language tactics (research question 1) of Chapter 6 (which in turn built on the findings from Chapter 5) were of assistance in making these exchanges more productive. For instance, in D1-4, the lighting designer’s invocation of a “feeling” helps to substantiate and explain the meaning of “dirgy” (turn 6), a production-specific reference. In D4-1, the choreographer describes the stage space as being “sliced in planes” (turn 1), a potentially problematic way to express the interplay of an immaterial material, to use my previous phrase, and an empty stage space. However, again by appealing to affect (“the feeling should be upstage”, turn 25) and repeated descriptions of more concrete characteristics (for example, “thickness”, “volume” and “line”) that were assigned to the light by proxy, the lighting designer and choreographer eventually come to understand each other’s meaning. Temporality and materiality merged in D1-3 and O7-2, in particular, in which the absence of other performance elements (furniture

and bodies, respectively) had a marked impact on process; lighting designers were forced to imagine or to narrate the presence of these missing objects.

Taken together, then, the interplay of these three properties (affect, materiality and temporality) further demonstrates the necessity of a diligent and sustained consideration of light within the context of the technical rehearsal as a fundamental and significant part of the theatre-making process, one that deserves greater attention in theatre and performance studies more widely. In the conclusion that follows I will make this case more concretely.

Chapter 8: Conclusion

This thesis has explored the creative collaborative working relationships of theatre lighting designers, lighting programmers and directors during technical rehearsals, a fundamental part of the creative process in performance that has hitherto been neglected in scholarly study. Unusually for studies of theatre production and scenography, the research has taken a discourse analysis approach, using linguistic ethnography as a framework for observing lighting designers and their colleagues at work in order to discover the latent mechanisms and underlying structures of collaboration that exist during technical rehearsals. Taking this approach has yielded insights into the ways in which creative collaboration is enacted in this particular workplace environment, with further implications for similar fields within the cultural industries, the specifics of which I will discuss below. For lighting design, scenography and theatre production scholars, this opens up new ways of thinking about how theatre is made and about how an investigation of these primarily hidden processes is integral to our understanding of theatre-making. Through an analysis of naturally occurring dialogue in this particular workplace environment, this thesis has explored a variety of linguistic tactics used during technical rehearsals in order to understand how lighting designers and lighting programmers contribute creatively to the theatre production process, how they do this despite the constraints placed on their professional practice and standing (both systemic and in individualised cases), and how lighting designers and programmers advocate for their creative contribution through an articulation of what light brings to a production. These tactics will be summarised in more detail below.

A detailed linguistic analysis has revealed some of the underlying structures at work in collaborative environments, in particular theatre technical rehearsals. Creative collaborative discourse lends itself to a variety of linguistic strategies, some perhaps more effectively deployed than others. These strategies seemed to serve a dual purpose within the setting of the technical rehearsal: first, to assert the fundamentality of light and the lighting designer to live performance, and second, to demonstrate the often “hidden” ways in which lighting designers, lighting programmers and directors co-construct their practice in the moment. The practices and processes of the technical rehearsal, for lighting designers and programmers, especially, “are the kinds of practice that are most prevalent in our everyday affairs, but due to our having been so thoroughly socialized into them they can become challenging to describe” (Hazel, 2018, p.266). While the technical rehearsal may not seem like an “everyday affair” to an outsider, for lighting professionals, it comprises a large and essential part of their working life.

This thesis demonstrates a wide variety of linguistic strategies that are in use during the creative processes of technical rehearsals. These can be broadly grouped under three headings: establishing and maintaining relationships; translating intention; and exercising agency. These correspond roughly to the three research questions, which have been answered throughout the preceding analysis; I have summarised those findings below.

The processes of establishing, enacting and maintaining both personal and professional relationships were shown in Chapter 6, in particular, to be of paramount importance in facilitating creative dialogue (research question 1). Interlocutors accomplished this through complex methods of co-constructing shared vocabularies, through the positive communication strategies of complimenting and disclosing, and through eschewing the “preferences”

of everyday talk, as advocated in conversation analysis. The ways in which intentions were translated are, in comparison, more woolly and less straightforward. Discussions of light's affect, materiality and temporality presented challenges that were not always sufficiently addressed by having shared vocabularies or experiences (research question 2). Finally, exercising multiple types of agency required maintaining an intricate balance of "expert power" (Vine, 2004, p.28; Spencer-Oatey, 2008, p.35), "epistemic status" (Glenn, 2019, p.225) and authority through mitigating language, face-saving and face-threatening tactics, and silences (research question 3).

8.1 Main arguments and research questions

The originality of this research can be briefly summarised as such: Through a linguistic ethnographic approach, this thesis has explicated the hidden mechanisms of collaboration and underlying structures of agency, power and hierarchy that characterise technical rehearsals; has explored how the technical rehearsal works as a discrete part of the theatre production process; has contributed to an understanding of how lighting designers and programmers work, bringing to light the "unseen work" (Essin, 2015) that characterises these professions and enables their creativity; and has advocated for the role of light and of the lighting designer and programmer as integral to theatre production. The technical rehearsal has thus far been an undervalued resource and process in scholarly literature, characterised by its relative absence in theatre and performance studies research. This has in turn led to an inadequate recognition of the skill and contribution to the theatre production process of lighting designers and lighting programmers, whose work, therefore, remains mostly unseen, unexamined and unappreciated by the academy. The professional marginalisation felt by most lighting professionals (designers, in particular) would seem to substantiate this claim outside academia as well. Ontologically, then, this thesis also opens up

potential theoretical and practical implications for theatre and production studies more widely through its focus on *process* over product: the processes of theatre-making in which lighting designers, programmers and directors engage (and, importantly, *how* they engage in them) have a direct impact on the final product, and thus on what theatre, at a fundamental level, is. The technical rehearsal should, therefore, be seen as an integral and essential part of theatre-making, part of a continual process of creative experimentation, personal and professional engagement, trial and error, and problem-solving, that serves to engender opportunities for collaboration in theatre production. Recognising the centrality of this process marks a fundamental shift in the ontology of theatre-making and a fundamental shift in the way the contribution of lighting designers and lighting programmers is understood. The work of the lighting designer and lighting programmer is intrinsic to this process and deserves to be given more attention.

There is a complementarity here to the recent work of Graham (2018), who clearly explicates this fundamental contribution of the lighting designer through a phenomenological exploration of light's material, affective and dramaturgical potential. While our approaches have differed significantly, we have a broadly similar overriding aim: to advocate "for the critical significance of [light's] role in the construction of performance" (Graham, 2018, p.279), a role that has often been overlooked or only minimally considered in scholarly study. This is where the bulk of this thesis' original contribution to knowledge lies. The application of discourse analysis to an ethnographic study of theatre production processes has allowed for a broader, extended understanding of creativity and collaboration than has previously been explored in existing work: first, by focusing my inquiry on lighting designers, lighting programmers and directors; second, by focusing on technical rehearsal processes; and third, by focusing on the language

strategies used by these professionals in this setting. Through an examination of the technical rehearsal as a significant, discrete and fundamental part of making theatre, this thesis contributes to a critical understanding of theatre design and production processes and establishes these as essential considerations in studies of theatre-making.

The research questions driving this thesis seek to address a number of issues, including the historical and contemporary marginalisation of lighting designers and lighting programmers; the challenges that lighting designers and programmers face in advocating for their own work, particularly those facets of this work that are, at varying levels, hidden and unseen; and the myriad (also often hidden) dynamics of power and hierarchy that characterise UK theatre practice, as well as creative, collaborative work more generally. These considerations were explicated through a focus on the language-in-use of directors, lighting designers and lighting programmers at the production desk during technical rehearsals. Against the urgency imposed by this often high-pressure, time- and resource-poor backdrop, the linguistic tactics in play during creative collaboration were shown to play a crucial and central role in the processes of production. With this in mind, I will now revisit each research question in detail in order to explicate the main findings of this research project.

1. How do lighting designers, lighting programmers and directors use language to articulate the role of light during the production period, and in what ways do they facilitate creative dialogue?

