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**Encephalitis Lethargica, viral illness and the binary structures
of the modern British health system c.1900-1975**

C.A. McAllister

A thesis submitted in partial fulfilment of the requirements for the
degree of
Doctor of Philosophy

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Abstract

In the early twentieth century, the modern British health system became structured in line with two sets of binary distinctions: between mental and physical, acute and chronic illness. According to some historians, this system was gradually transformed over the next decades through a series of changes in provision and policy, which integrated mental and general medicine and adopted a more progressive, humane approach to chronic illness. Challenging this narrative of integration and progress, this thesis shows and explains why over the twentieth century the modern British health system continued to conceptualise illness as *either* mental *or* physical, acute *or* chronic. During this period, members of the British medical and psychiatric profession positioned disease categories on either end of these binaries axes in order to connect them to specific provisions, resources, and policies, to allocate medical care or financial support, and thus meet the needs of an increasingly comprehensive, yet often ill-equipped health system.

In order to explore this contention, focus is on a specific group of illnesses which emerged and persisted for long periods of time after an acute, viral event, often came into conflict with and thus from historical perspective expose these binary structures. Whilst this thesis explores how these illnesses were ultimately brought within categories aligned with the concepts of mental/physical and acute/chronic, it also highlights one important exception to this rule: Encephalitis Lethargica. Unable to align with these binaries, to be related to a series of practical decisions, and therefore fitted into the contemporary health system, this category therefore disappeared entirely. Given that these binaries endure and inform inequalities in our health system today, this thesis also hopes to provide an account of the past which helps us to better understand and critique circumstances in the present.

Acknowledgements

Completing this thesis during a global pandemic has been a truly strange experience. I have found myself researching, moulding, and constructing an account of the past which, at times, has felt uncomfortably close to my present. Whilst this has been undoubtedly challenging, I have also been fortunate in many ways. I have my primary supervisor Dr Chris Millard to thank for supporting me over the last four years, and before that during my MA. His critical attention to detail when reading my first drafts, his commitment and positivity, but most of all his unfailing kindness and understanding have helped me to keep pushing on, even when I felt like giving everything up. My second supervisor, Professor Adrian Bingham, has also provided advice which has been invaluable, particularly when it came to reading the final draft of my thesis. Even though we were separated by COVID-19, I was also very fortunate to have had the opportunity to be a part of the community of staff and students in the History Department at the University of Sheffield.

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I think it is time to start doing that for myself now.

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Abbreviations

NHI: National Health Insurance

WC: Workmen's Compensation

PITP: Penny in the Pound

MD: Mental Deficiency

BMJ: British Medical Journal

BMA: British Medical Association

BJP: British Journal of Psychiatry

SHM: Social History of Medicine

JRCGP: Journal of the Royal College of General Practitioners

SUL: Sheffield University Library

NA: National Archives

WL: Wellcome Library

EMS: Emergency Medical Service

SMS: School Medical Service

NHS: National Health Service

LCC: London County Council

LGB: Local Government Board

MAB: Metropolitan Asylums Board

SMO: School Medical Officer

Introduction

In twenty-first century Britain we often think about the issues of health, illness and disease in binary terms and therefore of ‘mental’ as distinct from ‘physical’ forms and ‘acute’ from ‘chronic’. This approach is reflected in the ways in which these concepts structure our health system and are used to categorize and deal with different kinds of illness, relating them to particular provisions, resources, and policies. In the years since March 2020, the nature and consequences of this conceptual structure have been brought into sharp focus by the ‘heterogeneous and complexly unfolding’ illnesses which have persisted for months after an infection with COVID-19.¹ Even after what seemed, at least to doctors and policymakers, to be a ‘mild’ viral illness, many people have continued to exhibit a range of mental and physical symptoms which have also varied in their course, continuing unbroken and without improvement in some, receding in others ‘for days or weeks before relapsing’ and lasting for widely varying periods of time.²

Amongst members of the medical and scientific profession, the causes of these persisting illnesses have remained a subject of debate, being tied to ‘minuscule clots, [a] lingering virus, or immune abnormalities’, yet also to the stress of ‘quarantine, isolation and social distancing’.³ Through the ‘patient-made’ category of ‘Long Covid’ these questions were (at least temporarily) resolved, with focus pulled decisively towards physical changes in the body and to a persisting disease process which side-steps the temporal markers of ‘chronic’ and ‘post’, and yet has still allowed new kinds of treatment to be ‘allocated, services accessed, the

¹ Felicity Callard and Elisa Perego, ‘How and Why Patients Made Long Covid’, *Social Science and Medicine*, 268, (2021), p. 113426

² Rita Rubin, ‘As Their Numbers Grow, Covid-19 “Long Haulers” Stump Experts’, *JAMA*, 324, (2020), p. 1382; These symptoms include, but are not limited to, headaches, fatigue, breathlessness, mood changes such as depression and anxiety, dizziness, joint aches, pain, difficulty concentrating, rashes or mobility issues.

³ Jennifer Couzin-Frankel, ‘Clues to Long Covid’, *Science*, 376, (2022), p. 1262; Siu Wa Tang, Brian E. Leonard, Daiga Maret Helmeste, ‘Long Covid, Neuropsychiatric Disorders, Psychotropics, Present and Future’, *Acta Neuropsychiatrica*, 34, (2022), p. 109

sick role designated, identity transformed, and medical authority confirmed'.⁴ These debates surrounding Long Covid offer a useful, current reference point for the central argument made by this thesis, which does not provide a history on the origins of this category or of others such as post-viral fatigue, Chronic Fatigue Syndrome (CFS), or Myalgic Encephalomyelitis (ME).⁵ It does, however, hope to put these categories in context, positioning them as the most recent responses to illnesses which, over the course of the twentieth century, have come into conflict with, failed to fit into, and therefore exposed the enduring binaries which structure the modern British health system.

At its core, this thesis seeks to make a fairly simple yet important point, arguing that since the beginning of the twentieth century the modern British health system has remained structured in line with the binaries of mental/physical and acute/chronic. Parsing illnesses, mapping aetiologies, and developing diagnostic categories that aligned with these concepts, allowed medical professionals to allocate medical care and treatment or financial support like sick pay.⁶ In turn, they were able to channel cases towards relevant services and to allow this health system to function. In each chapter, this point is therefore drawn into focus by paying attention to a shifting group of persisting illnesses which emerged in various contexts following upon an acute viral event, that most importantly could not be made to fit into the binaries of *either* mental *or* physical, and *either* acute *or* chronic associated with health and welfare services. Over the course of the twentieth century, in their efforts to find a place for these cases British physicians and psychiatrists used specific causal theories, material practices and institutional arrangements to produce categories that could be positioned on

⁴ This phrasing was used by Felicity Callard and Eliza Perego, who have showed how Long Covid emerged through the advocacy efforts of patients, see Callard and Perego, 'How and Why Patients Made Long Covid', p. 1; Felicity Callard, 'Epidemic Time: Thinking from the Sickbed', *Bulletin of the History of Medicine*, 94, (2020), p. 729; Annemarie Jutel, 'When Pigs Could Fly: Influenza and the Elusive Nature of Diagnosis', *Perspectives in Biology and Medicine*, 56, (2013), p. 513

⁵ In twenty-first century Britain, these are all disease categories used to contain persisting illnesses that are believed to be related, (in different ways), to an acute viral illness. See 'Overview: Myalgic Encephalomyelitis or Chronic Fatigue Syndrome (ME/CFS)', <https://www.nhs.uk/conditions/chronic-fatigue-syndrome-cfs/>, [accessed 6th September 2022]

⁶ Felicity Callard, 'Epidemic Time: Thinking from the Sickbed', p. 742

either end of these binary axes and therefore, in turn, tied to particular kinds of provisions, resources and policies. This thesis draws out and exposes this binary conceptual structure in two ways: firstly, by tracing how many illnesses that persisted after a viral event were gradually conceptualised as mental/physical, acute/chronic, brought within disease categories, and made to fit into the health system and secondly, by highlighting exceptions to this rule as reflected in the problem of Encephalitis Lethargica (EL).

Whilst this thesis develops and applies a framework which will be used to approach various historical moments and moreover establish links between them and our twenty-first century present, this is done without collapsing the past into the present, and by continuing to account for contingency. Such analysis allows us to see that our current view of illnesses as mental or physical, acute or chronic has its own history, which is important to grasp if we want to understand why we have ‘arrived in this present’ equipped with a set of concepts which allow us to ‘make sense of (a very small part of) our world’, but also to critique how they still often ‘cut across living bodies and the temporalities in which they live.’⁷ Paying attention to the shifting, aetiological relationship between viruses and persisting forms of illness over the course of the twentieth century helps us to see how, *and therefore to understand why*, the modern British health system came, and continues, to rely centrally on the binaries of mental/physical and acute/chronic.

This thesis explores how the persisting illnesses that followed upon an acute viral infection were conceived in twentieth-century Britain in order to make a broader point about the binary structures of the contemporary health system. The thesis draws upon and contributes to various historiographies which analyse the modern British health system, contextualise the emergence of disease concepts and categories and, finally, explore and attempt to explain the problem of EL. Historians have long been interested in analysing the British health and

⁷ Chris Millard, *A History of Self-Harm in Britain*, (Basingstoke, 2015), p. 11; Felicity Callard, *Epidemic Time: Thinking From the Sickbed*, p. 737

welfare system, engaging in analysis which most often sheds light on the origins, emergence and evolution of the National Health Service (NHS).⁸ Moving from the first decades of the twentieth century up to the present day, many of these histories depict a process of gradual, institutional change through which a haphazard, fragmented and unequal system, controlled primarily by individual clinicians, became reorganised to provide universal, comprehensive and free healthcare, which was overseen centrally and funded by the state yet eventually ‘entered into a period of sustained reform characterised by the incursion of market disciplines’.⁹

This change is understood to have informed different ways of approaching, conceiving of and treating mental and physical, acute and chronic illness, becoming used by some historians to feed into a narrative ‘framework of inexorable progress’ or deinstitutionalisation.¹⁰ According to Kathleen Jones, at the turn of the nineteenth century if a person was diagnosed as ‘insane’ they could expect to be brought under the legal powers of ‘certification’ and therefore sent to spend the remainder of their lives in an asylum, separate from the rest of society.¹¹ Jones however argued that by 1959 various humanitarian changes in provision and legislation meant that a ‘mental patient’ was now able to benefit from a more modern system of health provision, as psychiatry had moved into the community and the general hospital, towards voluntary programmes of care and treatment.¹² Informing a shift towards a more scientific

⁸ See for example Charles Webster, *The National Health Service: A Political History*, (Oxford, 2002), Frank Honigsbaum, *Health, Happiness and Security: The Creation of the National Health Service*, (London, 1989), Rudolph Klein, *The Politics of the NHS*, (London, 1982), Geoffrey Rivett, *From Cradle to Grave: Fifty Years of the NHS*, (London, 1998), Barry Doyle, *The Politics of Hospital Provision in Early Twentieth Century Britain*, (London, 2014), Nicholas Timmins, *The Five Giants: A Biography of the Welfare State*, (London, 2001)

⁹ Martin Gorsky, ‘The British National Health Service, 1948-2008: A Review of the Historiography’, *Social History of Medicine*, 21, (2008), p. 440

¹⁰ Gerald N. Grob, ‘Review: A History of Mental Health Services by Kathleen Jones’, *Journal of Social History*, 8, (1974), p. 129

¹¹ Kathleen Jones, *Mental Health and Social Policy, 1845-1959*, (London, 1960); These nineteenth century changes in provision have been widely documented by historians, see for example Roy Porter, *Mind Forg'd Manacles: Madness and Psychiatry in England from the Restoration to the Regency*, (London, 1987), Andrew Scull, ‘The Insanity of Place’, *History of Psychiatry*, 15, (2004), Andrew Scull, *Museums of Madness: The Social Organisation of Insanity in Nineteenth Century England* (London, 1979), Joan Busfield, *Managing Madness: Changing Ideas and Practice*, (London, 1986)

¹² Kathleen Jones, *Mental Health and Social Policy*, pp. 178-203

medical approach, historians like Jones have claimed that these changes dissolved the binary distinctions between mental and physical illness. This sense of progress has also been sketched onto changes in how and where ‘chronic’ forms of illness were dealt with, which until the late 1920s often occurred in the stigmatised space of the Poor Law system. Martin Gorsky, among many others, has traced this back to specific ‘organisational arrangements’ whereby ‘charity-funded voluntary hospitals refus[ed] to admit “incurable” or potentially long-stay cases, which by necessity then fell on public provision.’¹³ The dissolution of the Poor Law in the 1929 Local Government Act, and later the integration, coordination, and cooperation between hospitals and general practice ushered in through the NHS, allowed chronic illness to be detached from these institutional spaces and, in turn, from the ‘lingering stigma of pauperism.’¹⁴

More recently, historians have begun to complicate this narrative. In 2019, Alistair Ritch challenged the assumption that the policy reforms of the 1930s constituted a total transformation of Poor Law infirmaries hitherto filled with inmates suffering from chronic diseases and disabilities.¹⁵ He instead argued that prior to this, these infirmaries had been ‘the most important form of institutional provision for the sick poor’ and therefore responsible for treating many other kinds of ‘acute’ illnesses, infectious diseases, and mental disorder, disrupting this idea of change that was primarily motivated by a more humane, modern view of chronic illness.¹⁶ Martin Moore has reinforced this view in his analysis of the healthcare system which grew up around diabetes in the post-war period, where he linked efforts to reframe chronic illness in the 1930s to practical, material concerns about bed-blocking and

¹³ Martin Gorsky, ‘To Regulate and Confirm Inequality?’ A Regional History of Geriatric Hospitals Under the English National Health Service, c. 1949-1975’, *Ageing and Society*, 33, (2013), p. 601; See also, for example, Virginia Berridge, ‘Health and Medicine’, in F.M.L. Thompson, (ed.), *The Cambridge Social History of Britain, 1750-1950, Volume 3: Social Agencies*, (Cambridge, 2008), p.226, Pat Thane, *The Foundation of the Welfare State*, (Oxford, 2013), p. 160

¹⁴ Brian Abel-Smith, *The Hospitals in England and Wales, 1800-1914*, (Massachusetts, 1964), p. 352-383; See also Martin Powell, ‘An Expanding Service: Municipal Acute Medicine in the 1930s’, *Twentieth Century British History*, 8, (1997), pp. 334-357

¹⁵ Alistair Ritch, *Sickness in the Workhouse: Poor Law Medical Care in Provincial England, 1834-1914*, (Woodbridge, 2019), p. 29

¹⁶ *Ibid.*, p. 220

about 'how best to use the resources of the post-war welfare state', which only then led to a mobilisation of 'humanitarian arguments'.¹⁷

Whereas Moore and Ritch have both provided new perspectives on how chronic illness was parsed in the twentieth century health system, Chris Millard has also made a similar point in relation to the move towards asylum deinstitutionalisation and integration, believed to occur in the care and treatment of mental and physical illness. Anchoring his analysis in evidence that a divide between general medicine and psychiatry still endures today, Millard challenged the idea of a smooth shift away 'from legal constraint and the stigma of separation' in the asylum over the course of the twentieth century, instead using the shifting, physical/mental status of self-harm to show that this process was 'uneven, faltering, and local' and hampered by the practical realities and material resources of this system.¹⁸ Like these histories, this thesis also hopes to disrupt this progressive, narrative shift by focusing on how the relationship between viruses and persisting illness was conceptualised over the course of the twentieth century, and underlining how doctors continued to rely on the binary concepts of mental/physical, acute/chronic in order to relate cases to specific kinds of provision, resources and policy. In a similar way to Millard and Moore, such analysis intends to demonstrate the point that symptoms continued to be coded in this way, not due to a powerful Cartesian belief in the distinctions between mind or body, but instead in line with a practical need to ensure that the limited resources of an ever-expanding state-funded health and welfare system were used in the most efficient, rational way possible.¹⁹

¹⁷ Martin Moore, *Managing Diabetes, Managing Medicine: Chronic Disease and Clinical Bureaucracy in Post-War Britain*, (Manchester, 2019)

¹⁸ Chris Millard, *A History of Self-Harm*, p. 30, p. 31

¹⁹ Often understood to have emerged in the work of sixteenth century philosopher Rene Descartes, the idea that mind and body are completely separate to one another remains, even today, a topic of considerable debate. These theoretical debates are considered peripheral to this thesis, which is instead interested in the administrative, institutional and practical conditions which led British physicians and psychiatrists to approach mental and physical illness in binary separation from one another. For an example of these current debates, see for Florence Thibaut, 'The Mind-Body Cartesian Dualism and Psychiatry', *Dialogues in Clinical Neuroscience*, 20, (2018), p. 3, also Desmond M. Clarke, *Descartes's Theory of Mind*, (Oxford, 2003)

In order to engage in such analysis, this thesis relies centrally on a theoretical framework which has become relatively popular amongst historians of medicine, science, and psychiatry since the 1980s, which approaches disease categories and concepts as historical objects. This approach is often traced back the work of Ludwik Fleck, Georges Canguilhem, and Michel Foucault (none of whom, however, are best described as historians). In the 1920s and 1930s, Polish scientist Fleck turned his attention to the ‘problematic but indispensable classification of diseases’ and ‘medical facts’ in modern medicine and science medical practice.²⁰ Most famously, he explored how the problem of ‘*lues venerea*’ (the Latin term for ‘venereal plague’) was recast over the nineteenth century through the isolation of a ‘specific set of pathological symptoms’ and a causal agent, which were united in a single disease eventually defined as ‘syphilis’.²¹ By emerging through a specific ‘thought style’, and in the hands of scientists, clinicians or public health officials who were ‘firmly situated in society, embedded in history, and constrained by institutions, regulations, regulations, and laws’, Fleck underlined the (now commonplace) view that specific disease categories emerge through, are marked by and therefore differ according to their historical context.²² By challenging the view that medical and scientific practice existed ‘outside time and history’, Fleck’s work laid the foundation for the kind of critical, contextual analysis pursued across the five chapters of this thesis, which is also indebted to many of the views expressed by French philosopher and key proponent of ‘historical epistemology’ or ‘normative history’, Georges Canguilhem.²³

²⁰ Ilana Löwy, ‘Labelled Bodies: Classification of Disease and the Medical Way of Knowing’, *History of Science*, 49, (2011), p. 302; For more on Fleck’s life and contribution, see George M. Weisz, ‘Dr Fleck Fighting Typhus’, *Social Studies of Science*, 40, (2010), pp. 145-153

²¹ Ludwik Fleck, *Genesis and Development of Scientific Fact*, (Chicago, 1979), pp. 1-20; Ilana Löwy, ‘Ludwik Fleck on the Social Construction of Medical Knowledge’, *Sociology of Health and Illness*, 10, (1988), p. 140

²² Ilana Löwy, ‘Fleck the Public Health Expert: Medical Facts, Thought Collectives, and the Scientist’s Responsibility’, *Science, Technology and Human Values*, 41, (2016), p. 526; Fleck has also been credited with stimulating what Ilana Löwy has described as a “sociology of scientific styles”- a discipline that promote[d] the understanding of how science works, not as an abstract ideal but as a *concrete, situated social practice*.’ See Ilana Löwy, ‘Ludwik Fleck Where Are You Now That We Need You? Covid-19 and the Genesis of Epidemiological Facts’, <http://somatosphere.net/2020/ludwik-fleck-where-are-you-now.html/> [accessed 14 July 2022]

²³ Georges Canguilhem and I are linked in a very distant sense. Canguilhem entered the École Normale Supérieure (ENS) as a student in 1924, alongside Jean-Paul Sartre, Raymond Aron, and Paul Nizan. According to Wikipedia, during this time Canguilhem and Sartre authored an antimilitarist satirical cartoon, which was published in the University revue. The cartoon offended the Director of the ENS and literary historian, Gustave Lanson, who was my great-great-great-great uncle.

Famously taking interest in the scientific concepts of ‘reflex’, of the ‘normal’ and of the ‘pathological’, in the 1940s Canguilhem, like Fleck, aimed to show how they changed ‘over space and time, and across disciplinary boundaries, in order to locate significant shifts regarding meaning, reference and domains of application’.²⁴ To Canguilhem, concepts were both a ‘denomination and a definition, that is to say, a noun endowed with meaning that is able to fulfil a function of discriminating between a number of observations or experiments’, or most importantly, between different objects, entities, or things.²⁵ Like the categories used to contain and refer to disease, concepts like the ‘reflex’, the ‘normal’ and the ‘pathological’, were therefore ‘eminently historical entities’, which had emerged through the use of specific techniques and instruments but also as they became rooted in ‘contemporary culture’.²⁶ Given that he was taught by Canguilhem at the École Normale Supérieure, Michel Foucault unsurprisingly carried many of these ideas into his own project on ‘the “conditions of possibility” for thought in a certain period’, which continued over the entirety of his career, spanning many themes, topics and time periods.²⁷

In his analysis, Foucault proceeded from the basic assumption that ‘at any given time in a given domain, there are substantial constraints on how people are able to think’, which in turn produce certain objective facts.²⁸ By turning focus away from the ‘particular object (text)

²⁴ Pierre-Olivier Methot, ‘On the Genealogy of Concepts and Experimental Practices: Rethinking Georges Canguilhem’s Historical Epistemology’, *Studies in History and Philosophy of Science*, 44, (2013), p. 114

²⁵ Georges Canguilhem, *Études D’Histoire et de Philosophie des Sciences Concernant les Vivants et la Vie*. (Paris, 2002), p. 295; Arguably influenced by the holistic approaches which characterised interwar medicine and psychiatry, and therefore informed his own worldview, Canguilhem aimed to show how these concepts emerged through and been marked by nineteenth century ‘rationalistic optimism’ which, for example, distinguished between normality and abnormality in terms of ‘a simple quantitative variation’. See Georges Canguilhem, *Le Normal et le Pathologique*, (Paris, 1999), p.61, Christina Chimisso, ‘The Tribunal of Philosophy and its Norms: History and Philosophy in Georges Canguilhem’s Historical Epistemology’, *Studies in History and Philosophy of Science, Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, 34, (2003), p. 315

²⁶ Hans-Jörg Rheinberger, ‘Re-Assessing the Historical Epistemology of Georges Canguilhem’, in Gary Gutting, Joseph Rouse (eds), *Continental Philosophy of Science*, (Oxford, 2005), p. 190

²⁷ Luca Sciortino, ‘The Emergence of Objectivity: Fleck, Foucault, Kuhn and Hacking’, *Studies in History and the Philosophy of Science*, 88, (2021), p. 131

²⁸ Gary Gutting, *Foucault: A Very Short Introduction*, (Oxford, 2005), p. 42; This interpretation is often criticized based on claims that it collapses down any possibility for individual agency. Foucault did nonetheless leave space to acknowledge how individuals cast themselves ‘as subjects capable of

studied' towards 'the overall configuration of the site from which it was excavated', Foucault argued it was possible to understand the conditions of possibility which shaped and guided the emergence of particular kinds of concepts, experiences and 'relativised historical *a priori*s' at a given moment in time.²⁹ Like many others, Ian Hacking drew upon Foucault's work to pursue his own analysis of disease categories, concepts and classifications, which became centred on theories of styles of reasoning, on ecological niches and on making up people. As explained by Luca Sciortino, Hacking defined styles of reasoning as 'distinct scientific ways of knowing which have emerged and stabilised at different points', which introduce new kinds of objects and concepts and in turn 'new criteria for the truth or falsehood of statements'.³⁰

In contrast to the empirical forms envisioned by philosopher Immanuel Kant, Hacking argued that these styles were often associated with key, 'organising concepts' which hinged on specific historical processes and constituted the 'conditions of possibility of our experience', in turn making it difficult to 'conceive of a way of experiencing our world and ordering our society which does not rely' on them.³¹ Although Fleck, Canguilhem and Foucault should be credited with laying down the theoretical foundations to make this kind of argument, it is Hacking who provides the critical tools needed in this thesis, to explore how and why across the twentieth century, a particular set of concepts (mental/physical, acute/chronic), and categories (such as 'post-encephalitis') became and remained used in context-specific ways to parse and deal with transient, virus-related illness that 'appear[ed] at a time, in a place, and later fade[d] away', and in the process, 'made up people'.³²

knowing, analyzing, and ultimately altering reality', see Michel Foucault, *The Essential Works of Michel Foucault, 1954–1984, Vol. 2, Aesthetics*, (London, 2000), p. 463

²⁹ Gary Gutting, *Foucault: A Very Short Introduction*, pp. 43-44

³⁰ Luca Sciortino, 'On Ian Hacking's Notion of Style of Reasoning', *Erkenn*, 82, (2017), p. 245

³¹ *Ibid.*, p. 248

³² Ian Hacking, *Mad Travellers: Reflections on the Reality of Transient Mental Illness*, (Massachusetts, 2002), p. 1; Hacking argued that these niches provided a stable site for a 'concatenation of an extraordinarily large number of diverse types of elements... for a moment provide a stable home for certain types of manifestation of illness' that did not fit within 'the established order', see *Ibid.*, p. 13

It is difficult to overstate the pervasiveness of this theoretical interest in concepts and categories as historical objects amongst scholars working across the fields of sociology, philosophy, and history, which has been used to explore medical, scientific and psychiatric practice and the functions of modern health systems. As respectively shown by Geoffrey Bowker and Susan Leigh Starr, Mildred Blaxter, and Annemarie Jutel, by allowing medical professionals to ‘section the world and... to put things or people into neat sets of boxes’, and to in turn identify treatment options, predict outcomes and enable access to specific kinds of services, concepts and categories are integral to the modern ‘system of medicine and the way it creates social order’.³³ According to Alison Kafer, concepts used to define disability, such as ‘congenital and acquired, diagnosis and prognosis, remission and relapse’, as well as ‘post’, ‘acute’, and ‘chronic’, allow doctors to orientate illness ‘in and to time’, and therefore enforce the ‘regimentation of economic imperatives across the terrain of one’s body’.³⁴

Since the 1960s, this view of concepts and categories as context-specific, rather ‘natural’ or ‘inevitable’ entities which serve specific functions in particular healthcare systems has become pervasive amidst historians of British medicine and psychiatry, who have for example acknowledged how they act as ‘special instruments for conceptualizing politics’ and often ‘change knowledge [and] potentially change what it is to be human’.³⁵ This approach is exemplified in the work of Rhodri Hayward, in particular on diagnostic categories such as

³³ Coreen McGuire, *Measuring Difference, Numbering Normal: Setting the Standards for Disability in the interwar period*, (Manchester, 2020), p. 46; Annemarie Jutel, ‘Sociology of Diagnosis: A Preliminary Review’, *Sociology of Health and Illness*, 31, (2009), p. 278; See also Mildred Blaxter, ‘Diagnosis as Category and Process: The Case of Alcoholism’, *Social Science and Medicine*, 12, (1978), pp. 9–17

³⁴ Alison Kafer, *Feminist, Queer, Crip*, (Bloomington, 2013), p. 26, p. 40

³⁵ Kari Palonen, ‘The History of Concepts as a Style of Political Theorizing: Quentin Skinner’s and Reinhart Koselleck’s Subversion of Normative Political Theory’, *European Journal of Political Theory*, 1, (2002), p. 92; Roger Smith, ‘The History of Psychological Categories’, *Studies in History and Philosophy of Science. Part C, Studies in History and Philosophy of Biological and Biomedical Sciences*, 36, (2005), p. 56; The former approach is justifiably traced back to the work of Quentin Skinner, who has argued throughout his career against the idea that ‘concepts can have definitions: they only have histories.’ See Jacques Levy and Emanuelle Tricoire, ‘Quentin Skinner: “Concepts Only Have Histories”. Interview’, <https://www.espacetemps.net/articles/quentin-skinner/> [accessed 1st September 2022]

‘anxiety’ and ‘busman’s stomach’ as well as concepts such as the ‘unconscious’.³⁶ To Hayward, the modern concept of the unconscious, which came in the twentieth century to refer to a ‘repressed and determinative past’, was less a product of a ‘specialised language’ developed by psychiatry to ‘approach a hitherto unrecognised aspect of our lives’, than of a specific ‘network of therapeutic theories and investigative practices’ which in turn sustained it.³⁷ Proceeding along similar lines to Hayward and historians like Roger Smith, Chris Millard, Jennifer Wallis, Steffan Blayney and Åsa Jansson, this thesis seeks to understand how and why the concepts of mental/physical, acute/chronic were made ‘visible, tangible and effective’ through forms of practical action and social organisation, and used to parse the relationship between viruses and long-term illness across the course of the twentieth century, in line with the needs of an evolving, modern health system.³⁸

The approach taken by this thesis is also heavily influenced by recent work on ‘shell-shock’, such as that of Tracey Loughran.³⁹ Challenging the narrative shift from ‘physical’ to ‘psychological’ explanations which have dominated histories of this category, in her analysis Loughran depicted a far messier, faltering process of transition and gradual renegotiation, rooted in the fact that doctors were less concerned with theoretical coherence than navigating the military pressures of war. According to Loughran, the decisive shift towards a psychological view of this condition was thus wrapped up in concerns about a ‘looming manpower crisis’.⁴⁰ This point has been reinforced by Stefanos Geroulanos and Todd Meyers,

³⁶ See Rhodri Hayward, ‘The Pursuit of Serenity: Psychological Knowledge and the Making of the British Welfare State’, in Sally Alexander, Barbara Taylor, (eds), *History and Psyche: Culture, Psychoanalysis, and the Past*, (New York, 2012), pp. 283-305, Rhodri Hayward, ‘Busman’s Stomach and the Embodiment of Modernity’, *Contemporary British History*, 31, (2017), pp. 1-23, Rhodri Hayward, *Transformation of the Psyche in British Primary Care, 1880-1970*, (London, 2014)

³⁷ *Ibid.*, p. 5

³⁸ Rhodri Hayward, ‘The Pursuit of Serenity: Psychological Knowledge and the Making of the British Welfare State’, p. 285; See for example Roger Smith, *Inhibition: History and Meaning in the Sciences of Mind and Brain*, (London, 1995), Chris Millard, *A History of Self-Harm*, Jennifer Wallis, *Investigating the Body in the Victorian Asylum: Doctors, Patients and Practices*, (London, 2017), Steffan Blayney, ‘Health and Efficiency: Fatigue, the Science of Work and the Working Body in Britain, c. 1870-1939’, Ph.D. thesis, (Birkbeck, University of London, 2017), Åsa Jansson, *From Melancholia to Depression: Disordered Mood in Nineteenth-century Psychiatry*, (Cham, 2021)

³⁹ Tracey Loughran, *Shell-shock and Medical Culture in First World War Britain*, (Cambridge, 2017)

⁴⁰ *Ibid.*, p. 88

who also mapped the evolution of shell-shock onto the implementation of new administrative and bureaucratic structures, which encouraged doctors to categorise ‘shellshock’ cases as ‘W’ if they were physically wounded, and ‘S’ if they were merely ‘sick’, gradually informing two, distinct models of causation.⁴¹ Drawn from the work of Loughran, Geroulanos and Meyers, this idea that the epistemological refinement of a disease category is linked to and inseparable from bureaucratic and administrative processes and material, financial concerns, is central to this thesis.

Whilst this thesis primarily draws the binary, conceptual structure of the British health system into focus by tracing how physicians and psychiatrists working in specific contexts wrestled with, yet *ultimately* categorised the illnesses that persisted after a viral event as mental/physical and chronic, it also does this by acknowledging one important exception to this rule, exemplified by cases of Encephalitis Lethargica (EL). Beyond studies of syphilis/general paralysis/neurosyphilis and HIV/AIDS, it is fair to say that EL remains one of the only viral diseases associated with long-term effects or ‘sequelae’ that has received considerable attention amongst historians of British medicine and psychiatry.⁴² Emerging in England during October 1918 as part of an international epidemic, EL caused a range of mental and physical symptoms that seemed to persist over long periods of time. Histories of this disease have for the most part stressed how EL flummoxed scientists, physicians and psychiatrists alike, and yet ultimately allowed them to underscore ‘the unity of mind and movement in the CNS [central nervous system]’, revolutionising neuropsychiatry.⁴³ EL, Paul

⁴¹ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe: Brittleness, Integration, Science and the Great War*, (Chicago, 2018), p. 82

⁴² Beyond the work of Mark Honigsbaum, for example, the sequelae which have followed upon influenza have yet to receive wider attention. There are signs however that this is likely to change as historians seek to use their skills to offer insight to current problems, such as Long Covid. See Mark Honigsbaum, “An Inexpressible Dread”: Psychoses of Influenza at the Fin-de-Siecle’, *The Lancet*, 381, (2013), pp. 988-98, also Mark Honigsbaum, ‘Taking Pandemic Sequelae Seriously: From the Russian Influenza to COVID-19 Long Haulers’, *The Lancet*, 396, (2020), pp. 1389-1391

⁴³ Paul Foley, *Encephalitis Lethargica: The Mind and Brain Virus*, (New York, 2018), vii; See also Kenton Kroker, ‘Configuring Epidemic Encephalitis as a National and International Neurological Concern’, in Stephen T. Casper and Delia Gavrus, (eds), *The History of the Brain and Mind Sciences: Technique, Technology and Therapy*, (Rochester, 2017), pp. 77-106, Edward Shorter, ‘The First Psychiatric Pandemic: Encephalitis Lethargica, 1917-21’, *Medical Hypotheses*, 146, (2021), pp. 110420-110420, Violeta Ruiz, ‘A Disease That Makes Criminals: Encephalitis Lethargica (EL) in

Foley has argued, moreover had an extremely brief history, with only ‘seven years of ebb and flow, followed by seven years of decline as an infectious disorder, and ending with its gradual evanescence’, leaving a sense of ‘mystery’ that was ‘only deepened by the fact that the [causal] pathogen... was never identified.’⁴⁴

This fascination with the mystery of EL has remained a key characteristic of the histories surrounding this disease, some of which have even aimed to impose clarity in retrospect by using modern, biomedical, neuroscientific assumptions to show that this was not ‘actually a single disorder.’⁴⁵ Although this thesis shares in the idea that during the early twentieth century, EL and its persisting effects challenged many of the prevailing theoretical principles and practical approaches which characterised British medicine, science and psychiatry, it seeks to address this point by starting from a much more institutional, administrative and bureaucratic perspective. Such analysis will allow us to see that the emergence, disappearance and therefore the transience of EL can all be traced back to the ways in which its persisting symptoms consistently failed to fit into a health system reliant on the binaries of mental/physical, acute/chronic.

Summary

In each chapter of this thesis, focus is on exploring how the concepts of mental/physical, acute/chronic were used in a specific historical context to parse illnesses which persisted after a viral infection, caused either by syphilis, EL, cerebrospinal fever, chorea, or influenza. Whilst every chapter provides a highly specific, deeply contextual and perhaps ‘microhistorical’

children, mental deficiency, and the 1927 Mental Deficiency Act’, *Endeavour*, 39, (2015), pp. 44-51; This narrative that EL revolutionized neuropsychiatry has also been reinforced by neurologist Oliver Sacks, who chronicled his efforts to help patients in New York in the 1960s through trialling ‘L-DOPA’. Sacks’ work has since become the subject of a film, starring Robin Williams, and EL more broadly the subject of fiction books or sensationalized non-fiction. See Oliver Sacks, *Awakenings*, (London, 1973), Will Self, *Umbrella*, (London, 2012), Molly Caldwell Crosby, *Asleep: The Forgotten That Remains One Of Medicine’s Greatest Mysteries*, (Berkeley, 2011)

⁴⁴ Paul Foley, *Encephalitis Lethargica*, p. 1

⁴⁵ Joel Vilensky and Sid Gilman, ‘Encephalitis Lethargica during the Epidemic Period’, in Joel Vilensky (ed.), *Encephalitis Lethargica: during and after the epidemic*, (Oxford, 2011), p. 17

account, collectively they trace a broader shift from a firmly chronic physical aetiology, which emerged and became attached to the category of ‘neurosyphilis’, to one which instead helped to establish if, when and why illnesses which persisted after a virus were better linked to conditions like depression and treated as chronic and mental.⁴⁶ Through tracing this aetiological transition, we have the opportunity not only to understand how the persisting effects of viral illness were parsed and conceptualised over the twentieth century, but also how this hinged, across time, on efforts to code them as mental *or* physical, acute *or* chronic. The decision to focus on a broad chronology spanning the late nineteenth to the late twentieth century maps onto the emergence of the modern British health system during this period, where informal kinds of medical care and treatment previously often provided in the home began to be based in specific institutions and funded through new mechanisms of financial support by the state. Through focusing on categories which emerged across this chronology, this thesis sheds light on how and why this system was able to function, evolved over time, and remained consistently reliant on a specific set of binary concepts.

In contrast to this broad historical focus, the research which informs this thesis began from a more specific initial interest in EL and with a set of primary sources held by the Special Collections Archive at the University of Sheffield: the Hall Manuscripts.⁴⁷ As we shall see in Chapter 3, Arthur Hall was a prominent physician in early twentieth century Britain, whose expertise spanned across public health, industrial and general medicine and who became an international expert on EL. His case notes and jottings, now held by the University of Sheffield where he was a Professor of Medicine, provide unique insight into how and why this disease category emerged, evolved, and ultimately disappeared from medical and psychiatric

⁴⁶ Although it would be a stretch to describe the analysis which forms each chapter of this thesis as ‘microhistory’, they do each nonetheless borrow and rely upon this kind of ‘intensive historical study’ and engage in a search ‘for the answers for “great historical questions”... [through] studying small objects.’ See Sigurður Gylfi Magnússon, István M. Szigjártó, *What is Microhistory?: Theory and Practice*, (Oxford, 2013), p. 51

⁴⁷ Sheffield University Library, [hereafter SUL], Hall Manuscripts, MS 82

discourse during this period, but also the practical as opposed to theoretical concerns which dictated this process.

After numerous visits to the Special Collections Archive, it became clear that EL also offered insight to the functions of the modern British health system, given how the persisting illnesses associated with this viral disease recurrently came into conflict with and therefore exposed the binary concepts used to police access to or develop specific institutional provisions, medical treatments and financial resources. In a sense, this thesis has therefore been built up and around EL, with focus moving backwards in time to syphilis as well as forwards to chorea, cerebrospinal fever and influenza. Although the primary source analysis which informs the rest of this thesis was impacted by restricted access to archives due to COVID-19, these challenges have been navigated by instead predominantly drawing upon medical journal literature as well as the secondary source analysis of other historians. Through this material, this thesis has been able to explore if and how the conflicts borne out in relation to EL were also confronted and invariably resolved in relation to other viral diseases, drawing the binary structures of the health system across this period into sharp focus.

Chapter 1 begins in the late nineteenth century, with a group of persisting illnesses hitherto viewed as a form of insanity, which were brought within the *chronic mental(/moral)* category of general paralysis, dealt with through legal and institutional mechanisms of control associated with the asylum and therefore fitted into a modern health system which was becoming structured around binaries. Guided by concerns about the material and financial burden imposed by these cases on local public health authorities, with their support in the first decade of the twentieth century pathologists like Frederick Mott would use a new set of laboratory techniques to explore a different theory of causation and the possibility that general paralysis might instead be a chronic form of syphilis. Gradually embedding this *chronic physical* aetiology through adjusting and adapting these laboratory techniques, Mott and his colleagues began to bring these persisting illnesses within the category of ‘neurosyphilis’,

therefore tying them to a new kind of venereal disease provision and, in turn, public health intervention.

As we move more decisively into the twentieth century in Chapter 2, we shift our focus to another viral disease, which in the early 1920s similarly became associated with persisting illness: EL. Although these illnesses could not be tied to the same kind of chronic disease process used to unite syphilis and general paralysis, it quickly became acknowledged that the ‘mental changes’ observed in some schoolchildren were still physical due to their ties to permanent, bodily damage. Given the ensuing need for long-term institutional care, available only through the legal provisions surrounding ‘mental deficiency’, some doctors like George Augustus Auden became critical of the assumption that these mental changes, which were caused by the *physical* effects of a virus, should be treated in the same terms as those which were *inherited* biological traits. Redefining these symptoms as part of a ‘post-encephalitic syndrome’, Auden would map an aetiology which, for a time, tied these cases to provisions hitherto used to facilitate a recovery from acute infectious physical disease. Demonstrating how this process of diagnosis was intertwined with efforts to reposition and bring these cases within the health system, Chapter 2 concludes by acknowledging how the ‘physical’ status of those whose condition persisted and became ‘chronic’ was brought into question, not by changes in scientific theory or knowledge, but by practical considerations relating to funding, resources and space.

Our focus remains with EL in Chapter 3 however shifts to explore some of the long-term illnesses observed in adults and which came into conflict with different kinds of health provision. In the 1920s, physician Arthur Hall acknowledged the tremor, rigidity, depression, and apathy which followed upon EL and seemed to impact the ability of hitherto productive, healthy citizens to work. Otherwise viewed as *mental* and *chronic* and so suitable for institutional care in an asylum or Poor Law infirmary, Hall instead tied these cases to an intermittent form of outpatient treatment in the ‘general’ hospital, to mechanisms of financial

support made available via the National Health Insurance scheme, and to an *acute physical* event through the developing category of ‘post-encephalitic parkinsonism’. As some of these cases became classed as chronic, based on their long-term reliance on these medical and financial provisions, questions again emerged about the practical value and material consequences of this kind of category in the context of a changing health system.

By the 1940s, as the ‘post-encephalitic’ categories initially used to conceptualise these illnesses as physical/acute eventually became understood to warrant provisions, resources and policies relating to chronic care, they would also become the focus of concerns regarding waste and inefficiency, thus gradually falling out of usage altogether. Over the course of Chapters 1, 2 and 3, we therefore witness the emergence of two distinct physical and chronic aetiologies used to visualise the effects of two viral diseases: syphilis and EL. Whilst both offered ways of dealing with the long-term effects of viral illness, only one aligned with the needs, resources and priorities of the early twentieth century health system in practical, financial and material terms. Mindful of this failure, as we move into Chapters 4 and 5, we shall see how members of the medical and psychiatric profession would come to map a third aetiology, and thereby explore the possibility that the illnesses which persisted beyond a virus might be better viewed and treated as chronic and mental.

In Chapter 4, focus shifts to the efforts made by psychiatrists such as Maxwell Jones, Aubrey Lewis, Mangalore Narasimha Pai and Stephen Krauss to parse and deal with cases who presented at an acute, wartime ‘neurosis centre’ with symptoms of exhaustion, pain, anxiety, and depression. In contrast to others whose condition seemed linked to ‘stress’ or ‘predisposition’, Jones and Lewis marked out a group in whom this *mental* condition seemed causally related to the temporary, *physical* effects of an infection and who they therefore tied to a specific, physical programme of treatment. Many of these cases however relapsed and later returned to the centre, warranting a different kind of rehabilitative intervention. As we shall see, this ‘post-infectious state’ would gradually become viewed as a precursor to a *chronic*

mental neurosis, which was linked to *physical* bodily change but caused more directly by *emotion* and *stress*. Together, these categories were used to reinforce the need for psychiatric intervention, integrated within the emerging state funded health system or, as it would soon become, the National Health Service.

In the fifth and final chapter, we explore how this idea that an infection might contribute to a chronic mental illness emerged in the integrated context of post-war general practice, as a way for doctors to again justify a specific programme of treatment and care, otherwise used to allow patients the time and space to recover from influenza. Diagnosing these cases with post-influenzal depression, doctors maintained their entitlement to medication but also sick pay over varying periods of time. Set amongst financial concerns regarding the use, and perhaps abuse of, NHS resources, this ill-defined category would be brought into question through new kinds of diagnostic and therapeutic tools, ultimately breaking apart entirely. As we shall see, each chapter of this thesis ultimately comes back in different ways to the same point. In spite of claims made by policymakers at the time and since perpetuated by historians, during the twentieth century illnesses continued to be conceptualised as *either* mental *or* physical, acute *or* chronic in order to be related to specific institutional provisions, material resources and legal policies, and to meet the needs of an increasingly comprehensive, yet inadequately equipped modern health system.

Chapter 1: Syphilis, laboratory science, and public health c.1900-c.1940

In twenty-first century Britain, ‘neurosyphilis’ is understood to be a serious, yet rare, chronic and physical disease.⁴⁸ Caused by the spread of syphilis to the brain, neurosyphilis is able to be diagnosed, prevented and treated in the modern NHS, through a particular set of biomedical tests and techniques, which both identify and target the *treponema pallidum*.⁴⁹ Historians and members of the medical profession often link this chronic, physical category to the earlier problem of ‘general paralysis’.⁵⁰ According to this narrative, general paralysis was a disease observed amongst the British population during the late nineteenth century and associated with a broad range of persisting mental and physical symptoms, which often included ‘grandiose delusions, a staggering gait, disturbed reflexes, asymmetrical pupils, tremulous voice, and muscular weakness’.⁵¹ Initially viewed as a form of insanity caused by a ‘hereditary morbid predisposition... transmitted from generation to generation’, historians have argued that general paralysis was transformed by a group of pathologists during the first decades of the twentieth century.⁵² Led by Frederick Mott, these pathologists used new modes of laboratory science to identify a specific viral agent, (the *spirochaeta pallida*), develop diagnostic techniques like the Wassermann test and therapies like Salvarsan in order to show that general paralysis was instead a *chronic* manifestation of a *physical* disease, syphilis.⁵³

⁴⁸ M. Timmermanns and J. Carr, ‘Neurosyphilis in the Modern Era’, *Journal of Neurology, Neurosurgery and Psychiatry*, 75, (2004), pp. 1727-1730

⁴⁹ In the twenty-first century, the ‘*treponema pallidum*’ is the name used to refer to the bacterium responsible for causing syphilis. It is linked to, yet historically distinct from, the viral agent (the ‘*spirochaeta pallida*’) which became viewed as the cause of this disease in the early twentieth century, and which will therefore be referred to throughout this chapter.

⁵⁰ It is important to flag how the terminology used to refer to separate, context-specific iterations of this condition shifted markedly over the course of the twentieth century; from general paralysis of the insane, to general paralysis, to ‘dementia paralytica’, to ‘neurosyphilis’. Mindful of these differences, this chapter broadly aims to reflect the terminology used in its primary sources, settling on ‘general paralysis’.

⁵¹ Jennifer Wallis, ‘Looking Back: This Fascinating and Fatal Disease’, 18 September 2014, <https://www.bps.org.uk/psychologist/looking-back-fascinating-and-fatal-disease>. [accessed 20 July 2022]

⁵² Patrice Pinell, ‘Degeneration Theory and Heredity Patterns Between 1850 and 1900’, in Jean-Paul Gaudilliere and Ilana Löwy, (eds), *Heredity and Infection: The History of Disease Transmission*, (Oxford, 2001), p. 245

⁵³ See Frederick Mott, ‘The Morison Lectures on the Pathology of Syphilis of the Nervous System in the Light of Modern Research’, *BMJ*, 1, (1909), pp. 454-462; The idea that syphilis is caused by a ‘virus’ may be jarring to twenty-first century readers, given that this disease is now today understood to be caused by bacteria. There is a broad, historiographical debate about how and why differences

Through these changes in technique and practice general paralysis was therefore gradually became subsumed within the broader umbrella category of neurosyphilis, which remains with us today.

This chapter does not question the historical narrative that during the early twentieth century a particular group of persisting symptoms were moved *from a chronic/mental category*, used to refer to and deal with a form of insanity, *to a chronic/physical category* which instead became used to contain the long-term effects of syphilis. It does nonetheless approach this from a slightly different perspective. Rather than linking this shift to the use of new scientific theories and approaches alone, this chapter aims to show that it was also inseparable from changes in the contemporary health system, and the development of new institutional provisions, legal policies, and material resources able only to sustain a category which could be clearly defined as chronic and physical. Through such analysis, this chapter therefore seeks to reaffirm the central point made by this thesis: that during the twentieth century the British health system became and remained structured around two sets of binary distinctions: between mental and physical, acute and chronic forms of illness. This system, in turn, relied on disease categories which could be positioned on either end of these binary axes, and which were developed through contingent institutional arrangements, material practices, and causal theories. In this chapter, we shall thus gain an understanding of how and why this conceptual structure was put in place, through exploring the shifting relationship between general paralysis and syphilis, and ultimately the emergence of neurosyphilis.