There were shown to be a myriad of linguistic strategies in use for articulating the role of light and facilitating creative dialogue. These can be broadly grouped under the heading of “co-creation”, highlighting the interplay between people and the negotiation that is inherent in creative

dialogue; these tactics include incomplete utterances (O5-1 and D4-2), dispreference (D2-5 and O7-5), cycles of positive and negative scoping (D4-2), and the initiation of repair sequences (O7-1). Positive communication, in-group language and the reciprocal impact of personal and professional dialogue helped further cement these processes of co-creation, exploration and mutual understanding by aiding group dynamics. In combination, these strategies gave lighting designers and directors, in particular, the means to construct shared visual (aesthetic) and spoken languages, building on the personal and professional relationships that were constantly being enacted and maintained.

2. What are the challenges in translating artistic intention? How can lighting designers, directors and lighting programmers use language to anticipate and manipulate these challenges?

In many ways, this was the most difficult of the research questions to answer. The conditions of production during technical rehearsals and the degree to which much of the work is unseen contributed to this difficulty as did the ephemerality of the properties of light considered in Chapter 7. In asking this question, my aim was to investigate how members of the creative team (including the programmer) jointly construct their talk during technical rehearsals, how their shared understanding of the process and of the design itself is constituted through language, and how design challenges shape the creative team's language-in-use. These were accomplished in a variety of ways. The importance of constructing a shared language, both spoken and visual, as well as establishing, through a process of trial and error, the rules of these languages were shown to be complex but crucial. Lighting designers, directors and lighting programmers engaged in iterative series of positive and negative scoping (Taylor, 2018), for instance, developing

production-specific idiolects (shown most clearly in D1), as they developed a common understanding of the design parameters. This was occasionally thwarted by creative misalignment, such as the Anish Kapoor reference in D4-2, the lighting designer's and director's disagreements in D3-2, and the negotiation of the scene change in O1-6. In order to mitigate against these instances, tactics such as rephrasing requests (as in O1-2 and O7-1), offering alternative suggestions (D4-2 and O1-6) or using alternative vocabulary (O2-1 and D4-8) were used, as lighting designers and directors attempted to establish a shared vocabulary. Programmers, too, were shown to employ these tactics, for instance, in adjusting or articulating syntax patterns (O2-1) or offering alternate suggestions to lighting designers (D1-6 and D3-8).

3. How do lighting designers exercise their individual agency within the wider team in which they work? How does language reveal and facilitate creative agency?

Of all the research questions, this one yielded, I feel, the most interesting results. As explained in Chapter 3, lighting designers have long felt marginalised during the creative process. They usually enter creative discussions after the set design has been confirmed and thus a bulk of a production's aesthetic has been decided on; this and other prevailing recruitment policies mean that they tend to find themselves occupying a fixed place in the creative team hierarchy; there is a continued misunderstanding of how and when lighting designers work; and the demands of time and space mean that they must paradoxically work in both creatively exposing and procedurally hidden ways. However, despite these structural and institutional constraints on their professional agency, lighting designers can and do in fact exercise a great deal of creative agency, further cementing my claim above that the work of the lighting designer and lighting programmer

is intrinsic to the technical rehearsal process. This creative agency was seen in displays of “epistemic ‘status’” (Glenn, 2019, p.225) and “expert power” (Vine, 2004, p.28; Spencer-Oatey, 2008, p.35), such as in D1-6, D3-1 and O1-6, or indeed in yielding to other people’s expert power (as in D3-2 and O2-2). Mitigation and the use of powerless language was, paradoxically, shown to be an effective way of exerting control and influence over a situation in a strategic manner such that creative relationships remained intact, while at the same time achieving the desired outcome (O1-6 and O2-2 in particular). Related to this, face-saving acts occurred frequently, by all members of the creative and production teams (e.g., the programmer in D3-1, the choreographer in D4-2 and the director in D2). There were very few instances of overtly face-threatening acts (with the possible exception of the lighting designer’s at times antagonistic behaviour towards the programmer in D1 and the openly rude director of D3); instead, there seemed to be an aversion to anything that threatened another person’s face, even if these were not explicitly face-saving. Examples here include the repair sequence in D4-2, the compliment responses in O7-5 and D2-4, and the lighting designer’s use of powerless language in O1-6. Creative agency, therefore, seems to be strongly linked to the development and maintenance of a professional workplace environment that is founded on personal relationships, trust and a degree of autonomy, as seen particularly throughout Chapter 5. Examples of how these are linked can be seen in D2, in which the director’s interactions with the lighting designer bordered on the dictatorial, and therefore the lighting designer’s creative agency was stifled, and in O2-2 in the director’s imposition of a practical alteration to the lighting rig that in turn affected the aesthetic of the lighting design as a whole. Conversely, the opposite can be seen in observation D4. As noted in the conclusion to Chapter 6, D4 served as an excellent example of the

relationship between a positive working environment and the way that light (and by extension the lighting designer) was allowed – even encouraged – to take prominence in this production. The relationships between the lighting designer, director and lighting programmer were characterised by a shared appreciation and curiosity of each other’s capabilities and responsibilities (seen particularly in D4-7), respect for each other’s work and personal wellbeing (D4-6), an environment in which trial and error was encouraged (D4-1), and the process of lighting being valued as integral to the creation of the performance (D4-7): D4-8, D4-9 and D4-10, in particular, all show examples of a collaborative style of working.

The use of the word “collaborative” here is intentional. Of all of the observations that made up the fieldwork, D4 showed most clearly how the (perceived or actual) marginalisation of light and the lighting designer can be combatted and how this can be demonstrated through a linguistic analysis. My claim in Chapter 6, following Mermikides (2013a and 2013b) and Harvie (2005), that “mainstream” theatre-making – the environment in which the creative process takes place, the ways in which things are done, and the attitudes of the people doing them – is inherently unsuited to “true” collaboration, is in part demonstrated and confirmed by this observation as the exception that proves the proverbial rule. The creative team in D4 was allowed an extended period of time in a theatre space for technical rehearsals: approximately two and a half weeks. This allowed for creative exploration in a less pressured environment – time was allowed, and indeed expected and encouraged, for mutual discovery. Crucially, though it was not the final performance space, this exploration took place in a theatre with the full lighting rig and technical capacities available, rather than primarily on a screen (as with visualisation software) or on paper (with drawings). The fact that this was the most linguistically rich of all my observations is, I believe,

not a coincidence, for all of the reasons above. Through careful attention to the linguistic strategies and patterns of the director, lighting designer and lighting programmer, this research explicates the processes and conditions of creativity that occur during technical rehearsals, rendering these visible with clear connections to and implications for collaboration, professional hierarchies and agency – of both the lighting designer specifically and, by extension, light as a scenographic material. As stated above, this research, therefore, opens up a fundamental ontological shift in scholarly understandings of the technical rehearsal as an essential process in theatre-making.

8.2 Reflections on methods and methodology

This thesis makes an original contribution to existing knowledge in studies of theatre production, scenographic processes and collaboration more widely, building on research in these areas. Methodologically, the use of a discourse-oriented ethnographic approach is so far unique in the study of theatre production processes. The combination of discourse analysis and ethnography has allowed me to take a critical approach to a process, a setting and knowledge that I had hitherto taken for granted in my professional work. The additional autoethnographic focus has enabled me to draw on my own extensive knowledge and experience of both the profession(s) and the setting to articulate the “expert-intuitive operations” (Melrose, 2007a, paragraph 8) that characterise the creative process during technical rehearsals.

As detailed in Chapter 4, while the specific methods that were used in this research were adapted and developed throughout the course of the fieldwork in particular, the overriding methodological aim remained the same throughout: to observe directors, lighting designers and lighting programmers at work specifically at the moment of creation, that is, during

technical rehearsals, with an explicit focus on the language-in-use of these professionals. This focus on everyday talk and the use of discourse analysis methods are common in both social and institutional settings. Theatre design and production (as opposed to rehearsal room) processes have been largely absent in existing work in discourse analysis and/or ethnography; however, this method is beginning to gain some traction among emerging theatre and performance scholars (e.g. Taylor, 2018, and her work on theatre costume designers and makers).

The methodology, however, was not without its limitations. On reflection, many of these might have been solved, or at least mitigated, by decreasing the number of observations I undertook and focusing on two or three productions in more depth. This might have allowed me to become more embedded in each production period as a researcher and perhaps therefore to address some of the technological challenges of the fieldwork, namely audio and video recording. With fewer observations and therefore more time in each setting, video recording could have been explored as a possibility in data gathering and analysis, in order to allow me the ability to widen the scope of my focus to include non-verbal communication such as gaze and gesture in more depth. Taking this approach would have also potentially allowed me to examine further environmental considerations beyond the linguistic (and aural) signifiers in this thesis – something that further research may also address.

There were some challenges with audio recording, which I have intimated in Chapter 4, specifically in relation to observation D2. The noise from on-stage work – whether this was from actors, singers, musicians or technical staff – always “bled through” onto the recordings, sometimes magnified as it was picked up via someone’s microphone on cans then amplified into the

headsets. This meant that sometimes potentially interesting conversations were rendered inaudible on the recordings, and there may have been useful excerpts for analysis in these sections. I am unsure how this particular issue might be addressed in future iterations of this research; perhaps it is a limitation that must be accepted as inevitable. In fact, in many ways, it demonstrates quite clearly the multiple, overlapping, concurrent channels of communication (spoken and otherwise) that must be processed, responded to and acted upon during technical rehearsals and how these are constantly being filtered by those on cans, in particular.

The methodological shift from corpus linguistics to discourse analysis is also an area that could be revisited in the future. How might a corpus linguistics approach have altered or impacted the findings of this research? The more qualitative approach I eventually settled on inevitably relied on my own subjective interpretation of the situation and what I was observing, using my knowledge and experience as an “intimate insider” (Taylor, 2011) to unpack and decipher what was “really” going on. However, this, of course, comes with the related potential problems of interpretation and selectivity: What is selected for analysis and why? How could I be sure my interpretation of a situation was “correct”? A corpus approach would have provided quantifiable “evidence” of linguistic patterns in use, and these could have been analysed in relation to a broader corpus such as the Corpus of American and British Office Talk (ABOT) or the British National Corpus (BNC) to discover the differences and similarities in usage between the specialised subset of the population under examination here and that as a whole. However, while this does indeed constitute an interesting and potentially useful approach for future research, a purely corpus-based or corpus-driven approach would not have allowed me to answer my research questions in what I felt would be the most effective way. I have attempted, in

the analysis of each transcript, to address the above questions of selectivity and interpretation, while remaining fully aware that it would have been impossible to document everything that happened in each observation in the kind of minute detail that might help militate these concerns. Even if I had done so, the analysis of such data would have been equally subject to my personal interpretation, as both a researcher and a practitioner.

There remains a wealth of material still to be fully investigated and analysed. The selection of recorded and transcribed data was a painstakingly time-consuming process, guided by the research questions. Still, there are many hours of recorded data that do not feature here, though this lack of inclusion does not necessarily imply lack of significance. There is plenty of scope for further publications (whether journal articles, book chapters or conference papers) to be developed from this data and for other avenues of inquiry to be explored.

The methodology and methods demonstrated here can be extended and adapted as needed in order to provide both applied linguists and theatre practitioners with a detailed process for exploring how collaborative mechanisms work and how these impact on – and are impacted by – both professional and interpersonal relationships. While this research specifically focuses on a very particular, specialised workplace environment, the methodology I have employed here could be used to explore the processes employed in similar fields in the creative and cultural industries, particularly those that employ creative collaborative processes at the intersection of art and technology, such as music, gaming and architecture. Indeed, I hope that this will be the case.

8.3 Implications and further research

While the research questions I set out to initially answer are firmly rooted in theatre production, there are implications here for the diversification of not only theatre studies but also the field of applied linguistics. This thesis extends existing research in both fields and opens up avenues for further inquiry into collaborative arts practices; further research could explore the application of applied linguistics methods in the wider field of scenography or in other dramaturgical processes, such as design meetings or research and development periods, in ensemble theatre companies working with devised texts, or even in audience research. There is additionally scope for exploring concepts such as leadership and identity in hierarchical theatre environments and how these concepts are manifest in language practices. There remains significant potential for a continued understanding of what and how things happen in theatre production specifically, in spite of the predominant models of working and institutional hierarchies, and how these are either perpetuated or subverted through processes of shared endeavour. Indeed, there is much potential for interdisciplinary work to follow on from and build on this research.

There are two specific aspects of this research that I would be interested in pursuing further, both of which concern paralinguistics. First, I would like to extend the research I have started in section 6.4 of this thesis on the role and use of silence and pauses during technical rehearsal talk. In particular, I am interested in unpicking the specific “rules” of silences and pauses: though these are clearly understood and regulated under performance conditions, this is not the case during technical rehearsals. The recognition of the potential importance of these moments came out of my methodological reflections throughout the fieldwork, and though this is currently reflected in the data analysis in section 6.4, there is potentially more to be investigated in

terms of silence's relation to power and authority than I have had the space to do here.

The second area of interest concerns the verbalisation over headsets of gestures that would otherwise have a communicative function in face-to-face interaction. Speech and gesture are often coordinated in ways that enhance communication (McNeill, 1992, 2005; Goldin-Meadow, 2003; Kendon, 2004), and turn-taking cues are often multimodal (Mondada, 2006, 2007; Schegloff, 1984). Given the nature of this particular workplace environment and the constraints placed on communication (i.e., it occurs primarily in the dark and over headsets), do practitioners make allowances for this in their communication by verbalising gestures? This would build on existing research into the alignment of gesture with speech (Goldin-Meadow, 2003; Habets et al., 2011), applying this to the specific environment of technical rehearsals and using multimodal data (the challenges of which have been articulated above).

There were two observations (O3 and O4) that were not particularly pertinent in terms of answering the specific research questions in this thesis, though these do offer potential for further investigation: the primarily multilingual production team in O3, for instance, would suit an investigation based around practices of translanguaging (Li, 2018).

The impact of this research has been to highlight the role of the lighting designer and lighting programmer, in particular, and the processes of the technical rehearsal as fundamental considerations in our understanding of theatre-making, advocating the critical importance of the hidden, unseen work that occurs here to the theatre production process. For lighting designers, lighting programmers and those they work with, the implications of this research for professional, authorial and creative agency are clear: the

use of the linguistic strategies detailed throughout this thesis can offer lighting designers and lighting programmers potential ways in which to more effectively facilitate creative dialogue while advocating for their position in the creative team, pushing against established hierarchies and working practices. For theatre and performance scholars, this research provides a different, more nuanced way of looking at the processes of creativity and collaboration that make up the technical rehearsal, positioning this as both a discrete and a significant consideration in further studies of theatre-making processes.

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Appendix A: Selected transcripts

Transcription key

KZ	the researcher
LD	lighting designer
LX	member of the lighting department
[pause]	pause of less than two seconds
[long pause]	pause of more than two seconds
<u>underline</u>	emphasis (either pitch or volume)
[<i>italics</i>]	clarification, usually to denote actions or gestures
en dash (–)	speech is cut off or overlaps with next turn
ellipsis (...)	speaker trails off or elongates word
[...]	missing section of speech
[???	inaudible or indecipherable speech

Names and other identifying elements have been redacted and replaced with the speaker's production role or other clarification in square brackets.

Transcript numbers followed by an asterisk denote that these were transcribed from my field notes rather than from an audio recording.

D1-1

- 1 LD: It's a bit weird looking at those pools without any furniture, isn't it?
[Pause.]
- 2 LD: I'm talking to the person who's not allowed to talk to me 'cause you're not actually here.
- 3 KZ: I'm not here. I'm not here. But yes, I agree.

4 LD: I think I could run them higher once I've got furniture to plonk them onto. [The director] wants to play this scene really dark, but I don't think we'll get away with it 'cause we need the comedy.

D1-2

1 LD: So, the idea of these... is to... light to do some crosslight. So we'll go straight in to the box over there... Uhhh... So one imagines this has to do... centre to stage left and then we'll come off the snooker table completely, so we're only doing crosslight. [Pause.] This sort of crosslight. [Long pause.] And I'm imagining with both of them I can get the full width of the stage, is that right?