As we shall see, in the first decades of the twentieth century the prevailing belief that general paralysis was a chronic form of insanity caused by a moral and biological degeneration, began to shift in line with a series of practical, financial, and institutional problems confronted in a

between bacteria and viruses emerged in the twentieth century, which are well beyond the scope of this thesis. Instead, this terminology is used to broadly reference an agent believed to cause physical changes in the brain and body. For more on the history of viruses, see Joost Van Loon, 'A Contagious Living Fluid: Objectification and Assemblage in the History of Virology', *Theory, Culture and Society*, 19, (2002), pp. 107-274

burgeoning public health system. Equipped with particular kinds of resources and space, pathologists like Frederick Mott set out to offer resolution through the realm of laboratory science and closer causal links with syphilis. By developing and continually adjusting new diagnostic technologies such as the Wassermann test, and therapeutic techniques like Salvarsan, Mott and his colleagues began to reframe the symptoms hitherto attributed to the moral failings of an individual and therefore diagnosed as general paralysis, as due to a chronic form of syphilis. Gradually becoming subsumed within the category of neurosyphilis, these illnesses could now be diagnosed, treated, and prevented through a new set of health provisions, resources, and policies centred on venereal disease, and viewed as a manageable public health problem. This chapter therefore maps the shifting, aetiological status of general paralysis over a period spanning the late nineteenth and early twentieth centuries onto the gradual rise of and the challenges faced by a new, modern, scientific brand of medicine in Britain, reliant on the techniques of the laboratory, on the institutional arrangements of the venereal disease clinic, and most importantly able to tackle the enduring, ‘loathsome disease’, of syphilis.⁵⁴

This chapter begins by giving a sense of the structures, provisions and policies which came to constitute the nascent, state-supported health system in Britain during the nineteenth century, also acknowledging how they informed the emergence of general paralysis as a coherent, mental and chronic disease category. Guided by a need to ‘impose bureaucratic rationality on huge institutional structures’, such as a newly established network of asylums, during this period members of the British medical profession combined clinical and pathological forms of knowledge to feed into a ‘reductionist, mechanism-oriented way of thinking about the body [and mind] and its felt malfunctions’.⁵⁵ Additionally, they also began to develop diagnostic categories that related to specific causes, and in turn to the concepts of

⁵⁴ Anne Hanley, ‘Histories of “a Loathsome Disease”: Sexual Health in Modern Britain’, *History Compass*, 20, (2022), pp. 1-16

⁵⁵ George Weisz, ‘The Emergence of Medical Specialization in the Nineteenth Century’, *Bulletin of the History of Medicine*, 77, (2003), p. 554; Charles Rosenberg, ‘The Tyranny of Diagnosis: Specific Entities and Individual Experience’, *The Milbank Quarterly*, 80, (2002), p. 243

mental and physical, acute and chronic. By the mid-nineteenth century, a growing number of British 'asylum doctors' had begun acknowledge a possible link between symptoms such as a staggering gait, delusions, disturbed reflexes, speech difficulties, and muscular weakness, and visible signs of decay in the brain and body detected through pathological techniques.⁵⁶ By intertwining this clinical and pathological evidence with 'notions of debauchery and strain', 'failed sexual vigilance or over-indulgence in alcohol', asylum doctors visualised an inevitable, irredeemable, chronic and physical bodily process of moral 'degeneration', tying this the category of general paralysis, and underlining the need for life-long legal control in the space of the asylum.⁵⁷

In the second section, focus shifts to explore how and why this chronic, mental category was brought into question. Upon their admission to an asylum, general paralysis cases became the responsibility of public health authorities. By the end of the nineteenth century, local officials had begun to express concerns about how these cases were contributing to a steady rise in the populations of these institutions, subsuming a limited set of material and financial resources. Although the possible role of syphilis in general paralysis had been long acknowledged by their continental colleagues, the burgeoning interest of British pathologists in these links at the turn of the century was more closely informed by these practical concerns, and by the funding they received from local health authorities to conduct laboratory research. Through drawing upon a combination of physiological and pathological techniques, Frederick Mott and many of his colleagues would therefore show that general paralysis was a chronic manifestation of syphilis, and in turn, might be more efficiently diagnosed (through the Wassermann) and prevented (through Salvarsan). By establishing the chronic, physical nature of these cases, laboratory science made it possible to reduce the burden they placed on the public health system, but also on newly established, state-funded mechanisms of compensation and insurance. It is here, in

⁵⁶ This chapter uses the same terminology as Jennifer Wallis in her work, which in turn reflected phrasing that appeared 'frequently' in nineteenth century medical discourse, see Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, ix

⁵⁷ *Ibid.*, p. 209

the medico-legal assessments associated with the latter, that we have an opportunity to explore how this theory of causation began to be used, and held up, in practice.

We begin the third section of this chapter by providing some context on how until early 1910s general paralysis had been interpreted in these assessments. In the absence of reliable, laboratory evidence to forge a causal link to syphilis, judgements regarding compensation or insurance had often relied on information concerning the clinical history or lifestyle of the patient. This had informed multifactorial aetiologies that acknowledged how the onset of general paralysis might also be informed by injury, excitement, or sexual excess. By 1913, however, Mott had come to argue that by confirming the presence or absence of a physical, syphilitic pathology, tests like the Wassermann and therapies like Salvarsan would prove vital to these assessments, and to ensuring that claims were policed and granted only where appropriate. Despite Mott's optimism, questions nonetheless remained about the direct relationship between symptoms attributed to general paralysis and syphilis, given that the Wassermann and Salvarsan seemed only intermittently reliable. As these tests and therapies were gradually adjusted, standardised, and distributed more widely through the roll-out of a new system of venereal disease provision, we shall see in the final section how doctors would begin to tie these long-term illnesses more decisively to physical pathology caused by syphilis, therefore bringing these cases within the chronic, physical category of 'neurosyphilis'.

Section 1: Moral degeneration, bodily decay, and general paralysis

Historians have long acknowledged that the mid to late nineteenth century marked the beginnings of the state-supported British health system.⁵⁸ Formed of specific institutional provisions, resources, and policies, this was a system which would come to rely on clear definitions of and distinctions between mental and physical, acute and chronic phenomena, and therefore categories which conformed to these binaries. Amongst these was general

⁵⁸ See, for example, Virginia Berridge, 'Health and Medicine', in F.M.L. Thompson, (ed.), *The Cambridge Social History of Britain, 1750-1950*, (Cambridge, 2008), p. 175, p. 193

paralysis, which emerged in the space of the asylum laboratory, became tied to permanent bodily decay or degeneration visualised through clinical observation and pathological investigation, and also to a theory of causation which highlighted predisposition and immoral behaviour. As we shall see, through developing this category, asylum doctors also refined the concepts of ‘mental’ and ‘chronic’, and established their relationship to specific kinds of long-term legal and institutional control. By the close of the nineteenth century, in the face of rising asylum populations and concerns regarding moral and racial degeneration, asylum doctors would begin to use new kinds of laboratory science to explore long-suspected links between GPI and syphilis, in the hope of identifying new, more successful, scientific methods of diagnosis, treatment and prevention through a new theory of causation.

Although we should be careful of implying that until the nineteenth century, health and medicine in Britain was primarily the domain of ‘quacks’ and charlatans, this period did nonetheless witness the beginnings of a more modern health system, formed of various institutions and funded (in part) by the state.⁵⁹ Prior to the nineteenth century, in line with modes of medical care and healing that were often provided on an ad-hoc basis, in the home but sometimes in hospitals funded by charity, illness and disease had been primarily conceived in line with a ‘fluid, idiosyncratic, labile and prognosis oriented’ approach which paid attention to the ‘individual sufferer’.⁶⁰ Put by Karl Figlio, this focus on the ‘natural (family) environment, non-interventionist (expectant) therapy and the accurate naming of a disease from its manifest symptoms’, was centrally sustained by the ‘free (undistorted) space of medical ideas and care’ and a ‘similar free economic environment’.⁶¹ This approach was therefore brought into question in line with concerns about Britain’s imperial and economic power, and the

⁵⁹ This point has been comprehensively made by Michel Foucault and traced back to nineteenth century Parisian medicine. See Michel Foucault, *The Birth of the Clinic*, (New York, 1973), Erwin Ackerknecht, *Medicine at the Paris Hospital, 1794-1848*, (Baltimore, 1967), Caroline Hannaway and Ann F. La Berge, (eds), *Constructing Paris Medicine*, (Amsterdam, 1998)

⁶⁰ Charles Rosenberg, ‘The Tyranny of Diagnosis’, p. 242

⁶¹ Karl Figlio, ‘The Birth of the Clinic. An Archaeology of Medical Perception, by Michel Foucault’, *British Journal for the History of Science*, 10, (1977), p. 166; John Pickstone, ‘Production, Community and Consumption’, in Roger Cooter and John Pickstone, (eds), *Medicine in the Twentieth Century*, (Amsterdam, 2000), p. 5

consequences of rapid industrialisation in the nineteenth century.⁶² Such concerns fed into a new kind of 'liberal government' and knowledge, which could be 'directed at measuring and controlling the economic and physical behaviors(sic) of the populace', who were to be managed in terms of their health, reproduction, and morality.⁶³ Liberal 'governmentality' therefore divided the population up, viewing them as 'flock to be nurtured or culled...', so requiring new forms of institutional space which were to be used to detain and separate out those who posed a threat to the broader whole.⁶⁴

At this stage, it is important to briefly flag some differences between this health system and the related yet distinct twentieth century version which is the primary focus of this thesis. Previously provided in informal spaces such as the home, in the nineteenth century medical care and treatment began to be based and provided in various institutions, such as the charitable dispensary, the workhouse, the asylum, the fever hospital or the sanatorium. Each of these institutions primarily admitted and classed patients based on moral or social criteria, such as their ability to pay for their treatment or perhaps their familial inheritance.⁶⁵ As we shall see in Chapters 2 and 3 of this thesis, in the first decades of the twentieth century the roles of and criteria associated with these institutions were (at least in theory) reframed, as new investigative techniques and financial contribution schemes meant that access to places like the 'voluntary hospital' was now based only on clinical information about the kind of

⁶² In the late nineteenth and early twentieth century, concerns about 'national efficiency' were informed by this perception that Britain was losing its diplomatic, industrial and political power, due in part to the declining health of the population. As we shall see, reforming the British health system was viewed as a key solution to these problems. For more on the efforts to foster and sustain national efficiency, see G.R. Searle, *The Quest for National Efficiency: A Study in British Politics and Political Thought, 1899-1914*, (Oxford, 1971)

⁶³ Pamela K. Gilbert, *The Citizen's Body: Desire, Health and the Social in Victorian England*, (Ohio, 2007), p. 5; There is a comprehensive historiography on theories of governmentality. See Nikolas Rose, Pat O'Malley and Mariana Valverde, 'Governmentality', *Annual Review of Law and Social Science*, 2, (2006), pp. 83-104, Colin Gordon, Graham Burchell, and Peter Miller (eds), *The Foucault Effect: Studies in Governmentality*, (Cambridge, 1991), Nikolas Rose, *Governing the Soul*, (London, 1990); Mary Poovey, *Making a Social Body: British Cultural Formation, 1830-1864*, (London, 1995), Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City*, (London, 2003)

⁶⁴ Nikolas Rose, Pat O'Malley and Mariana Valverde, 'Governmentality', p. 85; Graham Mooney, 'Infection and Citizenship: (Not) Visiting Isolation Hospitals in Mid-Victorian Britain', *Clio Medica*, 86, (2009), p. 147

⁶⁵ The nature of this system has been explored comprehensively by historians. For a broad overview, see Anne Hardy, *Health and Medicine in Britain since 1860*, (Basingstoke, 2001)

illness a patient was suffering from, and whether it was mental or physical, acute or chronic. Whilst it is therefore important to note that the concepts of acute/chronic, mental/physical did not always map onto the institutional structures of this health system and moreover that their meanings shifted over this period, this thesis demonstrates that they were consistently used by members of the medical and psychiatric profession in ways and for reasons that were context-specific, in order to explain and deal with particular kinds of illness.

In the nineteenth century, as illnesses began to be managed in new institutional spaces and individual lives scrutinised, regulated and controlled in the ‘pursuit of the state’s objectives... roughly defined as maintaining security and increasing prosperity’, doctors were also encouraged to develop a new understanding of disease, ‘that could be built into tight, seemingly objective pictures, [was] useful in diagnosing and monitoring particular cases, yet capable of being generalized into larger understandings’.⁶⁶ Modern medicine thus established a new ‘gaze’, which encompassed various techniques, languages, and assumptions, and ways of visualizing illness and disease as various ‘events, processes and pathologies’, tied to specific causes and localised in a ‘thoroughly spatial system of bones, organs, blood vessels, fatty deposits and tissues’.⁶⁷ Hinging on ‘ever more detailed’ practices of diagnosis and treatment, this new ‘political anatomy of the body’ also allowed doctors to begin to engage in more routine, objective and scientific methods of examination, in order to ‘assign particular places to particular individuals’, such as the hospital and the asylum.⁶⁸

Doctors therefore came to rely on a new set of scientific techniques and medical practices. Amongst these were ‘instruments of precision’, such as the thermometer, microscope, blood pressure monitors, and the X-ray, which allowed disease to be ‘measured in units, represented in the visible form of curves or continuous tracings, and taught to successive generations of

⁶⁶ Mary Poovey, *Making a Social Body*, p. 31; Charles Rosenberg, ‘The Tyranny of Diagnosis’, p. 245

⁶⁷ Michel Foucault, *The Birth of the Clinic*, p. 107; Chris Philo, ‘The Birth of the Clinic: An Unknown Work of Medical Geography’, *Area*, 32, (2000), p. 13

⁶⁸ David Armstrong, *Political Anatomy of the Body: Medical Knowledge in Britain in the Twentieth Century*, (Cambridge, 1983), pp. 2-3

medical students'.⁶⁹ Similarly, case notes were also now used to visualise illness in the individual patient, therefore representing bodies and diseases 'which had no existence prior to [their] crystallisation in the space delineated by a monitoring gaze' and yet doctors believed, were fixed, universal, biological entities.⁷⁰ These techniques and practices were used to support the much more 'sophisticated analyses of disciplinary partitioning' required in this new health system, allowing specific kinds of illness to be 'separated out by diagnostic category... subjected to the surveillance techniques of a panoptic apparatus'.⁷¹ Whilst David Armstrong has shown how these processes began to more clearly distinguish normal from abnormal members of the population, this contention can also be extended to the concepts of mental/physical and acute/chronic, which became used to reaffirm the links between the category of general paralysis, and the long-term, legal powers and institutional space of the asylum.

Although the 'mad' had been informally segregated from the rest of society since the thirteenth century, perhaps in 'private madhouses', Poor Law institutions or prisons, 'the development of a large and elaborate network of state-run asylums and the routine consignment of the lunatic to the tender mercies of asylum administrators' was a distinctly Victorian phenomenon, inaugurated through the 1808 County Asylums Act and modelled on the 'moral treatment' framework hitherto adopted at the York Retreat.⁷² Despite an initially limited rollout, the passage of the Lunacy Act in 1845 and increase in the financial support provided by the state ensured that asylums began to crop up across the country.⁷³ To some historians,

⁶⁹ Charles Rosenberg, 'The Tyranny of Diagnosis', pp. 243-244

⁷⁰ David Armstrong, *Political Anatomy of the Body*, p. 5

⁷¹ *Ibid.*, p. 9

⁷² Andrew Scull, 'Moral Architecture: The Victorian Lunatic Asylum', in A. Scull (ed.), *Social Order/Mental Disorder: Anglo-American Psychiatry in Historical Perspective*, (Berkeley, 1989), p. 214; see also Andrew Scull, 'Moral Treatment Reconsidered', in Andrew Scull, *Social Order/Mental Disorder: Anglo-American Psychiatry in Historical Perspective*, (Berkeley, 1989), p. 95; To nineteenth century physicians, 'moral treatment' was intended to be a comparatively humane approach to insanity, which no longer relied on the use of physical restraints.

⁷³ The LA Act in 1845 made it mandatory for local authorities to provide an asylum. In 1874, the Treasury also began to provide a weekly subsidy to local authorities to cover the cost of each 'pauper patient', marking what Hugh Freeman described as the 'beginning of a fundamental shift in the use of public expenditure towards social objectives', and in turn, the modern healthcare system, see Hugh Freeman, 'Psychiatry in Britain, c.1900', *History of Psychiatry*, 21, (2010), p. 314

initial optimism about the capacity of the asylum to cure the insane through providing more humane, educative forms of moral treatment was quickly overtaken by a sharp increase in the numbers admitted and yet decrease in those discharged, which left local authorities unwilling ‘to expend what they perceived to be extravagant sums of money’ on those whose ‘prospects of reclamation seemed poor at best.’⁷⁴

This story of ‘early asylum reform and construction followed by cost-cutting, pessimism and gradual decline’ has been nonetheless been questioned by historians such as Michael Anthony Finn and Jennifer Wallis, who have aimed to show how such financial and professional concerns in fact stimulated scientific research within these institutions.⁷⁵ Crucially, Finn and Wallis demonstrated that although asylums were undoubtedly purpose-built to ‘remoralise the dangerous and defective’ through legal powers of ‘certification’, they also in practice became places where ‘various and complex “ways of knowing” mental [and chronic] disease were developed, refined, and sometimes, discarded’, and therefore in the process, more clearly distinguished from other physical, acute forms.⁷⁶ As the financial and material challenges faced by asylums became the responsibility of local county councils through the 1888 Local Government Act, these scientific investigations would be used to offer solutions by reframing the chronic, mental problem of general paralysis. Before we explore this point, we do however need to understand precisely how and why this category emerged in the first place.

Historians have long acknowledged how the emergence of general paralysis was shaped by the broader social, cultural and political context of the nineteenth century, as well as the ‘multi-

⁷⁴ Andrew Scull, ‘The Asylum, The Hospital and the Clinic’, in G. Eghigian (ed.), *The Routledge History of Madness and Mental Health*, (London, 2017), p. 104, p. 105; For an infamous debate on this apparent increase, See Edward Hare, ‘Was Insanity on the Increase?’, *BJP*, 142, (1983), pp. 439-455, and Andrew Scull, ‘Was Insanity Increasing? A Response to Edward Hare’, *BJP*, 144, (1984), pp. 432-436

⁷⁵ Michael Anthony Finn, ‘The West Riding Lunatic Asylum and the making of the modern brain sciences in the nineteenth century’, Ph.D. thesis, (University of Leeds, 2012), p. 87

⁷⁶ Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, p. 16; For more on these legal powers, see Clive Unsworth, ‘Law and Lunacy in Psychiatry’s “Golden Age”’, *Oxford Journal of Legal Studies*, 13, (1003), p. 484

layered, multi-agency endeavour of asylum investigation and administration'.⁷⁷ These histories provide much of the context needed to grasp the institutional arrangements, material practices, and causal theories which allowed asylum doctors to conceptualise this chronic, mental disease, and establish its position within the contemporary health system. General paralysis entered into British medical and psychiatric discourse around the mid nineteenth century, as asylum doctors adopted, reshaped and used a category which had been developed by their Parisian colleagues decades earlier.⁷⁸ In the 1820s, French physician Antoine-Laurent Bayle had challenged the prevailing view that the 'constant and progressive physical features' displayed by many asylum patients, such as a 'disturbance in articulation, typically causing tremulous and indistinct speech; unsteadiness of gait leading to staggering; and eventually complete paralysis of voluntary movements, inability to swallow, incontinence, gangrene, and an undignified death', were a complication of insanity.⁷⁹ To Bayle, such phenomena reflected a distinct, 'unfolding clinical entity which cut across symptomatic elements', caused at least in part by brain lesions which were therefore unlikely to respond to moral treatment.⁸⁰ Although members of the British medical profession were undoubtedly influenced by these theoretical precursors, their acceptance of this category was far more practically motivated: tied up with 'pleas for the status of their specialty' (asylum psychiatry) despite the failures of moral treatment, and therefore efforts to develop a 'physicalist approach to mental disease' as the keystone of an 'applied science of man'.⁸¹

⁷⁷ Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, p. 5; According to Gayle Davis, for example, the chronic and mental nature of general paralysis was inseparable from 'issues of blame and respectability', of 'civilisation and degeneration', but also the practical reality that the long-term nature of this condition 'took up a disproportionate amount of asylum resources'. See Gayle Davis, *The Cruel Madness of Love: Sex, Syphilis and Psychiatry in Scotland, 1880-1930*, (Amsterdam, 2008), p. 199, also Gayle Davis, 'The Most Deadly Disease of Asylumdom: General Paralysis of the Insane and Scottish Psychiatry, c.1840-1940', *Journal of the Royal College of Physicians of Edinburgh*, 42, (2012), p. 267

⁷⁸ Juliet Hurn, 'The History of General Paralysis of the Insane in Britain, 1830 to 1950', Ph.D. thesis, (University of London, 1998), p. 31

⁷⁹ *Ibid.*, p. 31

⁸⁰ *Ibid.*, p. 10, p. 33; Bayle split general paralysis into three stages, each of which was characterised by a worsening paralysis, but also by 'monomania', which progressed to 'generalized mania' and in turn to dementia, see Antoine Laurent Bayle, *Récherches sur L'Arachnite Chronique, La Gastrite et La Gastro-Enterite Chroniques, et La Goutte, Considérée Conime Causes de L'Aliénation Mentale*, (Paris, 1822)

⁸¹ Juliet Hurn, 'The History of General Paralysis', p. 36, p. 41; Stephen Jacyna, 'Somatic Theories of Mind and the Interests of Medicine', *Medical History*, 26, (1982), p. 245; This moment is often

Although most asylum doctors did not become proponents of the ‘epistemologically naïve approach to human anatomy’ associated with the short-lived science of phrenology, by the mid-nineteenth century they had however come to see value in the sciences of physiology and pathology, and how they enabled an understanding the body and the brain as separate but also interconnected entities, through studying their physical workings.⁸² As knowledge was transferred from neurology, to nervous physiology, to psychology and psychiatry, nineteenth century asylum doctors began to organise the central nervous system in various ‘higher’ and ‘lower’ ‘levels’, each associated with particular kinds of ‘civilised’ or ‘primitive’/reflex reactions or behaviours developed over differing periods of evolutionary time, and in turn understood to be affected by different kinds of sensations, irritations, stimuli, tones and motions.⁸³ Equipped with this toolkit of concepts, neurophysiologists like Thomas Laycock would begin contend that ‘every change in the consciousness is coincident with some vital change in the encephalon’, and that perhaps, it was possible to relate insanity to objective, physiological functions, states or changes in the brain.⁸⁴

Whilst some forms of insanity became tied to physiological changes linked to emotion, others were also understood to relate to more structural, anatomical, organic change such as lesions, as reflected in cases who would come to be diagnosed with general paralysis. Vividly described by Jennifer Wallis, as asylum doctors came to use pathological techniques to examine substances taken from these patients after death, the internal, physical state of their bodies were often represented ‘as a gelatinous mass: skull and joints thickened, nerve tissue increased, and brains softened’, with signs of decay ‘surfaced’ perhaps in the form of brain

identified by historians in 1869, when the British Medico-Psychological Association endorsed the view of the International Congress of Alienists and recognised that this condition was a ‘distinct morbid entity and not at all... a complication, a termination of insanity.’ See ‘Report of a Quarterly Meeting of the MPA, 28 Oct 1869’, *JMS*, 15, (1870), p. 635

⁸² Tom Quick, ‘From Phrenology to the Laboratory: Physiological Psychology and the Institution of Science in Britain, (c.1830-1880), *History of the Human Sciences*, 27, (2014), p. 58

⁸³ For more on these theories see Åsa Jansson, *From Melancholia to Depression: Disordered Mood in Nineteenth-century Psychiatry*, (Cham, 2021), p. 39

⁸⁴ Thomas Laycock, *Mind and Brain: Or the Correlations of Consciousness with Organisation; With Their Applications To Philosophy, Zoology, Physiology, Mental Pathology, and the Practice of Medicine*, vol. 1, (Edinburgh, 1860), p. 45

lesions, in excessive levels of or discoloured fluids such as the blood or urine, or in the presence of unusual 'cells'.⁸⁵ Beyond using 'micro' or 'macro'-scopic techniques to evidence the 'physical' nature of this condition, asylum doctors also began to underline its chronicity, which now became tied to visible signs of permanent 'structural damage to the brain substance'.⁸⁶ Reinforced by the declining clinical condition of these patients, whose behaviour, articulation, strength, or walking ability often seemed to worsen over time, this pathological evidence of a chronic, bodily disease process was also considered alongside information about their lives before admission or about their family. Through gathering information about whether patients had a history of diseases like syphilis, whether they were excessively sexually active, or commonly drank alcohol in excess, or if they came from families where these kinds of behaviours seemed to have been passed down through generations, asylum doctors therefore compounded the idea that the physical, permanent, chronic decay evident in and on their bodies was down to a lack of moral reasoning.

Evidence that many of these patients seemed to be display a kind of moral depravity was soon explicated in scientific theory, casting their behaviours as a kind of evolutionary reversal caused by the lacking physiological control of the 'higher' inhibitory centres over the lower more 'primitive' responses. Coming from families who behaved in similar ways, the logic followed that many of those suffering from the symptoms of general paralysis had simply never engaged in the process of mental and moral development which produced civilised, rational citizens. As had been revealed through pathological investigations, this depravity also had serious bodily effects, informing damage and decay which steadily progressed as part of a perpetual process of degeneration. Although psychiatrists like Henry Maudsley acknowledged that it was virtually impossible for any 'effort of the will, however strong', to control the

⁸⁵ *Ibid.*, p. 67; Wallis frames these as processes of 'surfacing' in her analysis, to describe 'giving a surface to something, a thing coming to the surface, or an agent intervening to bring something to the surface', and therefore make it visible. For a further discussion of this approach, which is rooted in anthropology, see Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, p. 6

⁸⁶ *Ibid.*, p. 61; We shall return to and more closely consider the functions of the case note in Chapters 2 and 3 of this thesis.

ensuing 'irregular and convulsive action' which caused the moral and physical deterioration of general paralysis, he and many of his colleagues maintained that those diagnosed with this condition were 'personally implicated in the aetiology of their disease', as their 'softened, atrophied bodies' stood in contrast to modern liberal ideal of the 'controlled and self-regulated man'.⁸⁷ According to the superintendent to Bethlem Royal Hospital, George Savage, general paralysis was therefore the archetypal 'disease of civilisation', characterised by a process of 'ruin and decay' which could be started by 'drink, extravagance, restless and sexual excess or combined', but also perhaps made inevitable by inheritance.⁸⁸

In line with these causal theories, the general paralytic came to both encapsulate but also offer a solution to the related, yet distinct political and economic problem of 'degeneration'.⁸⁹ By the mid-nineteenth century, many feared that industrial development, capitalism and social mobility had led to a 'feverish political and physiological unrest', and in turn 'the flourishing in the hearts of the great cities of a group of people tainted by hereditary defect', whose behaviours threatened the 'well-being of the nation and the long-term prospects of civilisation'.⁹⁰ These political concerns coalesced with evolutionary physiological theory in the 'unruly and chaotic body of the general paralytic patient', whose condition became connected to 'abnormal or illicit sexual activity, or behaviours such as excessive drinking' passed down through generations, and therefore viewed as 'testament to the polluting, debasing, and degenerating effects of modern society'.⁹¹ Through conditions like general paralysis, psychiatrists like Maudsley were able to argue that these 'moral' problems were 'neither accidents nor anomalies in the universe', but the consequences of an 'organic machine

⁸⁷ Henry Maudsley, *The Physiology and Pathology of the Mind*, (London, 1867), p. 83; Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, p. 71

⁸⁸ George Savage, 'The Warnings of General Paralysis of the Insane', *BMJ*, 1, (1890), p. 777

⁸⁹ There is a comprehensive historiography surrounding this problem, which has been built up around the work of Daniel Pick, see Daniel Pick, *Faces of Degeneration: A European Disorder, c. 1848-1918*, (Cambridge, 1989)

⁹⁰ Roger Griffin, 'Review of Daniel Pick, *Faces of Degeneration: A European Disorder, c.1848-c.1918*', *History of the Human Sciences*, 4, (1991), p. 316; Daniel Pick, *Faces of Degeneration*, p. 11; Donald Mackenzie, 'Eugenics in Britain', *Social Studies of Science*, 6, (1976), p. 516

⁹¹ Jennifer Wallis, *Investigating the Body in the Victorian Asylum*, pp. 72-73

automatically impelled by disordered nerve-centres' and locked into a degenerative process.⁹² Whilst this process was understood as perhaps set up by 'hereditary constitutional endowment', it was also believed to be sustained over long periods of time by 'the peculiar pattern of life through which that original endowment passed', feeding into what became viewed as a 'chronic', 'mental' disease.⁹³ Instead of punishing these individuals or engaging in failing forms of moral therapy, Maudsley and many of his colleagues began to underline the need for more scientific, rational and ultimately eugenic policies of management, treatment and prevention.

In the space of the asylum, using pathological techniques and the material format of the case note, and in line with new physiological and scientific explanations, by the end of the nineteenth century asylum doctors had begun to forge the category of general paralysis, and establish its status as a form of chronic, mental disease. As we have seen, this process was inseparable from the rise of the modern health system in Britain, and in turn the need for stable disease entities that could be tied to 'mechanism-based ailments with characteristic clinical courses' and specific causes.⁹⁴ These kinds of disease categories, and in turn their status as mental or physical, acute or chronic, allowed doctors to both move patients through and structure the developing health system. By surfacing evidence of physical change in and on the brain and body, asylum doctors mapped an aetiology which centred on the problem of degeneration, likely to be caused in part by heredity but also by decisions made and actions taken as the individual moved through life, ultimately making 'as much a moral as a medical statement' and underlining the need for social policy which 'intervene[d] in the processes of reproduction... to avoid decay and disintegration.'⁹⁵

⁹² Roger Smith, *Trial By Medicine: Insanity and Responsibility in Victorian Trials*, (Edinburgh, 1981), p. 52

⁹³ Charles Rosenberg, *No Other Gods: On Science and American Social Thought*, (Baltimore, 1997), p. 29

⁹⁴ Charles Rosenberg, 'The Tyranny of Diagnosis', p. 242

⁹⁵ Stephen Jacyna, 'Somatic Theories of Mind and the Interests of Medicine', p. 256; Roger Smith, *Inhibition*, p. 166

Although general paralysis might have therefore become tied to ‘physical’ changes in the brain and body, it also remained an essentially ‘mental’ disease inseparable from the moral behaviour of the individual, prevented through limiting opportunities for procreation, and if all else failed, managed through legal powers of control in the space of the asylum. To conclude this section, it is worth taking a moment to appreciate the contingent, context-specific nature of general paralysis and in turn its chronic and mental status, which had emerged through specific institutional arrangements, material practices, and a new theory of causation, as a way for asylum doctors to reaffirm their contribution to and therefore role in the modern health system. In the process, as we shall see, they had also begun to open up possibilities for another causal hypothesis, borne out in the apparent connections between general paralysis and syphilis.

Section 2: Frederick Mott, the asylum laboratory, and a new aetiology

Speaking in 1899 at the annual meeting of the Medico-Psychological Association (MPA), physician-pathologist Frederick Mott began by acknowledging a recent change in his opinion regarding the causes of general paralysis. Although Mott like many of his colleagues had hitherto laid responsibility with the individual, with behaviours such as alcohol consumption, sexual excess, and with heredity, a more ‘careful examination of [his] patients and post-mortem investigations’ had left him convinced that ‘syphilis play[ed] an important *rôle* in this disease’.⁹⁶ Although Mott asserted this view rather tentatively, maintaining that syphilis was still perhaps one of many causes which contributed to the ‘regressive metamorphosis’ observed in general paralysis, in this section we shall explore how and why he would come to forge these links much more definitively, and over the next decades recast the latter as a chronic, *physical* disease. As with the previous section, we are interested in understanding this context-specific process, which will be viewed as a response to concerns about the financial and material burden imposed by general paralysis on the asylum but also

⁹⁶ Frederick Mott, ‘Relation of Syphilis to Insanity’, *JMS*, 45, (1899), p. 683

increasingly *on the state*, given that these institutions had become the responsibility of local public health authorities through the 1888 Local Government Act.

Perhaps more influenced by the biomedical approaches to causation which have informed twenty-first century understandings of viral disease, some researchers have argued that the connection between syphilis and general paralysis hinged on the ‘discovery’ of the *spirochaeta pallida* in cases of both diseases.⁹⁷ Although undoubtedly important, this section argues that the shifting status of general paralysis as a chronic form of syphilis was more centrally reliant on the development of diagnostic techniques and therapeutic practices that could be more easily deployed in the context of a new, state-supported health system. By gradually positioning general paralysis as part of the same aetiology as syphilis, Mott and his colleagues opened up the possibility for new kinds of therapeutic and preventive medical intervention, accessed through a new set of provisions, policies and resources designed to address the broader problem of venereal disease.

Although syphilis had been linked to general paralysis since the mid-nineteenth century, interest amongst members of the medical profession was piqued in the 1890s by the work of French venereologist Alfred Fournier: the man credited by some with making ‘syphilis a respectable branch of medicine.’⁹⁸ Like many of his colleagues, Fournier had initially viewed syphilis as a disease primarily caused by ‘sexual immorality’, transmitted through generations of the same families, and in the process contributing to the ‘depopulation and degeneration of the race’.⁹⁹ He initially denied that syphilis was causally related to general paralysis based on

⁹⁷ See for example, J.M.S. Pearce, ‘Brain Disease Leading to Mental Illness: A Concept Initiated by the Discovery of General Paralysis of the Insane’, *History of Neurology*, 67, (2012), p. 276

⁹⁸ See Claude Quétel, *A History of Syphilis*, (Baltimore, 1990), p. 136

⁹⁹ Alfred Fournier, *Les Affections Parasymphilitiques*, (Paris, 1894); Juliet Hurn, ‘The History of General Paralysis’, p. 103; Providing an extensive account of the theories of causation associated with syphilis in the Victorian period is beyond the scope of this chapter, however can for example be found in the work of Anne Hanley, Allan Brandt, Roger Davidson and Lesley Hall. See Anne Hanley, ‘The ‘S’ Word: The Spectre of Syphilis within middle-class marriage in late Victorian and Edwardian Britain’, Ph.D. thesis, (University of Sydney, 2009), Allan Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880*, (Oxford, 1987), Roger Davidson and Lesley A. Hall (eds), *Sex, Sin and Suffering: Venereal Disease and European Society since 1870* (London, 2001)

the impression that they were associated with different kinds of bodily lesions, and the fact that the latter did not respond positively to typical syphilitic treatments, such as mercury. In 1894, Fournier would however retract this and instead present his concept of ‘parasyphilis’, using this refer to, envelop, and include conditions ‘which were syphilitic in cause or provenance, but not in nature’.¹⁰⁰ Such links primarily relied on statistical evidence, which he used to show that 66% to 80% of general paralytics had a previous history of syphilis.¹⁰¹ Whilst general paralysis remained resistant to mercurial treatment, Fournier nonetheless used this link to underline the need to direct focus towards prevention, and therefore, to the early treatment of syphilis.

Fournier’s views were however slow in their translation to and acceptance by his British contemporaries, many of whom according to Juliet Hurn continued to believe that general paralysis was a product of moral depravation, and who continued ‘to cling tenaciously to multifactorial causal explanations’.¹⁰² Hurn has provided a detailed account, based primarily on his work and theories, of the central role played by Mott in ultimately challenging this model of causation and thereby pulling focus towards syphilis alone.¹⁰³ Whilst this section is indebted to such analysis, it also argues that it is possible to be even more specific about precisely how *and why* Mott and many of his British colleagues became interested in these links. Although proponents of eugenics like Henry Maudsley suggested that the solution to rising levels of mental disease amongst the population, driven in part by general paralysis, lay in social policies that limited procreation, Mott and his colleagues arguably recognised the opportunities presented by Fournier for a more medical approach, pursued in the laboratory. In the coming years, through specific institutional arrangements, in line with a new set of practices and techniques and with the financial and material support of a local public health

¹⁰⁰ Juliet Hurn, ‘The History of General Paralysis’, p. 108

¹⁰¹ *Ibid.*, p. 108

¹⁰² *Ibid.*, p. 116

¹⁰³ *Ibid.*, pp. 119-123

authority, Mott would seek to explore these possibilities, redefining the causes of general paralysis, and forging links with syphilis.

This shifting aetiological understanding of general paralysis as a chronic, mental disease can be mapped onto concurrent changes in the roles, connections and functions of the asylum and local public health systems. As observed in the previous section, over the course of the mid-to-late nineteenth century, asylum doctors had increasingly used laboratory methods to surface signs of physical degeneration in the brain and body, to map an aetiology which centred around a lack of moral control, thereby marking out general paralysis as a chronic and mental disease. By the final decade of the century, such methods were becoming more closely aligned with a new, 'microbiological' or 'bacteriological' model of public health.¹⁰⁴ According to Dorothy Porter, whilst the previous sanitary era had focused on 'drains, sewers and nuisances' as the main causes of illness and disease, by the turn of the century interest had shifted towards more specific 'toxic' and 'bacterial' causal agents, inaugurating 'a new line for preventive action' focused on the 'social and biological conditions which furthered their propagation'.¹⁰⁵

In line with this new model of public health, the Local Government Board (LGB) was established in 1872 to oversee and supervise these public health interventions in a new network of different, local 'sanitary districts'.¹⁰⁶ Each of these districts was in turn overseen by Medical Officers of Health (MOHs), many of whom began to feed into a 'growing sphere of medical work' that embraced statistics, law, engineering, chemistry, meteorology, geology and medicine.¹⁰⁷ This work was often targeted at addressing the problems which seemed to cause

¹⁰⁴ This shift has been comprehensively documented by historians, see for example Michael Worboys, *Spreading Germs: Disease Theories and Medical Practice in Britain, 1865-1900*, (Cambridge, 2000).

¹⁰⁵ Dorothy Porter, *Health, Civilisation and the State: A History of Public Health from Ancient to Modern Times*, (London, 1999), p. 140

¹⁰⁶ Established in 1872, the Local Government was formed by previous members of the Medical Department to the Privy Council, and the Poor Law Board. See J.P.D Dunbabin, 'British Local Government Reform: the nineteenth century and after', *The English Historical Review*, 92, (1977), pp. 777-805

¹⁰⁷ Michael Worboys, *Spreading Germs*, p. 110, p. 111

high mortality levels, focusing for example on contaminated water supplies but also more importantly on the identification, control and isolation of infectious or viral disease. In the final decades of the nineteenth century, a growing number of local councils across England and Wales therefore began to encourage and fund laboratories to conduct this work, such as the Institute of Comparative Pathology in Liverpool. Motivated by practical concerns about the human and economic costs of particular diseases amongst the populations, these laboratories were designed to provide a ‘useful product, a diagnostic tool or a therapeutic method’, which might be used to tackle physical diseases like scarlet fever, but also, perhaps, general paralysis.¹⁰⁸

Frederick Mott’s work on the causal relationship between syphilis and general paralysis can be directly linked to these broader changes in public health provision and practice. Aware of the burden imposed by general paralysis on local asylums and consequently the public health system, in 1895 the London County Council (LCC) agreed to fund the costs of a laboratory which was to be based in Claybury Asylum, and directed by Mott himself.¹⁰⁹ Providing him with the tools, techniques and space needed to pursue the long-suspected, yet still unproven theory that general paralysis was caused by syphilis, Frederick Mott’s investigations in the late nineteenth and twentieth century reflected a particular set of financial and material concerns, and therefore a need to meet and align with ‘the public health and disease prevention interests of the LCC’.¹¹⁰ Although the use of pathological methods to investigate general paralysis was far from new (as demonstrated in the previous section), the studies conducted by Mott and his colleagues at Claybury in the final years of the nineteenth century relied on a different set of

¹⁰⁸ Tatjana Buklijas, ‘The Laboratory and the Asylum: Francis Walker Mott and the pathological laboratory at the London County Council Lunatic Asylum, Claybury, Essex, (1895-1916)’, *History of Psychiatry*, 28, (2017), p. 312

¹⁰⁹ The London County Council was formed as part of the Local Government Act in 1888, assuming various responsibilities previously held by the county justices of Middlesex, Surrey and Kent. See D. Cochrane, ‘Humane, Economical and Medically Wise’: The LCC as Administrators of Victorian Lunacy Policy’, in W.F. Bynum, R. Porter and M. Shepherd, (eds) *The Anatomy of Madness: Essays in the History of Psychiatry. Volume 3: The Asylum and its Psychiatry*, (London, 1988), pp. 247–272

¹¹⁰ Tatjana Buklijas, ‘The Laboratory and the Asylum’, p. 313

physiological practices and techniques which scrutinised bodily *fluids*, such as the cerebrospinal fluid (CSF) and blood, as opposed to bodily *tissue*.¹¹¹

In the context of nineteenth century medicine, both the CSF and the blood were understood to facilitate vital physiological functions, flowing and moving around the body as part of a 'system of intake and outgo'.¹¹² Ensuring that the levels of these fluids were not too high or too low, and thus maintaining balance, was believed to be vital to maintaining health.¹¹³ By monitoring changes in these fluids over time, both in terms of their amount but also their character, physiologists had also begun to adopt new ways of understanding the causal and temporal characteristics of disease, which centrally informed Mott's studies of general paralysis. Through developing a series of physiological techniques, French physicians Georges-Fernand Widal and Jean-Athanase Sicard had shown that it was possible to relate specific chemical substances in the blood and CSF to particular types of 'organic' or 'functional' disease.¹¹⁴ Whilst 'functional' diseases such as 'neuroses' and 'psychoses' were not associated with 'lymphocytosis', as judged by the low level or lack of abnormal cells in the blood, a 'leucocytosis of the cerebrospinal fluid (was) one of the earliest signs of an organic disease of the nervous system'.¹¹⁵ These organic diseases could in turn be separated out into acute forms, which were associated with 'polynuclears', and contrasted to the 'lymphocytes' believed to show that a disease was chronic.¹¹⁶ Paired with pathological evidence of lesions, chemical substances visualised in these bodily fluids therefore informed clearer distinctions between

¹¹¹ Jennifer Wallis, *Investigating the Body*, p. 197; For an early example of the use of this practical and technical approach at Claybury, see Frederick Mott and W.D. Halliburton, 'On the Physiological Action of Choline and Neurine', *BMJ*, 1, 1899, pp. 1082-1083

¹¹² Charles Rosenberg, *Explaining Epidemics and Other Studies in the History of Medicine* (Cambridge, 1992), p. 13

¹¹³ As acknowledged by asylum superintendent George Robertson, if the amount of blood in the cranium 'diminished or increased in amount', it was vital for the CSF to 'alter in amount inversely', in order to avoid illness and disease, see George M. Robertson, 'The Formation of Subdural Membranes, or Pachymeningitis Hæmmorrhagica', *JMS* 39, (1893), pp. 370-71

¹¹⁴ Mott acknowledged these influences in his own analysis of the cerebrospinal fluid in 1904, see Frederick Mott, 'A Lecture on the Cerebro-Spinal Fluid in relation to Disease of the Nervous System', *BMJ*, 2, (1904), p. 1557; It is important to flag here that the term 'organic' would soon become collapsed into that of 'physical'. This term was used here by Mott to acknowledge the presence of visible, real bodily changes and contrasted to 'functional' forms.

¹¹⁵ *Ibid.*, p. 1555

¹¹⁶ *Ibid.*, p. 1557

different disease processes, based on how they looked in the brain and body at particular points in time.

The influence of these practices, techniques and ideas are clear in Mott's presentation to the MPA in 1899, where he would first suggest that general paralysis might be linked to syphilis. Drawing upon the theories of Rudolph Virchow on cellular pathology, Mott argued that the bodily, physical degeneration observed in general paralysis (exemplified by lesions and decay) was caused by the toxin of syphilis, which lowered the 'specific vital energy of the nerve-cells', which if put 'under the influence of stress in one form or another, die[d] prematurely.'¹¹⁷ This causal hypothesis hinged on his use of physiological techniques to scrutinise blood taken from patients diagnosed with general paralysis, which he argued contained high levels of the 'products of degeneration', such as 'cholin'.¹¹⁸ By gradually accumulating in the blood, this cholin caused 'stasis and inflammation' in the vessels, in turn disrupting the flow of these fluids around the body and causing further 'acute destruction of nervous matter' and a never-ending, 'vicious circle'.¹¹⁹ Alongside more traditional, clinical methods of examination, this ability to test and scrutinise bodily fluids allowed Mott and his colleagues to understand illness and disease in a *living* patient, providing a more complete understanding of causation and progress. Through following Mott's work, we have already come a long way since the previous section of this chapter. By tying the disease process associated with general paralysis to toxins

¹¹⁷ Frederick Mott, 'Relation of Syphilis to Insanity', p. 687; See Rudolf Virchow, *Cellular Pathology: As Based Upon Physiological and Pathological Histology*, (New York, 1971); Virchow has been widely described as the father of modern of pathology, through his studies on thrombosis, embolism, cellular pathology and metaplasia, as well as an 'anthropologist of world renown, an outstanding sanitarian, a very courageous liberal statesman, a medical historian and a brilliant writer.' He has also been looked upon favourably by historians, such as Erwin Ackerknecht. See Henry E. Sigerist, 'Review: Rudolph Virchow, Doctor, Statesman, Anthropologist. Erwin Ackerknecht', 45, *ISIS*, (1954), p. 121

¹¹⁸ Frederick Mott, 'Relation of Syphilis to Insanity', p. 689

¹¹⁹ *Ibid.*, p. 689; Mott's use of these physiological techniques to map the temporal span of this degeneration also informed his Croonian Lectures, presented a year later. Referencing the physiological experiments of Ehrlich and Brieger in 1884, Mott noted how the duration of a paralysis, and degree of nervous degeneration, differed according to how long blood circulation was stopped; 'if circulation was cut off for not longer than a quarter to three-quarters of an hour, only a temporary paralysis... resulted', however 'if for one hour, permanent paralysis and destruction of the nervous elements were invariably the result.' Again, Mott had tied the issues of time and duration in his analysis to those of severity and permanence, showing moreover, that this relationship could be explored, and better understood, through physiology and pathology. See Frederick Mott, 'The Croonian Lectures on the Degeneration of the Neurone', *BMJ*, 1, (1900), p. 1584

which travelled around and damaged the body, Mott had begun to move away from the hitherto prevailing focus on an inevitable, familial and personal cycle of poor, immoral behaviour, shifting this condition from ‘the sphere of the moral to the sphere of the scientific’.¹²⁰ Through these physiological techniques, made available in the space of an asylum funded by a public health authority, Mott instead reconceptualised the chronic and mental status of this disease and in turn questioned its links to a specific kind of long-term, legal and institutional control. Drawing closer connections to syphilis, he had thus underlined the possibility that with the right scientific and medical intervention, general paralysis might be treated and prevented.

Historians have long recognised how links between syphilis and general paralysis hinged on a new technology and therefore diagnostic practice, the Wassermann Reaction. Proceeding along the same path as Widal and Sicard, in 1906 August von Wassermann, Carl Bruck and Albert Neisser developed this reaction at the Robert Koch Institute for Infectious Disease in Berlin, using the presence, absence, or level of particular substances in the CSF and blood at particular points in time to establish ‘reliable proof of infection’.¹²¹ Relying upon the methods of ‘complement-fixation’ developed by Bordet and Gengou in 1901, Wassermann, Neisser and Bruck had showed that about 80% of the sera withdrawn from patients diagnosed with syphilis reacted with an extract of syphilitic liver *and* that this result was not obtained through the use of any ‘normal’ sera.¹²² This physico-chemical reaction, they argued, allowed them to identify an active infection caused by syphilis, or more specifically, the *spirochaeta pallida*.¹²³ Despite such optimism, there were questions about ‘the chemical nature of the substances which react

¹²⁰ Juliet Hurn, ‘The History of General Paralysis’, p. 136

¹²¹ Ilana Löwy, ‘A River That Is Cutting Its Own Bed’: The Serology of Syphilis Between Laboratory, Society and the Law’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 35, (2004), p. 514

¹²² According to Ilana Löwy, the complement-fixation test rested on the principle that if antibody-containing serum is allowed to react with a specific antigen in the presence of guinea-pig complement, the complement will be absorbed by the antigen-antibody complexes, and producing a ‘positive’ result. See Ilana Löwy, ‘Testing for a Sexually Transmissible Disease, 1907-1970: the History of the Wassermann Reaction’, in Virginia Berridge and Phillip Strong, (ed.), *AIDS and Contemporary History*, (Cambridge, 2009), p. 76

¹²³ Alongside Erich Hoffmann, Fritz Schaudinn was responsible for the ‘discovery’ of the spirochaete in syphilitic lesions in 1905. See ‘Dr Schaudinn on Spirochaete Pallida’, *BMJ*, 2, (1905), pp. 1138-1139

in this test and... their relationships to pathological phenomena'.¹²⁴ These concerns about specificity, sensitivity and therefore reliability will be explored more closely across the final two sections of this chapter.

Mott, unsurprisingly, was however a key proponent of this diagnostic technique. Building upon his belief that the presence of particular substances, such as cholin, evidenced the action of the syphilis toxin, he used the Wassermann reaction to begin to map out a more linear, process of degeneration, which was now formed of various primary, secondary, tertiary, 'post-syphilitic', 'parasyphilitic' or 'late syphilitic' stages: the latter being where he included general paralysis. Mott traced this progress by again focusing on the presence of a 'complex lipid substance' in the fluids of syphilis and general paralysis cases, or to be more explicit, on specific kinds of 'bio-chemical changes in the fluids of the body'.¹²⁵ Although these lipoids might also be found in fluids drawn from 'normal' persons, he nonetheless emphasised their unique 'quantity' in syphilis and general paralysis, tying this to the 'length and duration' of time the spirochaete had been allowed to travel around and cause increasing damage around the body.¹²⁶ This idea that general paralysis was linked to a syphilis infection dating back weeks, months or perhaps years before was reaffirmed by what Mott claimed was the comparative 'strength' of the positive reaction in cases of general paralysis when testing both the blood and the CSF.¹²⁷ Through visualising these quantifiable, physiological *differences* between cases of syphilis and general paralysis, Mott had paradoxically begun to establish their links to the *same process of degeneration*, to the action of the spirochaete and to the same kind of physical damage which slowly spread and worsened over time.