2 LX: Oh, in which case I'll do far side with this one then.

3 LD: Yep. And then inside with that one, yeah?

4 LX: Yeah. [Pause while LX adjusts the focus.] To the black or to there [to the set]?

5 LD: Uhh... well... you lose a lot, don't you? That's a major position there, isn't it. So I think, let's -

6 LX: Into the prosc, then, yeah?

7 LD: Yeah. Is that what you sort of standard do for crosslight there? Into that -

8 LX: Yeah.

9 LD: OK. Great.

10 LX: Depends what they do, depends how far they think the prosc-

11 LD: Let's go to there and - I just need to feel this space a bit, don't I? I can just readjust them.

D1-3

- 1 LD: I just don't know how to do the first scene as dark as [the director] wants it when it's such a comedy. [Pause.] Nothing's right. Maybe once we get the tables and chairs in I can really wrap that up 'cause at the moment it looks -
- 2 KZ: Yeah, I know what you mean.
- 3 LD: Try just to find the right place to put in the... [Pause.] I think I'll have to lift the cover if I'm covering to that bay. 'Cause he doesn't look too bad, does he? And they've got all red uniforms on. This can be darker. [Pause.] I wonder if I can go as deep as one of those other oranges, just to be... I don't sort of want to lose [one scene] - I want that to be the really disgusting one.
- 4 KZ: Yeah, yeah...
- 5 LD: [*To the chief electrician*] I can't believe that so many lights on the general cover still make you quite dark.
- 6 LX: Yep. Surprising how many you need.
- 7 LD: It is really surprising how many you need. [Long pause.] Have I been skimpy, do you think? Or have I done - I thought I'd sort of done what seemed about right, but... I haven't put any front of house in yet. I haven't put any in that way, that's the other thing.
- 8 LX: Yeah, there's - people have used more.
- 9 LD: Wow.
- 10 LX: But it's not a small rig.
- 11 LD: I know it's not! [*Laughs.*]
- 12 LX: Your general cover seemed to be about usual.
- 13 LD: 'Cause you don't have enough scrolls to go that way and that way, do you?

- 14 LX: Not as a three-point cover. [...]
- 15 LD: Yeah, I was really worried about all that centre cluster, which is why I was being so generical about it.
- 16 LX: Yeah, makes sense.

D1-4

- 1 Programmer: How bright do you want the houselights?
- 2 LD: Uh, what's - what's - how low can I have them? What am I allowed them at? You don't know, do you?
- 3 Programmer: I don't know.
- 4 LD: [LX], what's the standard level for the houselights if you don't want them too bright?
- 5 LX: Uh, you can probably go a bit lower than that. You haven't got the back row floods on.
[Programmer fades the houselights down.]
- 6 LD: Whoa. That feels a bit dirgy to me. Up a tiny bit... yep.
- 7 LX: You can probably go a bit lower, actually, [LD]. Oh, you don't need to use bridge 1 and 2 either.
- 8 LD: Oh, OK, so, yes. So let's lose those then.
[...]
- 9 LD: That feels alright. Great, we'll start with that.

D1-5

- 1 LD: [*To the programmer*] And while we've been sitting around all this time, all that should have been cleaned up. In blind.⁴²
- 2 Programmer: Yeah.
- 3 LD: I shouldn't be telling you to do these jobs; you should be doing them naturally. Less sitting around.

⁴² This refers to the operating mode of the lighting console. Changes made "in live" affect the current lighting state on stage; changes made "in blind" do not.

D1-6

1 LD: [*To the programmer*] You alright?

[Long pause.]

2 Programmer: Would you like me to make it [the beam] bigger?

3 LD: Just make it a little bit bigger. [Pause.] Whoa. [Pause.] OK, now, uh, make [channel] 1 copy from [channel] 2. 'Cause then it'll get shutters and size and everything.

4 Programmer: Recall... from... Would copy work better?

5 LD: Uhhhh... [*SIGH*] Uh, you need to do 2 copy from [pause] copy to, if you want to [long pause] 2 copy to 1. That's what you want to do if you want to use copy. [Long pause.] Ah. [Pause.] So they've obviously been rigged the opposite way round so now pan it over the table. [Long pause.] Come on. [Long pause.] They're waiting for us so we need to be working quicker. [*Replying to someone on channel A*] That's not the point. Still needs to work quicker. [*To the programmer*] And lift it onto the table. [Long pause.] OK. And uh... put it into 50 percent frost.

6 Programmer: Both?

7 LD: Yeah. [Long pause.]

8 Programmer: Do you want me to make 1 a bit bigger?

9 LD: No. [Long pause.] It's something else, it's the colour that's the problem. [Long pause.] Uh... put them into, uh [long pause] put them into 1 2 - Lee 124, see what they think that does. [Pause.] You'll have to take it off the colour picker, doesn't exist. [Long pause.] That's correct, that was correct, yeah. [Long pause.] And put that at, uh,

30. [Pause.] 20. [Long pause.] 10. [Long pause.] 15.
 [To the assistant director] Can you ask [the actor]
 whether he can see his dots? I think he's going to
 say [???] but I'd still be quite interested to know.
 [Long pause.] Just that white [light] was really
 dull.

D2-1

- 1 Director: What are we going to do about that trap
 [door] opening?
- 2 DSM: [*Whispers, on cans*] I don't think lighting can
 help that.
- 3 LD: Most problems you can solve with light.
- 4 Programmer: Bit of [Lee] 201 and a bit of gaffer
 tape. Sorted. [*Chuckles.*]
- 5 LD: Yeah. 202, generally, in mine. 202 and a CP61.
- 6 Programmer: Oh, yeah, OK.

D2-2

- 1 LD: Could you put 4... Is that complete? It's just
 quite interesting, that first state. Can you put 38
 through 40 at 50, just, uh, and 33 and 34 at 20.
 [Pause.] Great. Thank you. And could you put 401
 and 402 in this, please, in 203 - I'm going to
 change that - and at 50 percent. [Pause.]
- 2 DSM: Standby on LX cue 45.
 [Long pause.]
- 3 LD: And that's an... up... date... uhhh, that's a
 replot. I'm just gonna let it track 'cause that's
 all just going to turn into a complete clusterfuck.
 Um... And could you put 41 and 42 into 205-
- 4 DSM: LX cue 45...
- 5 LD: -at 20, please.
- 6 DSM: Go.

[Long pause.]

7 LD: That's a replot, thank you. And then go.

8 Programmer: 45 running?

9 LD: Yep. [Pause.] At the moment it's doing nothing,
and it used to be...

[Long pause.]

10 LD: Ok, so in this could you take... uh... 43 and
44, please, down to 15. [Long pause.] Great, and...
36-

11 DSM: Standby LX cue 49.

12 LD: -and 402 down to 20, please. [Pause.] Great,
that's a replot, thank you.

[Long pause.]

13 DSM: Sorry. LX cue 49 go. That was late.

14 LD: God knows what's going on there now.

15 Programmer: Ahh, we've got some live colour
happening on 92-

16 LD: Yeah...

[Long pause.]

17 LD: So let's keep 92 where it was in terms of
colour... [pause] and then take it down to 50,
thank you. [Pause.]

18 DSM: Standby on LX cue 52.

[Long pause.]

19 LD: Take uh... 33 and 34 are going out anyway...

20 DSM: That's the end of their singing.

21 LD: Ah. No more singing.

22 DSM: I'm sad. Don't know about you.

23 LD: [*Chuckles.*] Take 92 out. [Pause.] Put it back
in, thank you.

24 DSM: LX cue 52...

25 LD: Uhhh, that's a... replot-

26 DSM: Go.

27 LD: It's a bit of a mess, but anyway. Into the next, please. Uhhh... Take 92 down to 30, please. Take 93 down to 50. [Pause.] Keep 93, thank you, where it was, at full. Take 807, 808, please, down to 30.

[Pause.]

28 DSM: Standby on LX cues 54 to 56.

[*More of the same for 1:16.*]

29 Programmer: This is good fun.

[*LD and DSM laugh.*]

30 DSM: Enjoying yourself, [Programmer]?

31 LD: It's quite nice to [*suddenly whispers*] be able to do our job. Call me old fashioned.

[Long pause.]

32 LD: Yeah, that was all a bit of a mess that middle section, but we'll get there.

33 Programmer: Yeah.

34 LD: It's in there.

D2-3

1 Programmer: How are you getting on with your digs, [LD]?

2 LD: With the what?

3 Programmer: Your digs.

4 LD: Yeah, better.

5 Programmer: Yeah?

6 LD: Yeah, they're fine. I mean, it was kind of corporate and anodyne but near the river so it's good for getting [to work] in the morning. Um... it's quieter than where I was before, which is... good. That's the problem 'cause it was right on [Street], my front room window, and it doesn't matter what you do there you're going to hear...