¹²⁴ Ilana Löwy, 'Testing for a Sexually Transmissible Disease, p. 76

¹²⁵ Frederick Mott, 'The Morison Lectures on the Pathology of Syphilis of the Nervous System in the Light of Modern Research', p. 460, p. 454

¹²⁶ *Ibid.*, p. 455

¹²⁷ The results of the Wassermann Reaction were organised in four tiers, ranging from four plus (a strong reaction indicated by the fact that the fluid did not react with the test and seemed unchanged), moving down to three plus, two plus, plus, a 'weak positive' and negative reaction. The differences between these reactions rested on quantitative measurements, which were then converted to percentages. The higher the 'percentage', the stronger the reaction. See Virginia Boyer Miller, 'Tests for Syphilis: An Explanation of the Wassermann Test', *The American Journal of Nursing*, 30, (1930), p. 710

By the mid-1910s, as the work of Mott and his colleagues in the space of the Claybury laboratory was bolstered by the eventual recovery of the spirochaete in the brains of patients diagnosed with general paralysis, the links between this disease and syphilis had, at least in theory, become widely accepted. As a form of chronic syphilis, diagnosable through the technology of the Wassermann, general paralysis could now also be linked into a new public health programme of treatment, which would become centred around one method developed in 1910 by Paul Ehrlich and Sahachiro Hata: Salvarsan or '606'. With treatment hitherto limited to mercury, which required a two-year course, had 'dangerous and unpleasant side-effects' and was therefore 'designed as much to punish the patient as to cure him', Ehrlich's remedy ushered in a sense of optimism about the ability of modern medicine to cure syphilis through this 'magic bullet', which was able to completely resolve the initial symptoms and sores.¹²⁸ To physician Ivy Mackenzie, Ehrlich's 'most recent discovery' marked an 'epoch-making stage in the advance of scientific therapy', which could now be provided 'without subjecting the tissues to a continuous saturation with drugs.'¹²⁹

Although broadly successful in relation to syphilis, it quickly became clear that Salvarsan was less useful when it came to treating general paralysis. According to M. Fitzmaurice Kelly, assistant medical superintendent to Brentford Union Infirmary, although a 'definite and maintained improvement' had been observed in one of his general paralysis cases who had been treated through Salvarsan, in others it seemed that this drug was 'powerless to prevent the disease' and might even 'hasten its course.'¹³⁰ This uncertainty was further reiterated by cases whose condition seemed to improve initially yet only temporarily. According to G.G.S. Stopford-Taylor and R.W. Mackenna, two physicians to the Liverpool Skin Hospital, whilst

¹²⁸ J.E. Ross and S.M. Tomkins, 'The British Reception of Salvarsan', *Journal of the History of Medicine and Allied Sciences*, 52, (1997), p. 403; This optimism has been detailed by Allan Brandt, who has highlighted how Salvarsan inaugurated 'the modern age of chemotherapeutics'. See Allan Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880*, p. 40

¹²⁹ I. Mackenzie, 'Joint Communication on Syphilis: Recent Methods of Diagnosis and Treatment', *Glasgow Medical Journal*, 5, (1910), pp. 335-49

¹³⁰ M. Fitzmaurice-Kelly, 'Salvarsan in General Paralysis of the Insane and Tabes', *JMS*, 59, (1913), p. 502

one of their general paralysis patients had been able to return to work for several weeks after a Salvarsan injection, this was cut short by his subsequent relapse.¹³¹

In light of these challenges, the use of Salvarsan to treat general paralysis has often been interpreted by historians as a failure.¹³² This view perhaps more reflects the vantage point of the twenty-first than the twentieth century. Focusing on if and how Salvarsan might still have underlined the chronic, *physical* status of general paralysis, allows us to come at this from a slightly different perspective. As recognised by Stopford-Taylor and Mackenna, although Salvarsan seemed unable to restore a degenerated neuron, this therapy nonetheless had a central role to play in preventing the ‘living death of general paralysis’, as long as ‘every case of syphilis in its early stages w[as] treated vigorously’.¹³³ If Salvarsan was able to eliminate the spirochaete from the body for good, allowing patients to go on and live their lives without developing general paralysis, it followed by logical deduction that the former, and in turn the disease of syphilis, was primarily responsible for the latter. Despite concerns that Salvarsan needed to be paired with mercury to have any kind of therapeutic effect, most doctors remained hopeful that ‘the new drug was a valuable addition to the therapeutic arsenal’ against syphilis and the prevention of general paralysis, reaffirming the direct, causal link between these diseases.¹³⁴

By the mid-1910s, to many pathologists and asylum doctors in Britain the general paralytic embodied the long-term consequences of syphilis, with their persisting symptoms at least in part caused by the persisting action of the spirochaete rather than a pre-existing, inherent, and therefore permanent moral weakness. In line with this chronic, physical aetiology,

¹³¹ G.G.S. Stopford-Taylor and R.W. Mackenna, ‘Sixteen Months’ Experience of Salvarsan’, *BMJ*, 1, (1912), pp. 713-714

¹³² See, for example, Gayle Davis, *The Cruel Madness of Love: Sex, Syphilis and Psychiatry*, pp. 170-171

¹³³ G.G.S. Stopford-Taylor and R.W. Mackenna, ‘Sixteen Months’ Experience of Salvarsan’, p. 714

¹³⁴ See C.F. Marshall, ‘Salvarsan (606)’, *BMJ*, 1, (1911), p. 226; C. F. Marshall, ‘Salvarsan (606)’, 1, *BMJ*, (1911), pp. 401-2; J.E. Ross and S.M. Tomkins, ‘The British Reception of Salvarsan’, p. 408

government health officials would also begin to acknowledge the possibility for new kinds of preventive medical intervention, which by ensuring that syphilis was identified and treated early, eased the material and financial burden of general paralysis borne by local health authorities, and in turn, the state. Despite the widespread acceptance of the causal role played by syphilis, in the next section we shall firstly see and thereafter explore why the aetiology of general paralysis remained understood as multifactorial. In order to do this, it will be necessary to shift our focus slightly, to a context where clear, firm evidence of physical pathology and therefore causation was imperative as part of ‘medico-legal actions arising from claims for compensation’.¹³⁵

Section 3: Risk, ambiguity, physical pathology

Over the course of the previous two sections, we have contextualised the emergence of two related, yet distinct versions of general paralysis. Although both categories related to a long-term process of degeneration, surfaced in the body through pathological and physiological techniques and tied to worsening clinical symptoms, they each correlated to very different theories of causation. Asylum doctors in the nineteenth century believed that general paralysis was caused by a combination of heredity and individual behaviour which led to excessive sexual activity and alcohol consumption. In line with the development of tests like the Wassermann and therapies like Salvarsan in the space of the laboratory and asylum, their twentieth century colleagues had drawn focus towards the role of a specific causal agent: syphilis. As we have seen, in both instances, these categories, their aetiologies, and their chronic, mental/physical nature hinged on context-specific institutional arrangements, practices/techniques and causal theories, which connected them to different health provisions, policies and resources.

¹³⁵ F.W. Mott, ‘The Relation of Head Injury to Nervous and Mental Disease’, *BMJ*, 2, (1911), p. 742

As general paralysis had thus been transformed in line with practical, financial concerns amongst public health officials, by the mid-1910s this category had also begun to tie in to efforts to develop new, more effective modes of medical intervention, focused on early diagnosis and treatment of syphilis. Building upon this context, in the next two sections of this chapter we shall draw the contingency of this chronic physical aetiology into sharp focus, showing that its acceptance hinged on particular tests and therapies working in specific ways in order to fit cases within a burgeoning section of the modern health system. In line with continuing questions about the reliability of the Wassermann and of Salvarsan, the direct links between syphilis and general paralysis would remain a point of contention, cancelled out only as they were adjusted and standardised over time, and thereby feeding into the category of neurosyphilis.

In order to explore if and how this chronic, physical aetiology held up in practice, it is necessary to shift our focus slightly to a context where reliable accounts of causation were vital, as part of medico-legal assessments for insurance and compensation. We also have to firstly step back slightly in time to provide some context on these assessments and how those tasked with conducting them approached the problems of syphilis and general paralysis prior to the mid-1910s. Until the early twentieth century, medical and financial support during periods of ill health were, for the most part, available only through turning to the stigmatised Poor Law system or 'friendly societies', or if seeking out work-related compensation, as part of a claim made through the Employers Liability Act of 1880 and the 1897 Workmen's Compensation Act.¹³⁶ Access to compensation and insurance was rigorously policed through medical examination, and, in line with clear theories of causation. This point is borne out in the

¹³⁶ Whilst Poor Law institutions in theory provided access to relief and benefit to those who needed it, this was also made as undesirable as possible in order to reduce levels of dependency. For more information on the Poor Law system, see Kirsti Bohata, Alexandra Jones, Mike Mantin and Steven Thompson, *Disability in Industrial Britain: A Cultural and Literary History of Impairment in the Coal Industry, 1880-1948*, (Manchester, 2020); 'Friendly societies' were run by regularly employed manual workers and offered insurance against sickness and old age for the employed. See Pat Thane, 'The Working Class and State Welfare in Britain, 1880-1914', *The Historical Journal*, 27, (1984), pp. 877-900, also Martin Gorksy, 'The Growth and Distribution of English Friendly Societies in the early nineteenth century', *Economic History Review*, 51, (1998), pp. 489-511

assessments made of those who claimed insurance with a history of syphilis. In his attempts to provide a 'rational and scientific answer' to whether or not it was safe to insure these cases, in 1903 physician Byrom Bramwell challenged the view that 'syphilis ought not to weigh for anything at all', instead arguing that these were 'damaged' lives and therefore, in financial and legal terms, risky to insure without making 'extra' provision to compensate for an inevitable loss.¹³⁷

In order to make this point, Bramwell drew upon the early work of Mott (c.1899), to argue that even if a patient had contracted and apparently recovered from syphilis, they remained vulnerable to developing general paralysis, given that the onset of this condition was often also caused by 'injuries, mental anxiety, business worries, mental depression, however produced, and irritations of various kinds'.¹³⁸ In the absence of reliable laboratory evidence, by scrutinising the history and lifestyle of the patient assessors were able to establish if they were particularly vulnerable to developing this condition. With this in mind, he argued that it was justified to charge 'extra' to a claimant with a history of syphilis who was requesting insurance, or to even reject their claim altogether, protecting the company from assuming financial responsibility for long-term illness that was not simply a risk, but an inevitability.¹³⁹ In these assessments, acknowledging the indirect causal connection between syphilis and general paralysis was therefore of practical value, allowing assessors to assess risk and resolve concerns about legal and financial liability, through acknowledging the role played by other, contributory causes.

¹³⁷ Byrom Bramwell, 'Syphilis and Life Assurance', *Edinburgh Medical Journal*, 22, (1903), p. 37; Around the same time, physician Frederic Parkes Weber also explored these risks, using the records of the British and Mercantile Insurance Company in London to show that this disease was invariably a 'predisposing cause' of GPI, albeit alongside 'overstrain &c.'. See F. Parkes Weber, 'A Note on Syphilis in Relation to Life Assurance with an Examination of 500 consecutive claims', *The Lancet*, 160, (1902), p. 868; Byrom Bramwell, 'Syphilis and Life Assurance', *Transactions of the Medico-Chirurgical Society of Edinburgh*, 22, (1903), p. 115

¹³⁸ *Ibid.*, p. 115

¹³⁹ *Ibid.*, p. 95

In line with growing concerns about the steadily declining industrial and economic power of the nation, these welfare provisions soon became the focus of more decisive state intervention, culminating in the passage of the Workmen's Compensation (WC) Act in 1906, and the National Health Insurance (NHI) Act in 1911. These changes in policy also ushered in a desire for more reliable, objective and scientific ways of establishing causation. Guided by a desire to help members of the population remain capable of and willing to work, both the WC and NHI Acts were means of 'investing in human capital' and therefore deemed 'profitable from the point of view of productivity'.¹⁴⁰ Extended in 1906 to include illness and disease, the WC Act marked 'a radical break with previous mechanisms for obtaining compensation for injury', enshrining the financial liability of the employer if it could be demonstrated that an incapacity had arisen out of and in the course of work or tied to the 'risk from being in a particular place, doing a particular set of actions.'¹⁴¹

In 1911, the NHI Act extended the responsibilities of the state and employers even further, who now alongside the worker, became responsible for funding 'insurance against loss of health' and unemployment, through mechanisms like sick pay.¹⁴² By opening up various routes for financial remuneration to members of the working population, these legislative changes created a 'new culture of medical practice', whereby doctors were no longer simply providing 'service to a patron' but also assessing the validity of a claim, or capacity to work and be insured.¹⁴³ As argued by Nikolas Rose, these legislative changes established a new network of relations between the worker, the employer and the state, which played out along the intertwined pathways of 'welfare, security, harmony and productivity', and were now

¹⁴⁰ G.V. Rimlinger, *Welfare Policy and Industrialisation in Europe, America and Russia*, (New York, 1971), pp. 9-10; There is a very broad historiography surrounding these changes, for example see Robert Asher, 'Experience Counts: British Workers, Accident Prevention and Compensation, and the Origins of the Welfare State', *Journal of Policy History*, 15, (2003), pp. 359-388

¹⁴¹ Karl Figlio, 'How Does Illness Mediate Social Relations? Workmen's Compensation and Medico-Legal Practice, 1890-1940', in P. Wright, A. Treacher (eds), *The Problem of Medical Knowledge: Examining the Social Construction of Medicine*, (Edinburgh, 1982), p. 178, p. 179, p. 214

¹⁴² 'National Insurance: A Bill (as amended in Committee) to provide for Insurance against Loss of Health and for the Prevention and Cure of Sickness and for Insurance against Unemployment, and for purposes incidental thereto', (London, 1911), p. 15

¹⁴³ Rhodri Hayward, *Transformation of the Psyche in British Primary Care*, p. 35

‘encumbered by certain statutory requirements and constraints’.¹⁴⁴ If an individual wished to receive financial support, they first had to submit themselves for a medical examination to assess the validity of their claim.

With regard to the NHI Act, this meant registering with private agencies referred to as ‘approved societies’, which were powerful, non-profit making organisations, ‘nominally under the control of their members’, and responsible for administering sickness benefits and life insurance.¹⁴⁵ Although ‘approved societies’ had to act in accordance with a ‘plan of level premiums’ when it came to the NHI scheme, meaning that contributions were ‘uniform for all ages regardless of the higher sickness and disablement rates in the older age groups’, they nonetheless retained the right to accept and reject members ‘as they saw fit’, and to set premiums on rates for a particular claimant on any other of their policies, such as life insurance.¹⁴⁶ Although the WC Act was associated with slightly different criteria and modes of examination, the guiding desire to detect ‘real’, and therefore valid forms of illness was the same. First, a worker was required to give notice to their employer of their injury, after which their claim was referred on to an arbitrator such as the County Court judge, who may also be assisted by a medical assessor. The employer, in turn, may request that the workman be examined by a ‘medical man’ of their choosing, who would also provide an opinion on the validity of the claim.¹⁴⁷

¹⁴⁴ Nikolas Rose, *Governing the Soul: The Shaping of the Private Self*, p. 61, p. 94

¹⁴⁵ As acknowledged by Michael Heller, the NHI Act offered a kind of ‘market entrance’ for these approved societies, who took this as an opportunity to sell their existing life insurance policies to claimants who had to register with them, in order to be employed in the first instance, but also receive financial support if they became unwell, see Michael Heller, ‘The National Insurance Acts 1911-1947’, *Twentieth Century British History*, 19, (2008), p. 16

¹⁴⁶ Henry J. Harris, ‘The British National Health Insurance System, 1911-1919’, *Monthly Labor Review*, 10, (1920), p. 51; Described by Robert F. Foerster as the ‘unsteady and the disabled, the flotsam and jetsam of industry’ who were doomed to ‘collect at the bottom’ of the insurance system, these ‘bad risks’ instead became ‘deposit contributors’, who were not insured but could draw upon cash benefits until the credit they had built upon was exhausted, see Robert F. Foerster, ‘The British National Insurance Act’, *The Quarterly Journal of Economics*, 26, (1912), p. 294

¹⁴⁷ ‘The Workmen’s Compensation Act, 1906’, *Hospital*, 41, (1907), pp. 328-330

Whilst the need to establish risk and causation was still integral to these assessments, these issues were now increasingly bound with a practical, financial desire to protect the resources of the state. As Mott acknowledged himself in 1911, since the passage of the WC Act five years earlier general paralysis had continued to be understood as informed by injury, anxiety, or irritation *as well as syphilis*, as a way to allow doctors to ‘distinguish cause from coincidence’ when assessing entitlement.¹⁴⁸ This point is borne out in Mott’s discussion of one man who had received a slight injury whilst unloading wooden bricks, and yet two months later had been admitted to Claybury Asylum, and died. Although his wife had tried to claim compensation, evidence of ‘mental derangement’ prior to his accident led to the conclusion that his condition was a form of general paralysis, caused by factors such as syphilis but also sexual excesses, alcoholism, speculating, gambling, or business worries, ‘prolonged mental excitement’, that most importantly predated his injury at work.¹⁴⁹ Whilst this ambiguous aetiology had allowed this man’s condition to be *disconnected* from an injury at work, Mott also recounted how a similar claim made by another man had been associated with a very different outcome. This man had slipped whilst unloading a truck at work, striking his head against an iron bar, and after an interval, developed various incapacitating symptoms. Whilst doctors acknowledged that syphilis was the ‘*essential cause*’ of this man’s condition, they also believed that the injury had acted as an ‘*exciting cause*’, using his previous history, lifestyle and condition to conclude that it was impossible to say that he would have developed his symptoms ‘had there been no blow’.¹⁵⁰ At trial, a judge therefore concluded that his employer should pay 13s. 8d per week ‘from the date on which the last payment was made and continue to pay’ for the foreseeable future.¹⁵¹

Similar views about the causes of general paralysis were also expressed concurrently by authority on insanity, psychiatrist George Savage. Referencing a hypothetical case, in 1912

¹⁴⁸ F.W. Mott, ‘The Relation of Head Injury to Nervous and Mental Disease’, p. 733

¹⁴⁹ *Ibid.*, p. 741

¹⁵⁰ *Ibid.*, p. 742

¹⁵¹ *Ibid.*, p. 742

Savage therefore described a man who ‘many years before had syphilis, was properly treated, and ha[d] been... healthy... [yet] receive[d] a blow on the head which render[ed] him insensible.’¹⁵² Although this case initially recovered, Savage noted how he would eventually be ‘invalided’ from work based on his behaviour, and therefore seek to claim compensation due to his initial accident.¹⁵³ Given that this case had been ‘healthy’ before his injury, Savage argued he should be ‘treated as if the accident were the efficient cause of disablement’, in turn accepting that ‘an injury alone’ had determined the onset of general paralysis.¹⁵⁴ He also acknowledged how insurance companies might seek to make ‘some addition’ to such a claim, particularly if *in the future*, the individual was likely to live a life ‘which is more than usually associated with risk of even slight accidents, such as being in the army or navy’.¹⁵⁵

As part of these medico-legal assessments, which required assessors to make practical decisions about compensation and insurance and therefore allocate the resources of the state, a multicausal, ambiguous view of general paralysis therefore held fast, which both acknowledged the role played by syphilis, and yet also the contributions made by injury, strain, or heredity. This ambiguity reinforces a point made by several historians about how the shift towards modes of laboratory science at the turn of the century did not ‘push the idea of a “natural” susceptibility to mental disease from alienist minds, but rather led to its recasting in a new language’.¹⁵⁶ Yet, given that it was now the financial and material resources of state which were at stake, these assessments would begin to be reframed around a ‘mechanistic

¹⁵² George Savage, ‘Notes of a Lecture on Medico-Legal Relationships of General Paralysis of the Insane’, *The Lancet*, 1, p. 276.

¹⁵³ *Ibid.*, p. 276

¹⁵⁴ *Ibid.*, p. 276

¹⁵⁵ *Ibid.*, p. 276

¹⁵⁶ See Michael Worboys, ‘Was there a Bacteriological Revolution in late nineteenth century medicine?’, *Studies in History and Philosophy of Science, Part C, Studies in History and Philosophy of Biological and Biomedical Sciences*, 38, (2007), pp. 20-42, Gayle Davis, *The Cruel Madness of Love*, p. 204, p. 230, Jennifer Wallis, *Investigating the Body*, p. 205; Charles Rosenberg also maintained a similar stance, arguing that a period of ‘most enthusiastic hereditarianism’ in fact collided with ‘the most enthusiastic and uncritical acceptance of the germ theory’, in turn producing accounts of causation which recognised and considered a range of ‘mental’ (or moral and inherited), and ‘physical’ factors, see Charles E. Rosenberg, *No Other Gods*, p. 29

conceptualization of illness as a discrete physical pathology'.¹⁵⁷ Perhaps uncoincidentally, these changes aligned with the efforts made by Mott and many of his colleagues to connect syphilis and general paralysis more directly, through tests like the Wassermann and therapies like Salvarsan.

As shown by Karl Figlio, the changes in how illness was assessed in these medico-legal contexts and focus on physical pathology was informed by fears of 'a suspected epidemic of malingering'.¹⁵⁸ According to Sir John Collie, physician and 'most widely recognised authority' on malingerers, in seeking out undeserved financial reward, these claimants often consciously or unconsciously engaged in acts 'of gross deception, in which serious illness or injury' was feigned based on slight symptoms which could not be tied to 'physical proof'.¹⁵⁹ Collie thus advised his colleagues to rely on physiological and pathological techniques to detect symptoms of physical/organic disease or injury to the nervous system, perhaps in outward signs such as pupil reflexes, paralysis or a visible tremor, but also more importantly, by testing bodily fluids. 'Functional' or 'hysterical' forms of illness could in contrast be identified based on their 'positive affirmation of a universal negative', as well as through the expertise of the physician, who should be able to tell if the way that a claimant moved, walked or behaved was not 'genuine'.¹⁶⁰ By assuming that 'real' forms of illness and injury could be identified based on physical signs detected in or on, and through observing the body, it became possible to bring some claimants within 'a medical, legal and administrative apparatus whose end result could be payment in place of wages', yet also to question the legitimacy of others.¹⁶¹

¹⁵⁷ Karl Figlio, 'How Does Illness Mediate Social Relations?', p. 214; Kirsti Bohata, Alexandra Jones, Mike Mantin and Steven Thompson, *Disability in Industrial Britain: A Cultural and Literary History of Impairment in the Coal Industry, 1880-1948*, p. 123

¹⁵⁸ Karl Figlio, 'How Does Illness Mediate Social Relations?', p.180

¹⁵⁹ Peter Leese, 'Problems Returning Home: The British Casualties of the Great War', *The Historical Journal*, 40, (1997), p. 1062; John Collie, *Malingering and Feigned Sickness*, (London, 1913,), p. 2; Over the course of his career, Collie held a variety of posts in the public and private sectors throughout his career, which ranged from medical examiner to the London County Council, medical referee to the Home Office, as well as director of the army medical services for Ministry of Pensions.

¹⁶⁰ *Ibid.*, p. 78

¹⁶¹ *Ibid.*, p. 197

In these medico-legal contexts, by the mid-1910s assessors had therefore begun to adopt practices and techniques which could be used to more objectively, scientifically and reliably mark out the distinctions between mental and physical, acute and chronic, real and feigned illnesses, and therefore to produce ‘discriminate and delineate discrete disease entities with finite timespans’ and make decisions regarding risk and entitlement.¹⁶² These kinds of assessments, as appreciated by Mott, were thus aided by diagnostic tools like the Wassermann and therapies like Salvarsan, which if effective, could be used to establish the presence or absence of physical pathology at particular points in time, and assess those who made a claim for insurance with a history of syphilis, or who believed that their permanent capacity due to general paralysis was worthy of compensation. Whilst their value was brought into sharp focus in the context of medico-legal assessments and therefore in the provision of state-funded welfare support, these tests and therapies would also soon inform the development of a new system of health provision. Through the treatment of syphilis, these tests and therapies would in turn be used to address the problem of general paralysis.

As we read Mott’s work today and are struck by his optimism, it is easy to forget that in the 1910s the links between general paralysis and syphilis still remained very much hypothetical. Although deemed an ‘instant success, acclaimed by laboratory workers and clinicians’, there were serious questions about the ‘sensitivity’ and ‘specificity’ of the Wassermann, which seemed at times to produce both false positives and false negatives.¹⁶³ In 1909, pathologist James McIntosh highlighted the ‘discrepancies’ observed in cases who presented the clinical symptoms of different ‘primary’, ‘secondary’ or ‘tertiary’ stages of syphilis, implying some kind of active disease process, and yet produced a negative Wassermann result.¹⁶⁴ Although McIntosh suggested that this might be attributed to the ‘complex and difficult’ nature of this technique, or perhaps the instability of the ‘reagents’ used to produce the reaction, he

¹⁶² Karl Figlio, ‘How Does Illness Mediate Social Relations?’, p. 210

¹⁶³ Pauline Mazumdar, “‘In the Silence of the Laboratory’: The League of Nations Standardizes Syphilis Tests”, *Social History of Medicine*, 16, (2003), p. 441

¹⁶⁴ James McIntosh, ‘The Sero-Diagnosis of Syphilis’, *The Lancet*, 1, (1909), p. 1517

nonetheless acknowledged that it remained safer to assume that a negative result did not necessarily prove that 'no syphilis is, or ever was, present'.¹⁶⁵ Despite his insistence that the Wassermann could reliably be used to diagnose both syphilis and general paralysis (therefore linking these categories to one another), these were indeed problems that Mott also acknowledged in passing.¹⁶⁶

Similar challenges were also faced when it came to the use of Salvarsan. Despite the apparent ability of this therapy to reduce 'the levels of syphilis spirochaetes in the blood of most such patients and cause... a significant alleviation of symptoms', there remained debate about the number of doses required due to variation between different patients, and also whether they were to be administered over a period of days, weeks, or perhaps even months.¹⁶⁷ Although patients were initially understood to need treatment if they produced a positive Wassermann result, (even if they were asymptomatic), it also became clear that some 'continued to test positive well beyond the point at which standard treatment was stopped', implying the presence of spirochaetes, and a still active syphilitic process.¹⁶⁸ Moreover, there was also evidence of some patients who received this treatment, produced a negative Wassermann, and yet later relapsed.¹⁶⁹ These fallible tests and therapies, which seemed unable to consistently eliminate the spirochaete or reliably confirm or refute its presence, therefore fed into a series of practical concerns, about how they might lead doctors to believe that patients had recovered, to stop medical treatment or grant insurance or compensation, and thus in different ways waste the limited resources of the state. As we shall see in the next section, although many doctors continued to establish causation in ways that did not forge direct links between general paralysis and syphilis, attempts to adjust and standardise these therapies would

¹⁶⁵ *Ibid.*, p. 1517, p. 1520

¹⁶⁶ In 1911, Mott acknowledged: 'It is not safe always to assume that a case is not syphilitic, or at any rate will not yield to antisyphilitic remedies, because the blood serum yields on several occasions a negative reaction', see Mott, 'The Relation of Head Injury to Nervous and Mental Disease', p. 743

¹⁶⁷ J.E. Ross and S.M. Tomkins, 'The British Reception of Salvarsan', p. 405

¹⁶⁸ Juliet Hurn, 'The History of General Paralysis', p. 144

¹⁶⁹ G.G.S. Stopford-Taylor and R.W. Mackenna, 'Sixteen Months' Experience of Salvarsan', (1912), p. 714

gradually feed into a firmer chronic, physical category which could be deployed in a new system of venereal disease provision.

Section 4: From general paralysis to neurosyphilis

By the mid-1910s, members of the British medical professional and political elite had begun to agree *in theory* that general paralysis was a chronic form of syphilis, diagnosable through the Wassermann and preventable through therapies like Salvarsan, and able to be dealt with through an entirely new, state-funded system of health provision. In line with continuing concerns about the reliability of these tests and therapies, this aetiology in practice remained more ambiguous. In this final section, we are interested in linking the adjustment of these tests and therapies and the roll-out of a national network of ‘venereal disease’ clinics to changes in how long-term illnesses hitherto attributed to general paralysis were conceptualised, and now tied to a firmer chronic, physical category. In the years after 1916, these clinics became a mandatory part of local public health provision, often based in ‘general’ hospitals with 75% of their costs met by the government, and designed to ensure that all cases amongst the population were identified and treated.¹⁷⁰ Despite the initial persistence of concerns about the efficacy of the Wassermann and Salvarsan, through the efforts of British physicians like Lawrence Whitaker Harrison these tests and therapies became tied to more rigid templates of administration by the early 1930s, and thus reshaped to meet the needs of a more standardised, routinised, modern health system.

Building the contextual analysis of the previous section, we return to medico-legal assessments for compensation and insurance in order to understand the consequences of this standardisation, and how it allowed doctors to reliably establish the presence or absence of physical pathology. As a result, many of the long-term illnesses which followed upon syphilis began to be framed as a result of the unencumbered activity of the spirochaete, of incomplete

¹⁷⁰ Pauline Mazumdar, “In the Silence of the Laboratory”, p. 443

or non-existent treatment, and therefore diagnosed as ‘neurosyphilis’.¹⁷¹ Positioned more firmly at the binary axes of chronic and physical, the category of neurosyphilis both emerged through but was also able to fit into an ever-expanding system of state-funded health and welfare services. Aligned with a specific programme of diagnosis, therapy and in turn institutional provisions and material resources, the category of neurosyphilis would gradually become used to contain and deal with many of the persisting illnesses which followed upon syphilis. In order to draw this contingency into sharp focus, this chapter concludes by acknowledging how those which seemed to challenge this programme and provision, would for a time continue to be tied to other contributory causes, and therefore diagnosed with general paralysis.

Although somewhat limited, there is a burgeoning historiography which sheds light on the changes in policy and healthcare implemented by the state as a way to tackle the broad problem of ‘venereal disease’ in the early twentieth century.¹⁷² Guided in part by ‘imperialist, eugenic, and social hygienist fears of “national deterioration”’, in 1913 a government enquiry was established to explore the prevalence of venereal disease in Britain, which upon its conclusion in 1916 inaugurated a public health campaign to establish a ‘national network of clinics to provide the interwar population with free, no-blame treatment.’¹⁷³ Policy officials and members of the medical profession started to plan and implement mechanisms of ‘institutional treatment... available for the whole community and... so organised that persons

¹⁷¹ ‘The Prophylaxis of Neurosyphilis: Discussion’, *British Journal of Venereal Disease*, 3, (1927), p. 291

¹⁷² Anne Hanley has recently provided a useful overview of the extensive historiography surrounding venereal disease provision in Britain, also flagging how this is also marked by ‘problematic silences’, particularly regarding the interwar period. See Anne Hanley, ‘Histories of “a Loathsome Disease”: Sexual Health in Modern Britain’, pp. 1-16; For existing histories of the interwar venereal disease system, see for example S.M. Tomkins, ‘Palmitate or Permanganate: The venereal prophylaxis debate in Britain, 1916–1926’, *Medical History*, 37, (1993), pp. 382–398, Daniel Evans, ‘Tackling the ‘Hideous Scourge’: The Creation of the Venereal Disease Treatment Centres in early twentieth-century Britain’, *Social History of Medicine*, 5, (1992), pp. 413–433.

¹⁷³ Simon Szreter, ‘The Prevalence of Syphilis in England and Wales on the Eve of the Great War: Revisiting the estimates of the Royal Commission on Venereal Diseases 1913-1916’, *Social History of Medicine*, 27, (2014), p. 509

affected by the disease should have no hesitation in taking advantage'.¹⁷⁴ Following the opening of the first treatment centres in January 1917, by the end of that year there were 113 in operation, with the vast majority based in general hospitals.¹⁷⁵ Whilst David Evans has argued that many of these centres witnessed a sharp rise in attendance for treatment, they also 'recognised the difficulties in persuading clients to return for a complete course'.¹⁷⁶ Heartened by the alleviation of their clinical symptoms after perhaps one dose of Salvarsan, patients often did not return for further treatment. Alongside questions about the reliability of the Wassermann and Salvarsan, (explored in the previous section), this inability to make sure that patients had recovered in line with a standard period of treatment therefore left doctors unable to explain a subsequent relapse, and the onset of persisting, deteriorating symptoms thus attributed to general paralysis.¹⁷⁷

The ways in which these challenges informed questions about direct causal links between syphilis and general paralysis is brought into focus if we return to the medico-legal context of insurance assessments. Presenting to the Faculty of Actuaries in December 1919, Manager to the Scottish Life Assurance Company Lewis P. Orr began by acknowledging that although the Wassermann and measures of 'present day treatment' helped to assess the risks associated with a syphilitic illness by showing when the 'poison ha[d] been expelled', they still provided no 'guarantee against insidious effects in later life'.¹⁷⁸ Upholding the arguments made almost two decades earlier by Byrom Bramwell, Orr argued that it remained necessary to consider if the habits and lifestyle of the claimant were beneath the standard set up by the Life Offices, and if this was the case, that their request should as a consequence be declined. This view was also upheld by Bramwell himself, who contributed to the discussion by first highlighting that

¹⁷⁴ 'The Report of the Royal Commission on Venereal Diseases, (Continued)', *BMJ*, 1, (1916), p. 383; Pauline Mazumdar, "In the Silence of the Laboratory", p. 439, p. 515

¹⁷⁵ David Evans, "Tackling the Hideous Scourge", pp. 425-426

¹⁷⁶ *Ibid.*, p. 427

¹⁷⁷ Relapses were understood to occur both in clinical and pathological terms: firstly, if symptoms resolved yet later returned, or if the Wassermann became negative and then subsequently positive.

¹⁷⁸ Lewis P. Orr, 'The Selection of Lives With Discussion', *Transactions of the Faculty of Actuaries*, 8, (1915-1921), p. 130

despite all the progress made by laboratory science since he had first addressed these questions in 1903, it was still necessary to impose additional costs on claimants with a history of syphilis, even if they lived an ‘otherwise good life’.¹⁷⁹ Bramwell justified this based on the risk that their condition was likely to progress, *regardless of how ‘thoroughly they ha[d] been treated’* and *‘even if the Wassermann test [was] negative’*.¹⁸⁰ His approach to these assessments, which was likely shared by many of his contemporaries, helps us to see how the direct links between syphilis and general paralysis were still a point of contention, but also that this mapped onto problems with these tests, therapies and their administration. As a result, general paralysis remained an ambiguous, chronic condition, believed to be in part caused by syphilis, but also as Orr, Bramwell and members of the British medical profession had long acknowledged, by the risks or experiences of modern life.

In line with the roll-out of the venereal disease system which hinged on these tests and therapies, finding ways of resolving these practical and technical problems became a priority, therefore guiding what historians have viewed as a shift from social/moral to a scientific framing of these diseases through a drive for standardisation.¹⁸¹ Over the course of the 1920s and 1930s, delegates from the Ministry of Health, including Laurence Whitaker Harrison, contributed to a series of international standardisation conferences, which aimed to establish once and for all whether or not ‘the Wassermann (was) immunologically specific’ and sensitive.¹⁸² Given a high rate of the same results obtained by researchers who each used different methods, these conferences seemed to resolve longstanding questions about this test,

¹⁷⁹ Byrom Bramwell, ‘The Selection of Lives With Discussion’, *Transactions of the Faculty of Actuaries*, 8, (1915-1921), pp. 152-153

¹⁸⁰ *Ibid.*, p. 152

¹⁸¹ See Roy Porter and Lesley Hall, *The Facts of Life: The Creation of Sexual Knowledge in Britain, 1650-1950*, (New Haven, 1995), pp. 228-236; For the transition from social/moral to medical frameworks, see Pamela Cox, ‘Compulsion, Voluntarism and Venereal Disease: Governing Sexual Health in England after the Contagious Diseases Acts’, *The Journal of British Studies*, 46, (2007), p. 95

¹⁸² Pauline Mazumdar, “In the Silence of the Laboratory”, p. 447; Sensitivity and specificity have long been understood as ‘the twin pillars of diagnostic accuracy’. A test is believed to be sensitive if it is able to return positive test results in diseased patients, and specific if it is able to return negative results in nondiseased patients. See Nicholas Binney, Christopher Hyde, and Patrick M. Bossuyt, ‘On the Origin of Sensitivity and Specificity’, *Annals of Internal Medicine*, 174, (2021), p. 401

putting any inconsistencies down to individual error, but also reflecting the social processes which allowed the Wassermann to become viewed as a reliable indicator of syphilis.¹⁸³ Two conferences held by the American Society of Clinical Pathologists and US Public Health Services reaffirmed this view, highlighting ‘the existence of differences between individual investigators and between laboratories’ and therefore arguing that this link could consistently be made in optimal conditions.¹⁸⁴ Whilst standardisation might have remained a kind of mirage for serologists, who ‘always felt their work was unfinished, and that the tests could be perfected further’, these conferences reaffirmed the belief amongst members of the British medical profession that as long as the test was administered correctly, a positive Wassermann result was reliable evidence of a still active, syphilitic process, and of physical pathology.¹⁸⁵

Besides contributing to efforts to standardise the Wassermann, in the 1920s Laurence Whitaker Harrison also turned his attention to Salvarsan, building upon his experiences in the treatment of venereal disease during WW1.¹⁸⁶ As recounted by Harrison in 1922, his interest in the efficacy of antisyphilitics dated back to the ‘revolution’ unleashed by Ehrlich in 1910, after which he had set out to establish ‘the minimum amount of arsenobenzol [Salvarsan or ‘606’] and mercurial treatment required to cure an average case of early syphilis.’¹⁸⁷ Despite his initial efforts to define what could be classed as ‘insufficient treatment’, for example by monitoring what dosage led to ‘serological or clinical relapses within a year of suspension of treatment’, up until the 1920s Harrison acknowledged that it was ‘impossible to lay down any definite rule’, and therefore to say whether continuing symptoms were a product of a

¹⁸³ Fleck was particularly interested in how the acceptance of this test occurred even though it could not be used to tie a specific antibody to syphilis, instead obtaining a positive reaction in patients who had not received this diagnosis. See Ilana Löwy, ‘Testing for a Sexually Transmissible Disease’, pp. 77-80; Ilana Löwy, ‘A River Cutting its Own Bed’, p. 516; This international coordination has also been documented by Paul Weindling, which he tied to ‘the fear that infected soldiers might spread STDs among the civilian population.’ See Paul Weindling, ‘The Politics of International Co-ordination to Combat Sexually Transmitted Diseases, 1900-1980s’, in Virginia Berridge and Philip Strong, (eds), *AIDS and Contemporary History*, (Cambridge, 1993), pp. 93-107

¹⁸⁴ Ilana Löwy, ‘Testing for a Sexually Transmissible Disease’, p. 81

¹⁸⁵ Pauline Mazumdar, “‘In the Silence of the Laboratory’”, p. 459

¹⁸⁶ ‘Colonel L.W. Harrison’, *Journal of the Royal Army Medical Corps*, (1964), pp. 220-222

¹⁸⁷ L.W. Harrison, ‘A British Medical Association Lecture on the Modern Treatment of Syphilis’, *BMJ*, 2, (1922), p. 1

treatment that did not work, and which therefore questioned the causal link between syphilis and general paralysis, or one that simply had not been provided for long enough.¹⁸⁸

In the 1920s, Harrison began to make more decisive recommendations, presenting various programmes of ‘routine’ treatment which were to be allocated to patients based on the stage of their disease (primary, secondary, tertiary, or latent) and on the result of the Wassermann (positive or negative), thereby relating them to objective estimates of the minimum duration of treatment and number of doses required. Despite laying out these programmes, Harrison also reminded his colleagues that responses to treatment were often highly individual, and that to be safe, the patient should still be monitored ‘far beyond the stage when the Wassermann reaction becomes negative’ and they no longer displayed clinical symptoms.¹⁸⁹ As long as a patient received a course of treatment that met this criteria and was deemed ‘complete’, they could be viewed as no longer at risk of ‘recurrences in the central nervous system’, and therefore of general paralysis.¹⁹⁰

Whilst debate would continue into the 1930s, through this drive for standardisation Harrison had begun to recast and reaffirm the combined utility of the Wassermann and Salvarsan, using them to inform a varied, yet prolonged period of monitoring and treatment, and in turn providing a routine, practical template which could be used to decide how they should be administered in the context of the modern venereal disease system.¹⁹¹ By returning for one last time to the context of medico-legal assessments, it is possible to see how these adjustments

¹⁸⁸ *Ibid.*, p. 1; L.W. Harrison, ‘The Treatment of Syphilis’, *QJM*, (1917), p. 347

¹⁸⁹ L.W. Harrison, ‘A British Medical Association Lecture on the Modern Treatment of Syphilis’, p. 3

¹⁹⁰ L.W. Harrison, ‘Half a Lifetime in the Management of Venereal Disease: From Chaos to Order’, *A.M.A. Archives of Dermatology*, 73, (1956), p. 449

¹⁹¹ In the early 1930s, ‘adequate’ treatment of ‘early’ syphilis therefore became a subject of widespread debate, culminating in a tête-à-tête between Harrison and fellow venereologist, E. Tytler Burke. Each presented his own view on the best method of treatment, which differed only on whether different substances, such bismuth or mercury and the arsenobenzene compound should be given concurrently or alternatively to one another, at varying points in time. See E. Tytler Burke, ‘The Adequate Treatment of Syphilis’, *BMJ*, 217, (1931), pp. 1127-1130; Burke’s article caused quite a stir in the correspondence section of *The Lancet*, which published critical responses from Howard Allen, David Lees, and from Harrison himself, see L.W. Harrison, ‘Adequate Treatment of Syphilis’, *The Lancet*, 1, (1931), pp. 1265- 1267

and standardisation also allowed doctors to more reliably identify the presence or absence of physical pathology, and in turn, to establish firmer links between syphilis and the symptoms hitherto attributed to general paralysis. This point is borne out in the discussions of the Medical Society for the Study of Venereal Diseases in 1932, which centred on the financial risks associated with insuring cases with a history of syphilis. Whilst these concerns had been previously resolved by reaching backwards and forwards in time to scrutinise the lifestyle of a claimant, in his contribution to the discussion Harrison argued that these requests could now be safely accepted 'at a lower premium' if they had been '*well treated*'.¹⁹² Instead of laying 'too much stress on the family', Harrison believed that it was much more useful to consider 'the amount and kind of treatment the patient had had, and the stage of his disease at which it was carried out.'¹⁹³ Perhaps motivated by the need to ensure that members of the population attended for full periods of treatment, rather than simply until their symptoms subsided, Harrison had opened up the possibility for a new approach to the question of causation: implying that a relapse or the onset of long-term illness was no longer necessarily a product of lifestyle, but of inadequate levels of treatment.¹⁹⁴ This view was moreover shared by members of the Society, who agreed on one key principle: 'the more thorough and prolonged the treatment, the better the insurance risk'.¹⁹⁵

The 'successes' of the venereal disease system, and in turn of Harrison's programme of testing and treatment, have been reflected in the gradually falling attendance at these clinics (which in 1931 was under 5,000), as well as a drop in rates of congenital syphilis and general

¹⁹² L.W. Harrison, 'Attitude of Life Insurance Societies to Venereal Disease', *The Lancet*, 219, (1932), p. 1200

¹⁹³ *Ibid.*, p. 1200

¹⁹⁴ According to historian Samantha Caslin, although submitting to this kind of steady and continuous treatment was never made mandatory, Harrison's visions relied centrally on pressure, perhaps imposed on patients by doctors, employers or as we shall see, insurance companies, see Samantha Caslin, 'Transience, Class and Gender in interwar Sexual Health Policy: The Case of the Liverpool VD Scheme', *SHM*, 32, (2017), p. 554

¹⁹⁵ 'Antisyphilitic Treatment and the Expectation of Life', (1932), 2, p.192; As Harrison would come to argue in 1940, alongside the Wassermann, these therapies had made it possible to assess risk with 'greater fairness to the candidate or the company than was ever possible before the advent of our modern methods'. See L.W. Harrison, 'Venereal Diseases and Life Assurance', *British Journal of Venereal Disease*, 16, (1940), p. 2

paralysis.¹⁹⁶ As demonstrated by Samantha Caslin, this shift towards a more rational, scientific approach remained ‘inflected with moral concerns and prejudices about which communities to target for treatment’.¹⁹⁷ As many of the long-term illnesses which followed upon syphilis became viewed as a product of inadequate, delayed or perhaps a total lack of treatment, this medical explanation handed responsibility back to the individual, who now became responsible for monitoring their own health, submitting to this system of healthcare and a full course of treatment, in turn reframing yet perpetuating ‘late nineteenth century discourses about the failure of working-class morality’.¹⁹⁸ By the 1930s, through this newfound faith in the efficacy and reliability of tests like the Wassermann and therapies such as Salvarsan, and in line with the institutional arrangements of the venereal disease system, illnesses which followed upon and were believed to be caused by syphilis had begun to be conceptualised in new ways. No longer also tied to the lifestyle or behaviour of the individual, the onset and steady progress of these chronic illnesses had instead become viewed as a product of the spirochaete alone, which due to inadequate treatment had been allowed to run riot and cause ever-progressing damage to the brain and body. Through these changes in technique, practice and provision, the categories of syphilis and neurosyphilis re-emerged as two connected, yet separate acute/chronic stages of the same physical disease process.

As neurosyphilis thus came to hinge on a specific set of tests, therapies and clinic-based provisions, a diagnosis of general paralysis remained used as a way to explain and deal with cases whose condition seemed unable to fit into this chronic, physical category and in turn this new, modern health system. One such case was described in October 1933 by neurologist Wilfred Harris.¹⁹⁹ During a parachute descent, this man had bumped his head on the ground ‘rather badly’, and although afterwards felt ‘partially concussed and dazed... [still] carried on

¹⁹⁶ Lesley Hall, ‘Venereal Diseases and Society in Britain: From the Contagious Diseases Acts to the National Health Service’, in Roger Davidson and Lesley A. Hall, (eds), *Sex, Sin and Suffering: Venereal Disease and European Society since 1970*, (Kindle edn, London, 2005), p. 130

¹⁹⁷ Samantha Caslin, ‘Transience, Class and Gender in interwar Sexual Health Policy: The Case of the Liverpool VD Scheme’, p. 555

¹⁹⁸ *Ibid*, p. 555

¹⁹⁹ Wilfred Harris, ‘The Traumatic Factor in Organic Nervous Disease’, *BMJ*, 2, (1934), pp. 955-960

with his work.²⁰⁰ Subsequently, he had nonetheless become increasingly confused, ‘slept badly at night, with horrible dreams’, had ‘curious ideas’ and became ‘rather impatient and irritable.’²⁰¹ Upon examination, besides various slight clinical abnormalities, a sample of this man’s cerebrospinal fluid had produced a positive Wassermann reaction, therefore indicating to Harris the presence of an active syphilis infection, leading to a diagnosis of ‘G.P.I.’ (general paralysis of the insane).²⁰² This diagnosis was made based on evidence that prior to his injury, this man had been in ‘perfect health’ after being ‘*fully treated for syphilis twelve years before*.’²⁰³ Based on his history but also on the apparent failure of a programme of treatment which had become central to the modern health system, Harris concluded that his incapacity would not have developed without ‘the immediate effects of the blow’.²⁰⁴ Diagnosing this case with general paralysis, tying his condition to syphilis and yet also to other contributory factors effectively minimised any possible challenges to the efficacy of the Wassermann test and therapies like Salvarsan: stabilising the acute/chronic, physical categories and in turn the system of healthcare, which had been built upon and around them.

Conclusion

Through tracing how a group of persisting symptoms were moved from a chronic/mental to a chronic/physical category, and therefore became viewed as the long-term effects of syphilis, this chapter has explored the central contention made by this thesis, exposing the binary structures of the contemporary health system in the early twentieth century. We began with a version of general paralysis which emerged the space of the nineteenth century asylum, through the use of clinical and pathological techniques, and in line with the idea of ‘degeneration’, which both referred to an irreversible, physical process in the body, but also the often inherited, moral depravity of the patient. This chronic, mental(/moral) disease became aligned with new kinds of eugenic social policy, which focused on preventing

²⁰⁰ *Ibid.*, p. 955

²⁰¹ *Ibid.*, p. 955

²⁰² My emphasis; *Ibid.*, p. 955

²⁰³ My emphasis; *Ibid.*, p. 955

²⁰⁴ The term ‘G.P.I.’ was an abbreviation for ‘general paralysis of the insane’; *Ibid.*, p. 955

opportunities for procreation, and reaffirmed the need for long-term legal control in the asylum. Gradually feeding into rising asylum populations, and concerns amongst public health authorities, this category nonetheless became the subject of debate once again, as physician-pathologists like Frederick Mott used new modes of laboratory science to align with the microbiological approach of public health, developing new methods of diagnosis and treatment, and in turn, theories of causation. Through tests like the Wasserman and therapies like Salvarsan, Mott and many of his colleagues therefore began to recast and position general paralysis as the chronic stage of the same, linear chronology occupied by acute syphilis, in turn underlining the value of institutions, resources and policies which could be used to prevent the latter by treating the former.

Viable in theory, this chronic physical aetiology was less stable in practice. This point was explored in the context of medico-legal assessments, where uncertainty about whether the Wassermann and Salvarsan were able to provide reliable evidence of the presence or absence of physical pathology impinged on the ability to assess risk. General paralysis therefore remained understood as informed by the lifestyle or inheritance of the individual *as well as* syphilis. Aware of the limits of these tests and therapies, and in turn the new system of health provision which had come to rely on them, some members of the medical profession such as L.W. Harrison would seek out standardisation. Building on the view which emerged from a series of international conferences that a positive Wassermann was a reliable indication of active syphilis, Harrison began to advocate a specific prolonged programme of treatment via Salvarsan. As many of the persisting illnesses which followed upon syphilis therefore instead became tied to inadequate treatment and often a lapse of moral or personal responsibility for their own health, doctors also began to forge a more direct causal link to the action of the spirochaete and establish a diagnosis of neurosyphilis.