7 Programmer: Yeah, it's noisy.

8 LD: Yeah.

D2-4*

1 Programmer: [The LD] keeps taking things [lights] out and it just looks amazing. [They] must think I'm a kiss-arse because I keep saying how beautiful it is.

D2-5

1 LD: Can you make - take 503 please down to 30.
[Long pause.]

2 Programmer: I think it does work.

3 LD: And take 803 please down to 20. [Pause.] And lose 803, thank you. [Pause.] Lose 503. [Pause.] What have I got that I'm not uhh... what's on there?

4 Programmer: 504's still on for the rain.

5 LD: Ah, let's just lose it?

6 DSM: LX cue 12 [long pause] go.

7 Programmer: Update?

8 LD: Ah, yes please.

9 Programmer: Cue only?

10 LD: Uh, cue only, yes, thank you.

11 Programmer: 12 running.

12 LD: Yeah. And we should trace that.
[Long pause.]

D3-1

1 LD: This is the new, slower tech style, isn't it?

2 Programmer: We are, absolutely. And I am more than happy to cop some of the flak for that. I will go slower if I need to go slower.

3 LD: It's just - it's a request from everybody.

4 Programmer: Good. I just - it's mad.

[...]

5 LD: It's the conversation we had last night.

6 Programmer: But [the director] doesn't listen. Don't worry; I'll just be really shit at programming today. And then we'll just go back to the...

7 LD: Just let me know when you're being shit and when you're not being shit.

[Laughter.]

8 Programmer: Thanks, [LD]. I would hope that you would notice.

[Laughter.]

D3-2

1 Associate LD: I think they [the signs] should animate as they come in, then settle for the scene.

2 LD: Well, no, 'cause...

3 Associate LD: I can distract [the director] while you plot that in?

D3-3

1 LD: Bring up 63... [pause] Put it on that big upstage group - we'll have to guess this -

2 Programmer: And is this gonna - 'cause that was in the grid so will it have time to go out and reset?
[Pause.]

3 LD: Uhhh... [Long pause.]

4 Programmer: I'll make it work. Where would you like it, on the upstage group?

5 LD: Yeah, uh, let's just have a look, I mean, we might not want that but...

[Long pause.]

6 Programmer: Comme ça?

7 LD: OK.

D3-4

- 1 LD: Just-
- 2 Programmer: Back to the beginning, yeah?
- 3 LD: Yeah. Well, there's the coming on then there's the [???] then out from there, isn't there?
- 4 Programmer: I d- literally - that is - the last time I'd seen it was the first time I've ever seen it so I d-
- 5 LD: That's only the second time I've seen it.

D3-5

- 1 Programmer: Thoughts?
[Long pause.]
- 2 LD: Um. [Long pause.] Stumbling in the right direction yet...
- 3 Programmer: Still brighter then?
[Pause.]
- 4 LD: I'm just not sure - I'm just literally thinking [*chuckles*] thinking literally. [Pause.] Yeah, go a bit brighter.

D3-6

- 1 Programmer: [*To the chief electrician*] It's not bay two. We're missing the perch, the low perch. [Long pause.] But I've shoved in the prosc to compensate for that.

D3-7

- 1 LD: OK, let's follow it as best we can, shall we?
- 2 Programmer: [The DSM] is absolutely going to call it and I'm going to do my best to hit the button when [they say]. Invariably I'll be early. [*Lots of laughter.*] Only 'cause [the DSM] is always late.
[...]

- 3 LD: It's only day two. [Long pause.] Right, just, struggle, followspots, best you can. We're all struggling so that's fine.
- 4 Programmer: I think they're doing a great job.
- 5 LD: Well, yeah, I know, but, you know...
[Long pause.]
- 6 DSM: All the little lighting trees are sparkling. The light trees...
- 7 LD: They are starting to sparkle, yes, um... [Long pause.] You know you grow a light tree from a bulb, not from... [Long pause.]
- 8 Programmer: I think we made them all sparkle to prevent people from walking into them. [Pause.] Idiots. [*Laughter*]

D3-8

- 1 LD: Can we just add, uh, into this... uhhh... [Long pause.]
- 2 Programmer: The [location] prosc?
- 3 LD: No. [Long pause.] Look, we've got it in.
- 4 Programmer: I've just added it in.
- 5 LD: No, no, no, that's not what I meant, though, that's brilliant, but can we also bring in 43 and 46 and just light a bit further up into those guys up there? [Long pause.] [*Shouting, to the choreographer*] Can we just hold that position for two seconds for me, please? [*On cans, to the DSM*] Can you hold that position for two seconds? Please? [Long pause.] [*Shouting to the stage*] Help me. No, it's alright, it's great, just two minutes.
- 6 Programmer: Do you want me to just - I've got a forestage cross wash, [LD], would that be helpful?
- 7 LD: Show us. [Pause.] Show us your forestage. [Pause.] Whoa. [Pause.] Up a little bit. [Pause.]

OK. It's the people up above that I'm concerned about.

8 Programmer: Oh, I didn't realise, I'm so sorry.

9 LD: Yeah, no, that's what I meant. I mean, what you did was great. [Pause.]

10 Programmer: So which ones are we missing?

11 LD: Go back into the cue. [Pause.] Right, so now add in 43 and -

12 Programmer: Where would you like them, sorry?

13 LD: On - crossing on to that group over there.

14 Programmer: The upstage or the midstage?

15 LD: Upstage.

16 Programmer: Great, thank you.

[Long pause.]

17 LD: OK. [Pause.] I mean, you can sort of get both.

That's great. [Pause.] And then let's do the same -

18 Programmer: Yeah, I'm just gonna do a nicer job of this and then we'll totally do that.

D4-1

1 Choreographer: Is there any way we can try one where - so it goes all the way like that, then it does the second one, and when the third one starts the first one goes away? So, what, what's, what's happening with this one is this, you get the whole thickness, you get the whole volume of the space. What I get with the other one is I get the space sliced in planes. What I would love to try and get is almost like an Anish Kapoor thing, where you go - you get the thickness, you get the volume -

2 LD: Yep.

3 Choreographer: And then you get a thickness behind, and then you get a thickness behind starting there but this one going away, so it recedes -

4 LD: Yeah.

5 Choreographer: So the thickness is developing and
receding at the same time.

6 Programmer: So once the second bar -

7 LD: So once the second bar is completed, 1
disappears and 3 comes in.

8 Choreographer: Yeah.

9 Programmer: Once the second bar is completed it
carries on and then we start disappearing the same
way?

10 LD: Yeah.

11 Choreographer: I - I'm not sure you do that. I
think you just - I think you just really - don't
you do that -

12 LD: Just fade it away?

13 Choreographer: Yeah.

14 LD: OK.

15 Choreographer: I think that's better than that.

16 LD: Yeah, OK. I thought that that was what -

17 Choreographer: No, so what I see is a line.

18 LD: Yeah.

19 Choreographer: And a line...

20 LD: Yeah.

21 Choreographer: And a fade, and a line, and a fade
and a line...

22 LD: Yeah.

23 Choreographer: So I still see the line going
backwards but I see it -

24 LD: I think that's better -

25 Choreographer: - the feeling should be upstage.

26 LD: - than tracking it away.

27 Choreographer: But I thought that was - that's -
that was very beautiful, wasn't it? As a thing.

28 LD: Mmm.

29 Choreographer: Don't you think?

30 LD: Yeah. As a way to introduce - those things are always really good to introduce sections or to transition, I think.

[Nine minutes later - after some programming and one run of the sequence with music.]

31 LD: I think it should be red. If it's Anish Kapoor it should be red. We shouldn't do "womb pink".⁴³ Um, I think -

32 Choreographer: Can we just try it with pink?

33 LD: Yep. *[To the programmer]* Can we change it to womb pink, then? And run it again.

34 Choreographer: Is womb pink actually a colour?

35 LD: Yeah, so, we took the colour palette photos -

36 Choreographer: Is that it?

37 Programmer: Yep.

38 Choreographer: Really?

39 LD: Yep. There's two pinks. There's that and then there's - what do I call it?

40 Programmer: Acid pink.

41 LD: Acid pink.

42 Choreographer: Yeah, no, I like the other one.

43 LD: Yeah. Womb pink.

D4-2

1 Choreographer: What about taking the side lights out?

2 LD: *[To the programmer]* Try taking out the Miros.⁴⁴

⁴³ "Womb pink" and "acid pink" are bespoke colours created and named by the lighting designer, an advantage of the CMY colour mixing available in the lighting fixtures being used.