Aligned with a specific programme of diagnosis, treatment and prevention, this chronic, physical category was therefore able to fit into the standardised, objective, state-funded

mechanisms of health (and welfare) provision which were emerging in early twentieth century Britain. By mapping the transition from general paralysis to neurosyphilis over the course of the late nineteenth and early twentieth century onto the practical, material and financial challenges faced in a burgeoning health system, this chapter has therefore drawn the binary structures of the contemporary health system into sharp focus. Marked, sustained by, and dealt with through a contingent set of diagnostic and therapeutic techniques in the context of the twenty-first century NHS, today neurosyphilis is a rare chronic, physical disease that remains with us (in a context-specific form), often imbued with racial logics and viewed as a problem prevalent amongst particular communities.²⁰⁵ In Chapters 2 and 3, our focus remains with persisting illnesses which emerged after and became understood to be in some way tied to a viral disease, in this instance diagnosed as ‘Encephalitis Lethargica’ (EL). Although these illnesses were initially conceptualised in line with the same kinds of laboratory techniques as those associated with syphilis in order to be tied to the same kind of continuing, chronic, physical action of a virus, we shall nonetheless see how this aetiology failed to hold up in practice. Understanding if, how and why these persisting illnesses consistently came into conflict with the binaries of mental/physical, acute/chronic, and therefore failed to fit into the modern health system is the focus of the two next chapters.

²⁰⁵ Neurosyphilis is often viewed as a problem which is more common amongst certain ethnicities and communities who do not have, or as sometimes assumed choose not to access modern biomedical tests and therapies. See Prashanth S. Ramachandran, Rob W. Baird, Peter Markey, Sally Singleton, Michael Lowe, Bart J. Currie, James N. Burrow, Ric N. Price, ‘Neurosyphilis: Still Prevalent and Overlooked in an At-Risk Population’, *PloS One*, 15, (2020), pp. 1-12

Chapter 2: EL, mental disorder, and child health c.1918-c.1935

On 18th June 1934, George Arthur Borthwick, the medical superintendent to the Northern Hospital at Winchmore Hill in London, received a letter from the local medical officer of health Frederick Menzies which addressed the long-debated issue of 'suitable provision for the accomodation of all chronic cases of post Encephalitis Lethargica'.²⁰⁶ After experiencing an acute viral attack of EL as children during the 1920s, many of these cases had subsequently developed persisting 'mental' or 'psychic changes', which led them to be disruptive in the home, school and in society more broadly.²⁰⁷ Despite initial disagreement amongst members of the medical and psychiatric profession about what precisely caused these changes, through opening a Unit in 1925 at 'Winchmore Hill', an acute infectious disease hospital, and agreeing to fund convalescent medical care and treatment, the London County Council (LCC) had accepted that these children were the victims of a *physical, bodily* disease, caused initially by an acute viral illness.²⁰⁸ In June 1934, Menzies wrote to Borthwick because opinion amongst members of the LCC had begun to change.

Mindful of how the initial financial and administrative framework of short-term convalescent treatment at Winchmore Hill had given way to what seemed to be life-long care, Menzies reported how the LCC had made the suggestion that all of these 'chronic' cases, many of whom were now adults, should be transferred elsewhere to create 'vacancies to which new cases might be admitted: thereby reducing waiting lists and increasing efficiency.'²⁰⁹ Despite considering whether they might simply be discharged home, members of the LCC had dismissed this based on concerns that these patients were unlikely to ever be 'self-

²⁰⁶ London Metropolitan Archives, (hereafter LMA): Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Letter from Frederick Menzies to George Arthur Borthwick, 18 June 1934

²⁰⁷ The National Archives, (hereafter TNA): Home Office, Registered Papers Supplementary, HO 144/21198, Metropolitan Asylums Board, Post Encephalitis Lethargica: Report of the Infectious Hospitals Committee adopted by the Board on 11 December, 1926, Appendix, 18 December 1926, p. 2, p. 3

²⁰⁸ Reflecting contemporary (early twentieth century) terminology, this chapter uses the colloquial abbreviation, 'Winchmore Hill', to refer to the Northern Hospital.

²⁰⁹ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Letter from Frederick Menzies to George Arthur Borthwick, 18 June 1934

supporting'.²¹⁰ Instead, they would likely impose a 'charge on the rates' and welfare provisions funded by the state, or cause 'hardship to the[ir] relatives'.²¹¹ With such challenges in mind, the LCC recommended that they might suitably be transferred to a local *mental* hospital, whether they were 'certifiable for admission... or not'.²¹²

This correspondence between Menzies and Borthwick provides a useful framing for the argument made across the next two chapters: by showing how and helping us to see why illnesses linked to EL consistently came into conflict with and were therefore unable to fit into binary structures of the health system. Brought initially within the category of 'post-encephalitis', the mental changes observed in these children had been conceptualised as *physical* and tied to a specific set of *acute* resources, provisions and policies available at an infectious disease hospital. As their condition had failed to improve over time, it had become considered *chronic* and understood to require changes in funding and resource allocation: bringing these cases into conflict with this acute, physical provision. Practical concerns regarding bedspace and efficiency in turn led the LCC to suggest that these cases would most suitably be moved to a *mental* hospital, which was better equipped to support their *chronic* care. As these cases therefore moved across the health system, their condition was reconceptualised as *mental* rather than *physical*, for reasons that were inseparable from a need to use a limited set of financial and material resources in the most rational, efficient way possible. Beyond helping us understand why EL and its persisting illnesses failed to fit into the binary structures of the modern British health system, this correspondence also bears out the central point made by this thesis: that in order to function the twentieth century health system relied on categories that could be aligned with the binaries of mental/physical, acute/chronic and therefore with specific kinds of resources, policies and provisions.

²¹⁰ *Ibid.*

²¹¹ *Ibid.*

²¹² *Ibid.*

This chapter moves backwards from this point, tracing the emergence and conceptualisation of illnesses which persisted after and were linked to the acute viral disease of EL over the course of the 1920s. Understood by contemporaries to affect both mind and body, and perhaps manifesting for example in long-term paralysis or ‘oculogyric attacks’, our focus in this chapter is on the mental changes observed in a growing number of children.²¹³ Observed in children across Britain, this chapter nonetheless focuses on their emergence in two cities which in the early twentieth century began to develop comprehensive child health systems: London and Birmingham. As we shall see, although these mental changes would gradually be brought within the category of ‘post-encephalitis’, and tied to medical care in spaces like the Unit at Winchmore Hill, this only occurred after years of debate amongst members of the British medical profession. To some, these were cases of permanent ‘mental deficiency’, which should be made subject to long-term legal and institutional control.²¹⁴ Challenging the suggestion that children whose behaviours were believed to be linked to an acute, physical disease should be managed as though they were a product of heredity, some physicians would set out to map new aetiologies, develop new categories (post-encephalitis), and thus reposition these cases in the health system, ultimately informing the Unit at Winchmore Hill. As in Chapter 1, we shall therefore see how the acute/chronic, mental/physical status of these cases emerged in line with the allocation of specific provisions, resources, and policies. However, whilst we ended Chapter 1 with the emergence of a chronic, physical category able to meet the practical needs of the modern British health system, here we shall see how EL failed to align these binaries, and eventually, would be abandoned entirely.

The first section begins by providing some necessary context on EL as an international and epidemic disease, focusing in more closely to understand its emergence as a composite and

²¹³ Oculogyric attacks were described by contemporaries of ‘eye spasms’. During these attacks, the eyes would often become locked facing upwards, downwards, to one side or to the centre of the face. See P.K. McCowan and L.C. Cook, ‘Oculogyric Crises in Chronic Epidemic Encephalitis’, *Brain*, 51, (1928), pp. 285-308

²¹⁴ Throughout this chapter, terminology is used which reflects that of the early twentieth century. This may be jarring to the twenty-first century reader, given that terms such as ‘mental defect/ive’ are now obsolete and offensive.

coherent acute physical disease category in Britain by the end of 1918. Faced with an almost complete lack of laboratory evidence, this section argues that physicians and pathologists set out to conceptualise the symptoms of this disease in ways that made sense in the context of a medical and scientific discourse transformed by the lessons of war. Mindful of the myriad reactions observed in soldiers on the frontline, which had produced symptoms that seemed ‘too complex to classify... often too variegated to fit a single formal description’, in late 1918 the authors of a report commissioned by the Local Government Board would frame the symptoms of EL in terms of an *acute* ‘shock’, in this instance caused by the *physical* effects of a virus on brain and body.²¹⁵ In the process, they were able to link cases into a public health system of notification and treatment. Although the issue of prognosis was left unresolved, this would not remain the case for long, as the problem of ‘mental after-effects’ in children instead rose to the surface during the early 1920s.

Unable to be dealt with in the same way as the long-term effects of syphilis, in the second section we shall see how the ‘mental after-effects’ of EL observed in children emerged and became viewed as chronic and physical, based on the presence of permanent lesions in the brain. Framing these changes as a kind of ‘mental deficiency’, in 1921 Donald Paterson and James Spence implied that this condition, invariably understood as caused by heredity and to warrant long-term institutional and legal control, might also be a product of a viral, physical disease.²¹⁶ This view, as we shall see in the third section, quickly became challenged by doctors working in the institutional arrangements of the recently established School Medical Service (SMS), who would use the case note and the causal principles of mental hygiene to map a different aetiology and in turn propose a new programme of medical treatment. These mental changes, according to George Augustus Auden and Frank Charles Shrubbsall, were a response to the disrupted or delayed, physical-psychic process of recovery from their acute physical

²¹⁵ Stefanos Geroulanos and Todd Meyers, ‘Integrations, Vigilance, Catastrophe: the Neuropsychiatry of Aphasia in Henry Head and Kurt Goldstein’, in David Bates and Nima Bassiri, (eds), *Plasticity and Pathology: On the Formation of the Neural Subject*, (California, 2016), p. 112

²¹⁶ Donald Paterson and James Calvert Spence, ‘The After-Effects of Epidemic Encephalitis in Children’, *The Lancet*, 2, (1921), pp. 491-493

disease, rather than permanent, irresolvable damage. Able to be corrected by allowing these children the time and space to re-establish psychophysiological control, these doctors emphasised the need for a special kind of medical provision, away from the legal confines of the mental deficiency system.

The final section explores how this vision was realised in the dedicated ‘post-encephalitis’ Unit at Winchmore Hill in London. Contained within a long-established infectious disease hospital initially overseen by the powerful Metropolitan Asylums Board (MAB) yet subsequently by the LCC, this Unit took advantage of the existing provisions, resources and policies used to facilitate ‘convalescence’ from an acute, physical disease, thereby reaffirming the links between the mental or behavioural changes in these cases, and a disrupted recuperative process of body and mind. Whilst a growing number of chronic, ‘post-encephalitis’ cases came into conflict with this acute programme of care, local authorities remained willing for a time to equip the Unit with a different set of financial and material resources, therefore stabilising a new physical and chronic aetiology. In the face of administrative, bureaucratic and financial concerns regarding bedspace and duplication and as part of much broader set of health reforms, this aetiology would be brought into question and gradually abandoned.

Section 1: Acute shock, physical change, viral illness

In October 1918, a group of clinicians, pathologists and epidemiologists submitted a report to the Local Government Board (LGB) which collated the findings of their recent enquiry into EL.²¹⁷ Since March of that year, researchers across Britain had been puzzled by this ‘obscure disease’ which seemed tied to a range of clinical symptoms, such as lethargy or ‘stupor’, unusual eye movements (such as ‘ophthalmoplegia’) and facial paralysis. These symptoms seemed to present and progress in a variety of ways: concluding fairly rapidly in some after a

²¹⁷ Wellcome Library (hereafter WL): Reports to the Local Government Board on Public Health and Medical Subjects, K22128, Report of an Enquiry into an Obscure Disease, Encephalitis Lethargica, (London, 1918)

period of treatment in hospital, whilst proving fatal for others.²¹⁸ To twenty-first century researchers like Paul Foley, Joel Vilensky and Sid Gilman, it was precisely this obscurity that encouraged the LGB to commission their investigation in 1918, in order to provide a clear description of EL and open up the possibility for more effective methods of diagnosis and treatment.²¹⁹ Drawing upon these histories, this section similarly views the LGB investigation as an important moment in the history of EL, or more specifically, its emergence as an acute, physical disease category and relationship to specific kinds of public health intervention. This occurred, however, in spite of a lack of laboratory evidence to either directly or indirectly confirm the presence of a virus, and in turn the impression that this disease could not be dealt with in the same terms as syphilis.

Perhaps strange or confusing by the biomedical standards of the twenty-first century, this view of EL as an acute, physical, viral disease made sense in a medical and scientific discourse transformed by the lessons of war. Symptoms of lethargy or paralysis were therefore interpreted in the same terms as those associated with an acute ‘shock’ to the central nervous system in order to be to a viral illness and in turn a public health system of notification and isolation. In advising their colleagues who were tasked with identifying and notifying cases to local health authorities, the authors of the LGB Report ultimately drew attention towards the individual characteristics and idiosyncrasies of each patient, and therefore the principle that symptoms might present and progress in very different ways, yet still be caused by the acute, physical disease of EL. At the end of this section, we are therefore left with a category that was able to fit and function within the public health system, in a way that nonetheless negated any clear sense of what the outcome or prognosis might be. Such questions would not remain unanswered for long.

²¹⁸ See Wilfred Harris, ‘Acute Infective Ophthalmoplegia or Botulism’, *The Lancet*, (1918), p. 568, and Arthur Hall, ‘An Epidemic of Toxic Ophthalmoplegia Associated with Acute Asthenia and other Nervous Manifestations’, *The Lancet*, (1918), pp. 568-569

²¹⁹ Paul Foley, *Encephalitis Lethargica: The Mind and Brain Virus*, p. 50, p. 54; Joel Vilensky and Sid Gilman, ‘Encephalitis Lethargica during the Epidemic Period’, esp. p. 9

Although EL did not emerge as a coherent acute/physical disease category and public health problem in Britain until the final months of 1918, the symptoms which would become attributed to this disease had been recognised amongst the population since March of that year, in cases admitted to hospitals in London and Sheffield suffering from a combination of ‘ophthalmoplegia’, drowsiness, constipation, paralysis, tremor and fever.²²⁰ Even before then, these symptoms were identified by neurologists and physicians in Austria and France, such as Constantin von Economo, René Cruchet and Arnold Netter.²²¹ Marking the beginning of what would become an international epidemic, von Economo was the first to coin the name ‘Encephalitis Lethargica’, based on illnesses he had observed in the Psychiatric-Neurological Clinic at the University of Vienna in the winter of 1916 and 1917. Here, von Economo drew attention to a ‘sleeping sickness of generally unhurried course’, including symptoms such as headache and nausea, a state of somnolence and delirium, which sometimes ended in death but also persisted ‘unchanged for weeks or even months’, or which could leave the individual ‘mentally weakened for a long period afterwards.’²²² Lagging behind their continental colleagues, the emergence of this problem in British medical and psychiatric discourse was less a product of these international influences, than of an attempt to explain and contain illnesses that seemed to transcend the bacteriological approach of modern public health.

As acknowledged in the previous chapter, in the nineteenth century public health had become recast as a sanitary science, tied to an approach which viewed disease as a consequence of identifiable causal agents, and therefore a ‘new paradigm of examination, isolation, and increasingly decisive medical intervention’ exercised on a local level and overseen nationally

²²⁰ Ophthalmoplegia was diagnosed based on unusual eye movements or positions. The eye(s) of these cases might be therefore fixed to one side, (left, right, up or down). Some cases also had ‘ptosis’, indicated by a drooping of the eyelid.

²²¹ See René Cruchet, ‘L’Encéphalo-Myélite Diffuse et L’Encéphalite Léthargique’, *Paris Médical*, 31, (1919), pp. 474-78, or René Cruchet, ‘The Bordelaise Conception of Encephalitis Lethargica’, *New York Medical Journal*, 112, (1920), pp. 173-74; Arnold Netter, ‘Contagiosité de L’Encéphalite Léthargique’, *Bulletin de l’Académie de Médecine*, 83, (1920), pp. 373-384

²²² Constantin von Economo, ‘Encephalitis Lethargica’, *Wiener Klinische Wochenschrift*, 30, (1917), pp. 581-585

by the LGB.²²³ This branch of ‘surveillance medicine’ both identified and yet also aimed to eliminate the infectious diseases that troubled the population, in turn feeding into what Mark Harrison has described as ‘the Victorian Age of Pandemics’.²²⁴ Responsibility for the detection of infectious disease was therefore laid with the ‘head of the family’ or ‘medical practitioner’, who became required by law to ‘notify’ cases to the local health authority.²²⁵ Upon notification, this authority would then trace out any contacts and could use legal powers to detain and isolate an individual in an infectious disease hospital or ward. By the start of the twentieth century, this new brand of public health intervention had come to rely on a bacteriological or microbiological approach, which opened up ‘many new possibilities for vaccines and pharmacotherapies, for disease surveillance and screening, and for investigating the safety of food and water’, in turn allowing possible epidemics to be visualised, mapped, quantified, and ideally, prevented.²²⁶

Whilst physical forms of disease became tied in theory to a specific toxic or viral causal agent, which in turn required ‘a laboratory, or at least a microscope’ to be identified, there nonetheless remained debate about the reliability and efficacy of these techniques, as observed in Chapter 1 in relation to syphilis and general paralysis.²²⁷ To J. Andrew Mendelsohn, these

²²³ Christopher Hamlin, ‘State Medicine in Great Britain’, in Dorothy Porter (ed.), *The History of Public Health and the Modern State*, (Amsterdam, 1994), p. 154, p. 152

²²⁴ David Armstrong, ‘The Rise of Surveillance Medicine’, *Sociology of Health & Illness*, 17, (1995), p. 393; Mark Harrison, ‘Pandemics’, in Mark Jackson, (ed.), *The Routledge History of Disease*, (Oxford, 2017), p. 131

²²⁵ John M. Eyler, ‘The Sick Poor and the State: Arthur Newsholme on Poverty, Disease and Responsibility’, in Dorothy Porter, Roy Porter, (eds), *Doctors, Politics and Society: Historical Essays*, (Amsterdam, 1993), p. 189; The original Act included small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued, or puerperal. See ‘Infectious Disease (Notification), 1889’, <https://www.legislation.gov.uk/ukpga/Vict/52-53/72/contents/enacted>, [accessed 16 Aug. 2022]

²²⁶ Martin Gorsky, ‘Public Health in the West since 1800: The Context’, in Virginia Berridge, (eds), *Public Health in History*, (Maidenhead, 2011), p. 27; According to Michael Worboys, these ‘bacterial discoveries’ included ‘relapsing fever’, ‘anthrax’, ‘staphylococcal wound infection’, ‘gonorrhoea’, ‘leprosy’, ‘typhoid fever’, ‘pneumonia’, ‘streptococcal wound infection’, ‘tuberculosis’, ‘glanders’, ‘cholera’, ‘diphtheria’, ‘tetanus’, ‘E coli’, ‘bacterial meningitis’, ‘malta fever’ and ‘salmonella.’ The ‘germs’ associated with ‘measles’, ‘scarlet fever’, ‘smallpox’, ‘syphilis’, ‘typhus fever’, ‘whooping cough’ and ‘yellow fever’ were also identified around the same time. See Michael Worboys, ‘Was There a Bacteriological Revolution in late nineteenth-century medicine?’, p. 26

²²⁷ Olga Amsterdamska, ‘Standardizing Epidemics: Infection, Inheritance, and Environment in prewar Experimental Epidemiology’, in Jean-Paul Gaudillière and Ilana Löwy, (eds), *Heredity and Infection: The History of Disease Transmission*, (London, 2001), p. 135

problems were brought into even sharper focus in the years after 1918, which witnessed an ‘unravelling of certainties in the old bacteriological model of epidemics’.²²⁸ During this period, doctors and public health officials therefore confronted a new group of diseases that could not ‘be fully comprehended by cell counts in the CSF, or by inquiring as to the absence or presence of strains of organisms’, and yet based on their clinical symptoms and perhaps post-mortem evidence of lesions, seemed related to physical, bodily change.²²⁹ These tensions have been explored through the pandemic outbreak of influenza in 1918 and 1919 amongst military and civilian populations.²³⁰ According to Michael Bresalier, although responses to this pandemic were guided by a system of ‘military pathology’ which used the laboratory to map the aetiology of illnesses that were taking soldiers away from the front and to develop vaccines, it quickly became apparent that it was not always possible to identify Pfeiffer’s *bacillus influenzae* in samples drawn from these cases.²³¹ Although attributed to ‘technical failures’ or mistaken diagnosis, these problems fed into concerns about the ‘avalanche of conflicting evidence’ produced by the laboratory and ‘the failure of reductive approaches to disease etiology(sic).’²³² Similar problems were also faced in relation to the illnesses that would, by the end of 1918, come to be attributed to EL.

In April 1918, two British physicians based in Sheffield and London separately drew attention to an increase in cases admitted to local hospitals in their area presenting with symptoms that they took to be unusual.²³³ Dominated by abnormal eye movements, referred to as ophthalmoplegia, alongside drowsiness and languor, Wilfred Harris and Arthur Hall

²²⁸ J. Andrew Mendelsohn, ‘From Eradication to Equilibrium: How Epidemics Became Complex After World War 1’, in Christopher Lawrence and George Weisz, (eds), *Greater than the Parts: Holism in Biomedicine, 1920-1950*, (Oxford, 1998), p. 305

²²⁹ *Ibid.*, p. 310

²³⁰ Olga Amsterdamska, ‘Standardizing Epidemics’, p. 140

²³¹ During the war, the War Office had established a network of provisions which facilitated ‘triage, teamwork, specialisation and large-scale communication’, which linked Casualty Clearing Stations on the frontline to field hospitals, and in turn, laboratories, see Michael Bresalier, ‘Fighting Flu: Military Pathology, Vaccines, and the Conflicted Identity of the 1918-19 Pandemic in Britain’, *History of Medicine and Allied Sciences*, 68, (2013), p. 93

²³² *Ibid.*, p. 127

²³³ Wilfred Harris, ‘Acute Infective Ophthalmoplegia or Botulism’, p. 568, Arthur Hall, ‘Note on an Epidemic of Toxic Ophthalmoplegia: Associated with Acute Asthenia and Other Nervous Manifestations’, pp. 568-569

recognised that beyond this, the clinical picture of each case was dominated by different symptoms that often appeared at different time and at different intensities, and therefore varied markedly. To Hall, the only reason he had connected these cases to one another at all was based on the impression that they ‘were all inexplicable and that [he] had never seen anything like them before.’²³⁴ This variation would also later be acknowledged by neurologist Samuel Kinnier Wilson, who found it hard to draw commonalities between his patients beyond a ‘pathological drowsiness amounting not infrequently to stupor’.²³⁵ Exploring these contrasts in detail, Kinnier Wilson compared one young woman, who had begun with head pain, became sleepy and apathetic, developed limb paralysis and a rising temperature and who later died, to a man whose condition started with unusual eye movements (‘ophthalmoplegia’), who had become sleepy, and yet had shown gradual improvement. Another young girl had started with vomiting, quickly became delirious and then drowsy on the seventh day of illness. After a fortnight, all of her symptoms had begun to ‘clear up’, leading to the impression that she was ‘rapidly becoming normal.’²³⁶

At least initially, physicians and public health officials hoped to cut through this clinical variation by turning to laboratory techniques, thereby attempting to surface and identify a specific toxic or viral agent.²³⁷ Informed by a broader concern about contaminated food supplies due to the reliance on tinned items during the war and ‘rumours that the Germans had initiated biological warfare in the form of sausages’, focus therefore initially came to rest on the idea that these cases might be unusual forms of ‘botulism’.²³⁸ Whilst Wilfred Harris acknowledged that only one of his seven cases corresponded ‘fairly closely’ with the clinical

²³⁴ *Ibid.*, p. 569

²³⁵ Samuel Kinnier Wilson, ‘Epidemic Encephalitis’, *The Lancet*, 192, (1918), p. 7

²³⁶ *Ibid.*, p. 9

²³⁷ Many physicians during this period had served during the war, and therefore had experience of the techniques, practices and approaches associated with ‘military pathology’ described by Michael Bresalier. This point applies to both Wilfred Harris and Arthur Hall held military posts during the war; Harris as a Captain to the RAMC, and Hall as a Major.

²³⁸ Paul Foley, *Encephalitis Lethargica: The Mind and Brain Virus*, p. 44; This was acknowledged by Arthur Newsholme in the Local Government Board report, see WL: K22128, Reports to the Local Government Board on Public Health and Medical Subjects: Report of an enquiry into an obscure disease, Encephalitis Lethargica, p. 1

description of botulism, which was also associated with unusual eye movements and drowsiness, he nonetheless reported that a 'large gas-producing, anaerobic, Gram-positive and probably spore-bearing bacillus' had been recovered from a tin of salmon consumed by one of his patients, which seemed to resemble the '*bacillus botulinus*'.²³⁹ By May 1918, chief medical officer to the LGB Arthur Newsholme agreed to provide the equipment and staff needed to explore this aetiological hypothesis, implementing new, administrative channels which could be used to transfer samples taken by 'panel doctors' or hospital consultants to laboratory technicians, who in turn produced pathological evidence which could then be compared with the 'food history' of each case.²⁴⁰ Such arrangements were facilitated by the Medical Research Council (MRC): a funding body which had evolved from a Departmental Committee on Tuberculosis established in 1911 as part of the governmental response to health concerns regarding degeneration and national efficiency.²⁴¹ The laboratory-centred research agenda of the MRC was centrally dictated by the biomedical leanings of the Secretary, Walter Fletcher, who believed that making progress in physiological, biochemical and pathological knowledge was vital to achieving the same in the realm of clinical practice.²⁴² Their involvement in facilitating the early investigations of the illnesses later attributed to EL illustrates how a bacteriological approach was initially deemed central to their categorisation.

By the start of May it was however clear that the investigations led by James McIntosh (who also contributed to earlier studies of syphilis) had failed to recover the *bacillus botulinus* in

²³⁹ This agent had been isolated in 1895 by Belgian bacteriologist Emile van Ermengem, see Sophie Winters, 'H17: Botulinum Toxin: From Lethal Adversary to Dermatological Sensation - How the Power of Poison was Harnessed', *British Journal of Dermatology*, 187, (2022), pp. 191-192

²⁴⁰ 'Botulism (P) in the Metropolis', *The Lancet*, 191, (1918), p. 681; Prior to the establishment of the NHS, panel doctors assumed many of the roles and responsibilities later assumed by general practitioners, therefore providing day-to-day medical care, treatment and sick pay through the National Health Insurance scheme.

²⁴¹ Whilst the outbreak of war had shifted the focus of the Committee away from tuberculosis, they nonetheless continued to play a central role in 'compilation, sorting and classification of medical statistics', in turn guiding the foundation of the MRC in 1919, see Coreen McGuire, *Measuring Difference, Numbering Normal*, p. 11

²⁴² Linda Bryder, 'The Medical Research Council and Clinical Trial Methodologies before the 1940s: The Failure to Develop a Scientific Approach', *Journal of the Royal Society of Medicine*, 104, (2011), p. 336

any foods believed to be contaminated, or from the tissues or fluids of fatal cases.²⁴³ He did nonetheless provide another possible hypothesis, based on the recovery of particular kinds of lesions in the brain and body.²⁴⁴ By applying the practical pathological framework which had ultimately allowed him and his colleagues to recast symptoms attributed to general paralysis as a chronic manifestation of acute syphilis, McIntosh therefore began to map a similar kind of linear aetiology: forging links between symptoms of fever, drowsiness, and sometimes delirium, and a physical, bodily process, perhaps caused by a (yet to be identified) virus. Despite these pathological similarities, this aetiological hypothesis was challenged by results obtained through the physiological testing of the blood and CSF. As recognised by Frederic Batten and George F. Still, the ‘epidemic stupor’ observed in children admitted under their care to Great Ormond Street Hospital seemed not to be associated with any abnormalities in their CSF.²⁴⁵ In contrast, these fluids often seemed to flow ‘out under normal pressure and show[ed] no cytological or chemical change’, produced a negative Wassermann reaction, and moreover did not contain a ‘malarial parasite, [or] trypanosome’.²⁴⁶

In view of these negative results, which put into question the involvement of an active ‘organic’/physical disease process, Batten and Still enlisted the help of John MacCurdy: a Canadian psychiatrist with decidedly Freudian leanings, who during the war had toured British hospitals and centres devoted to the treatment of shellshock.²⁴⁷ MacCurdy therefore explored the possible ‘psychological side’ of these cases, focusing on the ‘attitude of two of the

²⁴³ Suspicions that these cases were not victims of botulism were sharpened further by the epidemiological findings of this study, which showed that these cases were decidedly sporadic, with no instances of more than one case in a household or who had consumed the same food.

²⁴⁴ WL: K22128, Reports to the Local Government Board on Public Health and Medical Subjects: Report of an enquiry into an obscure disease, Encephalitis Lethargica, p. 2; This point was also made by Samuel Kinnier Wilson, who argued that despite the lack of ‘macroscopic’ changes, visible to the naked eye, microscopic evidence showed that in EL ‘the meninges [were] always affected in greater or less extent’, as was the cerebral substance. See Samuel Kinnier Wilson, ‘Epidemic Encephalitis’, p.7

²⁴⁵ Frederick E. Batten and George F. Still, ‘Epidemic Stupor in Children’, *The Lancet*, 191, (1918), p. 636

²⁴⁶ *Ibid.*, p. 636

²⁴⁷ John Forrester has provided a detailed account of MacCurdy’s professional (and personal) life, in turn showing his links to prominent British psychoanalysts and psychologists, see John Forrester, ‘1919: Psychology and Psychoanalysis, Cambridge and London- Myers, Jones and MacCurdy’, *Psychoanalysis and History*, 10, (2008), p. 75

children to air raids’, and concluding that their condition might be a ‘defence reaction to a terrifying experience.’²⁴⁸ Although Batten and Still would reject this explanation, given that the stupor presented ‘in an infant only three months old’ and also in others ‘at least three weeks later than any air raid’, their interest in this psychological explanation helps us to see how these illnesses were coming into conflict with the laboratory techniques and causal theories which had become central to the diagnosis and treatment of viral disease.²⁴⁹ Whilst Batten and Still were well aware that their symptoms seemed unable to be tied to physical, bodily change, they had also taken care to show that at the same time, they were also not strictly psychological either. Due to this continuing causal debate, by mid-1918 members of the British medical profession were still unagreed about the best way to conceptualise, categorise, and therefore begin to deal with these illnesses.

By bringing the ‘paradigm of biomedical reductionism’ into question, diseases like EL, (alongside cerebrospinal meningitis, poliomyelitis and influenza) were central to a shift back towards ‘Western medicine’s oldest and most honoured intellectual tradition’ and to a multidimensional interest in how diseases were determined by the ‘physiological uniqueness of the individual’.²⁵⁰ This idea made sense in the wake of a war which had ‘created an altogether new arrangement of medical thought around the body’.²⁵¹ As demonstrated in the previous chapter, in the late nineteenth century general paralysis had become reshaped in line with clinical and pathological forms of evidence. This allowed asylum doctors to relate lesions surfaced in the brain/body to fairly consistent, worsening clinical symptoms such as paralysis or mania, using both to evidence a *physical, bodily* process of degeneration. In the years between 1914 and 1918, physiologists, neurologists, psychologists, and physicians in Britain (and beyond) came to confront a ‘new kind of suffering, a largely new concept of the body, a

²⁴⁸ Frederick E. Batten and George F. Still, ‘Epidemic Stupor in Children’, p. 636

²⁴⁹ *Ibid.*, p. 636

²⁵⁰ Charles Rosenberg, ‘Holism in Twentieth Century Medicine’, in Christopher Lawrence and George Weisz, (eds), *Greater than the Parts: Holism in Biomedicine, 1920-1950*, (Oxford, 1998), p. 338

²⁵¹ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, x

ferocious epistemic reality’, based on the myriad, whole-body, and highly individual responses of patient-soldiers to diseases, injuries and violence.²⁵²

Although conditions like wound shock were associated with obvious symptoms, their onset, course and outcome often seemed to ‘work very differently in different soldiers’, and therefore seemed unable to be ‘ascribed a single or clear cause’ or conceptualised as mental or physical, acute or chronic.²⁵³ In response to such problems, as historians like Stefanos Geroulanos and Todd Meyers have shown, members of the London Shock Committee would in 1917 begin to adopt physiological theories and techniques to set wound shock on a ‘sound clinical and pathological basis’, in the hope that ‘the application of therapeutic principles will follow as a matter of course.’²⁵⁴ Through their studies, members of the Committee therefore used various ‘organism-wide and local effects’ such as a drop in blood pressure, the production of lactic acid or loss of oxygen flow to explain why the same acute ‘stimulus’ such as exposure to enemy fire or ‘shock’ might be linked to a reaction that was *also* influenced by a range of other factors, thus informing ‘the uniqueness of each patient’s clinical picture’.²⁵⁵ Faced with patients who presented with symptoms that varied in their onset and course, and seemed neither physical nor psychological, drawing parallels with wound shock allowed doctors to begin to tie their condition to the acute, physical effects of a virus.

Whilst Arthur Newsholme began his summary of the LGB Report in October 1918 by recounting the results of previous laboratory investigations, he also acknowledged that a ‘purely bacteriological view’ was likely to be insufficient to explain the causes of this new disease, instead suggesting that it might be more useful to pay attention to the ‘role of the individual’ in its ‘origin and progress’.²⁵⁶ By also stressing this individuality, the clinical section

²⁵² *Ibid.*, p. 35

²⁵³ *Ibid.*, p. 35

²⁵⁴ ‘The Study of Wound Shock’, *The Lancet*, 2, (1919), p. 160

²⁵⁵ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, pp. 59-60

²⁵⁶ My emphasis; WL: K22128, Reports to the Local Government Board on Public Health and Medical Subjects: Report of an enquiry into an obscure disease, Encephalitis Lethargica p. 8

to the Report produced by medical inspector Arthur MacNalty comes across as decidedly complicated and contradictory to the twenty-first century reader.²⁵⁷ Informed by the broader awareness of the many causal factors associated with new epidemic, viral diseases that also seemed to defy laboratory methods, as well as their experiences of soldiers with wound shock, this recognition of individuality paradoxically helped doctors to cut through symptoms which differed from case to case, and tie them to the same acute, viral event. This kind of knowledge made sense in a medical and scientific discourse ever-more aware of and concerned with the myriad of individual responses to the same kinds of acute physical injuries or diseases.

From a practical perspective, MacNalty had also provided a broad, fluid diagnostic framework, which encouraged physicians to look out for the presence of particular symptoms, whilst acknowledging that they might vary markedly between different cases. This approach ensured that cases would be notified to public health authorities as soon and as widely as possible, even in the absence of bacteriological evidence. In his closing remarks, MacNalty therefore drew the attention of his readers to the work of John Hughlings Jackson to emphasise what he believed was the most important point to take away from the LGB Report: that the individual should come before the study of disease, which was ‘rarely typical, but... modified by the characteristics of the patient’.²⁵⁸ By presenting a clinical account which drew upon (and reaffirmed) the view that diseases were disturbances of the organism, and not just single events which could be parsed in line with pathological or bacteriological forms of evidence, MacNalty had tied these symptoms to the same acute physical viral illness, and brought them within the category which based on the findings of the LGB Report was to be made a notifiable disease: EL.

²⁵⁷ MacNalty, for example, both acknowledged how ‘stupor’ might be present in a case and show that they were in the last few days or hours of their illness’, or ‘present earlier’ and be followed by a complete recovery, circumscribing any kind of prognostic value. See WL: K22128, Reports to the Local Government Board on Public Health and Medical Subjects: Report of an enquiry into an obscure disease, Encephalitis Lethargica, pp. 19-20

²⁵⁸ *Ibid.*, p. 38

This awareness of the individual also allowed Newsholme to make recommendations as to treatment and prevention, which were to be focused on influencing the ‘potential energies of body and tissue cell resistance’, and therefore on singling out people who based on their age, sex, state of health or ‘general conditions of life’, may seem predisposed to benefit.²⁵⁹ Emerging by the end of 1918 as a disease which caused a period of short-term illness and physical changes in the brain and body, travelled across communities and therefore represented a significant threat to public health, much about EL still remained unknown. This was particularly true when it came to the issue of prognosis, which undoubtedly was likely to vary from individual to individual due to pre-existing factors such as their bodily resistance, inherited or acquired over the course of their lives. As we move into the next section and explore the emergence of ‘mental after-effects’ in children, we shall see how these assumptions would soon be brought into question.

Section 2: ‘Mental defect’ and/or viral ‘after-effect’?

Despite initial agnosticism amongst British physicians and policymakers, by the early 1920s many had come to recognise that EL was often associated with illnesses which persisted after the initial symptoms of stupor, delirium or fever had subsided. These illnesses, it was acknowledged, might also emerge after a ‘latent period of extreme variability’ which ranged from two weeks to over two years, therefore hampering any predictions about whether ‘an attack of acute encephalitis, however mild in appearance’, may or may not result in serious sequelae’.²⁶⁰ Based on a lack of laboratory evidence, members of the medical profession were nonetheless fairly certain that these illnesses could not be explained in the same terms as those which followed syphilis and attributed to continuing, viral activity, instead referring to them as ‘after-effects’.²⁶¹ This choice of terminology reflected the belief that these illnesses were the effects of a main, viral event which had itself ended. Given the diminishing risk of contagion, these illnesses were now moved beyond the domain and responsibility of public health. In this

²⁵⁹ *Ibid.*, p. 8

²⁶⁰ ‘The After-Effects of Epidemic Encephalitis’, *The Lancet*, 201, (1923), p. 241

²⁶¹ *Ibid.*, p. 242

chapter, we have neither the time or space to document these after-effects in their entirety, which spanned across mind and body. Instead, our focus is limited to contextualising the ‘mental changes’ observed in children, which both emerged through and came into conflict with a different set of health provisions, resources, and policies implemented during the first decades of the twentieth century as the child became viewed as ‘the destiny of the nation’.²⁶²

Whilst these after-effects would come to be handled by those working across the child health system, particularly as we shall see in the School Medical Service (SMS), this section nonetheless shows how they were initially brought into focus by physicians working in the developing discipline of hospital-based, paediatric medicine. In 1921, two doctors named James Calvert Spence and Donald Paterson would highlight the ‘mental after-effects’ observed in children admitted to two London hospitals, and tie them to permanent, organic damage in the brain, therefore to permanent ‘mental deficiency’ that had been acquired due to a viral illness.²⁶³ Emerging initially in 1902 through the work of their colleague George Frederic Still, this idea of mental deficiency as an acquired condition had been subsumed by the realities of a newly formed system of institutional space and legal control, which used a series of moral, eugenic and biological assumptions to justify a need for life-long detention or management. As Paterson and Spence’s account of the mental changes which followed EL implied that the *physical* effects of a virus should be treated as *inherited*, biological traits, this section shows how these cases came into conflict with a distinct set of provisions, resources and policies. As

²⁶² Nikolas Rose, *Governing the Soul*, p. 123; These ‘mental after-effects’ became the subject of a conference attended by members of the Ministry of Health, Board of Control, Board of Education and London County Council in 1923, see TNA: Conference with Ministry of Health on Encephalitis Lethargica, ED 50/41, Conference on Mental After-Effects of Encephalitis Lethargica, December 1923

²⁶³ Donald Paterson and James Calvert Spence, ‘The After-Effects of Epidemic Encephalitis in Children’, p. 491; The Hospital for Sick Children at Great Ormond Street had been founded in 1852, and marked the beginning of what Paul Weindling has described as the ‘spate of voluntary foundations’ which initially became the primary means of dealing with ‘ill health among the poor’, but later extended their remit to the health of all children, regardless of the ability of their parents to pay, see Paul Weindling, ‘From Isolation to Therapy’, in Roger Cooter, (ed.), *In the Name of the Child: Health and Welfare, 1880-1940*, (London, 1992), p. 131, also Roger Cooter, ‘Introduction’, in Roger Cooter, (ed.), *In the Name of the Child*, (London, 1992), p. 10; It should be noted that each of these men had already (in the case of Batten and Still), or would later (in the case of Paterson and Spence), become leaders in modern paediatric medicine. Their interest and involvement with children displaying the after-effects of EL therefore gives us a sense of the stakes of these debates, in a broader, political, and economic sense.

we shall see in this next section, this would lead some physicians to map out an entirely new aetiology.

In the early 1920s, the mental ‘after-effects’ of EL emerged through a particular set of health provisions, policies, and resources, deployed in the early twentieth century to reflect a new political and economic interest in child health. In line with the post-Boer War movement for national efficiency, education, racial hygiene, responsible parenthood, social purity and preventive medicine, the child ‘achieved a new social and political identity’, as the state became less interested in the ideals of ‘rescue, reform and reclamation, mainly through philanthropic and Poor Law interventions’, than with protecting ‘the future of both nation and empire’ and improving the quality of their ‘human stock’.²⁶⁴ Whilst the child was therefore made subject to various educational and legal interventions, exemplified by the Education Acts of 1893, 1899, and 1902, they also ‘entered medical discourse as a discrete object with attendant pathologies’, to be observed in the spaces like the school, the clinic, the hospital and eventually, the home.²⁶⁵ Over the course of this section, and what remains of this chapter more broadly, we shall move across and between these contexts, exploring how they shaped, marked and recast the mental after-effects of EL.

Initially, this idea that the acute, viral physical disease of EL might cause lasting changes in a child’s behaviour emerged through context-specific institutional arrangements of the children’s hospital. As acknowledged by Roger Cooter, despite a steadily broadening interest amongst historians in the health provisions which grew up around the child in the early

²⁶⁴ Harry Hendrick, ‘Constructions and Reconstructions of British Childhood: An Interpretative Survey, 1800 to the Present’, in Allison James and Alan Prout, (eds), *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*, (London, 1997), p. 47; As shown by Bonnie Evans these changes actually dated back to the ‘Romantic ideals of childhood’ accepted in the late eighteenth century, and yet reached fruition in the legal measures implemented in the late nineteenth century, ranging from the creation of School Boards in 1870, introduction of compulsory education in 1880, and eventually the 1908 Children’s Act, which led to the establishment and intervention of new agencies, such as Children’s Care Committees, Infant and Maternal Welfare Centres and Councils of Social Welfare. See Bonnie Evans, *The Metamorphosis of Autism: A History of Child Development in Britain*, (Manchester, 2017), pp. 34-35

²⁶⁵ David Armstrong, *Political Anatomy of the Body*, p. 13

twentieth century, the paediatric hospital has predominantly remained the focus of those who wish to celebrate the successes of particular institutions.²⁶⁶ Starting out on a ‘very small-scale in the 1850s and 1860s’ and primarily funded through charitable donations, by the late nineteenth century children’s hospitals had begun to proliferate across the country, with their functions and focus shifting from ‘catering for poor children to providing therapy for children from all classes.’²⁶⁷ As the size of the local population and demand increased, in London the foundation of the Hospital for Sick Children at Great Ormond Street in 1852 was quickly followed by Victoria Hospital in Chelsea in 1866, the Alexandra Hospital in 1867, the Evelina in 1869, and the Cheyne Hospital in 1875.²⁶⁸ Starting out in the 1860s as a relatively small institution with room for 384 in-patients and 6,833 outpatients, at Great Ormond Street these numbers had respectively risen to 2,111 and a whopping 24,670 by 1901, in turn reflecting the increasing status of children ‘as a constituency in need of special medical services’.²⁶⁹ Beyond admitting ever-increasing numbers of patients, in the late nineteenth century many children’s hospitals set out to reframe themselves as ‘centre[s] of excellence’, poised to provide medical explanations of and resolutions for various diseases of childhood.²⁷⁰

At Great Ormond Street, whilst more Consulting Physicians were employed to provide day-to-day care and treatment, by 1914 they were also supported by those with specialised skills such as an ‘Ophthalmic Surgeon, (1881), an Anaesthetist (1894), a Pathologist and Bacteriologist

²⁶⁶ Roger Cooter has made this point in his introduction to a volume on child health and welfare, see Roger Cooter, ‘Introduction’, in Roger Cooter, (ed.), *In the Name of the Child*, p. 11; Until recently, histories of paediatric medicine have tended to focus on and celebrate particular institutions, such as Great Ormond Street. Although this has begun to change, there is still some way to go to understand the practical, technical and theoretical conditions which informed the development of paediatric medicine. For an example of celebratory histories, see Derrick Mercer, *Children First and Always: a portrait of Great Ormond Street*, (London, 1986). For more recent, critical histories, see Andrea Tanner, ‘Care, Nurturance and Morality: The Role of Visitors and the Victorian London Children’s Hospital’, in Graham Mooney and Jonathan Reinartz, (eds), *Permeable Walls: Historical Perspectives on Hospital and Asylum Visiting*, (Amsterdam, 2009), pp. 81-110

²⁶⁷ Paul Weindling, ‘From Isolation to Therapy’, p. 124

²⁶⁸ *Ibid.*, p. 132

²⁶⁹ Nicholas Baldwin, ‘The History of the Hospital for Sick Children at Great Ormond Street (1852-1914)’, Historic Hospital Admission Records Project, <https://hharp.org/library/gosh/general/history.html>, [accessed 13 August 2022]

²⁷⁰ *Ibid.*, [accessed 13 August 2022]

(1901) and a Radiographer (1904)'.²⁷¹ Amongst these new appointments was a man named George Frederic Still, who became a clinical assistant at Great Ormond Street in 1894, and was later appointed as a permanent member in 1899. Through his work at this institution, as well as in his role as Professor of Diseases of Children at King's College Hospital, Still would subsequently earn a reputation as 'the first physician in Britain to truly merit the title of paediatrician.'²⁷² Beyond playing a key role in identifying EL in its acute stages through his analysis of epidemic stupor, his approaches to and understanding of 'abnormal psychical conditions' in children developed at Great Ormond Street would centrally inform the work of his colleagues on the mental after-effects of EL.²⁷³

Whilst Still had previously studied childhood diseases like tuberculosis, infantile scurvy, or congenital syphilis, he devoted his Goulstonian Lectures in 1902 to exploring the relationship between moral control and physical disease, therefore contributing to a much broader medical and political debate regarding the classification of 'defectives'. Whilst government officials had hitherto expressed 'little coordinated interest in idiocy, [and] only limited articulation of different degrees of deficiency', these problems were brought into focus through concerns about the declining health of the population in the nineteenth century, and a shift towards state intervention.²⁷⁴ Whilst labelling a person as an 'idiot' had previously been used as a way to deny them particular legal rights such as making a will, in the mid-nineteenth century this category had also become tied to institutional space in the form of 'idiot asylums', which gradually grew in number.²⁷⁵ An initial therapeutic and educational optimism about the ability to equip these people with the skills to navigate life in modern Britain was brought into question by a national rise in the populations of these institutions, feeding into the bleak

²⁷¹ Ibid., [accessed 13 August 2022]

²⁷² 'Sir George Frederic Still', Historic Hospital Admission Records Project, <https://hharp.org/library/gosh/doctors/george-frederic-still.html>, [accessed 13 August 2022]

²⁷³ George Frederic Still, *The Goulstonian Lectures on Some Abnormal Psychical Conditions in Children*, (London, 1902)

²⁷⁴ Mark Jackson, *Borderland of Imbecility: Medicine, Society and the Fabrication of the Feeble-minded in late Victorian and Edwardian England*, (Manchester, 2000), p. 21

²⁷⁵ Ibid., p. 22

hereditarianism of psychiatrists like Henry Maudsley and closer links between the broad condition of mental deficiency and an array of social and moral problems. As observed in relation to insanity in the previous section, these cases become used to evidence and symbolise the contention that ‘disrupted neural functioning could lead to disturbed moral functioning’ which worsened with each passing generation.²⁷⁶

Motivated by concerns about this moral and racial threat to wider society, and a desire to provide classifications and categories which could be aligned with a new, state-funded institutional and legal system of care/control, late nineteenth century psychologists, psychiatrists and social theorists began to develop highly racialised theories of mental evolution.²⁷⁷ Building upon the work of Charles Darwin, mental development became understood to occur as an individual interacted with their environment, forcing them to engage the moral and intellectual faculties of their brains and, ideally, gain control over the reflex or instinctive responses which formed the lower part of the hierarchical structures of the central nervous system.²⁷⁸ Darwin and his followers thus pictured a scale of evolutionary development populated by different kinds of people: moving from ‘idiots’ believed to be devoid of intellectual ability and moral control, to the ‘feble-minded’, and eventually to ‘more conscious and less reflexive’, ‘higher’ beings.²⁷⁹ As with insanity, those positioned towards the lower end of this spectrum were understood to be primarily responsible for moral and racial degeneration, for hereditary transmission, and to exemplify the need for decisive social, legal and institutional intervention.

²⁷⁶ Felix Schirmann, ‘Badness, Madness and the Brain- the late 19th century Controversy on Immoral Persons and their Malfunctioning Brains’, *History of the Human Sciences*, 26, (2013), pp. 35-36

²⁷⁷ These concerns have been well-documented by historians, see for example Mathew Thomson, *The Problem of Mental Deficiency: Eugenics, Democracy and Social Policy in Britain c. 1870-1959*, (Oxford, 1998)

²⁷⁸ See for example Charles Darwin, *On the Origin of Species, by Means of Natural Selection*, (Ware, 1998)

²⁷⁹ Simon Jarrett, ‘Consciousness Reduced: The Role of the “Idiot” in early evolutionary psychology’, *History of the Human Sciences*, 33, (2020), p. 119

By the turn of the century, although the categories of idiocy and mental deficiency were often used as a kind of ‘convenient throwaway label for all infants and children who psychologists and policymakers thought were beyond help and not worthy of investigation’, George Still in contrast aimed to explore some possibilities for medical intervention.²⁸⁰ In his Goulstonian Lectures, he therefore tied a loss of ‘moral control’ in children who were ‘normally well-behaved, perhaps exemplary’ and maintained their ‘cognitive relation to environment’, to an ‘acquired’ defect which was caused not by familial inheritance but by ‘cell-modification’, the presence of certain toxic substances in the blood, cerebral inflammation, increased pressure, or cerebral damage.²⁸¹ Although some of these cases would be left with ‘permanent disorders of moral control’, like others whose ‘deficiency’ was inherited, Still also acknowledged that perhaps the ‘outlook was not so grave in all’.²⁸² Some might therefore be able to develop their capacities up to certain limits or even recover completely, from a condition that was ‘comparable to a temporary insanity and passes off after a variable duration.’²⁸³ Elaborating on these possibilities, Still had begun to show how, when and why behaviours which might otherwise be attributed to ‘biological destiny’ were instead a product of a physical disease, in turn opening up the possibility for new kinds of medical and scientific as opposed to purely institutional and legal intervention.²⁸⁴

In spite of his status within the medical profession, Still’s efforts would fall flat due to the practical realities of the emerging mental deficiency system. Through the Royal Commission established in 1904 on the ‘Care and Control of the Feeble-minded’, which received evidence from a total of 248 witnesses from a range of professions, a view of ‘mental deficiency’ emerged which ‘told a cyclical tale of large problem families made inevitable by previously ramshackle

²⁸⁰ Bonnie Evans, *The Metamorphosis of Autism*, p. 45

²⁸¹ George Frederic Still, *The Goulstonian Lectures on Some Abnormal Psychological Conditions in Children*, p. 22, p. 32, p. 45

²⁸² *Ibid.*, p. 48

²⁸³ *Ibid.*, p. 48

²⁸⁴ Felix Schirrmann, ‘Badness, Madness and the Brain’, p. 35

childhood and marked out by burdensome, needy, endangered or dangerous children.’²⁸⁵ According to Ellen Pinsent, ‘lady philanthropist... professional policymaker’, and prominent figure in Birmingham, these children needed to be separated out and segregated from society.²⁸⁶ By the end of the 1910s, the categories of ‘idiot’, ‘feeble-minded’, ‘mentally defective’ or ‘epileptic’ had therefore become tied to particular clinical practices or techniques, legal processes and institutional provisions, implemented through the passage of the 1908 Children Act, the 1913 Mental Deficiency Act, and the 1914 Elementary Education (Defective and Epileptic Children) Act.²⁸⁷

As shown by Alan Powell, in London the newly established Metropolitan Asylums Board (MAB) established a series of institutions which sorted children based on social and educational criteria, classing them according to whether they were ‘educable’ or ‘ineducable’ and therefore able to develop morally and intellectually. Alongside ‘special schools’ which took in children deemed unable to receive education in mainstream schools ‘by reason of defect of intelligence or physical infirmity’, the Board also opened mental deficiency ‘colonies’, to accommodate those whose problems were believed to be permanent due to an inherited, ‘biological state of weak-mindedness’, and had hitherto ended up in prisons and workhouses.²⁸⁸ Initially intended to retrain and enable these children to meet the requirements of modern citizenship, these institutions therefore acted as a ‘solution to prevent

²⁸⁵ Rebecca Wynter, ‘Pictures of Peter Pan: Institutions, Local Definitions of “Mental Deficiency”, and the Filtering of Children in Early Twentieth-Century England’, *Family and Community History*, 18, (2015), p. 129

²⁸⁶ For an account of Pinsent’s life and contribution, see Anna Brown, ‘Ellen Pinsent: Including the ‘Feeble-minded’ in Birmingham, 1900–1913’, *History of Education*, 35, (2004), pp. 535–546

²⁸⁷ After 1913, the provisions associated with the Mental Deficiency Act were overseen by the Board of Control, and related to individuals who displayed a significant intellectual or moral impairment, which had existed ‘from an early age’ and was believed to be ‘permanent’. The development and implementation of this system has been comprehensively documented by historians, ranging from broad, national analyses to those which focus on particular institutions or colonies. See for example, Mathew Thomson, *The Problem of Mental Deficiency*; Anne Borsay and Pamela Dale, (eds), *Disabled Children: Contested Caring, 1850–1979*, (London, 2012), J. Goodman, ‘Pedagogy and Sex: Mary Dendy (1855–1933), Feeble-minded Girls and the Sandlebridge Schools, 1902–33’, *History of Education*, 34, (2005), pp. 171–87, L. Westwood, ‘Care in the Community of the Mentally Disordered: The Case of the Guardianship Society, 1900–1939’, *Social History of Medicine*, 20 (2007), pp. 57–72

²⁸⁸ Allan Powell, *The Metropolitan Asylums Board and its work, 1867–1930*, (London, 1930), p. 49, p. 52

the spread of imperfection'.²⁸⁹ Becoming a kind of institutional island, used to detain and monitor those deemed biologically incapable of meeting the standards of modern society, the MAB-run Darenth Colony provided life-long, legal care and control, imposed through certification under the Mental Deficiency Act.²⁹⁰

According to Rebecca Wynter, although admission to these institutions was often informed by a 'confused welter of characteristics' which might for some seem related to a history of physical disease, this were often collapsed down and used to broadly visualise 'imperfection in the bodies of those visited [by doctors] to assess the presence of genuine need'.²⁹¹ Describing the approach taken by William Potts, the medical officer appointed by the local Mental Deficiency Committee in Birmingham tasked with assessing and identified suspected cases, Wynter recounted how he was primarily interested in understanding the person in the context of their broader surroundings, their families and lifestyle, in line with the overriding belief that it was often those who came from 'the most drunk, dirty, violent and feckless households' that warranted intervention.²⁹² In the context of these assessments, and in this system of institutional provision and legal powers, evidence which suggested that mental deficiency had followed upon a physical disease was only deemed useful if it helped doctors like Potts to assess and perhaps reinforce a need for corrective education, preventive action and in some cases, permanent detention.

²⁸⁹ Rebecca Wynter, 'Pictures of Peter Pan', p. 130; According to Mathew Thomson, focus was often on making these children successful members of the colony community, in line with a 'therapeutic rationale, ease of management, and moral sanction, rather than [the] original aim of restoration to self-independence.' See Mathew Thomson, 'Sterilisation, Segregation and Community Care: Ideology and Solutions to the Problem of Mental Deficiency in Inter-War Britain', *History of Psychiatry*, 3, (1992), p. 484

²⁹⁰ Rebecca Wynter, 'Pictures of Peter Pan', p. 125; This shift in emphasis has been comprehensively documented by historians, for example see Mark Jackson, 'Institutional Provision for the Feeble-minded in Edwardian England: Sandlebridge and the Scientific Morality of Permanent Care' in Anne Digby and David Wright (eds), *From Idiocy to Mental Deficiency: Historical Perspectives on People With Learning Disabilities*, (London, 1996), pp. 161-184

²⁹¹ Rebecca Wynter, 'Pictures of Peter Pan', p. 129, p. 131

²⁹² *Ibid.*, p. 131

Through theoretical developments in psychiatry, criminology, medicine and education, but in line with 'shifting administrative practices and experiences in asylums, schools, prisons, workhouses, and courtrooms', by the start of the twentieth century 'mental deficiency' had become 'established as a conspicuous social, political, medical and legal category'.²⁹³ Whilst the causal link made by Still between a 'moral defect' and a period of physical, bodily disease would be disregarded by members of the British medical profession for almost two decades, it would nonetheless resurface in a joint study conducted by friend and colleague Donald Paterson, in his study of the mental changes which followed EL. Alongside James Calvert Spence, Paterson therefore challenged the prevailing idea that 'insomnia, restlessness, and definite mental changes' were merely a 'stage of recovery from the acute symptoms, not a permanent sequel', and likely to resolve with minimal, medical intervention.²⁹⁴ In contrast, during examinations conducted in the outpatient departments of these hospitals, Paterson and Spence observed that in the months or years since their discharge from hospital, the majority of these children had become 'incapable' or shown 'a strange alteration in habits', which ranged from unintelligibility, 'grimacing and drooling', 'mere dulling of the intellect', 'abnormal psychical symptoms', to 'mischievous uncontrollable criminal tendencies'.²⁹⁵ These persisting symptoms, they argued, were related to EL and caused by 'organic changes resulting from the acute inflammatory affection of the brain substance'.²⁹⁶

Whilst Paterson and Spence advanced a causal hypothesis which, as observed in relation to general paralysis in the previous chapter, tied particular behaviours to permanent, physical, bodily change, they relied less on post-mortem evidence of lesions than on more clinical information. Focusing on predominantly on the symptoms, personal and educational history of each patient, this information had been gathered from parents, friends and teachers during the 'acute' stage of their illness as well as in more recent 'follow-up' examinations and brought

²⁹³ Mark Jackson, *The Borderland of Imbecility*, p. 22

²⁹⁴ Donald Paterson and James Calvert Spence, 'The After-Effects of Epidemic Encephalitis in Children', p. 492

²⁹⁵ *Ibid.*, p. 492

²⁹⁶ *Ibid.*, p. 492

together in the material format of the case note. Whilst they recorded details about the intelligence of their patients, (based for example on their ability to remember the name of the physician who cared for them three years earlier), as well as the change in their character (one child, for example, had been convicted for theft on several occasions since their illness but was well-behaved before this), the belief that their condition was a product of physical, bodily change due to a virus hinged on numerical data. Paterson and Spence therefore used the ‘severity of the initial attack’, as judged by its duration, to explain and predict the subsequent onset of ‘some degree of mental deficiency’.²⁹⁷ By this logic, if a case had experienced an acute illness which lasted less than three weeks, they seemed to have made a full recovery. In contrast, acute illnesses lasting more than three weeks were generally associated with more permanent changes in behaviour.

Through mapping the length of the acute illness, as judged by their recovery and discharge from hospital, onto the length of time the virus had been allowed to travel around and cause damage to the central nervous system, Paterson and Spence showed that the striking *mental changes* observed in these children were tied to *physical, bodily damage*, in the form of lesions, and thus were the *permanent after-effects* of an acute, viral disease. This point was borne out through a comparison of one case, who had been ‘difficult to rouse for one week’ but had gone on to recover fully, to others who had remained ill for three to six weeks, and had later become ‘dull and backward’, ‘restless, irritable’ or ‘displayed altered habits.’²⁹⁸ Paying attention to the duration of their initial illness thus informed conclusions about prognosis, which was now based on an assumption about the degree of permanent, physical damage. Returning to the same point made by Still almost two decades before, Paterson and Spence thus underlined the value of medical treatment, which by limiting ‘the progress of the [acute] disease or shorten[ing] its course’, might be enough to prevent this acquired mental deficiency.²⁹⁹

²⁹⁷ *Ibid.*, p. 493

²⁹⁸ *Ibid.*, p. 493

²⁹⁹ *Ibid.*, p. 493

Beyond opening up these possibilities for prevention, Paterson and Spence had nonetheless also (yet not explicitly) provided answers to any remaining questions about long-term care or treatment. Although the ‘defect’ observed in these children was ‘acquired’ due to a virus, it remained connected to the same kind of permanent, evolutionary stagnation long observed in those in whom these behaviours were ‘inherited’, given that areas of their brain had been damaged and perhaps destroyed entirely. Perhaps encouraged by Paterson and Spence’s conclusions, and given the disruption these children seemed to cause in their homes, in school, and in society more broadly, some members of the British medical profession like W.B. Drummond would argue their institutional treatment was best provided ‘in a certified institution for mentally defective children’, alongside those whose condition was tied to a ‘cycle of life and problems that begat impaired children’.³⁰⁰ As we shall see in the next section, however, this suggestion would quickly become the subject of criticism amongst physicians working elsewhere in the child health system, who would argue that these children did not meet the medical or legal criteria to be brought within this provision. By mapping an entirely new aetiology, which pulled focus back towards the acute, physical cause of these mental changes, they would therefore underline the need for a different kind of intervention.

Section 3: Physical causes, mental changes, medical treatment

As part of a debate playing out in the correspondence pages of the *BMJ*, in January 1922 a physician named George Augustus Auden challenged an earlier point made by ‘Dr Drummond’, concerning whether cases who had developed ‘character changes’ in the wake of EL could be suitably ‘brought within the interpretation of mental deficiency as defined by the Mental Deficiency Act [MDA], 1913.’³⁰¹ Although Auden agreed with Drummond that institutional treatment was ‘almost always in the interests of these children’ given the disruption they caused in the home, he nonetheless stressed how their condition failed to fit

³⁰⁰ W.B. Drummond, ‘Encephalitis Lethargica and Mental Deficiency’, *BMJ*, 1, (1922), p. 122; Rebecca Wynter, ‘Pictures of Peter Pan’, p. 135

³⁰¹ George Augustus Auden, ‘Encephalitis Lethargica and Mental Deficiency’, *BMJ*, 1, (1922), p. 165

into the medical and legal criteria associated with the MDA, which stipulated that a ‘defect’ had to have existed ‘from an early age’ and moreover, be understood as ‘permanent’.³⁰² As acknowledged in the previous section, over the course of the early twentieth century these definitions had become enmeshed with eugenic assumptions regarding heredity and degeneration, so that they could be used to exert power over individuals believed to be incapable of meeting the social standards of modern Britain and bring them within a particular system of provision. To Auden, the children who he had come to identify as School Medical Officer (SMO) to the city of Birmingham, whose ‘behaviour changes’ seemed to have followed upon EL, did not fit this criteria.³⁰³

Writing in *The Lancet* later that year, Auden therefore noted that these mental disturbances were often present in children from families who were ‘careful’ and ‘hard-working’, who had themselves been able to do ‘good work in the top class of the school’ prior to their illness, did not display ‘any appreciable intellectual defect’, (based on their ability to read or recite poetry from memory, calculate ‘quickly and readily’), and also still sometimes behaved in ways that showed their manners were ‘good and correct’.³⁰⁴ Such changes were also highlighted by Frank Charles Shruballsall, an SMO in London, who described how these children seemed locked into a cycle of violence, contrition, and repetition where they might at one moment be lethargic or lovable, yet days, hours or even minutes later become restless, fidgety, emotional, or lacking in ‘self-control’ before showing remorse.³⁰⁵ Moreover, these children often showed a tendency to gradual recovery, leading SMOs like Auden and Shruballsall to emphasise that their condition was *not* akin to a permanent, mental defect, suitable for the legal criteria and institutional provisions that had come to form the mental deficiency system.

³⁰² *Ibid.*, p. 165; House of Commons, ‘Mental Deficiency: A Bill to Make Further and Better Provision for the Care of Feeble-minded and other Mentally Defective Persons and to Amend the Lunacy Acts’, (London, 1913), pp. 1-2

³⁰³ George Augustus Auden, ‘Behaviour Changes Supervening Upon Encephalitis in Children’, *The Lancet*, 200, (1922), p. 901

³⁰⁴ *Ibid.*, p. 901

³⁰⁵ F.C. Shruballsall, ‘Exhibition of Cases Showing the Late Results of Encephalitis Lethargica, Followed by Discussion: Discussion’, *Proceedings of the Royal Society of Medicine*, 16, (1923), p. 36

In order to resolve to these practical problems, over the course of this section we shall explore how Auden and Shrubbsall mapped out a different aetiology, which acknowledged how an acute physical viral event had released control over a series of primitive instincts and emotions, that were the basis of human behaviour and determined growth and adjustment.³⁰⁶ Bringing these cases within the category of ‘post-encephalitis’, and using them to imagine new ways of treating mental disorder through abandoning binary distinctions with physical, Auden and Shrubbsall’s aetiology was inseparable from much broader debates about possible changes in policy, which would find expression in the 1926 Royal Commission on Lunacy and Mental Disorder. Beyond acknowledging how these changes in policy were arguably driven by post-encephalitis and in turn a series of practical challenges and conflicts, we shall also see how they were grounded in categories and aetiologies which would still have to align with and thus uphold these binary distinctions in order to fit into the contemporary health system.

To throw more light on the medical and psychiatric atmosphere which shaped how Shrubbsall and Auden interpreted the mental ‘after-effects’ or changes associated with EL, it is useful to briefly shift our focus towards a condition which, only a few years earlier, had also come into conflict with the binary structures of the modern health system: shellshock. Since the 1960s, this category has become the focus of perhaps the most extensive field of interest (and debate) within the broader historiography of early twentieth century British medicine and psychiatry.³⁰⁷ For decades, historical analyses of shellshock centred on a debate about whether this condition was a driver of practical and theoretical change in the early twentieth century, by acting as a conduit for the development of psychological medicine.³⁰⁸ Challenging this

³⁰⁶ George Augustus Auden, ‘Behaviour Changes Supervening Upon Encephalitis in Children’, p. 904; see also F.C. Shrubbsall, ‘The After-History of Some Cases of Epidemic Encephalitis, with especial reference to changes in conduct’, *Journal of Neurology, Neurosurgery and Psychiatry*, 15, (1923) p. 240

³⁰⁷ See for example Arthur Marwick, *The Deluge: British Society and the First World War* (Harmondsworth, 1965), Paul Fussell, *The Great War and Modern Memory* (London, 1975)

³⁰⁸ For histories that have emphasised the ‘ruptures’ caused by shellshock, see Martin Stone, ‘Shellshock and the Psychologists’ in W.F. Bynum, R. Porter, and M. Shepherd, (eds), *The Anatomy of Madness: Essays in the History of Psychiatry. Volume 1: People and Ideas*, (London, 1985), pp. 242-271; For those that emphasise continuity, see Ted Bogacz, ‘War Neurosis and Cultural Change in England. 1914-22: The Work of the War Office Committee of Enquiry into “Shell-Shock”’, *Journal of Contemporary History*, 24, (1989), pp. 227-56, Mathew Thomson, *Psychological Subjects: Identity*,

historical narrative through highlighting a gradual, faltering process of ultimately partial translation, Tracey Loughran has shown why historians should view shell-shock as a ‘constellation of symptoms and conditions which wartime doctors identified as a related set of psychiatric, psychological and physiological responses to war’ and as a ‘nebulous, disputed, and endlessly elastic diagnostic category’, shaped less by firm theories of causation, than by its uses, functions and meanings in context.³⁰⁹

As observed in the first section of this chapter, in 1918 many British doctors returned to the field of civilian medicine with extensive experience of the ‘frustrating inability to develop a lasting semiotics of injuries and behaviors(sic)’, and therefore with their perspectives on mind and body radically altered by conditions like wound shock and shellshock.³¹⁰ Rather than assuming that cases of shellshock could straightforwardly be tied to specific mental or physical causes, (or positioned at the acute or chronic stages of a specific disease process), Loughran showed how many doctors instead adopted an ‘avowedly anti-theoretical stance’ or ‘magpie approach’, which allowed them to maintain a kind of therapeutic agnosticism and ‘aetiological ambiguity’ in the early months of the war.³¹¹ By acknowledging the possible role played by anxiety, fatigue, lack of food, fear or a wound, thereby maintaining the belief that it was ‘impossible to draw hard-and-fast lines between “psychic” and “somatic” damage’, doctors navigated the uncertainties associated with the diagnosis and treatment of this novel, unpredictable condition, returning patients to the front wherever possible, sending them home only as necessary, and therefore meeting the political, military and economic demands of war.³¹² Whilst in general they accepted that shellshock was tied to a ‘regression’ or ‘falling back of psychical life to a more infantile or primitive mode of behaviour’, these kinds of

Culture, and Health in Twentieth Century Britain (Oxford, 2006), pp. 182–186, Peter Leese, “‘Why Are They Not Cured?’ British Shellshock Treatment During the Great War”, in M. Micale and P. Lerner (eds), *Traumatic Pasts: History, Psychiatry and Trauma in the Modern Age, 1870–1930* (Cambridge, 2001), pp. 205–221

³⁰⁹ Tracey Loughran, *Shell-shock and Medical Culture in First World War Britain*, (Cambridge, 2017), p. 15

³¹⁰ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, viii

³¹¹ Tracey Loughran, *Shell-shock and Medical Culture*, p. 85, p. 82

³¹² *Ibid.*, p. 85

reactions were understood as potentially unleashed by both physical and psychic/mental processes, and thus blurring the distinctions between them.³¹³

As Stefanos Geroulanos and Todd Meyers have shown, this kind of fluid, practical knowledge hinged on the material format of the case note, which during WW1 increasingly became used as a ‘tool for ratcheting up a certain kind of incomplete knowledge’, leaving aetiological possibilities open, and yet ultimately guiding a move away from ‘individualised care... to the operationalization of entire fields of pathology’.³¹⁴ Through case notes the category of shellshock was therefore made to straddle the ‘physical-psychic barrier’, as reflected in the work of Frederick Mott (who we met in Chapter 1) and psychologist Charles Samuel Myers.³¹⁵ To members of the British medical and psychiatric profession, until clearer theories of causation emerged in line with practical, military concerns about manpower and as ‘responsibility for mental breakdown [moved] from the war itself onto the individual soldier’, shell-shock could only be very broadly defined as ‘a heterogeneous collection of different nervous affections from concussion to sheer funk’.³¹⁶ As separately demonstrated by Loughran, Geroulanos and Meyers, this initially blended, ambiguous approach allowed doctors to make practical decisions about how to treat or handle soldiers, returning them to the front or discharging them, granting or denying their claims for war pensions.³¹⁷ Building

³¹³ Henry Head, ‘Observations On The Elements Of The Psycho-Neuroses. A Paper Addressed To The Society Of Medical Officers Of The Pensions Board, Lancaster Gate, London’, *BMJ*, 1, (1920), p. 390; William McDougall, *An Introduction to Social Psychology*, (London, 1908), p. 17; Tracey Loughran, *Shell-shock and Medical Culture*, p. 3; Jonathan Toms, *Mental Hygiene and Psychiatry in Modern Britain*, (Basingstoke, 2013), p. 34

³¹⁴ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, p. 107

³¹⁵ According to Geroulanos and Meyers, although Mott has been traditionally viewed as a staunch organicist, given his interest in the role of “punctiform haemorrhages” and “organic lesions” in shellshock, he believed this condition as ‘due far more to a mixture of exhaustion and functional effects resembling the shock of an open wound’, and therefore as a ‘whole body disorder’. Although Charles Myers ‘in contrast’ believed this condition to be a nonlesion phenomenon, in practice he found it difficult to disregard the bodily effects of the physical explosions entirely, instead interpreting shellshock as a ‘functional disturbance whose psychological and physiological components were unclear’. See *Ibid.*, pp. 74-75

³¹⁶ Tracey Loughran, *Shell-shock and Medical Culture*, p. 89; ‘A Discussion on Shell Shock’, *The Lancet*, 1, (1916), p. 306; Edward Farquhar Buzzard’s analysis of ‘warfare of the brain’ offers a clear sense of these efforts to distinguish between different causes. See Edward Farquhar Buzzard, ‘Warfare on the Brain’, *The Lancet*, 2, (1916), pp. 1095-1099

³¹⁷ The emergence of distinct theories of psychological or physical causation is often mapped onto the political and economic problem of war pensions, and to limit state liabilities in spite of the conclusions

upon this contention, which is also borne out in the approach taken by Auden and Shruballs to the mental changes which followed upon EL, we shall also see how this ambiguity still allowed them to make the binary judgements needed to bring cases into the health system.

As SMOs to the cities of Birmingham and London, in the early 1920s both Auden and Shruballs were men of fairly high standing, on both a local and national level.³¹⁸ Unlike Paterson and Spence, whose account of the ‘mental after-effects’ associated with EL was marked by the context of institutional paediatrics, Auden and Shruballs came from a far more practical, administrative and bureaucratic perspective, informed by the day-to-day realities of channelling these cases through the provisions, processes and policies which together formed a local child health system. Alongside the institutional and legal responses to the problem of mental deficiency explored in the previous section, the first decades of the early twentieth century had also witnessed the development of mechanisms to target and take care of the ‘normal’ child, amongst which was the the School Medical Service (SMS). Established in 1907 to ‘provide for the medical inspection of [all] children immediately before or at any time of or as soon as possible after their admission to a public elementary school’, the SMS allocated such responsibilities to School Medical Officers (SMOs), who acted as the intermediary and in some instances as the bridge between children, their families, and different kinds of institutional provision.³¹⁹

reached by the 1922 Committee on Shellshock. The conclusions drawn by the Committee have been explored in detail by historians, see Joanna Bourke, *Dismembering the Male: Men’s Bodies, Britain and the Great War*, (London, 1999), Michael Robinson, ‘Definitely Wrong?’ The Ministry of Pensions’ Treatment of Mentally Ill Great War Veterans in Interwar British and Irish Society’, *War in History*, 28, (2021), pp. 71-92

³¹⁸ Auden was the first SMO to be appointed in the city of Birmingham, and therefore possessed ‘such a reputation that [SMOs] throughout the country thinking of starting some new scheme went to Birmingham to see what he was doing there’. He was also (on an unrelated point), the father of poet W.H. Auden. See ‘Obituary: G.A. Auden’, *BMJ*, 1, (1957), p. 1187; Frank Charles Shruballs had also played a central role in ‘the work of building up the medical services of L.C.C. (London County Council) schools’ in 1909, utilising ‘his special knowledge of the physical measurements of school children.’ In 1912, he was also given charge of all the schools for mentally and physically ‘defective’ children in the city. See G.H. Brown, ‘Frank Charles Shruballs’, <https://history.rcplondon.ac.uk/inspiring-physicians/frank-charles-shruballs> [accessed 16 August 2022]

³¹⁹ Bernard Harris, ‘The Origins of the School Medical Service’, in Marijke Gijswijt-Hofstra and Hilary Marland (eds), *Cultures of Child Health in Britain and the Netherlands in the twentieth century*, (Amsterdam, 2003), p. 95

In their day-to-day practice, an SMO therefore had various decisions to make. For example: whether or not a child was healthy, what the problem was and whether it required further medical, educational, or perhaps legal intervention. Short-term periods of medical treatment for physical diseases might be provided by the SMO themselves, or through admission to a local children's hospital like Great Ormond Street, after which a child would return to the classroom.³²⁰ If a child seemed to have more serious form of 'disability', the SMO might decide that they needed to be removed from mainstream schooling on the basis of a mental, physical or moral 'defect', perhaps channelling them towards the legal powers associated with the mental deficiency system, but also to 'special' or 'industrial schools.³²¹ By conceptualising and bringing the illnesses observed within schoolchildren into categories such as mental deficiency, SMOs therefore channelled them towards specific areas of the broader child health system.³²²

By the early 1920s, however, this was a system which was under attack from an incumbent Conservative government attempting to mitigate a much broader, financial crisis. As argued by Mathew Thomson, in the years leading up to and after the war, the Treasury had therefore exercised a tight rein on expenditure, which fell particularly heavily on the provisions associated with mental deficiency.³²³ Across the country, these funding cuts impinged on the ability of colonies to replenish or add to their existing resources, in turn feeding into overcrowding and ever-increasing waiting lists for admission, exacerbated further as the building

³²⁰ See J. David Hirst, 'The Growth of Treatment Through the School Medical Service', *Medical History*, 33, (1989), pp. 318-342

³²¹ Ralph Crowley, *The Hygiene of School Life*, (London, 1910), pp. 78-79, pp. 82-84

³²² On this basis, a child might therefore have been channelled towards the short-term provisions associated with 'special' school system and overseen by education authorities, to 'industrial' schools ran by the Home Office and often used to house young offenders, or to the life-long, legal powers and control facilitated by admission to a mental deficiency colony. Whilst the industrial school system had been established to house and ideally reform juvenile offenders, and was overseen by the Home Office, the special school system was overseen by the Board of Education, and targeted at children who were unable to remain in mainstream schooling due to mental or physical defect and yet who were deemed able to benefit from education.

³²³ The minutes of a meeting held by the Mental Deficiency Committee in October 1922 shows that these problems were faced in Birmingham, as one member lamented their continuing inability to deal with cases at the Monyhull Colony 'owing to want of funds', see Birmingham Archives: Mental Deficiency Act Committee, 1921-1948, BCC 1/BY/1/1/1, Mental Deficiency Act Committee Minute Book, 28th October 1922

of special schools also slowed down.³²⁴ Perhaps encouraged by these financial and material challenges, SMOs like Auden and Shrubsall would begin to remap aetiologies which directed children with a history of EL away from the mental deficiency system, relying centrally on the theoretical principles of mental hygiene. Guided by the view that mental health was an increasingly ‘crucial variable in economic power and military strength’ which had in part emerged in line with the problem of shell-shock, in Britain the mental hygiene movement was founded by the Central Association for Mental Welfare (CAMW) and the National Council for Mental Hygiene (NCMH), with the former appointing both Auden and Shrubsall to its medical committee during the early 1920s.³²⁵

Shifting focus away from ‘the ascertainment of [inherited] intellectual deficit’ as the key marker of social inefficiency, mental hygienists adopted a new, ‘integrated gaze’ which aimed to understand how each individual *developed and adjusted* to the circumstances of life by paying attention to the ‘emotional aspects of the mind’.³²⁶ In practice, as Jonathan Toms has shown, this movement embedded the longstanding racialised, evolutionary view of mental development, through the principle that the human mind was formed of a combination of unconscious instincts and in most cases some degree of ‘civilised’ control, developed through childhood into adulthood, gradually overriding the original, more primitive responses.³²⁷ By prioritising ‘reason and intellect as the pinnacle of civilised development’, mental hygienists therefore marked out the distinctions between mental *disorder* and mental *deficiency* much more clearly, arguing that the intellectual incapacity of the latter precluded them from ever

³²⁴ WL: Eugenics Society, SA/EUG/D.53, Central Association for Mental Welfare, 9th Report, 1922-1923, p. 4; see Mathew Thomson, *The Problem of Mental Deficiency*, p. 87

³²⁵ Rhodri Hayward, ‘Medicine and the Mind’, Rhodri Hayward, ‘Medicine and the Mind’ in Mark Jackson, (ed.), *The Oxford Handbook of the History of Medicine*, (Oxford, 2011), p. 532; Tracey Loughran, *Shellshock and Medical Culture*, 5; WL: Eugenics Society, SA/EUG/D.53, Central Association for Mental Welfare, 9th Report, 1922-1923, p. 4

³²⁶ Jonathan Toms, *Mental Hygiene and Psychiatry in Modern Britain*, p. 29, Jonathan Toms, ‘MIND, Anti-Psychiatry, and the case of the Mental Hygiene Movement’s “Discursive Transformation”’, *Social History of Medicine*, 33, (2020). p. 626

³²⁷ *Ibid.*, p. 626

reaching the social standards of modern Britain, yet denying that this was the case for the former.³²⁸

Building on their observations of soldiers who broke down on the frontline, mental hygienists acknowledged that mental disorder was often caused by emotional difficulties, often exposed by an inability to adapt to the ‘stress and complex social pressures that modernity had brought with it’ and potentially informed by a broad combination of factors.³²⁹ Representing a further dissolution of the distinctions between mental/physical begun by shell-shock, proponents of mental hygiene acknowledged that it was entirely possible that a condition which seemed due to a ‘purely physical disturbance’ might instead be caused by an unconscious, emotional conflict and tied to ‘anxieties and fears’.³³⁰ This causal hypothesis, as we shall soon see by returning to EL, also worked the other way, leading proponents of mental hygiene to argue that ‘the hard and fast line so commonly drawn between organic and functional conditions was grossly fallacious’, given that all ‘structural diseases’ had their mental concomitants, and every mental state had its bodily equivalents.³³¹ Changes in behaviour became understood to reflect the organism had become ‘compromised by its fitness in dealing with the current situation’, perhaps due to heredity, stress, trauma, or as we shall see, a virus: ensuring that the ‘rational, scientific and more humane’ approach of mental hygiene began to blur the binary distinction between mental and physical illness.³³²

Influenced by these material challenges in the mental deficiency system and changes in theory associated with mental hygiene, Auden and Shruballs set out to parse the mental changes which followed upon in EL. In case notes, they both recorded information gathered through

³²⁸ Jonathan Toms, ‘Mind the Gap: MIND, The Mental Hygiene Movement and the Trapdoor in Measurements of Intellect’, *Journal of Intellectual Disability Research*, 54, (2010), p. 21

³²⁹ Jonathan Toms, ‘MIND, Anti-Psychiatry, and the case of the Mental Hygiene Movement’s “Discursive Transformation”, p. 626

³³⁰ ‘National Council for Mental Hygiene’, *BMJ*, 1, (1922), p. 766

³³¹ *Ibid.*, p. 766

³³² Jonathan Toms, ‘MIND, Anti-Psychiatry, and the Case of the Mental Hygiene Movement’s Discursive Transformation’, p. 626; Rhodri Hayward, ‘Medicine and the Mind’, p. 532

their own examinations of a child and communications with friends, parents and teachers, producing biographies ‘in which the past informed and pervaded the present’.³³³ Through this approach, they would begin to show that the ‘peculiar disturbances of conduct’ observed in these children had only emerged since their acute, viral illness, and moreover could be mapped onto and understood as reactions to particular events or circumstances in their daily life.³³⁴ In the process, they also began to break the links made by Paterson and Spence between behaviours such as ‘irritability of temper [and] intolerance of control’ with permanent organic damage in brain, and *through this* to question assumptions about the need for long-term legal and institutional control.³³⁵ These disturbances thus became viewed as the instinctive, unconscious, and mental reactions of an organism which had lost physiological control: due initially to the physical effects of the virus on the central nervous system, but also through the continuing psychic attempts to interact with and adjust to the environment.

In order to tie this *physical* yet also *psychic* aetiology to persisting mental changes, Auden therefore described one young boy who lived with his grandmother, whose father was a ‘hard-working man’, but who was ‘somewhat neglected’.³³⁶ This boy had been in hospital for twelve weeks due to his initial illness, and his grandmother had since complained that although he appeared to behave normally, at night he became ‘restless and destructive’, destroying things and breaking crockery.³³⁷ His intelligence, nonetheless, seemed relatively unaffected, as judged by his results on maths or literacy tests. Despite such problems in the home environment, Auden recounted how this boy had become ‘practically normal’, and ‘able to be returned to an ordinary elementary school, after he was ‘certified as ‘feble-minded’ and sent to a residential special school.’³³⁸ Based on this apparently positive response to removal from

³³³ Rhodri Hayward, *Transformation of the Psyche in British Primary Care*, p. 39

³³⁴ F.C. Shruballs, ‘The After-History of Some Cases of Epidemic Encephalitis’, p. 236; Whilst Auden (presumably) used a more informal method of case recording, to support his studies Shruballs condensed his notes down into the format of a ‘card index’.

³³⁵ George Augustus Auden, ‘Behaviour Changes Supervening Upon Encephalitis in Children’, p. 901

³³⁶ *Ibid.*, p.902

³³⁷ *Ibid.*, p. 902

³³⁸ *Ibid.*, p. 902

the home and away from neglect, to Auden this was a child whose condition was a form of psychic and emotional regression, which had left him vulnerable to and unable to cope with environmental stress.

Shrubsall told a similar story through the case of one young boy, who since EL had begun to conduct himself 'violently so that he could not be kept at school, although his responses to intelligence tests were above average for his age' and still 'when he chose, could be very good'.³³⁹ Although the boy improved for a time after he was removed from mainstream school and the home, he later relapsed 'on meeting some petty difficulties', admitting to Shrubsall that he felt unable 'to stand small worries' and 'to control himself'.³⁴⁰ Although attributing these behavioural lapses to an emotional conflict between the boy and his environment, Shrubsall also drew parallels with 'the peevishness shown by normal persons who are convalescent from some slight, febrile illness, or even while they are suffering from a common cold', and which reflected 'individual temperamental traits showing up when the acquired habits of inhibition' had been removed.³⁴¹

Whilst Shrubsall therefore alluded to yet stopped short of highlighting the physical, bodily process which underwrote these mental changes, in 1925 Auden was far more explicit about this in a further study of the 'psychological implications' of EL where he drew upon the work of W.H.R. Rivers and Henry Head.³⁴² In the years between 1903 and 1907 Head and Rivers had jointly explored their theories of nervous control through self-experimentation, with the latter severing the radial nerve in the hand of the former to show how function was lost but also recovered in various stages, which moved from more 'primitive', 'protopathic' to 'higher',

³³⁹ Frank Charles Shrubsall, 'The After-History of Some Cases of Epidemic Encephalitis', p. 238

³⁴⁰ *Ibid.*, p. 238

³⁴¹ *Ibid.*, p.238

³⁴² George Augustus Auden, 'Encephalitis Lethargica- Its Psychological Implications', *JMS*, 71, (1925), pp. 647-658; See W.H.R. Rivers and Henry Head, 'A Human Experiment in Nerve Division', *Brain*, 31, (1908), pp. 323-450

more ‘civilised’ ‘epicritic’ responses.³⁴³ When describing the ‘regression’ he believed to occur after EL, Auden used these theoretical principles to argue that this was not only a psychic response to a difficult or stressful life situation, but also guided by a ‘process of denudation, whereby the younger sedimentary rocks [of the central nervous system] are removed by the action of the various *physical* agents, leaving bare the ancient primitive rocks upon which they have been deposited’.³⁴⁴

Given how their condition was now reinterpreted as ‘changed reaction to environmental conditions’ due to the physical effects of a illness, rather than a product of permanent, irresolvable organic damage, Auden emphasised the therapeutic value of ‘the regulated and orderly routine of an institution’ which would help these children to recover from their acute attack of EL, and therefore gradually ‘re-acquire the necessary epicritic control and social outlook which is essential for ordinary life’.³⁴⁵ To Auden, linking these cases to *physical and psychic* causes remained practically necessary to fit them within the contemporary health system: with the physical nature of their condition providing the justification for medical care outside of ‘mental’ institutions, such as the mental deficiency colony, whilst the ‘psychic’ showed that this would nonetheless only be needed on a short-term, temporary basis to allow the child to readjust or ‘re-acquire control’, in turn negating the use of long-term financial resources or permanent legal powers.³⁴⁶ By making space in the health system which could be used to ensure that these children received medical treatment ‘without the stigma [of] magisterial action’, Auden grounded his initial objections to the use of the MDA and in turn their placement within the mental deficiency system in a linear physical (yet also psychic) aetiology, which moved from acute, viral event to a subsequent, emotional response.³⁴⁷

³⁴³ According to Stephen Jacyna these studies established the physiological basis of ‘the dichotomies in human nature between the emotional and the rational, the corporeal and the intellectual, and the civilised and the savage’. See Stephen Jacyna, *Medicine and Modernism: A Biography of Henry Head*, (Kindle edn, Pittsburgh, 2016), Loc 3272

³⁴⁴ George Augustus Auden, ‘Encephalitis Lethargica- Its Psychological Implications’, p. 656

³⁴⁵ *Ibid.*, p. 658

³⁴⁶ *Ibid.*, p. 658

³⁴⁷ *Ibid.*, p. 658

By emphasising how an *acute, physical, viral* event had somehow informed persisting *mental* changes, Auden and Shruballs were arguably influenced by and certainly reinforced many of the ideas rooted in mental hygiene, which would soon come to find expression in the policy recommendations made by the 1926 Royal Commission in Lunacy and Mental Disorder.³⁴⁸ Drawing conclusions based on evidence received about existing facilities for mental treatment without legal certification, the Commissioners would reject the binary distinctions which they claimed had hitherto structured the health system. Instead, they argued it had become abundantly clear that there was no ‘clear line of demarcation between mental and physical illness’, given that ‘mental illness may have physical concomitants... [and] a physical illness, on the other hand, may have, and probably always has, mental concomitants’.³⁴⁹ Mental disorder, they also argued, was not necessarily always a product of an inevitable, inherited predisposition, but might instead be a response to the vicissitudes of modern life. Through reframing the idea that mental illness was invariably long-term and chronic, and moreover arguing that it was indistinguishable from those that were deemed physical, the Commissioners underlined the need to change how the health system approached and dealt with these conditions. Admission to an asylum was therefore to be a ‘last resort, not a preliminary to treatment’, which should instead be provided on a short-term, voluntary basis, in new forms of institutional space, such as an outpatient clinic, or even in the community.³⁵⁰

³⁴⁸ Historians have long recognised that the Commission marked an important moment in the shifting relationship between and understanding of mental and physical illness in Britain, however analytical focus has largely rested on the circumstances surrounding the passage of the 1890 Lunacy Act, ‘the shellshock episode’, and the Percy Commission in 1957; in turn sweeping over the interwar period almost entirely. In general, the 1926 Commission has been parsed as a response to fears that some people were being wrongly detained the asylum, and thus understood to reflect the emergence of a more ‘sympathetic approach to mental illness’. See Kathleen Jones, *Mental Health and Social Policy, 1845-1959*, (London, 1960), p. 106; Claire Hilton, ‘Parity of Esteem for Mental and Physical Healthcare in England: A Hundred Years War?’, *Journal of the Royal Society of Medicine*, 109, (2016), p. 133

³⁴⁹ Hugh Pattison Macmillan, *Report of the Royal Commission on Lunacy and Mental Disorder*, (London, 1926), p. 15

³⁵⁰ *Ibid.*, p. 19

Adopting a more ‘modern’ view of mental disorder which acknowledged its close relationship to physical forms of illness, these changes in policy can (at least in part) be traced back to the attempts made by SMOs like Auden and Shrubbsall to deal with the practical problems generated by children who displayed mental changes in the wake of the physical, viral disease of EL, which had come into conflict with a particular part of the contemporary health system. Policymakers believed that the 1926 Commission and the changes in provision which followed over the next decades marked a key moment in the move towards a fairer, more equal approach to mental and physical illness which no longer hinged on clear binary distinctions, with this view since reinforced by historians like Kathleen Jones. Yet, as we shall see in the next section, these binaries continued to hold fast: as this aetiology became more firmly conceptualised as acute, physical to relate cases of post-encephalitis to specific kinds of provisions, resources and policies.³⁵¹ As we move into the final section of this chapter, and explore the institutional response to the mental changes which were now linked to ‘post-encephalitis’ through a dedicated Unit at Winchmore Hill, the nature of these binary structures will be brought into even sharper focus.

Section 4: Post-encephalitis, conflict, failure

On 25th July 1925, members of the Metropolitan Asylums Board (MAB) in London agreed to establish a Unit within the Northern Hospital at Winchmore Hill, for the purpose of providing ‘institutional care and treatment for persons suffering from the after-effects of encephalitis lethargica, or sleepy sickness.’³⁵² According to the Chairman of the Infectious Hospitals Committee, James Sprankling, this decision was a response to the administrative and bureaucratic problems generated by the rising number of applications the MAB were receiving from local poor law and other authorities, requesting that a child be admitted to one of their infectious disease hospitals, mental deficiency colonies, or convalescent homes.³⁵³ Informed

³⁵¹ ‘The Report of the Royal Commission on Lunacy and Mental Disorder’, *JMS*, 72, (1926), pp. 597-616

³⁵² NA, HO 144/21198, Metropolitan Asylums Board, Post Encephalitis Lethargica: Report of the Infectious Hospitals Committee adopted by the Board on 11 December, 1926, p. 1

³⁵³ *Ibid.*, p. 1

by such local practical problems, this decision also relied centrally on the aetiology mapped out by SMOs like Auden and Shrubsall over the previous five years, and therefore the idea that the mental changes which followed EL were down to a temporary loss of physiological control, caused by initial physical change and subsequent psychic responses. Taking advantage of contemporary shifts in policy, Auden had therefore underlined the need for a new kind of health provision, able to provide short-term recuperative medical care and treatment. Becoming hinged on specific kinds of institutional space, financial resources, administrative practices, and legal processes, exemplified by the Unit at Winchmore Hill, this section explores how this physical, acute aetiology and the category of ‘post-encephalitis’ was gradually brought into question: as cases instead became classed as chronic and in line with a series of institutional, bureaucratic and financial reforms to this local health system.

In assuming responsibility for the care and treatment of ‘post-encephalitis’ cases, in 1925 the MAB carved out institutional space within the network of existing provisions they oversaw in London, or more specifically, in an infectious disease hospital.³⁵⁴ The Northern Hospital at Winchmore Hill had been founded in 1885 as part of the provisions established by the MAB to tackle rising levels of disease in the city, by removing the ‘infectious sick’ from their homes and providing access to medical treatment.³⁵⁵ From the outset, the Hospital was structured in various pavilions strategically placed to limit the spread of infection, with the cost of admission and care borne by county and county borough councils to ensure that patient were not excluded based on their ability to pay. Unlike other ‘acute fever’ hospitals, the Northern Hospital provided more prolonged forms of ‘convalescent care’, initially admitting 500 ‘fever and small-pox cases’ from the ‘pauper-class’, later widening to include tuberculosis, and

³⁵⁴ Formed in 1867 to undertake ‘branches of work which at that time were the duty of thirty separate Boards of Guardians’, the Board was responsible for ‘the reception and relief of poor persons infected with or suffering from fever or the disease of smallpox or who may be insane’, and by 1930, also for the management of a training ship, the provision of hospitals for children and for cases of tuberculosis, see Allan Powell, *The Metropolitan Asylums Board and its Work, 1867-1930*, pp. 14-15

³⁵⁵ Gwendoline M. Ayers, *England’s First State Hospitals and the Metropolitan Asylums Board, 1837-1930*, (London, 1971), p. 111

eventually, ‘post-encephalitis’ patients.³⁵⁶ In early twentieth century Britain, convalescent care in dedicated ‘homes’ or hospitals had a fairly recent history.³⁵⁷ Rare before the mid-nineteenth century, these institutions gradually became used to provide continuing care for illness that was ‘neither a medical crisis nor a static condition’ but was also still at risk of relapse, chronicity and destitution.³⁵⁸

Believed to be suspended in the liminal, temporal space in between the ‘acute’ and ‘chronic’ stages of illness, ‘convalescent’ patients were also situated in a recuperative process that was not only bodily, but spiritual, emotional or psychological.³⁵⁹ According to an editorial published in *The Lancet* in 1923, beyond the ‘obvious physical advantages to the patient from a more or less prolonged and carefully supervised sojourn in the convalescent home, the psychological aspect of this treatment [was] of greatest importance’, in order to return a patient ‘whose body and mind have been exhausted in a long struggle with disease’ to ‘the normal standards of self-supporting existence’.³⁶⁰ Acknowledging this fluid state of convalescence and tackling it through specific kinds of institutional space nonetheless served various, context-specific practical purposes.

³⁵⁶ ‘Northern Hospital, Winchmore Hill’, *BMJ*, 1, (1885), p. 1070; Gwendoline M. Ayers, *England’s First State Hospitals and the Metropolitan Asylums Board, 1837-1930*, p. 220; In 1930, Allan Powell listed the nine acute fever hospitals then overseen by the Board: The Eastern Hospital, North-Eastern Hospital, North-Western Hospital, Western Hospital, South-Western Hospital, South-Eastern Hospital, Park Hospital, Brook Hospital, and the Grove Hospital. See Allan Powell, *The Metropolitan Asylums Board and its Work, 1867-1930*, p. 102

³⁵⁷ See Jenny Cronin, ‘The Origins and Development of Scottish Convalescent Homes, 1860-1939’, Ph.D. thesis, (University of Glasgow, 2003), pp. 3-7

³⁵⁸ Hosanna Krienke, *Convalescence in the Nineteenth Century Novel: The Afterlife of Victorian Illness*, (Cambridge, 2021), p. 5; Eli Anders, “‘So Delightful A Temporary Home’: The Material Culture of Domesticity in late nineteenth-century English Convalescent Institutions’, *Journal of the History of Medicine and Allied Sciences*, 75, (2021), pp. 265-266

³⁵⁹ For detail on the liminal temporality of convalescence, see Maria Frawley, *Invalids and Identity in Nineteenth Century Britain*, (Chicago, 2004), p. 5; Hosanna Krienke has also explored the nineteenth century belief that convalescence invoked the need to ‘foster spiritual progress during physical recuperation’, see Hosanna Krienke, ‘The After-Life of Illness: Reading Against the Deathbed in Gaskell’s *Ruth* and Nineteenth Century Convalescent Devotionals’, *Victorian Literature and Culture*, 45, (2017), p. 37

³⁶⁰ ‘Convalescent Care’, *The Lancet*, 2, (1923), p. 1145

During WW1, military doctors therefore began to stress the value of convalescent treatment as a ‘corollary of hospital treatment, especially in the case of soldiers in the field’.³⁶¹ By providing them with graduated physical training alongside games and amusements, these doctors argued that nearly 90% of ‘sick and lightly wounded men can be returned to fighting units perfectly fit’, in turn guiding an ‘immense economy in money, an enormous saving in man-power, and an undoubted benefit to the nation’.³⁶² When it came to the hospital system more broadly, supplementing ‘acute’ wards with ‘convalescent’ homes or units also served to free ‘up much needed space, reduce the length of patient stays, and focus on more medically acute cases’.³⁶³ Whilst it is therefore important to be aware of the many uses, and meanings, of ‘convalescence’ in the early twentieth century, this does not stop us from appreciating how this fluid state was often aligned with particular financial or administrative agendas: a point which shall be explored as we shift our focus to the post-encephalitis Unit at Winchmore Hill.