⁴⁴ This refers to Miro Cubes, manufactured by Rosco. These are compact LED fixtures that lined the edges of the stage to provide side light in this production.

[Long pause.]

- 3 Choreographer: That's not really right, is it?
- 4 LD: No... [Pause.] There is a thought, there will
be an idea, just...
- 5 Choreographer: Yeah, I think it needs a little
bit - it needs like a virus feel.
- 6 LD: It's definitely... yeah. It definitely needed
the -
- 7 Choreographer: It needs light. It needs air or
something.
- 8 LD: What about the virus?
- 9 Choreographer: It's too fiddly up top.
- 10 LD: Yeah.
- 11 Choreographer: It has to be something that's just
like BOOF. That kind of like [pause] quite full
force BOOF.
[...]
- 12 Choreographer: You know, if they all went like that
[gestures with hands] in different ways.
- 13 LD: Yeah, we haven't done the jerking -
- 14 Choreographer: The jerking in different colours.
See what that does.
- 15 LD: You know "angel wings", [programmer]? Oh, that
was wobbly. [Pause.] We just want the bars to each
individually go forwards and backwards. [Pause.] So
we've got the upstage points and we've got the
downstage points. We've also got that effect we did
where they were streaming - they were moving like
this [demonstrates] individually. Maybe we just
need to make them snaps⁴⁵?

⁴⁵ This is shorthand for a "fade" to the next lighting state that happens instantly.

D4-3

- 1 LD: And then what I've done is - and that's a group of lines on each side. Then I've added another group of lines that goes here as well, so you multiply. And then all the lines go all in that direction.
- 2 Choreographer: Why did you do it that way?
- 3 LD: Because I just felt like we were doing diagonal sweep this way a lot, but we can reverse it and they all go that way - that doesn't matter.

D4-4

- 1 LD: At the moment, they're going that way, so I'll have to reverse it if you want that.

D4-5

- 1 LD: Can I see the most downstage ones, [programmer]?
- 2 Programmer: The Miros? [*To themselves*] What do we think she's talking about? [*Typing.*] [*To the LD*] Them? [*Whispers*] Yeah, them.

D4-6

- 1 LD: In what way was I weird yesterday?
- 2 Programmer: [*Laughs.*] Just later -
- 3 LD: I was just surprised by your text and I was like, I don't know what else to say. I wasn't particularly stressed -
- 4 Programmer: You weren't stressed, no. I just, I don't know.
- 5 LD: I did feel extremely tired and that I couldn't - I didn't have the energy to do the kind of nice chatty bits.
- 6 Programmer: It wasn't even that, it was just a bit, I don't know.
- 7 LD: Abrupt?

8 Programmer: Yeah.

9 LD: Well, I get like that.

10 Programmer: But that's fine, yeah, but I just wanted to...

11 LD: It's fine. [???] I think also 'cause you and I haven't had our chances in between to be -

12 Programmer: Just to sort out -

13 LD: To be chatty.

14 Programmer: It's not even that, it's just having some time on our own to sort stuff out.

15 LD: Yeah.

16 Programmer: Like, I always feel under pressure.

17 LD: I know. Don't we all.

18 Programmer: Yeah, I know. Yeah. [Pause.] It's fine. I just wanted to make sure you were alright.

19 LD: It is also in those moments that you do your best work.

20 Programmer: I know.

21 LD: While you're waiting around, you know, when someone's expecting a million percent from you -

22 Programmer: Yeah.

23 LD: You do your best work.

24 Programmer: Yeah.

25 LD: That's what I think.

26 Programmer: But I think this is -

27 LD: I find the processes with [the choreographer] really hard, but actually I always come out of it going, "God, I never would have done that if it hadn't been -"

28 Programmer: Yeah, yeah.

29 LD: Yeah. Never would have... yeah... jumped completely out of the box.

30 Programmer: Yeah.

- 31 LD: Or... dared to think, oh, the lights could
change with the set...
- 32 Programmer: Yeah.
- 33 LD: You know, um... [Long pause.] It's just always:
and what next?
- 34 Programmer: Yeah.

D4-7

- 1 Choreographer: Finish on black or flash?
[Long pause.]
- 2 LD: Black.
- 3 Choreographer: It doesn't really matter, actually.
[Long pause.]
- 4 Choreographer: If - if you had a random selector of
black or flash and we just [???] and it was [*mimes*
pressing buttons] black black black flash black
flash flash flash black flash -
- 5 LD: HMIs, don't forget. Or we - or we always go
back to HMI -
- 6 Choreographer: We always go back to HMI.
- 7 LD: So sometimes it's flash with the HMI -
- 8 Choreographer: Sometimes it cuts out -
- 9 LD: Sometimes it's black HMI.
- 10 Choreographer: Yeah, how would that work?
[Pause.]
- 11 LD: It randomises it.
- 12 Choreographer: Yeah. It's not in the same order.
- 13 LD: [*To the programmer*] We can't randomise cues,
can we?
- 14 Programmer: No, 'cause that's what programming is.
- 15 LD: I mean, we can change it so that it's in a
different order...
[Long pause.]

16 Choreographer: Can't you do any programming that's algorithmic?

17 LD: No.

18 Choreographer: That's so weird, isn't it? In this day and age.

D4-8

1 Choreographer: I think what I need to see in this is this notion of serialism. So, um, serialism can't have complexity, um... It's building complexity, rather than complexity that starts, so if you think about it, you, you, you prime the eye to see something over time and then you do variations [pause], otherwise, it's, it's too much to process while watching dancing -

2 LD: Yep.
[Pause.]

3 Choreographer: Do you know what I mean?

4 LD: Yep.
[Pause.]

5 Choreographer: It feels like it's arbitrary? Maybe this is the most complex of the third set. So if this is in the full set, two minutes, whatever it is, the last two minutes -

6 LD: Yeah.

7 Choreographer: Then you can run it as a sequence? But I think before we need to do what is the...
[Pause.] At least one of those sequences needs to do the priming - just one direction -

8 LD: So just seeing something repetitive -

9 Choreographer: Just something really repetitive so you forget -

10 LD: Yeah.

- 11 Choreographer: - forget watching it. Not looking for variation and just watch the choreography.
- 12 LD: Yeah. [Pause.] 'Cause you set up what the rule is.
- 13 Choreographer: Yeah, you set up the rule and then you break the rule, and you go, "oh god, that rule's broken" -
- 14 LD: Yep.
- 15 Choreographer: And then you add in that. That's really going to help that idea of serialism.
- 16 LD: Mmm.

D4-9

- 1 LD: I think what we should do is just run through the pixel maps we've got to know which ones we need to work on to put into the sequence.
- 2 Programmer: OK.
- 3 LD: Is that alright?
- 4 Programmer: Yep.
- 5 LD: So let's do, while we've got the videos numbered, shall we do all of them?
- 6 Programmer: Yeah.
- 7 Choreographer: Are you doing a different one now?
- 8 Programmer: [???
- 9 LD: OK, so can we start from there? OK, yeah, so this is just looping videos, that's, just loads of random, and then we could make something that makes it come away and collapse a bit more then carry on -
- 10 Choreographer: So what are you guys thinking about, what am I looking at?
- 11 LD: Can we go to black, [programmer]? I'm showing you versions of pixel maps that we've -
- 12 Choreographer: But where's this going?

- 13 LD: So this is in [???] - [*to the programmer*] and go - [*to the choreographer*] where it introduces that and if we like the way that introduces, we could make that whole thing where it keeps ebbing and flowing and -
- 14 Choreographer: What does that look like?
- 15 LD: [*To the programmer*] Just take it out again.
[Pause.]
- 16 Choreographer: I'm... not sure about that, is all.
- 17 LD: Mmm hmm. [*To the programmer*] Show me 151 [pause] from zero, please.
[Long pause.]
- 18 LD: It's that. So that opens to that and then -
- 19 Choreographer: Yeah, I like that one.
- 20 LD: OK, so that's 5...1... 5 slash 1, yeah.
[14 seconds inaudible due to work on stage.]
- 21 Choreographer: Are you just showing me this for that section for ageing?
- 22 LD: Yeah.
- 23 Choreographer: 'Cause I think the ageing one should never be four full lines? [Pause.] I think that should be one of our rules.
- 24 LD: So we never reach -
- 25 Choreographer: No -
- 26 LD: - full, yeah.
- 27 Choreographer: No. I think it's better if it's always... [Pause.]
- 28 LD: So what happens then is the energy that it has before it gets to full, if that's good then we can work on an effect that keeps going like that.

D4-10

- 1 Choreographer: Maybe we should just never use them with colour in the sides? Just keep them as white on

the sides, like the projector. I think that'll really help [pause] take a constraint away.

2 LD: I see what you mean, yeah.

3 Choreographer: Do you know what I mean? As soon as you do it, it becomes something else.

4 LD: Mmm.

5 Choreographer: If we just did tones of white from the side, like the projector, that would be real discipline and all the colour comes from the top. Sound good?

6 LD: Mmm.

7 Choreographer: Great, cool.

O1-1

1 [*In the background, on channel A*]

DSM: Yeah, so, back into 10.7, please, LX when you're ready.

2 LD: And update that to track.

3 Programmer: Yep.

4 LD: And then go to 10.7.

5 Programmer: LX in 10.7, standing by.

6 [*Conversation on channel A...*]

7 LD: Put 242, 245 and 247 at enter.

8 Programmer: Yep.

9 LD: At - at, at 50.

10 Programmer: They're at 50.

11 LD: Oh, what were they - have they dropped down to 15 in the -

12 Programmer: 10.5? Uh...

13 LD: I don't want them to drop from 8. I want them to track through all the way.

14 Programmer: Uh... 247...

15 [*In the background, on channel A:*

DSM: I'm ready to go if LX are ready on 10.7. I think they might be just a little bit -]

16 Programmer: 247... Oh, yeah, they dropped to 20 per cent -

17 Director: Are we plotting?

18 LD: Yeah, we are.

19 Programmer: It dropped down to two four... 245.

20 LD: No, no.

21 Programmer: [*Muttering.*] OK. Sorry. Yep.

22 LD: We're good? Thanks.

O1-2

1 Director: Also, [LD]?

2 LD: Hello.

3 Director: Have we got something on the actual runway?

4 LD: Yeah. Yep. The runway comes up first as part of that cue. You get the spots and runway all come up and then the main state builds slower.

5 Director: Is it blue on the runway?

6 LD: Yeah, I just need to put a little bit of front fill; that would be good.

7 Director: OK.

O1-3

1 LD: What do you want it to go to?

2 Director: 'Cause it went to blue just now, didn't it? It went to a very pale light - I'm not sure about that. Do you - are you - are we thinking of gradually losing the warmth?

3 LD: Yeah. I mean, you saw it happen over five seconds, where it should - the timing should be forty seconds.

4 Director: Right, right. Great.

O1-4

- 1 LD: Can you show me 1 through 4 in something like 204?
- 2 Programmer: Yep. One second. Sorry. 1 through 4 at colour 204. [Long pause.] [*LD takes headset off to talk to director.*]
- 3 LD: That's an update to trace⁴⁶.
- 4 Programmer: To trace, yeah?
- 5 LD: And then we'll work out what we do with that and what that looks like.

O1-5

- 1 LD: [Director]?
- 2 Director: Yeah?
- 3 LD: Um. Just changed the general cover to a warm wash. Do you prefer that?
- 4 Director: Yeah, yeah, I do, I think I do.
- 5 LD: There's so much to get through in this production - as in, so many dark scenes -
- 6 Director: Yeah, yeah.
- 7 LD: And there's this big -
- 8 Director: Yeah, yeah, definitely. I think so.
- 9 LD: OK.

O1-6

- 1 LD: Hello. Hello, [director]. Hello.
- 2 Director: [Actor] had started, but he wasn't lit yet, so I'm just trying to work out what the timings need to be. 'Cause I think it all needs to - it all -
- 3 LD: It's happening quicker, isn't it?

⁴⁶ The trace function "allows changes to be tracked *backwards* though the cue list" (ETC, 2019, p.17, emphasis added).

- 4 Director: It all needs to happen quicker.
- 5 LD: Yeah, it needs to feel like a burst into the -
he's bursting into the door. Yeah. So -
- 6 Director: So do we keep it - do we need to time it
earlier than the chandeliers 'cause [actor] was
still - he reached the - yeah, and he was speaking,
it was dark on him. So I'm just thinking how we
need - unless we start [actor] on the stage once
everything's set?
- 7 LD: No. Well, you should be able to make it a
crossfade. It's about getting the - [SM], am I
correct in saying it's about getting the doors open
quicker and stuff, isn't it?
- 8 SM: Yeah, we just need to move [actor] earlier.
- 9 Director: Can we try that?
- 10 LD: So he - 'cause it's - am I correct in saying -
correct me if I'm wrong, [SM] and [director], but
you - it's about a steady start, isn't it? And then
when you know your cue is, you then walk faster,
don't you, is that...? So you're already halfway
down the aisle but you're conscious that the other
people are still acting, and then you - yeah,
yeah - so it's getting that rhythm.

O2-1

- 1 Programmer: I'll just go into blind to see exactly
what's happening. We've got 103 - we need 502.
- 2 LD: You ought to just be able to take a screen grab
and plot. The way we made that image first thing
was incredibly complicated.
- 3 Programmer: And that's what we're going back into,
isn't it? That image.
- 4 LD: Yes.

5 Programmer: So how appalling would it be if we just
stopped the chase and lived with what we've got?

6 LD: We'll have to do it ten times and see what we
get each time.

7 Programmer: Yeah... [Long pause.] So we need to do
both layers, then, don't we? [Pause.]

8 LD: The ideal thing would be to just crossfade to
something on the other layer, wouldn't it?

9 Programmer: If we weren't using both of them
already, that would -

10 LD: Oh, are you using them in this as well?

11 Programmer: Yeah, I believe... 103's up, yeah, so -
no, hang on, maybe we're not. So let me go...
effect... 502 plus 503 at enter. Perfect.
Beautiful. That's pretty much what we were doing
before, wasn't it? So... 101...

12 LD: I think... drift round the place.

13 Programmer: Sorry, so which cue are we actually
doing the transition in?

14 LD: We're doing the transition in 78.

15 Programmer: Right.

16 LD: Is that right? Let me just check. Should the
letters change in the first cue or the second cue?
The first cue, the cue that is building this
slowly, or the cue that does the -

17 Programmer: So cue 74 we've got the letters -

18 LD: That's where the music changes.

19 Programmer: Cue 74 we've got the letters doing
that. Then they're going to... that... And that's,
it's changing in 78, isn't it? So in 78, I want -

20 LD: That just went really well, didn't it?

21 Programmer: No, not at all. The beginning of it was horrible. 103 out... [Long pause.] So that's the end image... Apart from levels.

22 LD: Yeah, this isn't the end image that we had though. It was loads more gappy.

23 Programmer: So did we then have -

24 LD: A lot of very big gaps.

25 Programmer: So did we then have - I think I know what we did. So let me try this... So... [Pause.]

26 LD: Shall we just try finding a single image that looks good that we can put on the other layer and crossfade to it?

27 Programmer: So we're going to need this layer, so... um...

28 LD: That's nice.

29 Programmer: That almost full though, isn't it?

30 LD: Yeah, we need something a bit broken. A bit more detail - a bit more, you know, pixelly - ooh, blimey, that was different, but that's too -

31 Programmer: Too much.

32 LD: Ahh -

33 Programmer: It's got colour in it, though.

34 LD: It has got colour there, it's true.

35 Programmer: That's quite nice.

36 LD: I'd buy that.

37 Programmer: There's one next to it that's similar.

38 LD: OK.

39 Programmer: Which will - so that -

40 LD: That looks nice as well.

41 Programmer: Or that.

42 LD: Hmm. Option A or option B?

43 Programmer: I think option B.

44 LD: Yeah, I think so too.

45 Programmer: So if we put this - this is 78 -
46 LD: If we dip it down will we lose all the dim
bits? Just put it all at ten percent or something
and see... 15. [Long pause.]
47 Programmer: So ignoring the top of the E, if I...
I'm just working on 78 and trying to make it
better.
48 LD: So why don't we go with -
49 Programmer: So if I update 78 as this and see what
happens when we -
50 LD: But we need to be more complete.
51 Programmer: Sorry?
52 LD: With the image. We need to be a bit more
complete.
53 Programmer: Right. OK.
54 LD: And just take it down. We can't transition to
it without going through an awful mess. [Long
pause.] OK, you happy at the moment? Uhh... That
might be alright. Bring it up five percent. If we
make it a bit bright then we pull them down I think
it would make it really epic. Quit or a load will
go out.
55 Programmer: Something like that?
56 LD: Yeah.
57 Programmer: I'll update this. See what we get.
58 LD: This is on the opposite layer from the one
we're using in the previous cue.
59 Programmer: Yes, so 101 mark 50 mark... so back a
cue and we've got that going on.
60 LD: We have.
61 Programmer: And forward a cue we've got that going
on.
62 LD: Lovely, great.