After months of discussions between national authorities including the Board of Education, Ministry of Health and the London County Council (LCC), despite the existence of space already in use at institutions like the Maudsley Hospital, by mid-1925 the MAB had come to accept that they were best placed to provide a ‘single institution’ which could be used to facilitate the in-patient care and ‘careful medical observation’ of children diagnosed with ‘post-encephalitis’ at Winchmore Hill.³⁶⁴ Drawing upon existing administrative and legal mechanisms, this provision was to be focused on children and adolescents aged over three and under sixteen living in London, who had to be recommended for admission by a medical

³⁶¹ T.E. Sandall, ‘Treatment of the Convalescent Soldier’, *The Lancet*, 195, (1920), p. 1355

³⁶² *Ibid.*, p. 1355

³⁶³ Hosanna Krienke, *Convalescence in the Nineteenth Century Novel: The Afterlife of Victorian Illness*, p. 5; Eli Anders, “So Delightful a Temporary Home”, p. 266

³⁶⁴ TNA: Conference with Ministry of Health on Encephalitis Lethargica, ED 50/41, ‘Interview Memorandum’, 27th Feb 1925, p. 1; The belief that these children were not suitable to receive care at the newly opened Children’s Department at the Maudsley was arguably informed by the need to facilitate a complete removal from the home environment. According to by Bonnie Evans, Shahina Rahman and Edgar Jones, staff at the Maudsley also initially parsed the mental changes which followed upon EL as a product of ‘disturbed physiological and psychological processes in combination.’ At least up until c.1927, the only difference between this provision and the Unit at Winchmore Hill, it seems, was ability to provide inpatient care. See Bonnie Evans, Shahina Rahman, Edgar Jones, ‘Managing the “Unmanageable”: Interwar Child Psychiatry at the Maudsley’, *History of Psychiatry*, 19, (2008), pp. 454-475

officer employed by the LCC, or by a member of the London Board of Guardians, with a proportion of the cost of maintenance recovered from their parents according to their means, whilst the remainder was met by the MAB themselves.³⁶⁵ The Unit was to be run by a medical superintendent (George Arthur Borthwick) alongside a consulting neurologist (Samuel Kinnier Wilson), who also assumed responsibility for examining cases and approving their admission. From the outset, there was concern from members of the Board about the kinds of cases they would be admitting, and the suggestion that they should be treated ‘in a similar way to those suffering from other diseases requiring hospital treatment.’³⁶⁶ Given that most EL cases were likely to require a ‘long and sometimes an indefinite period of special treatment’, the MAB agreed to only accept a child if they were ‘likely to benefit by *a short stay at Winchmore Hill*’, and moreover held no legal powers to detain them against the wishes of a parent or guardian.³⁶⁷ This institutional model of short-term, (partially) state-funded medical care and treatment, designed to allow a child to recover from their initial viral illness and later return home, aligned almost exactly Auden’s vision of a physical (yet also psychic), acute aetiology. Informed by this criteria, the Unit was formally opened on 13th November 1925.

Guided by the belief that these cases would be able to readjust and reacquire psychophysiological control in the right kind of environment, Borthwick and Kinnier Wilson set out to ensure that the Unit provided an ‘atmosphere of improvability if not curability’, in a way that bore striking similarities with Frederick Mott’s treatment of ‘convalescent’ shellshock

³⁶⁵ Whilst these children would have ‘first call’ on bedspace, the Clerk to Board Allan Powell agreed that any left over accommodation would be ‘put at the disposal of Authorities elsewhere, see LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, G.A. Borthwick, Appendix: Northern Hospital, Winchmore Hill, London N.21, Post Encephalitis Unit: A Report on the First Year’s Working of this Section, 11 Dec 1926, p. 2

³⁶⁶ TNA: Home Office, Registered Papers Supplementary, HO 144/21198, Letter to George Newman from MAB, 9th January 1926, p. 2

³⁶⁷ *Ibid.*, p. 2; The Unit also rejected applications for children who would have otherwise been sent to an industrial school to remove them from ‘corrupting influences which had brought or could bring him or her into conflict with authority and the law’, see Harry Hendrick, *Child Welfare: England, 1872-1989*, (London, 1994), p. 111, p. 114; TNA: Home Office, Registered Papers Supplementary, HO 144/21198, Letter to George Newman from MAB, 9th January 1926, p. 2; In contrast, the Unit at Winchmore Hill had no power to detain a child in this institution against the wishes of their parent or guardian, regardless of their behaviour.

cases at the Maudsley Hospital.³⁶⁸ Within a year of opening, the Unit had grown considerably, consisting of four pavilions formed of twenty-five beds. Each pavilion stood in a 'large playground', and besides the basic amenities, also contained various provisions believed to be of restorative value: a playroom-schoolroom, an outdoor veranda, and a massage room where wall bars, balancing benches, a trapeze, high and low plinths and electrical apparatus had been installed to facilitate 'mechano-therapeutic and medico-electrical treatment.'³⁶⁹ In his report to the MAB in November 1926, Borthwick described these as measures of 'special treatment', to be used alongside pharmaceuticals, such as hyoscine hydrobromide, belladonna, nicotine, parathyroid and calcium, sedatives, as well as 'sun baths and ordinary light baths'.³⁷⁰ This broad, eclectic range of therapies were deemed central to allowing children admitted to the Unit to re-establish physiological balance or control, thereby correcting a loss set off by physical change, but perpetuated by psychic, emotional responses. This broad, somewhat vague therapeutic approach was arguably a product of the influence of Kinnier Wilson, a man whose expertise straddled the boundaries between neurology, psychiatry and medical psychology.³⁷¹

³⁶⁸ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Kinnier Wilson, 'Some Comments on the Encephalitis Unit at the Northern Hospital, Winchmore Hill', 1926, p. 2; In 1916, Frederick Mott had pursued a programme of convalescent treatment which encouraged shellshocked soldiers to consume 'nourishing and easily assimilated food', grow vegetables in the hospital grounds, play piano, sing and engage in occupational therapy, and also used 'theatrical tricks' in the form of mild electric shocks and faradism. See Frederick Mott, 'The Lettsomian Lectures on The Effects of High Explosives upon the Central Nervous System', *The Lancet*, 187, (1916), pp. 545-543; Frederick Mott, *War Neuroses and Shellshock*, (London, 1918), p. 86; Frederick Mott, 'War Psycho-neurosis (II). The Psychology of Soldiers' Dreams', *The Lancet*, 1, (1918), p. 172; Edgar Jones, 'An Atmosphere of Cure: Frederick Mott, Shell Shock and the Maudsley', *History of Psychiatry*, 25, (2014), p. 416

³⁶⁹ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, G.A. Borthwick, Appendix: Northern Hospital, Winchmore Hill, p. 2

³⁷⁰ *Ibid.*, p. 4

³⁷¹ Kinnier Wilson was heavily influenced by his time studying in Paris alongside Pierre Marie and Joseph Babinski, but also in Germany with Paul Fleschig, see 'Samuel Kinnier Wilson', <https://www.ucl.ac.uk/ion/history/notable-former-staff/samuel-alexander-kinnier-wilson>, [17 August 2022]; See also Stephen Jacyna, 'The Contested Jacksonian Legacy', *Journal of the History of the Neurosciences*, 16, (2007), p. 310; In his work on tics, Kinnier Wilson acknowledged that these might be informed by a physical disease like EL, or by 'the psychopathic soil in which they may be sprouting', and yet proposed a standard approach to treatment, centred on 'strengthening the tiqueur's power of inhibition' over this 'meaningless automatism', through a change in environment and implementation of a 'disciplinary regime', alongside other measures such as sedative medicines, re-education, or hypnotic treatment. See S.A. Kinnier Wilson, 'The Tics and Allied Conditions', *The Journal of Neurology and Psychopathology*, 93, (1927), pp. 100-101

From the outset, however, Borthwick was sceptical about the value of such therapeutic techniques. Unlike Kinnier Wilson, Borthwick's experience lay in public health medicine, gained during his previous roles as medical officer to Barnsley, then Plymouth.³⁷² Perhaps less concerned with using these cases to explore and blur the lines between mind and body, Borthwick's criticism was guided by more practical, financial concerns about the failure of the Unit to produce positive, curative results. Reporting for the first time to the MAB, Borthwick acknowledged that whilst cases displaying 'milder' psychic changes had benefitted from the 'ordinary discipline of the unit' and time 'away from their home surroundings', those showing 'querulousness, outbursts of temper, lying, thieving, sexual eroticism, etc.,' had only improved slightly, 'slowly and with so many relapses that the prognosis must be very guarded.'³⁷³ Beyond opening up the question of 'more or less permanent institutional treatment', the lack of 'positive curative results' from this eclectic emphasis on rest, discipline and a change in environment also questioned the idea that the persisting symptoms in these cases were simply a result of physiological imbalance, begun by physical change and sustained by psychic responses.³⁷⁴

Faced with the practical challenges posed by ever-more overcrowded conditions and an extending waiting list, in the coming years Borthwick would recurrently suggest that the Unit may better serve as a 'clearing house', where cases could be examined and classified, and then directed onwards to other forms of institutional space, such as the mental deficiency colony, or the industrial or special school.³⁷⁵ Drawing parallels with the wartime casualty clearing

³⁷² 'Obituary: G.A. Borthwick', *BMJ*, 285, (1982), p. 569

³⁷³ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, G.A. Borthwick, Appendix: Northern Hospital, Winchmore Hill, p. 3

³⁷⁴ *Ibid.*, p.3

³⁷⁵ TNA: Northern Hospital; Winchmore Hill, post-encephalitis Lethargica Unit, MH 68/401, A.C. Parsons, Post Encephalitis Unit, Northern Hospital (M.A.B.) Winchmore Hill, N.21: A precis of information regarding its origin, progress, present position and prospects, January 1928, p. 13; Issues regarding bed space were first acknowledged by Kinnier Wilson fairly early on in the life of the Unit, see LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Kinnier Wilson, 'Some Comments on the Encephalitis Unit at the Northern Hospital, Winchmore Hill', 1926; LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, G.A. Borthwick, Appendix: Northern Hospital, Winchmore Hill, p.4; Borthwick was still making this suggestion in 1928, see TNA: Northern Hospital; Winchmore Hill, post-encephalitis Lethargica Unit, MH 68/401, A.C. Parsons, 'Post-Encephalitis Unit. Northern Hospital (M.A.B.) Winchmore Hill, p. 25

station, Borthwick therefore showed how the Unit could provide the space, time and resources to explore and separate out the elements of these illnesses, which seemed no longer to fit into provisions which were only ever equipped with the space, resources and policies needed to facilitate recovery from an acute, physical disease.³⁷⁶

Borthwick's view was soon challenged by Kinnier Wilson in a letter addressed to the Infectious Hospitals Committee of the Board.³⁷⁷ Whilst Borthwick viewed the increasingly prolonged course of these cases as an administrative and financial problem, Kinnier Wilson argued that their '*chronic* nature' offered a unique 'continuity of clinical material' and thus the possibility for 'prolonged lines of research' and opportunities to 'try out methods of treatment'.³⁷⁸ In order to achieve such scientific goals, 'time and continuity both of officers and of material' were essential.³⁷⁹ Although these cases could no longer be viewed as 'convalescent', and therefore dealt with through resources, provisions and policies associated with acute, physical disease, Kinnier Wilson's decision to class them 'chronic' was careful and deliberate; it allowed him to reinforce a particular institutional and scientific agenda, the value of the Unit and the need for continued funding from the Board.

Whilst this change in language was initially guided by practical motivations, it nonetheless quickly became grounded in theory. In July 1928, the medical officer to the Unit Thomas Rowland Hill used his neurological perspective to reframe the aetiology of the 'juvenile behaviour disorders' in 'chronic epidemic encephalitis', which remained tied to internal, physiological disorder in part caused by emotion but also now a 'chronic irritative lesion'.³⁸⁰

³⁷⁶ For more on the role played by casualty clearing stations during the war, see Joanna Bourke, *Dismembering the Male: Men's Bodies, Britain and the Great War*; Alongside mental observation wards/outpatient clinics, this provision will be discussed more closely in Chapter 3.

³⁷⁷ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Letter from Kinnier Wilson to Committee of Infectious Diseases, Nov 6 1926

³⁷⁸ *Ibid.*, p. 1

³⁷⁹ *Ibid.*, p. 1

³⁸⁰ T.R. Hill, 'The Problem of Juvenile Behaviour Disorders in Chronic Epidemic Encephalitis', *The Journal and Psychopathology*, 33, (1928), p. 9; Although Hill worked at the Unit fairly early on his career, he would go on to become a consulting neurologist and physician to the West End Hospital for Nervous Diseases in London, see Thomas Holmes Sellars, 'Thomas Rowland Hill', [accessed 20 August 2022] <https://history.rcplondon.ac.uk/inspiring-physicians/thomas-rowland-hill>

By causing a ‘thalamic release’, Rowland Hill argued that this chronic lesion had also increased the ‘affective response of the organism to any stimuli’, and fed into a circular disease process that remained centrally driven by physical change, and sustained by emotion.³⁸¹ In adopting this theoretical stance, Rowland Hill drew heavily on the work of American physiologist Walter Cannon, who viewed emotions as bodily changes released as a survival response to external, disruptive stimuli, as central to maintaining balance and ‘homeostasis’ but also as ‘capable of disequilibrium and bodily damage’.³⁸² Whilst disruptive, dangerous, and able to interfere with the normal, physiological functions of the organism, emotions were also paradoxically central to maintaining ‘whole-body efficiency in the particular response to the environment’, expressed as fear or rage, and thus ‘avert[ing] the constant danger of collapse in an indifferent or hostile world’.³⁸³

As we shall see in Chapters 3 and 4, Cannon presented a new causal framework which would be used to view illness as the ‘psyche’s misguided attempts to adapt itself to stressful situations’, rather than a product of physical damage such as lesions.³⁸⁴ This ultimately informed a broader interest in ‘adaptation’ in Britain during the 1930s, the rise of both psychosomatic and psychobiological medicine, and thus new ways of parsing the causes of chronic illness. Whereas Cannon showed how stress and emotion could lead to organic damage, Rowland Hill in contrast reversed this process in his chronic, physical aetiology of EL. Still mapping a linear transition from viral illness to physical damage to psychological response, Rowland Hill now also factored in the central role of a *chronic irritative* lesion, which ensured that the child remained at the whim of their ‘primitive and instinctive tendencies’, unable to benefit from treatment even though they realised the ‘atrociousness of their actions’, thereby locked into a cycle of maladaptation.³⁸⁵

³⁸¹ T.R. Hill, ‘The Problem of Juvenile Behaviour Disorders in Chronic Epidemic Encephalitis’, p. 8

³⁸² Walter Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage: An Account of Researchers into the Function of Emotional Excitement*, (New York, 1929); Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, p. 154

³⁸³ *Ibid.*, p. 150, vii

³⁸⁴ Rhodri Hayward, ‘Medicine and the Mind’, p. 533

³⁸⁵ T.R. Hill, ‘The Problem of Juvenile Behaviour Disorders in Chronic Epidemic Encephalitis’, pp. 2-3

Whilst Rowland Hill presented a detailed, theoretical account of these behaviour disorders and their causes, he was nonetheless motivated by a practical need to show, in spite of therapeutic failure, that these cases were still worthy of dedicated medical care and treatment in the space of the Unit. It is possible here to see how a set of material and financial concerns were directly informing changes in epistemological knowledge, leading Rowland Hill to reframe and reaffirm the physical nature of this chronic condition. In the process, he maintained the kinds of distinctions between children whose behaviour followed upon EL and cases of mental deficiency made by Auden three years earlier, underlining the need for what now became the chronic, medical care of mental problems which did not entail legal powers of control. He did so in the context of a health system where this kind of provision was however becoming less of an exception than a rule: through ‘voluntary’ or ‘temporary’ mechanisms of treatment at mental hospitals, implemented in policy through the 1930 Mental Treatment Act.³⁸⁶

Maintaining the ‘physical’ status of the children (some of whom had reached adulthood) cared for at the Unit might have still been practically useful to medical staff like Rowland Hill, allowing them to underline the need for continued funding. By the early 1930s, this could not be said from the perspective of the newly reconstituted London County Council (LCC) who instead saw this provision as an inefficient duplication of services. In order to understand these shifting priorities, it is important to briefly provide some context on the changes underway in this local (and national) health system at the end of the 1920s and early 1930s. Guiding what some historians have described as a ‘revolution in the care of the sick’, through the passage of the 1929 Local Government Act local councils were given the power to take over and run facilities previously overseen by Poor Law authorities and bring ‘the remit of

³⁸⁶ Building upon the recommendations made in 1926 by the Royal Commission, the passage of the Mental Treatment in 1930 made it possible for patients to admit and discharge themselves from mental hospitals by written application. See Alice Brumby, ‘From “Pauper Lunatics” to “Rate-Aided Patients”: Removing the Stigma of Mental Health Care? 1888-1938’, Ph.D. thesis, (University of Huddersfield, 2015), p. 22; These changes have also been documented by Kathleen Jones, *Mental Health and Social Policy, 1845-1959*, and Clive Unsworth, *The Politics of Mental Health Legislation*, (Oxford, 1987)

psychiatric medicine firmly within the control of local authorities.’³⁸⁷ In London, the responsibilities previously held by the MAB for running infectious disease hospitals, asylums, and mental deficiency colonies were therefore transferred to the LCC who also oversaw ‘general’ hospital provision: together forming a much broader, yet theoretically cohesive local health system, ‘provided solely under the auspices of public health rather than public assistance’.³⁸⁸

Given this huge expansion in their responsibilities and work, perhaps unsurprisingly the LCC became increasingly preoccupied with reducing waiting lists, monitoring expenditure and in turn with ‘reorganisation, rationalisation, and administration’.³⁸⁹ These concerns, in part, led to a closer focus on and interest in any possible duplication of services, and on the ‘classification of patients’.³⁹⁰ As will be explored in more detail in Chapter 3, these reforms were intended to ensure that access to healthcare in different institutions, such as the Poor Law infirmary or the general hospital, was no longer dictated by the ability of an individual to pay, but by more medical criteria about the nature of their condition, and whether it was ‘acute’ or ‘chronic’, ‘mental’ or ‘physical’. These changes would also transform cases of post-encephalitis: whose condition now became tied to a specific kind of *chronic* care believed to be more efficiently provided in the space of a mental hospital, and because of this, reconceptualised as *mental* rather than *physical*. Whilst shifting these cases across the health system might have been presented as a decision grounded in medical evidence, we are

³⁸⁷ Alys Levine, Martin Powell and John Stewart, ‘Patterns of Municipal Health Expenditure in Interwar England and Wales’, *Bulletin of History of Medicine*, 78, (2004), p. 636; Alice Brumby, ‘From “Pauper Lunatics” to “Rate-Aided Patients”’, p. 122

³⁸⁸ G. Gibbon and R. Bell, *History of the London County Council, 1889-1939*, (London, 1939), p. 320

³⁸⁹ John Sheldrake, ‘The LCC Hospital Service’, in Andrew Saint, (ed.), *Politics and People of London: London County Council, 1889-1965*, (London, 1989), p. 188; After 1929, the LCC became responsible for 74 hospitals, (28 of which were previously Poor Law infirmaries), 14 infectious disease hospitals, 9 tuberculosis hospitals or sanatoria. See Jane K. Seymour, Martin Gorsky, and Shakoora Hajat, ‘Health, Wealth and Party in Inter-War London’, *Urban History*, 44, (2017), p. 473; According to Reginald Coleman and W. Allen Daley, ‘general’ hospital provision was also added to by 22 mental hospitals, forming a ‘grand total of 98 hospitals and 71,1771 beds administered as one complete hospital system.’ See Reginald Coleman and W. Allen Daley, ‘The Development of Hospital Services with particular reference to the Municipal Hospital System of London’, *Proceedings of the Royal Society of Medicine*, 35, (1942), p. 745

³⁹⁰ *Ibid.*, p. 746

nonetheless able to see here how these concepts had simply been redefined and applied in ways that aligned with an emphasis on financial efficiency and bureaucratic expediency.

This point is borne out by returning to where this chapter began, with a discussion between Borthwick and Frederick Menzies about how and where these ‘chronic post-encephalitis’ cases should be cared for. Although unremarked upon by Borthwick or Menzies, from a historical perspective the language used here flags the much more fundamental, practical problem which we have gradually drawn out over the course of this chapter, whereby the illnesses hitherto understood to be tied to the persisting, *yet* temporary effects of an acute, physical event, diagnosed as ‘post-encephalitis’, had begun to be spun out over a much more chronic trajectory. These cases, as Borthwick, Menzies, and the LCC were aware, therefore required a very different set of chronic provisions, resources and policies to those originally used to equip and sustain the Unit at Winchmore Hill. Although these concerns had been flagged by Borthwick almost a decade earlier, they were nonetheless brought into sharp focus in line with the changes in policy, priority and the reorganisation of local health provision made by the LCC during the early 1930s.

To recap, on 18th June 1934 medical superintendent Borthwick had received a letter from the medical officer of health for London, Frederick Menzies, who suggested that all the chronic post-encephalitis cases at the Unit should be transferred to a local mental hospital, ‘whether such cases [were] certifiable for admission... or not’.³⁹¹ This seemingly innocuous comment is a clear reflection of a shift in priority. Until then, the Unit had continued to be funded and maintained based on the need to provide continuing, medical care to children whose condition came into conflict with the legal powers and institutional provisions used to deal with the problem of mental deficiency, even when it seemed to persist and become chronic. As this justification was brought into question by the belief that such provision represented an

³⁹¹ LMA: Northern Hospital, Post-Encephalitis Lethargica Unit, LCC/PH/HOSP/3/56, Letter from Frederick Menzies to George Arthur Borthwick, 18 June 1934

inefficient duplication and waste of resources, *so was the status of these cases as physical*. Instead, Menzies believed that the chronic care required by these cases could be provided elsewhere, on a voluntary basis, in the space of a *mental* hospital. In making this suggestion, he therefore collapsed down the kinds of distinctions between these cases and other ‘mental’ patients that Auden, Shrubbsall, and later Rowland Hill had worked so hard to ground in theory. Crucially, it is possible here to gain a clear sense of how this interest in moving cases out of the Unit was not informed by new revelations about the causes or nature of their condition, but by a *practical, material, financial* concern for rationalisation, duplication, and for ensuring that the limited resources of an increasingly comprehensive local health system were used in the most efficient way possible.

Conclusion

By exploring how and why in the 1920s a group of physicians (re)conceptualised the persisting mental changes which emerged after EL in children, we have brought the binary structures of a particular part of the modern British health system into sharp focus. This chapter therefore began by providing some context on the acute, physical category of EL, which in late 1918 became used to contain a highly varied group of illnesses that seemed unable to align with the bacteriological approach of modern public health. With the individuality of each case explicated in line with theories of wound shock, EL became tied to an aetiology which highlighted the physical effects of a virus on the central nervous system, and related to a public health system of notification and isolation. Acknowledging that people were likely to react to this viral illness in very different ways, public officials were aware from the outset of the possibility of long-term illness. Unable to be related to the same, chronic disease process observed in syphilis and general paralysis, the ‘mental after-effects’ soon observed in schoolchildren still became understood to be linked to permanent, physical damage, and framed by physicians working in institutional paediatrics as a kind of ‘mental deficiency’.

Despite agreeing that these children required some kind of institutional care, George Augustus Auden would argue that they could not be made to fit into the legal criteria associated with admission to a mental deficiency colony, which was mediated by moralistic and eugenic assumptions. To Auden and fellow SMO Frank Charles Shrubbsall, these mental changes were instead tied to the combined, physical effects of a virus and a series of psychic responses, which had informed a loss of physiological control. This ambiguous aetiology served practical purposes: with the physical nature of this condition justifying medical care outside of the mental deficiency colony, whilst the psychic evidenced that this would only need to be provided on a temporary basis. Grounded in the theoretical approach of mental hygiene, this aetiology and the category of post-encephalitis also reinforced calls to abandon the longstanding, binary distinctions between mental and physical illness in line with a more modern, medical approach. When it came to cases of post-encephalitis, however, these distinctions held fast in order to allow them to be tied to specific acute provisions, resources and policies available at an infectious disease hospital: in turn bringing them within a system still reliant on binaries.

Despite initial optimism, many of the children admitted to Winchmore Hill failed to improve over time, with their condition becoming *chronic* and bringing them conflict with this *acute*, provision. As we have seen, this category was centrally sustained by a continuing financial and material commitment to funding a specific kind of acute care, as opposed to a faithful adherence to aetiological theory. Thus by the mid-1930s, as LCC were no longer willing to assume the cost of funding and maintaining provision which they instead took to be a duplication and waste of resources, the *chronic, physical* status of post-encephalitis cases was brought into question. Throughout this chapter, we have therefore consistently come back to the same point: that as these cases consistently failed to align with specific resources, policies and provisions, they also came into conflict with (and from a historical perspective reveal) the binary structures of the contemporary (child) health system, emerging instead as neither mental *or* physical, acute *or* chronic. We have also begun to gain a sense of why the links

between EL and persisting forms of illness would begin to be broken, tying this to the inability of categories like post-encephalitis to function in a health system reliant on binaries. This point will be explored further in the next chapter, where our focus remains on the links between EL and long forms of illness and (broadly) the same period of time, yet moves elsewhere both geographically and institutionally. Through again exploring the emergence of a similar kind of physical (and psychic), chronic category, we shall bring the contingencies which informed and sustained this aetiology into sharp focus, in turn gaining a clearer sense of why it would not last.

Chapter 3: EL, incapacity, and industry c.1924-c.1946

In October 1946 a recently retired physician, emeritus professor of medicine and international expert on EL named Arthur Hall, sat down to write (or perhaps dictate) a medical statement requested by one of his patients to support their claim for a war pension.³⁹² Complaining of severe exhaustion and tremor, this patient who we shall call Mr G.G, had asked Hall to confirm that his symptoms were related to the 'heavy, and laborious work, and long hours' of war service, which had 'aggravated' a disease he had contracted some twenty years earlier: EL.³⁹³ For almost thirty years Hall had built his career on diagnosing and caring for cases like Mr G.G, who had contracted EL during the main, 'epidemic' period of the 1920s and yet continued to experience long forms of illness for days, weeks, months or even years afterwards. Able to draw upon his extensive, detailed, often personal understanding of his patients and how this viral illness had impacted their lives, it appears that Hall was in a strong position to assess the validity of Mr G.G.'s request, either confirming or denying that his condition could be directly linked to the stresses and strains of war.

Beyond acknowledging his role in caring for Mr G.G and providing the diagnosis of 'Chronic Epidemic Encephalitis', Hall's final response to Mr G.G was nonetheless strangely vague, not making reference to causation at all.³⁹⁴ Like many of his colleagues in Britain such as George Auden and Frank Shrubbsall, Hall believed that these illnesses were essentially a product of bodily change, but also of other, more psychic responses which *collectively* fed into a physiological imbalance and therefore continuing maladaptation. In this chapter we will draw out the context-specific conflicts which had led Hall to map this physical, chronic aetiology, in turn developing the category of 'post-encephalitic parkinsonism', or 'PEP'. Acknowledging the contingency of this category, we shall also come to understand why it no longer worked in the

³⁹² This chapter deals extensively with the case notes produced by Arthur Hall, however, seeks to maintain the anonymity of his patients. They will therefore be referred to as either 'Mr', 'Miss' or 'Mrs', accompanied by the first letter of their first name, and last letter of their last name.

³⁹³ SUL, Hall Manuscripts, MS 82, Box 1, Parkinsonians, Male R-Z, np

³⁹⁴ *Ibid.*

1940s due to a series of institutional, administrative, and bureaucratic changes in the contemporary health system, resulting in the emergence of new, more psychological or ‘mental’ theories of causation.

Moving backwards from the point Hall had reached in the early 1940s, this chapter begins in the early 1920s and follows his efforts to identify, explain and importantly fit the ‘after-effects’ of EL into a local health system, through the category of ‘PEP’. Like Auden and Shrubsall, albeit in relation to adults, Hall would ultimately develop this category for practical, rather than theoretical reasons. By conceptualising a specific group of illnesses and cases as chronic and physical, Hall underlined the need for a new kind of medical provision able to facilitate long-term, yet episodic, intermittent care outside of more traditional spaces such as the Poor Law institution or the asylum. The first section provides context on the local health system in the northern English city of Sheffield, which would guide Hall’s attempts to explicate the persisting effects of EL. In the first decades of the twentieth century, this local system was transformed, in part through Hall’s own leadership, in order to align with the needs of the local population, their employers and a national government increasingly concerned with productivity and efficiency. Through a series of administrative and managerial changes, this system became rearranged along hierarchical lines with various, hitherto separate individuals and institutions now connected through new processes of referral and widened access to medical treatment through new contribution-based funding schemes. Local voluntary hospitals began to emerge as the primary providers of acute, physical medicine, offering the bulk of the young, working population with a clear route into healthcare. These changes nonetheless also reframed and hardened old attitudes about the ‘chronic sick’ and the role of the Poor Law institution and asylum as the space for their care.³⁹⁵

³⁹⁵ Alysa Levene, ‘Between Less Eligibility and the NHS: The Changing Place of Poor Law Hospitals in England and Wales, 1929-39’, *Twentieth Century British History*, 20, (2009), p. 337

In the second section, we move to explore how this system of provision would inform Hall's investigations of the 'after-effects' of EL in Sheffield in the years between 1924 and 1926, with the support of the Medical Research Council (MRC). By distributing questionnaires to doctors across this local health system, initially requesting specific kinds of information about the acute attack and then asking for an updated account months or years later, Hall and his colleagues in Sheffield began to map aetiologies that hinged on an understanding of severity.³⁹⁶ Based on data concerning whether these cases had required hospitalisation, time off work, school or away from their daily household duties across an extended period, Hall concluded that it was possible to make predictions about outcome. Yet, he also marked out a group who came into conflict with this framework, based on the persistence of symptoms such as tremor and apathy in people who were otherwise fit, young, healthy and productive, and whose condition did not seem related to physical, bodily damage.

Otherwise conceptualised as *mental* and *chronic* and deemed suitable for institutional care in an asylum or Poor Law infirmary, as we shall see in the third section Hall set out to relate these cases to acute, outpatient treatment in the 'general' hospital and to short-term mechanisms of financial support made available via the National Health Insurance scheme. These cases, he would argue, displayed the persisting symptoms of 'post-encephalitic parkinsonism' caused by a failing process of adaptation, in part guided by their 'surroundings' and 'temperament', but also more centrally by the physical, bodily effects of the acute viral attack.³⁹⁷ As these cases continued to receive this medical treatment and financial support over prolonged periods of time, they nonetheless began to feed into concerns amongst the medical profession and members of the government about the material and financial consequences of rising levels of chronic illness amongst the population.

³⁹⁶ TNA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee Appointed by the Medical Advisory Committee of the Local Division of the British Medical Association, (London, 1926)

³⁹⁷ Arthur Hall, 'The Prognosis and Treatment of Chronic Epidemic Encephalitis', *The Practitioner*, 133, (1934), p. 31

In the final section we explore how these broader practical, financial, and material concerns would be met and addressed by a physician named James Halliday, in turn leading to a shift away from categories like post-encephalitis. During his time as a medical officer in Glasgow, a city like Sheffield which also saw high incidence rates of EL, Halliday had witnessed the challenges of this acute, physical disease and its persisting effects first-hand. He would use these experiences to explore and develop a more ‘psychosocial’ approach to dealing with chronic illness. These approaches would never translate to or change how PEP and its aetiology were understood, but by the early 1940s members of the British medical profession had begun to look towards a different set of institutional arrangements, material practices and causal theories to manage the illnesses that persisted long after a viral infection. This would gradually direct focus away from past signs of organic or physical change towards the psychosocial circumstances of the patient, their lives in the present and therefore a new set of diagnostic categories. This will be explored in more detail in the next chapter.

Section 1: Arthur Hall, healthcare, and EL

To his contemporaries, Sir Arthur John Hall was a physician of wide-ranging expertise.³⁹⁸ Beyond bringing EL to the attention of his colleagues across the country during the first stages of the epidemic, Hall also played a key role in describing the persisting effects of this viral disease in the early 1920s. This section seeks to put Hall and his account of EL in its acute and later stages in context, and show how his attention to the problem of PEP was marked by a particular set of administrative, bureaucratic, and financial structures implemented as part of the reorganisation of the health system in Sheffield during the early twentieth century. As a young, newly qualified, motivated physician Hall would play a central role in this reorganisation, encouraging a shift towards the techniques of laboratory science, establishing modes of communication between various institutions and individuals, but also new

³⁹⁸ Beyond his work in Sheffield and on EL, over the course of his career Hall also served in WW1, acted as Senior Censor to the Royal College of Physicians, played a central role in founding the Medical School at the University of Sheffield, and later received a knighthood. See G.H. Brown, ‘Sir Arthur John Hall’, <https://history.rcplondon.ac.uk/inspiring-physicians/sir-arthur-john-hall>, [accessed 1 September 2022]

mechanisms of funding and payment. By the early 1920s, Hall and his fellow consultants in Sheffield were positioned at the top of a still hierarchical yet widely accessible health system, attuned to the needs of the local population and with access or admission to institutional spaces like the voluntary hospital no longer mediated by the issues of poverty or morality.

In the 1920s, the voluntary hospital faced increasing levels of demand and limited resources, requiring admission to be managed in line with specific criteria. Decisions about care and treatment were marked by practical considerations of bedspace and funding, themselves allocated according to the concepts of acute and chronic, mental and physical. These concepts were therefore used and invested with meaning which reflected this drive for efficiency and rationalisation. Reaffirming a point made by Steve Sturdy, this section demonstrates that ‘due attention to the administrative aspects of modern medicine’ is vital to understanding the emergence of more ‘medical’ definitions of, and distinctions between, ‘mental’ and ‘physical’, ‘acute’ and ‘chronic’ forms of illness, which aligned with and were therefore marked by an ‘emerging system of corporate health care’.³⁹⁹ We shall explore the consequences of this system and its role in drawing Hall’s attention to the after-effects of EL in the next section.

Born in 1866 and raised in Sheffield, Arthur Hall left his hometown to receive a medical education at Caius College, Cambridge, later completing his clinical training at St. Bartholomew’s Hospital in London and obtaining his M.B, B.Ch degrees in 1889 at the age of 23. Working alongside his father in general practice for a year after returning to Sheffield, in 1890 Hall would eventually take up a position on the honorary staff at one of the two ‘voluntary’ hospitals in the city, thus ‘devot[ing] himself to hospital and consulting work’ but also to implementing a series of reforms to the local health system.⁴⁰⁰ Informed by the same, political and economic concerns explored in Chapters 1 and 2 in relation to the fields of child health and asylum psychiatry (regarding national efficiency, industrial productivity, and the

³⁹⁹ Steve Sturdy, ‘The Political Economy of Scientific Medicine: Science, Education and the Transformation of Medical Practice in Sheffield, 1890-1922’, *Medical History*, 36, (1992), p. 129

⁴⁰⁰ Arthur Gurney Yates, ‘Obituary: Sir Arthur Hall’, *BMJ*, 1, (1951), p. 140

future of nation and empire), Hall's efforts to develop a more 'corporate system of mass healthcare' were also shaped by a specific set of local problems, faced by the population of a powerful, industrial city.⁴⁰¹ Through the introduction of new manufacturing processes, a mechanised factory system and marked population growth, in the nineteenth century Sheffield had been transformed into a city dominated by metalworking industries, the construction of 'cheap, often back-to-back, housing' and inadequate living conditions.⁴⁰² With this new urban, industrial environment came a new set of threats to the health of the local population, posed by pollution in the air, waste on the streets, by outbreaks of infectious disease, or by accidents or injuries sustained in the workplace, 'where wages were good but risks were high.'⁴⁰³

In industrial cities like Sheffield, as concern mounted regarding threats to output and productivity, local physicians and health officials began to consider the need to reform what became viewed as detrimentally informal, fragmented local health systems, in order to better cater to the needs of the working population. As acknowledged by Nikolas Rose, beyond the changes in policy made through the Workmen's Compensation (WC) and National Health Insurance (NHI) Acts (which we explored in Chapter 1), these concerns also informed new or reorganised forms of health provision and institutional space as part of a political programme which used medical and 'scientific knowledge to advance national efficiency through making the most productive use of material and human resources'.⁴⁰⁴ These changes have in turn become the focus of a comprehensive historiography, populated perhaps most famously by Steve Sturdy's work, individually and alongside Roger Cooter, that of John Pickstone and also

⁴⁰¹ Steve Sturdy and Roger Cooter, 'Science, Scientific Management, and the Transformation of Medicine in Britain', *History of Science*, 36, (1998), p. 422; Steffan Blayney, 'Industrial Fatigue and the Productive Body: The Science of Work in Britain, c. 1900-1918', *SHM*, 32, (2017), p. 312

⁴⁰² Barry Doyle, *The Politics of Hospital Provision in Early Twentieth Century Britain*, (London, 2014), p. 13

⁴⁰³ Barry Doyle, 'Labour and Hospitals in Urban Yorkshire: Middleborough, Leeds and Sheffield, 1919-1938', *Social History of Medicine*, 23, (2010), p. 376; As argued by Naomi Williams, in the nineteenth century the bulk of the adult male population in Sheffield worked in 'unhealthy metalworking trades', which were often associated with diseases such as phthisis and grinder's asthma, and also had high mortality rates. See Naomi Williams, 'The Reporting and Classification of Causes of Death in mid-nineteenth century England: The Example of Sheffield', *Historical Methods*, 29, (1996), p. 62

⁴⁰⁴ Nikolas Rose, *Governing the Soul: The Shaping of the Private Self*, p. 59

by the more recent contributions made by Steffan Blayney and Vicky Long, who have each shown how changes in early twentieth century medicine and science were closely informed by an economic, productionist rationale.⁴⁰⁵ As shown by Sturdy and Cooter, the years between 1870 and 1920 therefore witnessed the emergence of a new kind of ‘medical corporatism’, which linked laboratory sciences (such as physiology and pathology) to ‘new layers of hospital administration’.⁴⁰⁶ This emphasis on ‘diagnostic categorisation and therapeutic standardisation’ would lead Hall and his colleagues to develop, use and apply what they claimed were more ‘medical’ definitions of ‘acute’ and ‘chronic’, ‘mental’ and ‘physical’ illness. We shall see that these were affected by contingent changes in finance, techniques and administration which effectively reframed and sustained old, moral assumptions.⁴⁰⁷

Before exploring these changes, it is important to provide a broad overview of the hospital system in Sheffield prior to the twentieth century. Funded either through philanthropic donations or perhaps public grants and concentrating on the ‘care and treatment of the deserving poor’, there were two main ‘voluntary’ hospitals in Sheffield; the Sheffield Royal Hospital (SRH), which had origins in a public dispensary founded in 1832, and the Sheffield Royal Infirmary (SRI), which had begun taking patients in 1791.⁴⁰⁸ By the late nineteenth century, these institutions had also become supplemented by various ‘public’ or ‘municipal’ hospitals, which were established in the workhouses based at Nether Edge and Fir Vale ‘as part of the Poor Law Board’s crusade against outdoor relief’.⁴⁰⁹ As argued by Alys Levene,

⁴⁰⁵ Roger Cooter and Steve Sturdy, ‘The Industrial Body’, in Roger Cooter and John Pickstone (eds), *Companion to Medicine in the Twentieth Century*, (London, 2003), pp. 217-234; John Pickstone, ‘Production, Community and Consumption: The Political Economy of Twentieth Century Medicine’, pp. 1-20; Steffan Blayney, ‘Health and Efficiency: Fatigue, the Science of Work and the Working Body in Britain, c. 1870-1939’, Ph.D. thesis; Vicky Long, *The Rise and Fall of the Healthy Factory: the Politics of Industrial Health in Britain, 1914-60*, (Basingstoke, 2011)

⁴⁰⁶ Steve Sturdy and Roger Cooter, ‘Science, Scientific Management, and the Transformation of Medicine in Britain’, p. 425

⁴⁰⁷ *Ibid.*, p. 423

⁴⁰⁸ George Gosling, *Payment and Philanthropy in British Healthcare, 1918-1948*, (Manchester, 2017), p. 4; Bernard Harris, *The Origins of the British Welfare State: Society, State, and Social Welfare in England and Wales, 1800-1945*, (Basingstoke, 2004), p. 96

⁴⁰⁹ Virginia Berridge, ‘Health and Medicine’, p. 209; George Gosling has described the Poor Law Infirmary as the ‘nucleus of the public hospital service’, given that these institutions bore the brunt of high unemployment and hardship in the 1920s, ignoring the ‘restrictive means test applied to indoor and outdoor relief’ to ease suffering. This ‘grassroots administrative rejection of the Victorian notion

although the ‘sick poor’ admitted to these institutions were in theory distinct from the ‘able-bodied’, ‘undeserving poor’, they were in practice marked by the ‘stigma of poverty’ and pauperism, and the idea that they too were individuals unable to meet the standards of a productive, ‘civilised’ and therefore modern society.⁴¹⁰

Alongside these ‘general’ provisions were also those which provided more ‘specialist’ or ‘mental’ treatment, in hospitals for children or women, infectious diseases, or alternatively in the asylum: with the latter two each associated with legal powers of detention. In Sheffield, these different kinds of care and treatment were administered at the Jessops Hospital for Women, the Sheffield Free Hospital for Children, at the Borough Hospital for Infectious Disease, at Lodge Moor Hospital, or at the South Yorkshire Lunatic Asylum opened in 1872.⁴¹¹ As acknowledged in Chapters 1 and 2, in the late nineteenth and into the early twentieth century, the access or admission of a patient to these institutions was often mediated by considerations of morality or poverty, which in turn informed assumptions about the mental or physical, acute or chronic nature of their illness.

Upon his return to Sheffield to take up a position as physician to the SRH, as well as demonstrator in physiology at the newly formed Medical School, Hall set out to reform and connect up this ‘mixed economy of healthcare’, developing new, ‘administrative and managerial’ structures designed to better serve the needs of the local population, (and thus increase industrial productivity and efficiency), but which also, perhaps coincidentally, aligned with his own, professional ambitions and expertise in physiology.⁴¹² During his time at St Bartholomew’s Hospital in London, Hall had been heavily influenced by observing physicians who profited from their ‘specialist’ expertise, rather than general practice, who

of less eligibility’ marked a move towards ‘the incipient beginnings of universal and equitable relief, which was to become a central tenet of the Welfare State.’ See George Gosling, *Payment and Philanthropy in British healthcare*, p. 66, p. 58

⁴¹⁰ Alys Levene, ‘Between Less Eligibility and the NHS’, p. 324

⁴¹¹ Barry Doyle, *The Politics of Hospital Provision in Early Twentieth Century Britain*, pp. 16-20

⁴¹² George Gosling, *Payment and Philanthropy in British Healthcare, 1918-48*, p. 4; Steve Sturdy, ‘The Political Economy of Scientific Medicine’, p. 152

often held professorships at local Universities and who used their clinical and academic expertise to facilitate the care and treatment of difficult or unusual cases. He returned to Sheffield in the late 1890s motivated by a desire to orientate the pathology and physiology departments at the University towards public health or industrial problems, ranging from infectious diseases to silicosis or industrial fatigue. Drawing upon his own, physiological expertise, following the changes in policy implemented through the WC Act in 1907 Hall therefore provided testimony to a national Committee on Compensation for industrial diseases and later in 1918 advised on a scheme for workers killed or disabled by ‘silicosis’; an ‘incurable, wasting’ lung condition, prominent in local mining communities in the 1920s and 1930s and prevalent in Sheffield.⁴¹³

As we shall see, Hall would also extend his expertise into the field of public health, establishing a Local Advisory Committee whose ‘advice and assistance would be available to the health authority, either in the event of... epidemic outbreaks or in any matters affecting public health’, and also of course engaging in studies of EL, given that Sheffield was one of several epicentres of the epidemic in England.⁴¹⁴ Through this research, Hall and many of his academic colleagues began to ‘adopt a new and highly visible role in the medical life of the city’, reaffirmed further as they began to bring their laboratory techniques to and take up posts in the hospital, and receive grants to support the work of ‘panel doctors’ tasked with providing day-to-day medical care and treatment and allocating sick pay to patients insured through the NHI Act.⁴¹⁵ As the practice of medicine in Sheffield became increasingly guided by the modes

⁴¹³ *Ibid.*, p. 138; Mark Bufton, Joseph Melling, ‘Coming Up For Air: Experts, Employers, and Workers in Campaigns to Compensate Silicosis Sufferers in Britain, 1918-1939’, *SHM*, 18, (2005), p. 65; Hall was also later appointed as the ‘Senior Medical Inspector of Factories’ on the MRC’s Industrial Pulmonary Diseases Committee, embroiling him in efforts during the 1930s to ‘contain the public controversy over the origins and extent of pulmonary disease among the industrial labour force’, but also to ‘shield the medical physician from legal interrogation by grounding compensation rights on the physical proximity of the employee to rock which possessed a minimum content of silica.’ See *Ibid.*, p. 66

⁴¹⁴ ‘Sheffield Local Medical Advisory Committee’, *British Medical Journal*, 2, (1924), p. 1132; To recap, in Chapter 2 we acknowledged how Hall had been one of the first in Britain (alongside Wilfred Harris) to describe the acute effects of EL, see Arthur Hall, ‘A Note on an Epidemic of Toxic Ophthalmoplegia’, pp. 568-569

⁴¹⁵ Steve Sturdy, ‘The Political Economy of Scientific Medicine’, p. 138.

of laboratory science that we explored in Chapter 1 through syphilis/general paralysis, Hall and his colleagues also began to develop definitions of, and distinguish between, acute and chronic, mental and physical forms of illness based on more standardised criteria and fragments of evidence, as a way to enable this evolving, local health system to function.

Whilst Hall acknowledged that integrating the techniques of laboratory science into medical practice was a vital element of a new, more efficient local health system he was also aware of the need to widen access through other kinds of administrative and financial reform. Although perhaps more directly motivated by a desire to better address the local challenges in an expanding, industrial city, these reforms were also undoubtedly influenced by the recommendations of the 1920 Dawson Report. Published by the newly established Ministry of Health (MoH), this report highlighted the ‘insufficiency’ of the existing organisation of medicine.⁴¹⁶ The authors therefore called for clearer, hierarchical distinctions between ‘primary’ care, or general practice, and ‘secondary’ care in ‘general’ hospitals, as well as between ‘supplementary services’ which took on responsibility for the treatment of infectious disease and mental disorder, in order to ‘bring together existing services funded by national health insurance, local authorities, and voluntary bodies in a coherent and comprehensive healthcare system.’⁴¹⁷

Whilst the translation of these ideals was to be hampered by the political and economic crisis of the 1920s, through their efforts Hall and his colleagues did reorganise the local health system fairly significantly. In one such change, panel doctors were encouraged to ‘no longer seek to meet all the medical needs of their individual patients’, and instead devote their time, attention and resources to ‘routine’ illnesses, referring ‘difficult cases or ones involving

⁴¹⁶ ‘Lord Dawson’s Interim Report on the Future Provision of Medical and Allied Services 1920’, 27 May 1920, <https://navigator.health.org.uk/theme/lord-dawsons-interim-report-future-provision-medical-and-allied-services-1920>, [accessed 1 September 2022]

⁴¹⁷ *Ibid.*; Chris Locke, ‘Dawson’s “Big Idea”’: The Enduring Appeal of the Primary Healthcare Centre in Britain’, <http://www.historymatters.group.shef.ac.uk/dawsons-big-idea/>, [accessed 1 September 2022]

expensive treatments’ on to ‘expert’ consultants in voluntary hospitals.⁴¹⁸ Gradually building his own consulting practice formed of patients referred by panel doctors, Hall also worked to establish links and communication between himself and other individuals and institutions in this city. From 1923, the South Yorkshire Mental Hospital (SYMh) was gradually brought into ‘contiguity’ with the SRH and SRI, with Hall eventually appointed as visiting physician to the former in 1925.⁴¹⁹

These changes in referral and communication were also reinforced by the implementation of new financial structures to ‘meet the challenges of the coming era of mass medicine’, and therefore the costs associated with a growth in demand for and use of hospital-based care and treatment.⁴²⁰ As we have seen, prior to the early 1920s voluntary hospital provision had primarily been funded through charitable donations, or by charging patients who were able (and owned up) to their ability to pay.⁴²¹ In order to stabilise the income of these institutions, Hall and members of the local health authority acknowledged the pressing need for more formal and standardised mechanisms of payment, exemplified by the ‘penny-in-the-pound’ (PITP) scheme created by the local Hospitals Council in 1922.⁴²² Functioning on similar lines to the NHI, the PITP scheme was organised through local workplaces and rested on financial contributions made by the worker and voluntarily by their employers.⁴²³ Supplemented by mechanisms to admit ‘necessitous persons’ or ‘non-contributors’ for free or at reduced rates,

⁴¹⁸ Steve Sturdy and Roger Cooter, ‘Science, Scientific Management, and the Transformation of Medicine in Britain’, pp. 432-434; As shown by Anne Digby and Nick Bosanquet, panel doctors had little incentive to treat difficult patients themselves, given that they had to bear the brunt of any costs which exceeded the ‘capitation’ payments they received from the government. See Anne Digby and Nick Bosanquet, ‘Doctors and Patients in an Era of National Health Insurance and Private Practice, 1913-1938’, *The Economic History Review*, 41, (1988), p. 91

⁴¹⁹ See Sheffield Archives [hereafter SA]: Middlewood Hospital, Sheffield, NHS 3/1/3/5, Annual Reports to the West Riding of Yorkshire Asylums Board, 1922-1923, also SA: Middlewood Hospital, Sheffield, NHS3/1/3/6, Annual Reports to the West Riding of Yorkshire Asylums Board, 1924-1925

⁴²⁰ George Gosling, *Payment and Philanthropy in British Healthcare, 1918-48*, p. 5

⁴²¹ As argued by George Gosling, individuals who were able to pay and therefore ‘not the intended recipients of medical charity’ were often identified by the hospital almoner, who held responsibility for preventing the abuse of the voluntary hospital system. See *Ibid.*, p. 6

⁴²² Similar contributory schemes were implemented across the country, marking a shift away from what some historians have described as the financially wasteful ‘two tier system’ of state-funded Poor Law infirmaries and elite voluntary hospital, see Timothy Willis, ‘The Politics and Ideology of Local Authority Health Care in Sheffield, 1918-1948, Ph.D thesis, (Sheffield Hallam University, 2017), p. 5

⁴²³ ‘Sheffield Joint Hospitals Council’, *British Medical Journal*, 2, (1923), p. 483

these contributory schemes provided a more stable source of income for the voluntary hospital and also significantly extended access, which was now theoretically open to the entire local population regardless of their social status. This change in access contributed to a sharp increase in demand for these institutions, which still had limited availability in terms of resources and bedspace, leading to ever-increasing waiting lists.⁴²⁴

Faced with these practical, material problems, focus amongst hospital staff and administrators would turn to mechanisms of gatekeeping. The voluntary hospital began to emerge as the space 'oriented principally to treatment of the short-stay patient suffering from *acute* sickness', with this cohort identified based on practical considerations about the kind and duration of care required.⁴²⁵ The role and effectiveness of the voluntary hospital was nonetheless also highly 'conditional upon a network of local authority and other public services'.⁴²⁶ This ensured that the infirmaries attached to Poor Law institutions and asylums became more firmly situated as the repository for bed-ridden and 'chronic' cases who were often unable to fund the cost of their care through contribution schemes, perhaps because they were elderly or unable to work. This concept of chronic therefore reframed yet embedded the old moralistic assumption that admission to a Poor Law institution was guided by pauperism and poverty and reflected the inability of an individual to meet the social standards of life in modern Britain. This point will be explored further when we return to cases of EL who came into conflict with, and from a historical perspective provide a clear illustration of, the functions and meanings of these concepts.