63 Programmer: How do we get between the two?
[Laughs.] So that's currently an eight-second fade,
and that's not an eight-second crossfade, but
that's because for some reason the effect isn't -

64 LD: We should be - We've changed the other layer,
haven't we? Have we changed the previous layer?
Rather than just fading out. Is that right?

65 Programmer: We've just stopped it.

66 LD: We didn't want to stop it - we want to keep it
going and fade it out.

67 Programmer: We can't 'cause it's an effect, isn't
it? Or is it an effect?

68 LD: I thought it was a moving image.

69 Programmer: No, it's an effect. We've got 501
running in -

70 LD: No, 501 is doing the ripple across, but it's
not affecting the chasing around.

71 Programmer: But 502 and 503 are running on the
letters 'cause we had the two different intensity
effects going.

72 LD: We're only doing the two ripples...

73 Programmer: So they're what's coming out to get
into this steady thing.

74 LD: But we're also taking out the moving - the
rotating picture underneath, what's doing the
internal movement for each letter. [Long pause.] So
can you tell the layer that I'm looking at to just
be doing what it's doing before?

75 Programmer: So let's go...

76 LD: Or did that layer...

77 Programmer: 103...

78 LD: We just have to add more lighting cues, don't
we? I think that's the outcome. [Long pause.]

79 Programmer: Right. [Long pause.]
80 LD: I think we may have nailed it. You've totally
fixed that. And go... Great.
81 Programmer: And this is running in 79.
82 LD: Nothing changes...
83 Programmer: And yes.
84 LD: OK.
[...]
85 LD: So update trace. And you know what we should do
in the previous cue?
86 Programmer: Don't screw it up...
87 LD: I won't, I promise. No, I don't promise. I
promise to try not to screw it up. Can the effect
on the [first three letters] still be running?
Channel 101.
88 Programmer: Just on the [first three letters]?
89 LD: Yeah. So not the movement, but that little
ripple effect, which isn't 502, it's 503, isn't it?
Whichever was running under 71.
90 Programmer: Just those three letters.
91 LD: Yeah. The one that was running was good.
92 Programmer: Can't remember if it was the three or
the four.
93 LD: Three.
94 Programmer: 502, I think it was.
95 LD: That's believable, yeah. Update cue only.
96 Programmer: No, [???] what we did.
97 LD: And go. So that's that effect... and fade
away... Yeah... That's what we wanted. Great. Thank
you.

O2-2

1 Director: I have a question for you-
2 LD: Yeah.

3 Director: Which is... [Pause.] Uhhhh... [Pause.]
I'm wondering whether - is it the upstage one that
is the slash [curtain] that goes across the lights?

4 LD: Yeah. Deliberately.

5 Director: Is there one on one side and one on the
other?

6 LD: Yeah.

7 Director: And that's what you've got, [PM], one on
each side? I'm just wondering, [designer]...

8 Designer: Yes.

9 Director: Whether we should have had a touch of one
of them at a much lower level on a lot of the time.

10 Designer: Yes.

11 Director: I mean, I love the fact that you can have
it - the slash -

12 Designer: Yeah.

13 Director: You know. I'm wondering whether at some
point we should just go through and look at a lot
of these interior scenes and just touch it in
because it just gives a kind of life to the space.

14 Designer: Yeah. Yeah.

15 Director: And then it hits the sides as well.

16 LD: Yeah. But also it'd go through the slash and
create shadows.

17 Director: Uh huh. Yeah. I'm hoping when that one's
hanging properly -

18 LD: Yeah.

19 Director: I mean, it will create shadows, but, yes,
but also if we - because, frankly, there's tonnes
of light, even if we ended up losing it, that just
slightly goes to the middle of the slash and not
much to the edge of the stage -

20 LD: Yeah.

21 Director: - do you know what I mean?

[Pause.]

22 LD: Well, it's very useful for these lights as well, actually.

23 Director: It is, but if one of them's doing the work, then it wouldn't matter, would it?

24 LD: Yeah. Yeah.

25 Director: I just think it could be a really valuable thing to have in all the time.

26 LD: Yeah.

[Long pause.]

27 Director: OK, let's plot this in.

O5-1*

1 LD: So in this cue we should bring up...

2 Programmer: 33?

3 LD: Yep, 33.

O6-1*

1 LD: It's going to be dark down here so it'll feel pretty oppressive. But once they [the lights] start sweeping and dancing and evolving...

O7-1

1 Director: Can we get some more light on [character]?

[LD *hesitates*.]

2 Director: Or do we have to get him to stand somewhere else?

O7-2

1 LD: So... what do we need to do in terms of presetting that?

2 Programmer: I think if you - basically we just need to swap what's happening in the previous cue instead of three...

3 LD: Oh now we would actually in [cue] 10 have [channel]
302 up...

4 Programmer: Right, and then it crosses into this -

5 LD: It crosses into this.

6 Programmer: OK. Uh...

7 LD: Which I think is better and it's also a more
interesting choice, that way.

8 Programmer: OK, so lose frost for a second. Right, frost
out, update preset 34, keep going, [???] take that from,
put it back in... there, so this is an update on [cue]
10.5...? [Pause.] Yes? Up... [Long pause.] 'Kay, uh,
and... mark... time to fade out, but that needs to mark...
when to preset-

9 LD: So what preset did you put it into?

10 Programmer: Uh, thirty... four, same as the other one.

11 LD: Same as the other one, great.

12 Programmer: Uh, let me just try running that, I think -

13 LD: Yeah, let's just see it and see what that looks like,
yeah?

14 Programmer: Right, so that's there, and... running...
[Long pause while they watch the stage.]

15 Programmer: Complete.

16 LD: Yeah... it didn't make the full preset before it.

17 Programmer: No, it's [exhale] uh... [Pause.] It either
needs to fade out quick- it's 'cause it's a four second
follow on... obviously-

18 LD: Let - let - let's do this, let's have it... [exhale]

19 Programmer: Unless you want it just to move in cue 10.

20 LD: Yeah, let's have it move in cue 10, yeah.

21 Programmer: Yeah?

22 LD: Let's make it a live move.

23 Programmer: Yeah. So... we have... [pause] uh... copy that
to... [pause] enter...

24 LD: Just leave it at - you can bring it up to 20... there you go...

25 Programmer: So that's fine [???] at 20, so where's the mark gone...? On cue 9...

26 LD: OK, stand by.

27 Programmer: Standing by.

28 LD: And go. [Pause.] [Actor] moves [*to the director*] and then [actor] crosses and [actor] now... goes to... [Long pause.]

29 Director: I really like that.

30 LD: Let's try it tonight.

O7-3*

1 Director: Can we have more light on [actor]?

O7-4*

1 Director: Can we just have a tiny bit more on [actor]?

O7-5*

1 Designer: There was something you did at the end of that scene that just...

2 LD: I just added a bit of my backlight.

3 Designer: Yeah, it just made it...

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Appendix B: Informed consent form

School of Performance and Cultural Industries
Faculty of Performance, Visual Arts and Communication



UNIVERSITY OF LEEDS

Consent to take part in research project

The language of light

Researcher: Kelli Zezulka

	Please initial to agree with each statement
I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.	
I agree for the data collected from me to be stored and used in relevant future research.	
I understand that relevant sections of the data collected during the study may be looked at by auditors from the University of Leeds or from regulatory authorities where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
I agree to take part in the above research project and will inform the researcher should my contact details change.	

Name of participant	
Participant's signature	
Date	
Name of researcher	Kelli Zezulka
Signature	
Date*	

*To be signed and dated in the presence of the participant.

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be kept with the project's main documents and must be kept in a secure location.

Project title	Document type	Version #	Date
The Language of Light	Informed consent form	1	24/12/15