According to Barry Doyle, by the early 1920s the local population of Sheffield was able to benefit from the most 'developed and democratic hospital management and funding system

⁴²⁴ These challenges have been shown by historians to have been faced across the country at this time, see for example Martin Gorksy and John Mohan, 'London's Voluntary Hospitals in the Interwar Period: Growth, Transformation, or Crisis?', *Nonprofit and Voluntary Sector Quarterly*, 30, (2001), pp. 247-275

⁴²⁵ *Ibid.*, p. 248

⁴²⁶ Steven Cherry, 'Before the National Health Service: Financing the Voluntary Hospitals, 1900-1939', *The Economic History Review*, 50, (1997), p. 322

in England'.⁴²⁷ This was now grounded in laboratory science, linked by a 'network of intra-professional relationships which cut across class boundaries to link the elite staffs of the voluntary hospitals with Poor Law medical officers, National Insurance panel doctors and other more lowly GPs' and sustained by new, more reliable schemes of funding.⁴²⁸ Yet, it is important to recognise how this system also entailed new ways of distinguishing between and conceptualising patients and their illnesses, and thus relating them to particular resources, policies and provisions. Reorganised to meet the 'routinized, disciplining demands of the modern industrial world', the local health system in Sheffield had also started to be broken up into institutions that aligned with line with the concepts of mental and physical, acute and chronic.⁴²⁹ As we shall see, how patients and their illnesses were related to these binaries and fitted into this system, remained dictated by a practical need to consider their impact on what were still a limited set of material and financial resources. In the next section, our focus shifts to how this system informed Hall's recognition of and attempts to classify the after-effects of EL, but also ultimately marked out a group of cases who came into conflict with and therefore exposed these binary distinctions.

Section 2: Cases, [in]capacity, causation

In 1926, the Medical Research Council (MRC) published the results of a study on the 'distressing mental and physical after-effects of epidemic encephalitis', conducted over the course of the previous two years by the Sheffield division of the British Medical Association and therefore led by Arthur Hall.⁴³⁰ This investigation had been deliberately pursued along similar lines to the 1918 Local Government Board, with the final report arranged in pathological, epidemiological and clinical sections: the last of which had been prepared by Hall

⁴²⁷ Barry Doyle, 'Labour and Hospitals in Urban Yorkshire: Middleborough, Leeds and Sheffield, 1919-1938', p. 382

⁴²⁸ Steve Sturdy, 'The Political Economy of Scientific Medicine', p. 151

⁴²⁹ Roger Cooter, 'Malingering', in Roger Cooter, Mark Harrison and Steve Sturdy, (eds), *War, Medicine and Modernity*, (Sutton, 1998), p. 12

⁴³⁰ TNA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee Appointed by the Medical Advisory Committee of the Local Division of the British Medical Association, (London, 1926)

himself alongside Arthur Gurney Yates. As we shall see, Hall and his colleagues in Sheffield would provide a framework to reliably tie persisting illnesses to the *chronic, physical* effects of EL, in turn rooting out and identifying patients who he feared had been mistakenly diagnosed or perhaps missed entirely. In this section, we therefore come back to the same kinds of practical problems highlighted by George Auden and Frank Shrubbsall only a few years earlier, exploring how and why Hall ultimately marked out cases whose persisting symptoms came into conflict with (and from a historical perspective expose) the binary structures of this local health system.

Hall's initial desire to identify and conceptualise the after-effects of EL was informed by a series of practical problems. In early 1918, Hall was at the forefront of research into this new epidemic disease, which he identified in patients admitted under his care to the SRH, whose condition subverted laboratory science, varied markedly from individual to individual, and yet he believed was tied to the same kind of physical, bodily change, caused by a virus.⁴³¹ Hall's status as a local, national and ultimately international expert on EL was informed by his work in Sheffield, aided by a health system which allowed him to directly access cases who were referred on by panel doctors with the cost of their care borne by the PITP scheme. Beyond relying on panel doctors to draw his attention to cases amongst the local population, Hall also required them to provide any information they had recorded before, during and after their acute illness. This allowed him to begin to develop biographies where past and present intermingled in order to allow him to make predictions about the future, and to map out coherent, linear aetiologies in his own collection of case notes.

Today, Hall's collection of case notes is held by the Special Collections Archive at the University of Sheffield.⁴³² Although they will only very briefly feature in this section, it is important at this stage to provide some context on how they were used by Hall and why they

⁴³¹ Hall, 'An Epidemic of Toxic Ophthalmoplegia', p. 569

⁴³² SUL: Hall Manuscripts, MS 82, Box 1

will feature in this chapter going forward. Roughly spanning the years between 1924 and the mid-1940s, Hall's notes detail the many encounters he had with patients in Sheffield, Chesterfield, Rotherham and Barnsley over this period, who varied in age, occupation and class, and who seemed to have been predominantly but not always white.⁴³³ Each note followed a consistent template, beginning with personal information such as the name and address of the patient, the name of the panel or private doctor in charge of their general care, and if they had come to Hall as an inpatient or outpatient at the SRI or SRH, upon their admission to the SYMH, or as a private, fee-paying patient, as well as their age at this time. By collating these notes in several small ring-binders, Hall tailored them to serve various purposes: to gain a clear sense of the patient and their condition during his initial examination, but also going forward to give him a clear sense of how and why their condition might have evolved over time, or perhaps how it compared to others. Moreover, whilst these notes are primarily composed of information gleaned during encounters within the space of the clinic or hospital, they also contained more informal evidence, for example based on a patient crossing his path in the street, which Hall would later use to better understand their condition in the context of modern life.

Containing a wealth of clinical and personal information concerning their lives, loved ones and even sometimes their feelings, these case notes are powerful sources which seem to reveal a lot about the people Hall studied over the course of his career, thus raising a series of moral and ethical questions. Before we go any further, it is therefore important to reiterate that all of the cases referenced in this chapter have been anonymised.⁴³⁴ Over the last decade or so, historians have become more interested in these kinds of decisions, ensuring that the somewhat routine tendency to anonymise, based in part on data protection laws, has been

⁴³³ This point is borne out by the care he otherwise took to note when if a case was a 'russian jew' or a 'negro'. Further analysis is nonetheless needed in order to understand the racial characteristics of Hall's patients. See SUL: Hall Manuscripts, MS 82, Box 7, Case Study from Eye Movement on Closure Book with reference to index

⁴³⁴ To recap, all cases in this chapter will be referred to using the abbreviation 'Mr', 'Miss' or 'Mrs', reflecting the titles used by Hall, alongside the first letter of their first name, and the last letter of their last name.

challenged based the suggestion that this deprives people in the past of a voice in the present, perpetuating the silences imposed by the institutional, administrative and bureaucratic structures of the archive or the doctor.⁴³⁵ These issues have been explored by historians such as Ann Laura Stoler and Liana Glew, who have respectively highlighted how cases notes often reflect the ‘interface between a person and medical treatment, institutional accommodation, or financial support’ and therefore practices of governance.⁴³⁶ Both questioning the idea that ‘lived experience’ can be straightforwardly gauged from these sources, Glew has shown that it is still possible to understand the ‘variety of needs and modes of expression that people bring with them to their encounters with bureaucracy’, through paying attention to instances of ‘archival excess’.⁴³⁷

Whilst Glew’s argument is certainly compelling, and perhaps applicable elsewhere, this chapter is nonetheless centrally concerned with the institutional, bureaucratic, and administrative factors that dictated how Hall used the technology of the case note to plot out the character, onset, and course of EL in its initial stages and in whatever came afterwards. Although I have decided to anonymise the cases included here (although none reference persons still living), this was guided by my own conviction that such primary source material essentially reflects the stories that Arthur Hall wished to tell about *EL as a category*. Without taking care, time and engaging in a specific kind of critique (all of which are beyond the reaches of this thesis), such material should not be taken to represent, and therefore provide unfiltered access to the experiences, views or lives of people who are now unable to object or speak for themselves.

⁴³⁵ See for example, Saidiya Hartmann, *Wayward Lives, Beautiful Experiments: Intimate Histories of Riotous Black Girls, Troublesome Women and Queer Radicals*, (New York, 2019), also David J. Smith and Michael L. Wehmeyer, ‘Who was Deborah Kallikak?’, *Intellectual and Developmental Disabilities*, 50, (2012), pp. 168-178

⁴³⁶ In her work, Ann Laura Stoler developed the method of reading ‘along the grain’ as a way to attend to the silences imposed and maintained by the institutional, textual records of colonial government, see Ann Laura Stoler, *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense*, (Princeton, 2008), p. 47; Liana Glew, ‘Documenting Insanity: Paperwork and Patient Narratives in Psychiatric History’, *History of the Human Sciences*, 35, (2022), p. 4

⁴³⁷ There are certainly opportunities to map this framework onto Hall’s clinical case notes, particularly with regard to the few, yet fascinating instances of written correspondence from his patients.

Drawing upon his hitherto limited investigation of cases in Sheffield, in 1922 Hall provided an update on some of the cases he had originally seen in 1918, whom he had been able to follow-up and monitor over the next four years, recording his observations in their clinical notes. Out of a total of thirty cases he acknowledged ten had proved fatal, whilst the others had shown varying degrees of recovery. Hall had heard from one ‘medical man’ that his patient, an ‘old lady’, was ‘completely recovered and as well as she ever was’, whilst another man had returned to ‘general labouring work on the pit-top’, and was able to ‘walk several miles without undue fatigue’ despite losing the ability to move his lower body for six months.⁴³⁸ In contrast, there were also cases who had still not fully recovered three years after their illness, as observed in one man who complained of persisting pain in his head and back. Despite acknowledging that at least some of the illnesses complained of by these cases were perhaps directly informed by their ‘receipt of a pension’, and better treated as a form of (un)conscious malingering, Hall’s conclusions about what caused their condition were tentative.⁴³⁹

Although he was therefore certainly concerned that some patients might use EL to unfairly access the financial and medical resources funded in part by the state, Hall also remained mindful that this might only be the case for a minority and that, in contrast, it was perfectly possible that some were the victims of physical, perhaps permanent, bodily change. How best to identify these cases and ensure that they were receiving the right kind of care and treatment in the appropriate part of the local health system nonetheless remained an issue of debate. Hall therefore admitted to feeling increasingly ‘anxious... as to the future of any case’, but also concerning the practical and financial problems associated with misdiagnosis: for the patient, their employer, and the state.⁴⁴⁰ Although he had used the case note to track the progress and evolution of EL over time, bringing the nature of this condition and category into sharp focus,

⁴³⁸ Arthur Hall, ‘Encephalitis Lethargica: Some Clinical Observations on Thirty Cases’, *The Lancet*, 199, (1922), p. 527

⁴³⁹ *Ibid.*, p. 527; We have explored the belief that illnesses were only influenced by the ‘individual mental outlook’ of a patient through the work of John Collie in Chapter 1, see John Collie, *Malingering and Feigned Sickness*, (London, 1913)

⁴⁴⁰ Arthur Hall, ‘Encephalitis Lethargica: Some Clinical Observations on Thirty Cases’, p. 528

he was however no closer to resolving the issue of prognosis, or to establishing *when* and *why* an illness might persist *after the end of* acute EL and yet still be *caused by it*. These uncertainties, as Hall acknowledged, had potentially significant material and financial consequences for individuals but also society more broadly.

In the years leading up to 1924, as Hall continued to highlight the polymorphic signs and symptoms of EL through his case notes, he also drew attention to an ever-increasing trail of long-term effects which ranged from ‘mental’, ‘respiratory’, ‘excitomotor residua’, ‘moral changes’, ‘nocturnal excitement’, as well as the predominantly physical manifestation of ‘parkinsonism’.⁴⁴¹ At this point, Hall’s recognition of these illnesses was centrally reliant on his awareness and use of continental literature.⁴⁴² As the notification and therefore incidence of EL continued to rise across England and Wales, moving from 541 cases in 1919 to 5,039 cases in 1924, with 301 of these identified in Sheffield alone, Hall saw an opportunity to engage in a more extensive, local study of this disease.⁴⁴³ Attracting the attention of both the MRC and the MoH, Hall’s proposed investigations began to be framed ‘as a piece of cooperation’ between them all, with Hall cast as ‘Chairman, or Presiding Genius, or Thruster-in-Chief’.⁴⁴⁴

At the request of the Minister of Health, George Newman, in May 1924 medical officer Arthur MacNalty travelled to Sheffield in order to understand whether this city possessed the ‘administrative’ arrangements and capacity to conduct this kind of broad investigation of EL,

⁴⁴¹ Arthur Hall, ‘The Lumleian Lectures (abridged) on Encephalitis Lethargica (Epidemic Encephalitis)’, *The Lancet*, 201, (1923), pp. 731-740; see Arthur Hall, ‘Exhibition of Cases Showing the Late Results of Encephalitis Lethargica, followed by Discussion: Discussion’, *Proceedings of the Royal Society of Medicine*, 16, (1923), p. 34

⁴⁴² Even the most cursory glance at the references Hall used to inform his Lumleian Lectures on Encephalitis Lethargica illustrates how his initial account of the long-term effects of this disease relied centrally on the work of other, often international researchers, such as Gabrielle Levy and Felix Stern. See Arthur Hall, ‘The Lumleian Lectures (abridged) on Encephalitis Lethargica (Epidemic Encephalitis)’, pp. 739-740

⁴⁴³ TNA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee Appointed by the Medical Advisory Committee of the Local Division of the British Medical Association, (London, 1926), p. 7

⁴⁴⁴ TNA: Encephalitis Lethargica: correspondence; reprints, FD 1/590, Letter from unnamed MRC official to Arthur Hall, 15th April 1924

the specific focus of which remained undefined.⁴⁴⁵ Acknowledging Hall's efforts to highlight and define the nature of this disease to local medical practitioners, which were supplemented by the routine distribution of forms to encourage notification, MacNalty commended the 'excellent cooperation between Professor Hall, Professor Douglas, and the Medical Officer of Health in the work of local investigation'.⁴⁴⁶ In June, Hall wrote to the Secretary of the MRC, Walter Fletcher, to report the decision taken by him, his colleagues and the MoH to focus this investigation on the 'following up of all these cases and trying to form some conclusions as to prognosis in cases showing certain forms in the acute stages.'⁴⁴⁷ Hall and his colleagues thus hoped to understand what had happened to patients since their acute illness and therefore to establish in 'what percentage recovery ha[d] occurred, what kinds of sequelae predominate[d]... whether there [was] any correlation between type of onset and the resulting sequelae', but also to shed light on the '*economic damage* caused by a wave of encephalitis in the community'.⁴⁴⁸ The final report on these 'after-effects', prepared by Hall and his colleagues in Sheffield, was also to be published by the MRC.⁴⁴⁹

Whilst Hall's investigations were undoubtedly influenced and encouraged by a powerful, national research body, they were also informed by much more practical, material and financial concerns about the effects of EL on the population of Sheffield. Uncertainty about the nature of these effects posed various risks: that some might use this to attract medical care and financial support, whilst others might face hardship because they suffered from illness that went unrecognised, untreated, and unresolved, later becoming incapacitated and imposing a burden on the state. Guided by these concerns, in the years between 1924 and 1926

⁴⁴⁵ TNA: Encephalitis Lethargica: correspondence; reprints, FD 1/590, Arthur MacNalty, Report of Outbreak of Encephalitis Lethargica at Sheffield, 7th May 1924

⁴⁴⁶ *Ibid.*

⁴⁴⁷ TNA: Encephalitis Lethargica: correspondence; reprints, FD 1/590, Letter from Arthur Hall to Walter Fletcher, 3rd June 1924

⁴⁴⁸ My emphasis; TNA: Encephalitis Lethargica: correspondence; reprints, FD 1/590, Letter from Arthur Hall to Walter Fletcher, 15th September 1925; Fletcher agreed to this publication in December 1925; NA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924, p. 33

⁴⁴⁹ See TNA: Encephalitis Lethargica: correspondence; reprints, FD 1/590, Letter from Walter Fletcher to Arthur Hall, 7th December 1925

Hall would begin to gather and condense information about his patients in the format of the questionnaire, in the hope of establishing the criteria which could be used to connect a persisting illness, perhaps affecting the ability of a person to work, learn, or live and led them to seek medical attention, back to the physical, bodily effects of a virus. Through developing a standard framework, Hall aimed to equip his colleagues in Sheffield (and beyond) with the tools to align these illnesses with the binaries of mental/physical, acute/chronic, and thus to make practical decisions about the kind of medical treatment or care required and their entitlement to financial support, in turn protecting the limited resources of the health and welfare system.

Although hitherto vital to his studies of EL, Hall judged the case note to be ill-suited to these investigations, which would instead rely on the questionnaire: making it possible ‘replace the “messiness” of ordinary medical practice with the “order” of a deliberate, agreed-upon strategy’, which aimed in this instance to confirm or refute links between the physical effects of EL and particular kinds of long-term illness.⁴⁵⁰ Aided by members of a subcommittee established by the Sheffield Division of the British Medical Association (BMA), as well as colleagues spread out across the local health system, between 1924 and 1926 Hall distributed questionnaires to a total of 301 cases throughout the course of their illnesses; collecting information about their ‘primary attack’, the later progress of the disease and their ‘resultant condition after 12 to 18 months.’⁴⁵¹ All of these cases had been notified to local authorities by a ‘medical man’, who might have perhaps been a panel doctor or a hospital consultant like Hall, whilst others had been admitted to ‘special wards for the accommodation at the City Fever Hospital’, to ‘the various voluntary hospitals of the city, or to Poor Law hospitals.’⁴⁵²

⁴⁵⁰ Annemarie Mol and Marc Berg, ‘Differences in Medicine: An Introduction’, in Marc Berg and Annemarie Mol, (eds), *Differences in Medicine: Unraveling Practices, Techniques and Bodies*, (London, 1998), p. 10; There is a very comprehensive array of historical and sociological analyses of classification as a process, see for example Susan Leigh Starr and Geoffrey Bowker, *Sorting Things Out: Classification and its Consequences*: (Massachusetts, 2000), Ian Hacking, *Rewriting the Soul: Multiple Personality and the Sciences of Memory*, (Princeton, 1995)

⁴⁵¹ TNA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee, p. 4

⁴⁵² *Ibid.*, p. 29

After requesting that these medical men should fill out a form detailing the nature of the initial attack observed in the patient, highlighting the presence (or absence) of specific symptoms, how they had emerged and how long they had lasted, the Subcommittee then sent out another questionnaire a year later seeking information about how their condition had changed over this period. Formed of questions which pulled focus towards both the mental and physical state of the patient, including the movements of the limbs and functions such as speech, these questionnaires framed the responses given in a way that mapped the extent of recovery onto the ability of the individual to interact with the world around them, to engage in daily tasks and deal with the circumstances and responsibilities of modern life.⁴⁵³ By tracking the onset and ongoing course of EL through these questionnaires, Hall would ultimately use a measure of ‘severity’ as a way to show when this disease was responsible for a persisting illness, and therefore to address longstanding, practical concerns about misdiagnosis and mistreatment. As recently shown by Felicity Callard, the meaning of ‘mild’ or ‘severe’ varies due to how these concepts are ‘used by different actors, in different locations, in different contexts’, and yet often serves to adjudicate symptoms, assess healthcare needs and a ‘return to functional normality, whether inside and outside the labour market.’⁴⁵⁴ It is possible to see this process at work in Hall’s investigations, where correlating the acute attack to the eventual outcome based on severity allowed them to develop a specific theory of causation: which could be used to establish diagnosis but also the kind of treatment or care that a patient was likely to need, in the context of a health system increasingly preoccupied the practical concerns of time, funding and resource.

In the clinical section of the Report published by the MRC, which he had co-produced alongside colleague Arthur Gurney Yates, Hall argued that if a case had a ‘mild’ primary attack, (based on data concerning the kinds of symptoms they had presented, their duration, and/or

⁴⁵³ NA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee, pp. 69-70

⁴⁵⁴ Felicity Callard, ‘Very, very mild: Covid-19 symptoms and illness classification’, May 8 2020, , <http://somatosphere.net/2020/mild-covid.html/>. [accessed 1st September 2022]

admission to hospital), that they were more likely to recover completely.⁴⁵⁵ If the opposite was true, and the initial attack was 'severe', it was instead more probable that any recovery would only be partial and might perhaps even end fatally. In advancing this framework, Hall and Gurney Yates drew upon similar theoretical principles adopted by Paterson and Spence in 1921, using the severity of the acute illness as a measure of the duration of viral activity and therefore the amount of permanent physical damage in the brain and body. In line with this framework, they began to draw out and evidence these 'after-effects' amongst the local population and across the health system: for example identifying children whose mental and behavioural problems had led to their admission to an asylum or Poor Law Institution, yet now seemed connected to, and caused by, the physical effects of EL.⁴⁵⁶ Reaffirming the view adopted by Paterson and Spence regarding the mental deficiency observed in many schoolchildren, the prognosis for many identified by Hall and his colleagues in Sheffield was similarly bleak, given that the severity of their acute illness seemed to evidence the presence of permanent, physical damage. In a similar way, it was now also possible to show when EL was *not* to blame for a persisting illness and therefore to reveal certain cases as malingerers who falsely claimed incapacity to gain medical care and/or financial reward. Set amongst an emphasis on efficiency and rationalisation, this was a causal framework which was grounded in medical and scientific theory, could be used to make decisions regarding diagnosis, care, and treatment and to protect the limited material and financial resources of a local health system.

Through a particular set of administrative arrangements as well as the questionnaire, by 1926 Hall and his colleagues had therefore begun to map and stretch out the aetiology of EL: moving beyond the initial, acute stage of this disease, to show *when* and *why* it was appropriate to view a persisting illness as caused by the physical, chronic effects of a virus, but also when it was not. This in turn directed focus back towards other, more 'mental' or psychic causes.

⁴⁵⁵ NA: The Sheffield Outbreak of Epidemic Encephalitis in 1924, FD 4/108, The Sheffield Outbreak of Epidemic Encephalitis in 1924: the Report of a Sub-Committee, pp. 29-68

⁴⁵⁶ *Ibid.*, pp. 52-53

Armed with this information, Hall, Gurney Yates, and their colleagues in Sheffield and beyond were now able to make more accurate, efficient decisions about the kind of care and treatment a case might require, and the allocation of welfare support such as sick pay through the NHI. By acknowledging and exploring the emergence of cases who came into conflict with this framework, which mapped onto the binary structures of the local health system, we shall see how they continued to be informed by old moral and eugenic assumptions. Such analysis puts into question the narratives of progress which, as observed in the Introduction to this thesis, have until recently dominated histories of healthcare in this period. By bringing this group into focus, Hall would seek to map a different aetiology and develop a new category, opening up the need for new forms of acute medical intervention and repositioning these cases within the local health system.

Section 3: The problem of PEP

Addressing members of the Tunbridge Wells Division of the BMA, in December 1925 Arthur Hall detailed his experiences of the 'later manifestations' of EL amongst cases in Sheffield, focusing on the condition of 'post-encephalitic parkinsonism' (PEP).⁴⁵⁷ Although understood to primarily affect movement and produce symptoms as tremor, slowness, excessive salivation and a raised pulse rate, PEP was also associated with depression and melancholia, apathy or in contrast, 'sanguine optimism'.⁴⁵⁸ Sometimes appearing immediately after the 'initial attack', Hall noted that for most cases this occurred 'six to twelve months' or sometimes, 'five, six, or even seven years' after a 'slight' or 'mild' attack which often did not even 'call for medical attention.'⁴⁵⁹ Moreover, whilst there were some instances in which these symptoms had progressed very rapidly and ended in death, there were others who had simply been left 'helpless' but 'stationary', as their disease did not 'alter much one way or another'.⁴⁶⁰ In a third, and final, group, this condition seemed not to 'develop into more severe or crippling phases'

⁴⁵⁷ Arthur Hall, 'A British Medical Association Lecture on Post-Encephalitic Parkinsonism; with Some Remarks on the Results of Treatment by Belladonna', *BMJ*, 1, (1926), p. 127

⁴⁵⁸ *Ibid.*, pp. 127-128

⁴⁵⁹ *Ibid.*, p. 127

⁴⁶⁰ *Ibid.*, p. 128

at all, did not ‘extend its original limits or change its character’ and in fact sometimes appeared ‘to be rather better.’⁴⁶¹ To Hall, as we shall see, the symptoms associated with these cases were potentially informed by causes that spanned both past and present: relating to the physical effects of the initial, viral attack, but also to their ‘temperament’ and ‘surroundings’. Similarly developed to explain and deal with a group of cases who failed to fit into the binary structures of the health system, perhaps unsurprisingly Hall mapped an aetiology which bore striking, theoretical similarities to the one developed by Auden and Shrubbsall: acknowledging the combined role of physical change yet subsequent psychic responses, and therefore, maladaptation. Given their ties to physical damage, Hall took advantage of an existing and increasingly popular kind of acute, out-patient provision which had become central to the functions of the voluntary, ‘general’ hospital, and which he argued could be used to provide intermittent, yet continuing care for the remainder of this lives: negating the need for inpatient admission.

In order to fully understand why Hall came to mark out the problem of PEP, we need to backtrack slightly. Whilst Hall was certainly amongst the first to identify cases in England, the problem of PEP had been recognised on an international level for several years before this, particularly by French neurologists Jean-Athanase Sicard, Jean Paraf, and Alexandre-Achille Souques, as well as François Naville.⁴⁶² Hall’s interest in this group of cases traced more directly back to a series of practical questions and problems left unresolved by his investigation of the ‘after-effects’ of EL. As demonstrated in the previous section, through this investigation Hall and his colleagues had presented a causal framework which could be used to establish if a persisting illness, which was drawing upon the medical and financial resources of the local

⁴⁶¹ *Ibid.*, p. 128

⁴⁶² See Alexandre-Achille Souques, ‘Rapport sur les Syndromes Parkinsoniens’, *Revue Neurologie*, 28, (1921), pp. 534-573, François Naville, ‘Revue Générale sur les Séquelles Cliniques de la Récente épidémie d’Encéphalite Léthargique’, *Schweizer Archiv für Neurologie und Psychiatrie*, 11, (1922), pp. 34-59; Paul Foley, *Encephalitis Lethargica: The Mind and Brain Virus*, p. 295, p. 303, p. 315; Parkinson’s disease had moreover also been a longstanding focus of interest amongst members of the British medical profession, such as William Gowers, based on the nineteenth century studies of James Parkinson on ‘the shaking palsy’. See William Gowers. *A Manual of Diseases of the Nervous System*, (London, 1888), also James Parkinson, *An Essay on the Shaking Palsy*, (London, 1817)

health system, was connected to the physical effects of EL. This hinged on evidence concerning the severity of their condition during the initial, acute attack and whatever came after. Forging ties between some patients and permanent bodily, physical damage, this causal framework allowed Hall and his colleagues to make efficient decisions regarding care and treatment, channelling them towards institutional spaces equipped with the financial and material resources to facilitate long-term, chronic care such as the Poor Law infirmary. In the process, they had also marked out a group of cases whose condition represented an exception to this framework. Often following upon an acute attack which seemed to fit the criteria of ‘mild’, (perhaps given that it had not required hospital admission) these patients began by presenting symptoms which affected their ability to complete particular tasks, like holding a pen, or by losing control of their movements, as reflected in their facial expressions.

This group emerged into clearer focus through Hall’s case notes. One man, who will be referred to as Mr A.W., had attended the SRH complaining of a pain in his left shoulder, developed four months earlier, as well as his inability to sleep.⁴⁶³ Whilst his initial attack had not required admission to hospital, and could therefore be viewed as mild, Hall noted over the next months how his condition had worsened to become a form of ‘bradykinesia’, making it difficult for Mr A.W. to walk freely and without becoming short of breath, and ultimately impacting his ability to work. Another case, Mr H.S., had returned to work after his acute illness in March 1924 and yet by July 1925 had been forced to stop due to ‘general weakness’, tremor of the lips, hands and tongue, forming what Hall described as a ‘Parkinsonian face, trunk and arms’.⁴⁶⁴ Whilst Mr H.S. had previously been active, he now found ‘everything [to be] a trouble’ and that he lacked energy and interest in daily tasks, such as reading a book.⁴⁶⁵ Although the emergence of these symptoms after what seemed to be a mild illness challenged the causal framework Hall had developed to parse the ‘after-effects’ of EL, questions about the continuing care and treatment of at least some of these cases were put to rest as their condition progressed, leaving

⁴⁶³ SUL: Hall Manuscripts, MS 82, Box 1, Parkinsonians, Male R-Z, Mr A.W.

⁴⁶⁴ SUL: Hall Manuscripts, MS 82, Box 1, Parkinsonians, Male R-Z, Mr H.S.

⁴⁶⁵ *Ibid.*

them bedbound. If their families were unable to assume financial responsibility for their long-term care, these cases were therefore in practice defined as chronic and directed towards spaces such as the Poor Law hospital or the asylum.

Yet, there was also a group who presented the same initial set of symptoms which nonetheless seemed to plateau, often leading to a misdiagnosis of 'neurasthenia'.⁴⁶⁶ In the late nineteenth and early twentieth centuries, neurasthenia was viewed as a 'borderland' condition and used to reference 'fatiguability, both psychological and physical,' due to 'nervous weakness' often caused by heredity, chemical imbalance, bacterial infection, but more directly triggered by 'behavioural factors such as overwork, poor diet, lack of exercise, sexual excess, or emotional strain.'⁴⁶⁷ This confusion between persisting symptoms that Hall would ultimately ascribe to PEP and those associated with neurasthenia, therefore illustrates how they came into conflict with the explanatory frameworks used to otherwise conceptualise illness as mental. Unlike the predominantly elderly or long-term unemployed patients who often became the 'residuum of the Poor Law services', many of these cases were viewed as young, previously productive members of the local population, whose symptoms were now impacting their ability to work, earn, fund the cost of medical care and treatment and otherwise of supporting themselves in modern Britain.⁴⁶⁸ Through mapping out a new aetiology and developing a new, diagnostic category Hall would aim to reposition these cases within the local health system, reaffirming their links to acute, physical provisions and therefore imagining new forms of medical intervention.

In order to map this aetiology, Hall relied upon the institutional arrangements of an outpatient clinic devoted solely to EL. In the context of the early twentieth century health system, the outpatient clinic had a somewhat controversial reputation. First emerging in the eighteenth

⁴⁶⁶ Arthur Hall, 'A British Medical Association Lecture on Post-Encephalitic Parkinsonism', p. 129

⁴⁶⁷ 'The Definition and Treatment of Neurasthenia', *The Lancet*, 2, (1913), p. 1558; See Tracey Loughran, *Shell-Shock and Medical Culture in First World War*, p. 58; Charles Rosenberg, *Explaining Epidemics and Other Studies in the History of Medicine*, pp. 85-87

⁴⁶⁸ Alys Levene, 'Between Less Eligibility and the NHS', p. 323

century, outpatient services had only begun to increase by the 1850s, as way to mitigate rising demand for hospital-based, medical care and treatment.⁴⁶⁹ Whilst this provision was often the subject of criticism, based on the fears of financial abuse/misuse which characterised the voluntary system more broadly, these were to some extent resolved through more formalised, interwar contributory schemes which also increased demand and therefore put a strain on inpatient provision. As hospital administrators and local health officials came to appreciate, the outpatient clinic in contrast had ‘few constraints’ when it came to expansion, required ‘minimal investment in buildings or resources’ allowing patients to be examined, sorted, and only admitted for more expensive forms of inpatient care when necessary.⁴⁷⁰

Although we might infer that Hall’s clinic was established around the same time as and was therefore perhaps related to his investigation of after-effects, it is difficult to find much primary source material to substantiate this, or to shed light on how it functioned in practice. With the cost of care and treatment borne by contributions made through the PITP scheme, patients were referred to Hall’s clinic most often by their panel doctors but also sometimes by other professionals such as ‘the representative of a large manufacturing concern’.⁴⁷¹ Whilst a patient might initially be referred to the clinic on a kind of one-off basis, as we shall see many continued to return and visit Hall for periods spanning weeks, months or even years, allowing him to monitor them over long periods of time, gradually adding to their case notes and developing his understanding of EL as a category. To understand the functions of this provision, it is useful to draw comparisons with, and distinctions between, Hall’s clinic and the ‘mental outpatient department’ which was established around the same time at the SRH and run by physician Edward Fretson Skinner.⁴⁷²

⁴⁶⁹ See for example I.S.L. Loudon, ‘Historical Importance of Outpatients’, *British Medical Journal*, 1, (1978), pp. 974-977, also Virginia Berridge, ‘Health and Medicine’, p. 206

⁴⁷⁰ Keir Waddington, ‘The Debate over Outpatient Admissions to London Hospitals’, *Medical History*, 42, (1998), p. 30

⁴⁷¹ Arthur Hall, ‘A British Medical Association Lecture on Post-Encephalitic Parkinsonism’, p. 129

⁴⁷² Like Hall, Skinner was the son and grandson of general practitioners in Sheffield, and he had received his undergraduate training from Corpus Christi College, Cambridge, returning to his home city to complete his clinical training, and later becoming appointed as Lecturer in Medicine and Psychological Medicine at the University of Sheffield. See G.H. Brown, ‘Edward Fretson Skinner’

Historical analysis of interwar developments in hospital-based outpatient provision have generally been pursued in ways that maintain clear distinctions between ‘general’ and ‘mental’ forms.⁴⁷³ Both established in the space of the interwar voluntary hospital, the existence of general and mental outpatient provision might usefully be viewed as two sides of the same coin, both informed (for contingent reasons) by a drive for efficiency and rationalisation in a local health system.⁴⁷⁴ As argued by Rhodri Hayward, the emergence of the mental outpatient clinic was inseparable from a broader desire to ‘replace the medicolegal institution of the asylum with some form of office psychiatry’.⁴⁷⁵ Also informed by the principles of mental hygiene, these clinics were designed to encourage patients to seek treatment in the early stage of a mental complaint, before the nervous system had ‘contracted habits which are most difficult to eradicate’, allowing them to ‘escape the necessity of certification’ and be followed up ‘for longer periods and with less inconvenience to the patients’.⁴⁷⁶ These localised attempts to attach such departments to general hospitals and asylums were therefore informed by the same kinds of concerns and problems which had led the MAB to open the Post-Encephalitis Unit at Winchmore Hill in London, in order to provide medical treatment to children without legal certification.

<https://history.rcplondon.ac.uk/inspiring-physicians/edward-fretson-skinner>, [accessed 1st September 2022], see also Edward Fretson Skinner, *An Outline of Medical Psychology*, (London, 1939)

⁴⁷³ A typical example of a history which focuses on mental health provision alone, is Kathleen Jones, *Mental Health and Social Policy: 1845-1959*. In contrast, although otherwise detailed and comprehensive histories, Barry Doyle’s analysis of twentieth century healthcare in Sheffield and Leeds, and Frank Honigsbaum’s analysis of general practice and hospital medicine, pay limited attention to mental health provision. See Barry Doyle, *The Politics of Hospital Provision in Early Twentieth Century Britain*, and Frank Honigsbaum, *The Division in British Medicine: A History of Separation of General Practice from Hospital Care, 1911-1968*, (London, 1979)

⁴⁷⁴ Alice Brumby has made this point in detail across her PhD thesis, see Alice Brumby, ‘From “Pauper Lunatics” to “Rate-Aided Patients”: Removing the Stigma of Mental Health Care? 1888-1938’; For a more comprehensive analysis of mental outpatient clinics, see Edgar Jones, ‘War and the Practice of Psychotherapy: The UK Experience, 1939-60’, *Medical History*, 48, (2004), pp. 493-510

⁴⁷⁵ Rhodri Hayward, *The Transformation of the Psyche in British Primary Care*, p. 68; Hayward also argued that this was first trialed at the Maudsley Hospital in London, in order to offer treatment for shell shock cases on a voluntary basis, and therefore without the imposing legal certification, see *Ibid.*, p. 68

⁴⁷⁶ R.W. Gilmour, ‘The General Hospital as a Centre for Mental Hygiene’, *Perspectives in Public Health*, 50, (1929), p. 184; Arthur Hall, ‘Presidential Address’, *Perspectives in Public Health*, 50, (1929), p. 136

After presenting at these clinics, patients would undergo lengthy examinations in which physicians sought out information about their upbringing, education, occupation and family life, developing a 'history of the origin of the symptoms in order to understand the[ir] physical and mental surroundings.'⁴⁷⁷ The mental outpatient clinic therefore functioned in much the same way as the wartime casualty clearing station, allowing the bodies and minds of patients to be examined and scrutinised and acting as a temporary 'boundary space between therapeutic approaches' until a firm diagnosis was established.⁴⁷⁸ Whilst Brumby has argued that these clinics were for many patients a mere 'stepping stone to institutional treatment' in the asylum, it is important to appreciate that the routes out of this space were perhaps more varied.⁴⁷⁹ In his outpatient clinic at the SRH, Edward Skinner and his colleagues were primarily concerned with examining and identifying the 'many types and kinds' of illness which brought patients to them: separating out the anxiety states and 'conditions of maladjustment to environment which could be helped by suitable guidance and advice', from those which were 'frankly due to physical disorder which needed accurate diagnosis and treatment', amongst whom were undoubtedly cases with a history of EL.⁴⁸⁰ Beyond providing an alternative space, therapeutic regime and therefore a potential pathway of referral for Skinner and his colleagues, Hall's EL clinic adopted a similar kind of exploratory approach, also acting as a (at least preliminary) buffer to chronic, inpatient care in local Poor Law infirmaries or asylums.

Tasked first and foremost with establishing the assumed physical basis of a case and their condition, during examinations at his clinic Hall meticulously recorded information concerning the symptoms of each patient in their case notes, intertwining these with circumstances that spanned past and present, mapping a fluctuating, sometimes failing, yet persisting process of physiological adaptation, driven in part by physical change but also by a

⁴⁷⁷ R.W. Gilmour, 'The General Hospital as a Centre for Mental Hygiene', p. 185

⁴⁷⁸ Chris Millard, *A History of Self-Harm in Britain*, p. 56

⁴⁷⁹ Alice Brumby, 'From "Pauper Lunatics" to "Rate-Aided Patients": Removing the Stigma of Mental Health Care? 1888-1938', p. 209

⁴⁸⁰ A.G. Yates, 'Discussion', *Perspectives in Public Health*, 50, (1929), p. 193

series of psychic responses. In doing so, Hall drew from the same pool of theoretical ideas as his colleagues in child health around the same time: marking out the end of the acute, viral attack, which still remained connected to their persisting symptoms through the temporal marker of ‘post’. To recap, these ideas were rooted in nineteenth century physiology, the idea that ‘life itself was defined by a continuous adjustment of internal to external relations’, and therefore that illness or disease was a product of the failure of these processes.⁴⁸¹ In line with concerns ‘about the effects of economic depression and international rivalries but also... about the impact of rapid social and technological change on their own professional status’, these ideas had found much wider usage amongst members of the medical profession during the interwar period.⁴⁸²

According to Francis G. Crookshank, a somewhat controversial figure amongst his colleagues, a state of health was reliant on the functional unity of the organism, which ‘continued when, following repeated response to stimulus, there [was] successful adaptation or adjustment to environment’.⁴⁸³ Physicians like Crookshank acknowledged that this adaptive process might be disrupted by a range of possible ‘stimuli’ or causes, in turn moving away from the assumption that any resulting disease could be treated as an objective entity, recasting it instead as a ‘failure or incompleteness of adaptive response’ to the ‘stress’ and ‘precariousness of life itself’.⁴⁸⁴ As members of the medical and scientific professions therefore became increasingly concerned about the effects of the modern world on the health of its population,

⁴⁸¹ Herbert Spencer, *The Principles of Psychology*, (London, 1855), p. 374; F.L. Holmes, ‘Claude Bernard, the Milieu Intérieur, and Regulatory Physiology’, *History and Philosophy of the Life Sciences*, 8, (1986), pp. 3-25; See also Trevor Pearce, ‘From ‘Circumstances’ to ‘Environment’: Herbert Spencer and the Origins of the Idea of Organism–Environment Interaction’, *Studies in History and Philosophy of Biological and Biomedical Sciences*, *Studies in History and Philosophy of Biological and Biomedical Sciences*, 41, (2010), pp. 241-252

⁴⁸² Mark Jackson, *The Age of Stress: Science and the Search for Stability*, (Kindle edn, Oxford, 2013), p. 78

⁴⁸³ F.G. Crookshank, ‘Science and Health’, in F.S. Marvin, (ed.), *Science and Civilisation*, (London, 1923), p. 247

⁴⁸⁴ *Ibid.*, p. 247; Lord Horder, ‘The Strain of Modern Civilisation’, in Lord Horder, *Health and A Day*, (London, 1937), p. 5

they also expressed a growing faith in the ability of the organism to adapt and adjust, symbolised by Walter Cannon's powerful theory of homeostasis.⁴⁸⁵

According to Cannon, homeostasis was best described as the series of unstable bodily, physiological processes (like emotions) which maintained organic equilibrium, and moreover went on 'quite independent of any treatment which a physician may give'.⁴⁸⁶ Highlighting the processes through which the 'homeostatic body ruled, cohabited and spoiled', Cannon therefore reframed the role of the physician, who 'was now meant not to interfere but to facilitate reregulation; not to fix the organism, but adjust it so internal and external environments could operate in a new harmony'.⁴⁸⁷ As we shall see, Hall would use these theories to both map the aetiology and mark out the problem of PEP, but also to underline the need for a new programme of medical care and treatment and continuing financial support, designed to help a patient adapt to and live with the effects of a physical, viral illness and negating the need for admission to an institution.

In the years after 1924, Hall therefore began to regularly see, examine, and treat cases in his EL clinic, and in the process, to define the problem of PEP. Documenting each patient, their lives and condition in the past and present, Hall tied a series of fluctuating, varying, yet persisting symptoms like tremor, rigidity, ocular abnormalities, depression and apathy to an adaptive process that was not only determined by the amount of organic damage produced in the acute attack but by more individual factors such as 'temperament' and 'surroundings'.⁴⁸⁸ By acknowledging these variables, Hall set out to explain differences between his patients, all of whom still nonetheless shared a diagnosis of PEP. There were some, he acknowledged, who seemed 'capable of doing more than one expects' and able to 'compensate for their partial

⁴⁸⁵ For a detailed explanation of the theory of homeostasis, see Walter Cannon, *The Wisdom of the Body*, (New York, 1939)

⁴⁸⁶ Steven J. Cross and W.R. Albury, 'Walter B. Cannon, L. J. Henderson, and the Organic Analogy', *Osiris*, 3, (1987), p. 172; see also Allan Young, 'Walter Cannon and the Psychophysiology of Fear', in *Greater than the Parts: Holism in Biomedicine, 1920-1950*, (Oxford, 1998), pp. 241-243

⁴⁸⁷ Stefanos Geroulanos and Todd Meyers, *The Human Body in the Age of Catastrophe*, p. 299

⁴⁸⁸ Arthur Hall, 'The Prognosis and Treatment of Chronic Epidemic Encephalitis', p. 31

disability', as reflected in a 'fine strong young man' who in spite of his symptoms, was able to drive a 3-ton lorry from Sheffield to London and back in three days, with 'nobody but a small boy with him'.⁴⁸⁹ This was possible, Hall argued, because this young man was aided by his temperament and surroundings, which therefore allowed him to cope with and adapt to the physical effects of the acute, viral attack. Whilst these variables might positively influence the outcome and prognosis for some cases, they also had a more detrimental effect in others, causing their symptoms to progress and incapacity worsen. As we shall see, based on the essentially physical nature of their condition, which was nonetheless influenced by how they interacted with and adapted to their surroundings, Hall would argue that these cases required but were also able to benefit from a specific kind of medical intervention and continuing financial support.

To map out this kind of aetiology, in his case notes Hall began by recording information concerning the initial attack of the patient, during which he might have been responsible for their care, following this up with detail about the onset of symptoms he would come to attribute to PEP. In the case notes for Mr H.H., Hall began by noting how his condition had begun with a headache, 'diplopia', and vertigo in 1924, followed by a complete recovery which was cut short in 1933 through the onset of shakiness, 'slight' facies and a tremor of the eyelids and tongue.⁴⁹⁰ For Mr D.R., Hall recorded that his present condition, reflected in a 'slightly fixed expression', stiff gait, and difficulty concentrating had followed upon 'vague symptoms' of abdominal pain, lethargy and dizziness.⁴⁹¹ By consistently arranging his notes in this way, Hall fixed down the initial cause of their persisting illness (the acute viral attack), as well as he what viewed, based on his physiological expertise, technical skill and clinical wisdom, as signs

⁴⁸⁹ Arthur Hall, 'Post-Encephalitic Parkinsonism', p. 128; Arthur Hall, *Epidemic Encephalitis*, (Bristol, 1924), p. 117

⁴⁹⁰ SUL: Hall Manuscripts, MS 82, Box 1, Parkinsonians, Males R-Z, Mr H.H.

⁴⁹¹ SUL: Hall Manuscripts, MS 82, Box 1, Parkinsonians, Males R-Z, Mr D.R.

of internal, physical and organic change, expressed outwardly in the form of tremor or stiffness.⁴⁹²

Beyond these comparatively standardised, preliminary forms of evidence, Hall also made notes which were much more unique to each individual, perhaps concerning any previous illnesses or injuries, regarding a ‘GSW’ (gunshot wound) sustained during the war or a history of recurrently seeking medical attention, or about their hobbies or interests, noting how one man had been a keen gardener and cyclist prior to his illness.⁴⁹³ Hall often supplemented these details with information about the profession or daily responsibilities of the patient, often explicitly linking this to the onset of symptoms. He therefore noted how one woman, Miss D.N., worked as a shop assistant and had found since her illness that she could ‘not use [her] right hand properly’, as it got ‘fixed’ and meant that she dropped things.⁴⁹⁴ Hall was also equally interested in any recent, apparently significant changes in life events or in daily responsibilities, such as a return to work, particular physical activities, a marriage, housework, going to the ‘Pictures’ or to football matches.⁴⁹⁵

Building on this broad overview, we can gain a clearer sense of why Hall gathered such information, tracked the condition of a patient over time, and therefore mapped a specific physical(/psychic), aetiology by focusing in on some specific case notes. In his notes on Mr G.E., Hall began by documenting an initial attack in 1924 characterised by nocturnal insomnia and daytime fatigue, without any fever. By the time that Mr G.E. attended his clinic in 1937,

⁴⁹² The use of this kind of clinical expertise by some interwar clinicians has been documented by Christopher Lawrence. See Christopher Lawrence, ‘Clinical Holists and Medical Knowledge in Interwar Britain’, in *Greater than the Parts: Holism in Biomedicine, 1920-1950*, (Oxford, 1998), p. 105

⁴⁹³ SUL: Hall Manuscripts, MS 82, Box 1, Mr H.W., Mr A.W.

⁴⁹⁴ SUL: Hall Manuscripts, MS 82, Box 1, PEP, Fatal cases, female, Miss D.N.; Hall also noted how one man was a ‘schoolmaster’, another a ‘property repairer’, and one woman, a typist, see SUL: Hall Manuscripts, MS 82, Box 1, Parkinsonians, Males R-Z, Mr D.R., Mr W.W., and *Ibid.*, PP Encephalitis, A to J, females, Miss O.N.

⁴⁹⁵ For references to going to the pictures, see SUL: Hall Manuscripts, MS 82, Box 1, PEP, Males H-Q, Mr W.L.; For references to marriage, *Ibid.*, PEP, Males H-Q, Mr G.S.; For references to football matches, *Ibid.*, EE, male, Fatal, A to L, Mr A.R.; For references to doing housework, *Ibid.*, Parkinsonians, female, Mrs E.Y.

Hall recorded how this man had since been unable to ‘keep a situation’ (job), providing a list of eleven examples where he had either refused to obey orders or walked out altogether.⁴⁹⁶ As Hall demonstrated, however, this behaviour was also accompanied by periods of ‘aberration’ in the mornings, when Mr G.E. was ‘very slow and staggering in his actions’, with this condition also brought on by ‘periods of excitement’.⁴⁹⁷ Hall also recorded that Mr G.E. struggled to concentrate, seemed to lose his memory at times and become violent, but otherwise was ‘of a very generous nature’ and was ‘absolutely honest’.⁴⁹⁸ Through mapping out a linear, chronological transition from an acute illness to the subsequent onset of particular symptoms in these case notes, Hall therefore connected what might have otherwise been viewed as an unwillingness or resistance to work, to a medical problem. Moreover, he tied Mr G.E.’s behaviour to a disrupted, physiological process of adaptation, due in part to his surroundings (the workplace), but also to forms of bodily, physical damage, produced by an earlier viral illness.

Emerging into focus through Hall’s attention to the life circumstances of the patient, this aetiology was also reinforced through monitoring their responses to particular kinds of pharmaceutical therapies, such as belladonna and stramonium.⁴⁹⁹ To Hall, although these therapies were likely to be insufficient to heal the ‘very definite organic substratum of the disease’, in 1926 he theorized that they might inform a kind of ‘suggestion’, whereby the activity of the mind was redirected and the ‘great mass of functional symptoms’ which masked

⁴⁹⁶ SUL: Hall Manuscripts, MS 82, Box 1, ‘Parkinsonians, Males R-Z’, Mr G.E.

⁴⁹⁷ *Ibid.*

⁴⁹⁸ *Ibid.*

⁴⁹⁹ ‘Belladonna’, or ‘deadly nightshade’, was an indigenous plant which grew poisonous berries, and became used for medical purposes in the Victorian period because of its ‘mydriatic’ purposes, or ability to dilate the pupils. Gradually, belladonna also became used to treat convulsions, neuralgia, rheumatism, mania, gout and ‘painful conditions of the nervous system.’ See Elizabeth A. Campbell, ‘Don’t say it with nightshades: sentimental botany and the natural history of *Atropa Belladonna*’, *Victorian Literature and Culture*, 35, (2007), p. 612; In his notes on Mr B.H, a 35-year-old man who had first attended the clinic in 1935 due to a tremor in the left leg and stiffness in his arm, Hall recorded how he had only been able to work ‘on and off’ by visiting Hall recurrently over the next decade, who in turn provided him with prescriptions of ‘belladonna’. It should be noted that Mr B.H.’s last name was illegible beyond the third letter of his last name, which has therefore been used for his initial, see SUL: Hall Manuscripts, MS 82, Box 1, PEP, Males R-Z, Mr B.H.

‘the extent of the real disorder’ lifted, therefore restoring the patient ‘to a life of usefulness’.⁵⁰⁰ This idea that the symptoms of PEP were product of maladaptation informed by both physical and psychic processes was borne out in Hall’s notes on Mr A.S., whose tremor often worsened when he was ‘excited’ or ‘upset’ and yet was brought under control through a prescription of ‘stramonium’, in turn allowing him to work.⁵⁰¹ In a similar way, Hall’s notes on Mr A.W. depicted how his condition had fluctuated over the two decades during which he attended the EL clinic, as his tremors and shakiness varied ‘day to day’, caused him to ‘lose interest’ and become ‘apathetic’, yet improved after doses of ‘atropine’ (belladonna).⁵⁰² Highlighting this fluctuation, Hall acknowledged that there was likely to be some kind of ‘psychic factor’ in his cases, given there was ‘no evidence that the actual lesion [was] in any way affected in its condition or progress by administering these drugs.’⁵⁰³ Acknowledging that Mr A.W.’s condition was perhaps influenced by his ‘inherent emotional potentialities and kinetic tendencies’, or the ‘temperament’ which informed his ‘action and reaction, his outlook upon life’, he underlined the need for medical care and treatment able to address given how these ‘psychic’ responses, and which as he had shown could allow the patient to cope and live with their physical condition.⁵⁰⁴

To Hall, then, PEP was a physical chronic condition which regardless of any apparent improvement or cessation in the progress of symptoms still required a specific form of long-term medical care and management, yet not necessarily inpatient admission. Instead, Hall connected these cases to provisions used to deal with acute forms of illness, located in the space of the voluntary hospital. This long-term care, he argued, could be handled on an outpatient basis, enabling these patients to access the medical care, treatment and financial support needed to allow them to ‘*carry on their ordinary life without any special*

⁵⁰⁰ Arthur Hall, ‘Post-Encephalitic Parkinsonism’, p. 130; John Collie, ‘Malingering’, *BMJ*, 2, (1913), p. 647

⁵⁰¹ SUL: Hall Manuscripts, MS 82, Box 1, PEP, Males H-Q, Mr A.S.

⁵⁰² SUL: Hall Manuscripts, MS 82, Box 1, PEP males, R-Z, Mr A.W.

⁵⁰³ *Ibid.*

⁵⁰⁴ E. Fryer Ballard, ‘The Psychoneurotic Temperament and its Reactions to Military Service’, *Journal of Mental Science*, 64, (1918), p. 365

modification other than is necessary to meet existing disabilities'.⁵⁰⁵ In advancing the category of PEP and a physical, chronic aetiology that was nonetheless connected to an acute form of care, Hall was able to keep these cases out of institutions such as the asylum and the Poor Law, but also underline the continuing utility of his EL clinic at the SRH, and thus provision which minimally subsumed the limited resources of the voluntary hospital.

Whilst Hall undoubtedly viewed the medical treatment he provided as central to helping these people live with their disabilities, we can infer from his notes that he also believed that this relied on intermittent periods of time to rest and to get away from the daily responsibilities that might be causing the fluctuations in their condition. Although, frustratingly, Hall was never explicit about this, based on consistent references to many patients taking time off work, due for example to their tremor but also a 'loss of confidence', it is fair to assume that for many this would have led them to make claims for sick pay through the National Health Insurance scheme.⁵⁰⁶ To recap from Chapter 1, the National Health Insurance scheme had been passed in 1911 and 'formalised, financially protected and increased access to a network of sickness and medical benefit providers' referred to as 'approved societies', who in turn provided sick pay to a patient as long as they were along to provide a medical certificate from their doctor.⁵⁰⁷ Informed by concerns about the declining health of the population, these changes in welfare administration were directly intended to give people enough time to recover from illness, and reduce the risk of further, perhaps chronic incapacity, the cost of which would ultimately be borne by the state. Although we are limited to making inferences here, it requires no great leap to assume that as an expert on EL and in industrial medicine, able to use his clinical gaze to both link PEP to irresolvable, physical and bodily change but also events and circumstances the lives of his patients, Hall would have at the very least supported claims for sick pay, as a way to help these cases live with their condition and to avoid institutional treatment.

⁵⁰⁵ My emphasis; Arthur Hall, 'The Prognosis and Treatment of Chronic Epidemic Encephalitis', p. 36

⁵⁰⁶ SUL: Hall Manuscripts, MS 82, Box 1, PEP, Males H-Q, Mr H.D, Mr W.L. In his notes on one case, Mr C.E, Hall detailed his recurrent periods at and off work, acknowledging how he had to be 'off for odd days', see SUL: Hall Manuscripts, MS 82, Box 1, Untitled, Mr C.E.

⁵⁰⁷ Gareth Millward, *Sick Note: A History of the British Welfare State*, (Oxford, 2022), p. 30

By putting focus on management as opposed to intensive, institutional regimes of care, Hall arguably contributed to a broader desire to reframe, and therefore find new ways of dealing with, chronic disease which have been documented by historians such as George Weisz and Carsten Timmermann.⁵⁰⁸ He also, moreover, presented a programme of medical intervention that met the needs of the local health system: drawing minimally upon the financial resources of the voluntary hospital. With this approach it was possible to monitor cases over time, to identify and address any possible changes in their condition and Hall hoped, allow them to live as productive members of society wherever possible, until inevitably their condition declined. Providing a category which in turn fed into the impression of rising levels of chronic illness amongst the population, Hall (perhaps inadvertently) contributed to a practical, financial problem that would become a subject of concern amongst policymakers and members of the medical profession by the mid-1930s and which would ultimately feed into an entirely new approach to questions of causation.

Section 4: Chronic illness, the psychosocial and the end of post-encephalitis

Over the course of this chapter, we have explored Arthur Hall's efforts to interpret and deal with illnesses which persisted after and which he connected to EL. Through relying on a particular set of institutional arrangements, material practices and causal theories, Hall mapped out a context-specific aetiology and produced the physical, chronic category of PEP, dealing with a group of cases who had initially come into conflict with the binary structures of the local health system, through relating them to the acute provisions, resources, and policies of the voluntary hospital. In this final section, such contingency will be brought into even sharper focus, as we explore how and why the link between EL and these long-term illnesses would be broken, as part of a new set of administrative and institutional responses to rising levels of chronic illness and in turn the development and adoption of a new, psychosocial approach. As we shall see, in gathering information concerning the past and present life of his

⁵⁰⁸ George Weisz, *Chronic Disease in the Twentieth Century: A History*, (Baltimore, 2014); Carsten Timmermann, 'Chronic Illness and Disease History', in Mark Jackson, (ed.), *The Oxford Handbook of the History of Medicine*, (Oxford, 2013), p. 394

patients to parse and explain the problem of PEP, Hall's work provided many of the tools and insights which would soon be taken up and explored further by James Halliday, who recognised how the stress of life, and therefore emotion, directly informed physical illness and disease. Perhaps influenced more by Ivy Mackenzie, his colleague in Glasgow who shared Hall's view that the illnesses which persisted after EL were a product of maladaptation, Halliday would by the mid-1930s begin to use the 'psychological' data which had emerged *in part* through studies of this disease, as a way to reframe chronic illnesses which caused high levels of incapacity yet seemed to lack physical proof.

Through gradually developing new forms of 'theoretical reflection, experimental investigation, and welfare administration', Halliday ultimately established the 'ontological equivalence of infective agents and emotional states', and therefore opened a 'new domain of [medical and] political intervention'.⁵⁰⁹ As will be explored in more detail in the next chapter, by the early 1940s, when it came to illnesses that persisted long after a viral infection, members of the British medical profession relied on a different set of institutional arrangements, material practices and causal theories, directing focus away from signs of organic or physical change in the past, towards the psychosocial circumstances of the patient and their lives in the present and a new set of categories. While Hall's aetiological account of PEP, and his outpatient clinic at the SRH would never be challenged or rejected outright, this chapter concludes by acknowledging how, in the face of these practical, institutional changes, they lost their contingent value, their necessity, and therefore, fell out of usage.

Although physicians like Hall had begun to envision new ways of dealing with chronic, physical illness in the modern British health system which did not rely on expensive forms of inpatient, hospital care, throughout the 1930s this problem remained a topic of concern amongst medical and political circles. According to Mark Jackson, declining mortality rates from

⁵⁰⁹ Rhodri Hayward, 'Enduring Emotions: James L. Halliday and the Invention of the Psychosocial', *ISIS*, 100, (2009), p. 838, p. 833, p. 830

infectious diseases, the increasing incidence of occupational injuries, awareness of long-term ill health amongst veterans, as well as concerns regarding industrial fatigue had all served to slowly pull focus towards the problem of chronic illness over the course of the early twentieth century, intensifying ‘pervasive fears about the breakdown or destabilisation of social order.’⁵¹⁰ Such concerns had been brought into even sharper focus by the late 1920s, as changes in practice and administration implemented through welfare provisions like the NHI drew attention to the growing number of people claiming incapacity support for recurrent and increasingly prolonged periods of illness, which seemed unrelated to objective signs of physical pathology.⁵¹¹ According to Andrew Hull, these practical, financial problems directly informed the desire for a ‘radical alternative to the perceived failures of a biomedical model’ of health and disease, which focused on the person rather than their disease and was therefore no longer reliant on signs of organic change, perhaps located in bodily fluids but also, as observed in the work of Arthur Hall, in a period of acute, viral illness, or in outward, bodily signs, such as a subtle tremor, or unusual movement of the eyes.⁵¹²

The subsequent emergence of what would come to be defined as a ‘psychosocial’ approach in British medicine is justifiably traced back to the efforts and work of James Lorimer Halliday. Halliday had begun his career in Glasgow working as a general practitioner’s assistant, moving on to a role as physician to the Ruchill Municipal Fever Hospital and later to the local NHI scheme, where he took on responsibility for assessing difficult or uncertain claims made for incapacity support referred on by panel doctors.⁵¹³ It is here in his role as an assessor, that historians have generally rooted Halliday’s growing interest in the idea that a ‘flight into

⁵¹⁰ Mark Jackson, *The Age of Stress*, (Kindle edn), p. 87

⁵¹¹ This ‘heterogeneous group’ were described in 1921 by psychotherapist Millais Culpin as ‘neurasthenics’, see Millais Culpin, ‘The Problem of the Neurasthenic Pensioner’, *British Journal of Medical Psychology*, 10, (1921), pp. 316-320, see also Millais Culpin, ‘Some Cases of “Traumatic Neurasthenia”’, *The Lancet*, 218, (1931), pp. 233-237; Karl Figlio, ‘How Does Illness Mediate Social Relations? Workmen’s Compensation and Medico-Legal Practice, 1890–1940’, p. 198

⁵¹² Andrew Hull, ‘Glasgow’s “Sick Society”?: James Halliday, Psychosocial Medicine and Medical Holism in Britain c.1920-48’, *History of the Human Sciences*, 25, (2012), p. 74

⁵¹³ Glasgow University, Special Collections: Halliday Papers, MS Gen 1669/156, Halliday, J. L. (n.d.[a]) ‘Application for the Chair of Social Medicine at the University of Birmingham’, iii

illness' was guided by a 'kind of miasma of historical experience', punctuated by episodes of frustration and disappointment, and by the stress of modern life.⁵¹⁴ As argued by Rhodri Hayward, the administrative machinery of the welfare state implemented in the first decade of the twentieth century had gradually produced 'vast aggregations of personal data, in doctors' records and insurance returns, that served as indices of the nation's psychological health', and in turn shaped Halliday's shifting interest in the psychosocial.⁵¹⁵ Whilst the NHI was undoubtedly central to pulling focus towards the psychosocial determinants of health and illness, it is also worth appreciating how this information might have also emerged through studies of diseases like EL and its persisting effects, which as we have seen also led physicians like Hall to relate the challenges of modern life to physical bodily processes.⁵¹⁶

Whilst Halliday himself did not publish any studies on the later manifestations or 'after-effects' of EL, Andrew Hull has shown how he was influenced by the work of his colleague, Ivy Mackenzie: a local expert on encephalitis and visiting physician to two large Glaswegian general hospitals.⁵¹⁷ To Hull, this influence is evident in Mackenzie's recognition that diseases such as EL progressed due to 'bodily adaptations to initial injury or infection', and that therefore, an 'underlying "nervous instability" or "morbid concentration" on affected parts made certain individuals more susceptible to progressive disease'.⁵¹⁸ By drawing similarities between the aetiology of EL and its persisting effects presented by Mackenzie with that of Hall,

⁵¹⁴ Rhodri Hayward, 'The Invention of the Psychosocial: An Introduction', *History of the Human Sciences*, 25, (2012), p. 6

⁵¹⁵ *Ibid.*, p. 8

⁵¹⁶ Alongside Sheffield, Glasgow had some of the highest incidence rates of EL in Britain during the 1924 outbreak. See Ashie Main, 'Lethargic Encephalitis: The Glasgow Epidemic of 1923: Its Incidence and Consequences, from the Point of View of Public Health', *Epidemiology and Infection*, 31, 1931, pp. 162-188; Writing in *The Lancet* in April 1925, Halliday recounted the challenges he had faced when diagnosing cases of EL in their acute stage, given their resemblance to other 'acute fevers in general'. These difficulties were nonetheless cancelled out by the fact that the later manifestations were 'sufficiently striking to make the diagnosis fairly sure'. See James Halliday, 'Difficulties in the Diagnosis of Acute Epidemic Encephalitis in Children', *The Lancet*, 205, (1925), pp. 763-765, also James Halliday, 'The Spinal Fluid Sugar in Encephalitis', *Quarterly Journal of Medicine*, 18, (1925), pp. 327-34, and James Halliday, 'Sugar Values in Encephalitis', Ph.D. thesis, (University of Glasgow, 1925)

⁵¹⁷ 'Obituary: Ivy Mackenzie', *BMJ*, 1, (1959), p. 863

⁵¹⁸ Andrew Hull, 'Glasgow's "Sick Society"?' p. 77

we can be even more precise about how studies of EL and its persisting effects informed the development of the psychosocial framework developed by Halliday in the mid 1930s.

Addressing members of the BMA in 1927, Mackenzie highlighted the persisting yet fluctuating symptoms observed in patients diagnosed with PEP, viewing them as a reflection of a ‘human subject [who was] striving to preserve its identity in adverse circumstances’, and therefore, engaged in a failing process of adaptation in response to the initial infection.⁵¹⁹ By maintaining, like Hall, that the subsequent ‘course of events’ which followed EL were ‘determined by the extent of the damage, and by the efforts of the organism, successful or otherwise, to restore a state of equilibrium’, Mackenzie drew upon similar kinds of evidence: emphasising how a patient’s condition was influenced by circumstances which spanned their past and present, by their ‘temperament’, by the stresses of modern life and by physical, bodily change.⁵²⁰ In the work of Mackenzie and Hall, it is arguably possible to see some of the practical and theoretical components that Halliday would use to develop and form a related yet distinct ‘psychosocial’ approach, which would ultimately begin to move away from that initial, physical change to instead forge a more direct causal link between stress, or emotion and particular kinds of chronic illness or disease, thus addressing political, financial and material concerns about the ‘increasing flow of certificates’, medical treatments and ‘cash benefits’ issued through the NHI scheme.⁵²¹

In 1934, Halliday therefore addressed these ‘disquieting’ issues directly, acknowledging how many patients were referred to him with diagnoses such as ‘gastritis’, ‘anaemia’ or ‘rheumatism’, even though their ‘bodily organs [were] sound’, they often showed ‘no evidence of these affections’ but were still ‘genuinely ill’.⁵²² Drawing upon the work of American

⁵¹⁹ Ivy Mackenzie, ‘Discussion on Epidemic Encephalitis- 1. Epidemiological Considerations’, *BMJ*, 2, (1927), p. 532

⁵²⁰ Ivy Mackenzie, ‘Epidemic Encephalitis’, *Journal of Mental Science*, 73, (1927), p. 568

⁵²¹ James Halliday, ‘Some Reflections of a Regional Medical Officer on Medical Certification’, *The Lancet*, 2, (1934), p. 262

⁵²² *Ibid.*, p. 262, p. 264

psychologists Franz Alexander and Helen Flanders Dunbar, as well as physiologist Walter Cannon, Halliday set out to show how the oncoming ‘tide of chronic disease that was threatening to submerge modern societies’, was in fact ‘an index of the population’s declining psychological state’.⁵²³ According to Halliday, many of the illnesses which caused confusion amongst panel doctors and the NHI scheme were in fact associated with ‘buried emotions’, which produced ‘symptoms of physical distress’ but also informed a circular, enduring process which might eventually feed into bodily changes, such as ulceration.⁵²⁴

Although Halliday therefore maintained the principle, also accepted by Hall and Mackenzie, that an individual might become more unwell or ill through their ‘active engagement with their natural and social environment’, he had also used this to inform a very different theory of causation: viewing these problems as signs not just of a sick individual but of a ‘sick society’, and underlining the need for different kinds of ‘wholesale social and political reformation’.⁵²⁵ Recasting each patient as a biopsychic organism, whose illness was perhaps *wholly* dictated by mental stresses and maladjustment, *even if* it followed upon and therefore seemed connected to the physical effects of an infection, Halliday mapped out an aetiology which could be used to parse chronic illness in new ways, to imagine new methods of diagnosis and therapeutic intervention and in turn pull focus towards new psychological, or mental, categories. As we shall see, these changes in practice and theory would lead members of the medical profession to reframe the kinds of symptoms and persisting illnesses which only a decade earlier would have instead been attributed to the physical and chronic, yet ambiguous,

⁵²³ In the US, the movement towards psychosomatic medicine was led by Franz Alexander and Helen Flanders Dunbar. In his work, Alexander argued that chronic disease was not necessarily ‘caused by external, mechanical, chemical factors or by micro-organisms, but by the continuous functional stress arising during the everyday life of the organism in its struggle for existence. See Franz Alexander, ‘Psychological Aspects of Medicine’, *Psychosomatic Medicine*, 1, (1939), pp. 17-18, and Helen Flanders Dunbar, *Emotions and Bodily Changes: A Survey of Literature on Psychosomatic Interrelationships, 1910-1953*, (New York, 1954)

⁵²⁴ Mark Jackson, *The Age of Stress*, (Kindle edn), p. 88; Rhodri Hayward, ‘The Invention of the Psychosocial: An Introduction’, p. 6; Rhodri Hayward, ‘Enduring Emotions: James L. Halliday and the Invention of the Psychosocial’, p. 830

⁵²⁵ Mark Jackson, *The Age of Stress*, (Kindle edn), p. 12; Karl Figlio, ‘How Does Illness Mediate Social Relations?’, p. 214; Rhodri Hayward, ‘The Invention of the Psychosocial: An Introduction’, p. 6

condition of PEP, and connected to a specific medical and financial programme of intervention.

In order to understand this point, it is useful to explore how the new arrangements, practices and theories associated with Halliday's approach allowed doctors to reinterpret some of the key components of PEP, its faltering course, and varying symptoms. According to Hull, Halliday's faith in and commitment to the psychosocial approach was embedded during his experiences of World War 2: working for Emergency Medical Service (a set of institutional and administrative arrangements which we shall hear more about in the next chapter), and later as part of the Clyde Basin Experiment.⁵²⁶ Guided by concerns about the health of young workers, this experiment was founded in 1942 by the Scottish Department for Health and was designed to connect local panel doctors and medical officers to 'expert' physicians at general hospitals. Halliday viewed the experiment as an opportunity to trial his vision of a more psychosocial form of 'integrated care', in which standard medical treatment was supplemented 'with socio-medical action'.⁵²⁷ To achieve this, Halliday aimed to ensure that the condition of a patient was assessed and judged by a range of professionals, in line with the clinical examination of a physician, through interviews of family members conducted by social workers but also based on information provided by the Labour Exchange, all of which was compiled in a 'case record which demanded information concerning [the] patient's personality and social background'.⁵²⁸

By 1943, Halliday had also developed a new, six-point formula which could be used to identify patients whose condition was a 'bodily disorder whose nature can be appreciated only when emotional disturbances (i.e. psychological happenings) are investigated.'⁵²⁹ First and foremost, Halliday argued that in these 'psychosomatic' affections, emotion was often the

⁵²⁶ Andrew Hull, 'Glasgow's "Sick Society"?', p. 82

⁵²⁷ Glasgow University, Special Collections: Halliday Papers, MS Gen 1669/149, James L Halliday, 'Application for the Chair of Social and Preventive Medicine, the Queen's University of Belfast'

⁵²⁸ *Ibid.*

⁵²⁹ James Halliday, 'Concept of a Psychosomatic Affection', *The Lancet*, 242, (1943), p. 692

‘precipitating factor’, as judged by the relationship between a bodily process that ‘emerged or recurred, on meeting an emotionally upsetting event.’⁵³⁰ This link, in turn, relied on the kinds of institutional arrangements and material practices he had used in the Clyde Basin Experiment and therefore judgements regarding the ‘personality type’ of the patient, their gender, the presence of any other ‘psychosomatic affections’, family history, as well as the ‘phasic manifestation’ of their illness, which often entered into periods of ‘crudescence, intermission, and recurrence’.⁵³¹ To Halliday, paying attention to the whole person, ‘his life situation, and his way of living’ in order to explain a persisting illness, rather than additionally seeking out ‘an appropriate set of physiological signs, such as evidence of nerve injury or bacterial infection’ was much more central to developing methods of treatment, as well as reducing the risk of further progression and recurrence.⁵³² In 1937, Halliday therefore stressed the need for the doctor to fend off a patient who ‘clamours for infections, ultra-violet ray, massage or operation’, to limit the allocation of certificates which ensured that ‘in time the conviction of organic disease, and with it the symptoms, become fixed’, and focus on addressing their *emotional* reactions, perhaps through informal advice, or psychotherapy.⁵³³ Acknowledging some of the problems or characteristics hitherto attributed to a condition like PEP such as its fluctuating, unpredictable course and involvement of ‘psychic’ factors, Halliday’s diagnostic and therapeutic framework encouraged doctors to draw very different conclusions regarding causation, in turn pulling focus away from any kind of initial, now insignificant, physical, bodily damage.

Although this ‘psychosocial’ framework did not lead Halliday (and members of the British medical profession more broadly) to revise their aetiological understanding of PEP, or to question the viability of this category entirely, it did change how they approached and

⁵³⁰ *Ibid.*, p. 692, p. 693

⁵³¹ *Ibid.*, p. 693

⁵³² James Halliday, *Psychosocial Medicine: A Study of the Sick Society* (London, 1948), p. 238; Rhodri Hayward, ‘Enduring Emotions’, p. 833

⁵³³ James Halliday, ‘Psychological Factors in Rheumatism: a preliminary study. Part II’, *BMJ*, 1, (1937), p. 268

conceptualised the relationship between viruses and long-term illness and made decisions regarding diagnosis and treatment. As we have seen, in the 1920s and 1930s information concerning the ‘surroundings’ and ‘temperament, or circumstances of a patient in the past and present were used by Hall to reaffirm the connection between their persisting symptoms and an acute, viral illness buried deep in the past, and therefore underline the need for a particular kind of life-long medical management (and often financial support), provided in the space of an outpatient clinic. By the late 1930s, the situation was very different. Faced with a series of practical and financial challenges generated by the NHI scheme, by forging a connection between chronic, physical illnesses and mental causes such as emotion and ‘stress’, physicians like James Halliday opened up the space for new kinds of medical, political and economic intervention better able to address the psychological problems of an ‘unsettled and fragmented post-modern world’.⁵³⁴

As we close this chapter, we also witness the end of chronic, physical category of PEP. Hitherto sustained by the institutional arrangements of the outpatient clinic, the material format of the case note (which in turn acted as the holding space for Hall’s wide-ranging, clinical expertise) and fluid theories of physiological adaptation, by the early 1940s this category would fall out of usage, in line with the adoption of a new, psychosocial approach and new ways of parsing, classifying and therefore fitting cases into the contemporary health system. Although Arthur Hall remained committed to this category throughout this period, still publishing research in *The Lancet* up to 1943, his closer attention to the ‘continued activity of the infective agent’ in the chronic stage illustrates an important change in causal emphasis which can arguably be traced back to practical changes in contemporary health and welfare system.⁵³⁵ This point is brought into focus by returning, one last time, to Hall’s case notes and to the request made by Mr G.G. which opened this chapter.

⁵³⁴ Mark Jackson, ‘An Introduction’, in Mark Jackson, (ed.), *Stress in Post-War Britain, 1945-85*, (London, 2015), p. 6

⁵³⁵ Arthur Hall, ‘Chronic Parkinsonism’, *The Lancet*, 241, (1943), p. 193

To recap, in August 1946 Mr G.G. had written to Hall to ask for support on a claim for a war pension, where he had argued that his war service had aggravated the effects of EL, causing a severe tremor and exhaustion.⁵³⁶ According to Mr G.G., his physical condition had been impacted by the ‘heavy, and laborious work, and long hours’ which had characterised his war service and which he claimed entitled him to receive a disability pension, given that he had been passed as ‘fit’ prior to enlistment.⁵³⁷ In making this claim, Mr G.G. therefore hoped to take advantage of a series of welfare changes implemented early in the war which, informed by a psychosocial framework, had accepted the causal principle that the *psychological* stress of battle could have serious long-term, bodily effects, making the soldier entitled to continuing financial support, *as long as* it could be proved that they were not predisposed to such responses.⁵³⁸

After a two-month period of delay, subsequently attributed to the fact that Mr G.G.’s letter had not reached him, Hall finally responded:

This is to certify that [Mr G.G.] was first seen by me at the above address on March 27 1932, suffering from the Chronic Stage of Epidemic Encephalitis (sleepy sickness). He stated that he had an illness when in the Army in 1918, for which he was eventually discharged as unfit. In 1923 whilst in the Police force at Stonebroom he was ill again, this time with marked lethargy, but carried on until discharged in 1927. When I saw him in 1932, he had the typical symptoms of Chronic Encephalitis, with weakness and tremor of the left arm and dragging of the left leg. He also complained of insomnia. Since then the symptoms have got steadily worse, so that the left arm is of little or no use. Whether the illness when in the Army, in 1918, was the acute infection of Epidemic Encephalitis or not it is impossible to say, but at least, it was in that year that this epidemic was recorded in England, and a number of soldiers, then having served in France, were invalided home suffering from it.

Given that Mr G.G. had been under Hall’s direct care for over a decade, returning to his clinic time and again to request changes to his prescriptions or to ask for advice, and regularly writing to Hall with updates on his condition, this response, printed here in its entirety, is

⁵³⁶ SUL: Hall Manuscripts, MS 82, Box 1, ‘Parkinsonians, Males R-Z’, Mr G.G.

⁵³⁷ *Ibid.*

⁵³⁸ Edgar Jones has discussed these legislative changes, noting how there was a rise in pensions awarded for psychoneurosis after 1944, arguably in light of a High Court ruling that ‘if a man is passed into the Services as fit, and then subsequently discharged as unfit, then he is entitled to a disability pension’. Mr G hoped to take advantage of this change in criteria. See Edgar Jones, ‘War Pensions (1900-1945): Changing Models of Psychological Understanding’, *British Journal of Psychiatry*, 180, (2002), pp. 374-379

strikingly vague. This can perhaps be attributed to the central question that Hall was required, yet felt unable to answer: namely, whether Mr G.G. had been 'fit' prior to enlistment. There was no room for manoeuvre around this point, which requested evidence of a direct causal link and therefore a 'yes' or 'no' answer to judge whether Mr G.G.'s condition had been affected by the psychological effects of war service. To Hall, as we have seen throughout this chapter, the chronic effects of EL, in particular PEP, were essentially informed by a combination of physical and psychic factors and a maladaptive process that began in response to the infection, but which persisted and fluctuated in line with the temperament and surroundings of the patient.

This aetiology was borne out in his notes on Mr G.G., who he first encountered in 1933 through a referral from a 'Dr Atwall' at 'London City Mental Hospital', and recorded symptoms of insomnia, paralysis, slowness, and tremor which had led him to lose confidence. In 1940, Mr G.G. had then been referred back to Hall's care by 'Dr Jeffreys' at Edward Skinner's Mental Department at the SRH, presenting with a tremor that had got much worse and seemed to be impacted by the 'excitement of work', and which had not responded to or improved with a dose of stramonium, therefore indicating to Hall, the presence of permanent, organic lesions. Although his condition had improved after 'smoking a pretty strong tobacco called Walnut Plug', which eased his 'aching stiffness and shaking', it had worsened again in his time on police duty during the 1940 Blitz, which left him 'different in himself', 'depressed' and 'unable to work for a week'.⁵³⁹ Across his notes, and in line with responses to therapy, Hall had therefore tied Mr G.G.'s condition to physical, bodily damage, yet also to the circumstances

⁵³⁹ As a significant industrial city, Sheffield was a key target for the Germans in WW2, and Codenamed 'Operation Crucible'. Almost 700 people were killed and 82,000 city houses out of 150,000 were damaged. The bombardment by about 330 aircraft on 12-13 December 1940 lasted for nine hours. The Moor was devastated along with Devonshire Green while City Hall and Sheffield United's Bramall Lane football ground were damaged. About 70 people died when The Marples Hotel on Fitzalan Square was bombed. A second raid on 15th and 16th December hit the industrial east of the city. Mains water supplies quickly ran out and water needed to be relayed from public baths and even the River Don for firefighting. Further raids were mounted by the Luftwaffe on the city, but not of the intensity of the December 1940 raids. See 'Sheffield Blitz firefighter remembered on raid anniversary', <https://www.bbc.co.uk/news/uk-england-south-yorkshire-55275155>, [accessed 6th September 2022]

and stresses of his life, in turn mapping a maladaptive process influenced by factors spanning both past and present. Based on this aetiology, when asked to establish whether or not Mr G.G.'s present condition had been influenced by the psychological effects of his war service, to Hall the answer was complicated, in one way 'yes', yet in another way, 'no', with the truth, to him, laying somewhere in-between. Perhaps conscious of the power he held over Mr G.G. and his future, but also unable to provide the specific kind of psychological data and evidence of causation required by the War Pensions Office, Hall therefore opted for imprecision.

Conclusion

It might be tempting to assume that the gradual disappearance of PEP (or EL more broadly) from twentieth century medical discourse occurred through a natural process of viral diminution, or due to the retirement of Hall and his generation of colleagues, who took their ideas, approaches, and categories with them. This chapter has however underlined the inadequacies of such an interpretation. Instead, we have seen how, over the course of the 1920s, 1930s and into the 1940s, the category of PEP was developed, shaped and most *importantly only sustained as long as* it was able to fit into, and align with a particular set of binary concepts and the contemporary health system, rather than by the efforts, personality or ingenuity of an individual.⁵⁴⁰ Whilst we have come back to the concepts of physical and chronic in each section of this chapter, we have also seen their functions and meanings evolve over time and in different contexts. In the first section, we explored how these concepts (as well as those of mental and acute), became transformed in line the efforts made by Hall and his colleagues in Sheffield to rationalise and reorganise the local health system. Through

⁵⁴⁰ This interpretation reaffirms a stance taken by historians like Dora Vargha and Jeremy Greene, who have questioned the assumption that the disappearance of epidemic categories from medical, scientific and psychiatric discourse can be attributed to 'natural' changes, like fluctuations in virulence, or falling incidence rates. This idea of a natural, inevitable ending, dictated by the diminution of a hitherto dominant viral strain, often hides the political and economic priorities, social responses, variable resources and recording techniques which draw attention away from particular epidemic diseases and their distribution in the population, instead 'giving order' to a 'cadence of calamities', see Dora Vargha, Jeremy Greene, 'How Epidemics End', 30 June 2020, , <https://bostonreview.net/articles/jeremy-greene-dora-vargha-how-epidemics-end-or-dont/>, [accessed 6th September 2022]

changes in funding, administration, and techniques the concepts of mental/physical, acute/chronic began to be redefined and mapped onto particular kinds of health provision, allowing patients to be classed and dealt with in ways that aligned with the practical pressures of funding, resources and bedspace yet reaffirmed old moral assumptions.

Arthur Hall brought the limits (and from a historical perspective, functions and meanings) of these concepts into sharp focus through his investigations of, and attempts to classify, the after-effects of EL: marking out a group of cases who were otherwise young, fit and productive, whose persisting symptoms had followed a seemingly 'mild' illness, and moreover seemed to fluctuate, causing varying degrees of incapacity. In the space of the EL clinic, through his case notes and in line with physiological theories of adaptation, Hall developed the physical, chronic category of PEP, therefore mapping an aetiology that acknowledged the central role of physical, often irreversible damage, but also the surroundings and temperament of the individual patient. In the process, he underlined the need for a new kind of lifelong healthcare, provided on based on an intermittent, outpatient basis, funded through the resources of the acute voluntary hospital, and complemented by short-term periods of sick pay: therefore allowing patients to be managed and monitored over long periods of time, to help them adapt to their physical condition and thus avoid inpatient admission.

Guiding focus towards the impact of stress and emotion on the organism, the category of PEP would open up new ways of *resolving* the rising levels of chronic, physical illness highlighted in part by welfare administration. In line with the psychosocial approach developed by James Halliday, we saw these concepts become redefined once again, as he decisively pulled attention towards the circumstances of the present and the role played by enduring emotions rather than the physical, bodily effects of an infection buried in the past. This chapter has dealt with various related, yet distinct iterations of the concepts of chronic/physical, each operating in different ways, in response to and resolving different problems and therefore *doing* and *meaning* different things. We have also, from a historical perspective, witnessed the demise

of a particular approach to parsing and dealing with the long-term effects of viral illness through the category of EL, which we began to explore at the start of Chapter 2 and yet consistently came into conflict with and remained unable to be fitted into the binary structures of the modern British health system. In the next chapter, whilst our focus remains on relationship between viruses, or ‘infections’ and persisting illness, we shall see how this came to be conceived from an opposite perspective in a different context and attached to categories classed first and foremost as ‘mental’.

Chapter 4: Infections, psychiatry and general medicine c.1939-c.1950

In August 1946, a Hungarian psychiatrist named Stephen Krauss submitted an article to the *Journal of Mental Science* which detailed the persisting illnesses observed in a group of cases admitted to the Mill Hill Hospital in London after their otherwise full recovery from an acute infectious illness. Broadly grouping these symptoms based on their relationship to mind or body, Krauss acknowledged how they ranged from ‘fidgetiness’, ‘restlessness’, ‘shakiness’, migraine and vertigo, to ‘forgetfulness, difficulties in concentration, difficulty in learning new things, diminished perseverance, and being quickly overwhelmed by fatigue.’⁵⁴¹ Many of these patients showed striking ‘characterological peculiarities’ seeming ‘sensitive, seclusive, [to take] everything very seriously, querulous and suspicious’ and ‘distinctly introvert’.⁵⁴² Despite this, they often did not seem ‘grossly abnormal’ and were able ‘within certain limits’ to adapt themselves ‘to life and make a success of [their] job... [and to be] fond of [their] home and... family like other people.’⁵⁴³

Casting our minds back to the close of the previous chapter, and allowing for linguistic differences, the condition observed in these patients by Krauss bears some striking similarities with the case of Mr G.G. whose fluctuating tremor, depression and exhaustion had been described by physician Arthur Hall in Sheffield around the same time. Beyond their shared links to an earlier virus-related illness, however, these cases were each tied to unique aetiologies. These differences can be traced back to their emergence in separate practical contexts, in response to particular problems and therefore their separate connections to medical or psychiatric forms of intervention. Building upon the contextual analysis maintained so far in this thesis, in this chapter we shall take the same approach to the work of Krauss and his colleagues at the neurosis centre based in the Mill Hill over the course of the 1940s, in order to understand how and why they came to connect an acute viral infection to

⁵⁴¹ Stephen Krauss, ‘Post-Choreic Personality and Neurosis’, *JMS*, 92, (1946), pp. 76-77

⁵⁴² *Ibid.*, p. 77-78

⁵⁴³ *Ibid.*, p. 79

persisting forms of illness: linking this to the political, military and economic demands of war but also efforts to redesign, redevelop and *integrate* the health system. This chapter traces the emergence of a category which, in a similar way to those explored over the course of this thesis, allowed a group of psychiatrists to deal with illnesses which came into conflict with the conceptual structures of a particular part of the health system. By the end of this chapter, we shall see how the ‘post-infectious state’ emerged as a way to link a vague *physical* bodily process to the onset of a *chronic, mental* neurosis and therefore underline the need for specifically *psychiatric* modes of intervention, integrated within the new state-funded, national health system.

To recap, by the early 1940s members of the medical and psychiatric profession in Britain conceived the aetiological relationship between viruses and long-term illness in several ways: acknowledging how the former might remain active and cause bodily damage which worsened over time, and how the latter could be informed by psychic, emotional responses which *combined with* the permanent, physical effects of the virus to inform a process of persisting, physiological maladjustment. At the close of Chapters 2 and 3, we saw this physical-psychic aetiology brought into question, in line with the shifting financial and administrative priorities of the LCC (and the idea that ‘post-encephalitis’ cases were better conceptualised as ‘mental’), and by welfare reforms that required doctors like Arthur Hall to provide firm, psychological evidence to assess entitlement to financial support. Drawing focus away from identifying the effects of a virus, doctors were instead encouraged to think about how any persisting illness might be more centrally guided by emotion, stress, and the circumstances of modern life, and therefore to map *mental* rather than *physical* aetiologies. In this chapter and the next, across two different contexts and periods of time, we shall explore the development, use, functions and meanings of this aetiology in closer detail: showing how this was guided by practical rather than theoretical considerations and a need to develop categories that still aligned with, and could be fitted into the binary structures of the evolving health system.

This chapter continues to move forward in chronological time and away from diseases like EL, as we explore how and why the relationship between viruses and long-term illness came to be reconceived in the practical and institutional context of a well-resourced, equipped and funded neurosis centre at the Mill Hill Hospital in London during the 1940s. There is a comprehensive historiography surrounding the problem of neurosis in twentieth century British medicine and psychiatry. This moves from the Freudian category of ‘anxiety neurosis’ during World War 1 to the related yet distinct iteration of the late 1930s, which emerged as new statistical and experimental techniques, administrative practices and institutional provisions ‘allowed psychological morbidity to be connected to patterns of social organisation.’⁵⁴⁴ In this context, the broad category of neurosis became used to refer to an ‘upset of the normal harmonious functioning of the mind and body resulting from some personal inadequacy to meet a psychological situation’, symbolising the social and psychological effects of ‘the competition of living... of international insecurity; of the pace at which we live; of the precariousness of life itself in the streets’ and therefore stress.⁵⁴⁵

With the outbreak of war in 1939 and the psychological threat of aerial bombardment, separation from loved ones or bereavement, concerns about the impact of stress and a resulting possible tide of neurosis were brought into sharp focus in medical and political circles. As we shall see in the first section of this chapter, neurosis centres at hospitals like the Mill Hill were established to meet the expected rise in this condition in civilians and the military. The intention was to provide short-term treatment and care and therefore facilitate the return of ‘every psychiatric battle casualty to active duty, or at the very least to productive employment in civilian life’.⁵⁴⁶ As psychiatrists at the Mill Hill attempted to understand and deal with cases who presented at the Mill Hill with symptoms which resembled a neurosis but

⁵⁴⁴ Rhodri Hayward, ‘Desperate Housewives and Model Amoebae: The Invention of Suburban Neurosis in Inter-War Britain’, in Mark Jackson, (ed.), *Health and the Modern Home*, (New York, 2007), p. 47

⁵⁴⁵ Lord Horder, ‘The Strain of Modern Civilization’, pp. 5-6; Maxwell Jones, ‘Physiological and Psychological Responses to Stress in Neurotic Patients’, *JMS*, 94, (1948), p. 395

⁵⁴⁶ Edgar Jones, ‘War and the Practice of Psychotherapy: the UK Experience 1939-1960’, *Medical History*, 48, (2004), p. 494

could not easily fit into the boxes of mental and acute, they would begin to acknowledge the possible role played by an infection and thus develop new psychiatric programmes of diagnosis, treatment and, ideally, rehabilitation.

We explore this contention in closer detail in the second section, which focuses on studies of ‘effort syndrome’ at the Mill Hill, during which psychiatrists Maxwell Jones and Aubrey Lewis would map unique individual aetiologies which acknowledged a combination of ‘external’ and ‘internal’ causes, such as ‘separation from wife and family; worry about financial and domestic troubles’, ‘painful experiences’, ‘constitution’ or ‘inherited tendencies’ but also, an infection.⁵⁴⁷ All of these, they argued, might dictate how a patient was able to respond and adapt to ‘threatening, depressing or otherwise disturbing circumstances’ which had become central to life at war.⁵⁴⁸ Marking out a specific group of cases who they referred to as ‘post-infective’, Jones and Lewis mapped an aetiology which acknowledged how an emotional response of fear had been precipitated by some kind of physiological change caused by an infection, aligning these cases with a particular programme of short-term therapy focused primarily on physical training and reassurance.

Questions about this aetiology quickly emerged as Lewis encouraged many of his colleagues to subsequently follow-up all cases of neurosis who had previously received treatment at the Mill Hill, only to find that a significant proportion of them were not ‘as much use and as healthy as they were before they joined the Army.’⁵⁴⁹ Amongst these were cases whose condition had been viewed as a temporary, emotional disturbance provoked by an infection. Whilst Lewis used these cases to inform his broadening interest in the social determinants of psychiatric rehabilitation, as we shall see in the third section, his colleague Mangalore Narasimha Pai would explore the possibility that these persisting ‘neuropsychiatric after-

⁵⁴⁷ Maxwell Jones and Aubrey Lewis, ‘Effort Syndrome’, *The Lancet*, 237, (1941), p. 815

⁵⁴⁸ *Ibid.*, p. 815

⁵⁴⁹ Aubrey Lewis, ‘Social Effects of Neurosis’, *The Lancet*, 241, (1943), p. 167

effects' were instead perhaps a product of organic damage caused by the initial infection.⁵⁵⁰ In developing this aetiology, Narasimha Pai would draw upon much broader conversations opened up by the changes in provision and administration implemented as part of the wartime emergency health services, concerning the ability of contemporary health system to meet the needs of a population who constantly faced and adapted to the stresses of modern life.⁵⁵¹ By using modes of psychiatric investigation to separate out cases whose condition could be classed as organic *or* functional, Narasimha Pai would underline how the neurosis centre and psychiatry more broadly could be utilised in and serve the needs of a more expansive, *integrated* health system.

In the process he also marked out a group whose condition seemed unrelated to organic damage and therefore was considered a neurosis, but could not be tied back to some kind of 'predisposition or psychological stress'.⁵⁵² These cases, he would conclude somewhat vaguely, therefore seemed to 'acquire a disposition to neurotic illness'.⁵⁵³ Whilst Narasimha Pai was primarily interested in exploring the 'organic' problem of 'meningococcal encephalopathy', his colleague Stephen Krauss would soon provide some answers about how and why an infection could predispose someone to a chronic neurosis, reshaping and reintroducing the category of the 'post-infectious'.⁵⁵⁴ Drawing upon his own studies of personality as well as the new, statistical technologies developed by his Mill Hill colleague Hans Eysenck, Krauss was able to skirt around the difficult question of causation, instead connecting cases to an infection based on specific kinds of behaviour such as fidgetiness, tics, shakiness, headache, vertigo, forgetfulness or fatigue. Due to a loss of mental or physical energy during their viral illness, vaguely defined as 'impaired vitality', these cases appeared unable to adapt to and cope with

⁵⁵⁰ Mangalore Narasimha Pai, 'Neuropsychiatric After-Effects of Cerebrospinal Fever', *Journal of the Royal Society of Medicine*, 37, (1944) pp. 205-207

⁵⁵¹ Chris Millard, 'Re-Inventing the "Cry For Help": Attempted Suicide in Britain in the mid-twentieth century, c. 1937-1969', Ph.D thesis, (Queen Mary, University of London, 2012), p. 29

⁵⁵² *Ibid.*, p. 207

⁵⁵³ Mangalore Narasimha Pai, 'Changes in Personality After Cerebrospinal Fever', *BMJ*, 1, (1945), p. 292

⁵⁵⁴ Stephen Krauss, 'Post-Choreic Personality and Neurosis', p. 94

their environment, informing emotional conflicts which in turn fed into a chronic neurosis.⁵⁵⁵ Through this approach, Krauss mapped a linear aetiology which moved from the ‘post-infectious state’, informed by a vague kind of physical bodily change to a chronic mental neurosis, both of which had been brought into focus through modes of psychiatric investigation, therapy and rehabilitation. In doing so, he provided a clear mandate for the integration of general and mental medicine, poised to find expression in a new national health system.

Section 1: War, psychobiology, and the Mill Hill

In the early 1940s, a group of psychiatrists working at a wartime neurosis centre based at Mill Hill Hospital in London began to explore the causal connection between acute infectious diseases, such as cerebrospinal meningitis or chorea, and the subsequent development of a neurosis. Before we shift to explore in more detail how and why these links were made, we need to step back a little in order to gain an understanding of the conditions of possibility which fostered the emergence of this aetiology. Established in 1939, the neurosis centre at the Mill Hill was a result of much broader changes in health provision implemented at the beginning of the war as part of an Emergency Medical Service (EMS). This centre had been established to mitigate concerns about the rise in mental disorder due to war and to ensure that members of the civilian and military populations were able to access psychiatric care and treatment more easily. Also used to rehouse the existing patient population and staff of the Maudsley Hospital, during the years between 1939 and 1945 the Mill Hill was run under the joint leadership of medical superintendent W.S. Maclay and clinical director Aubrey Lewis, using the approaches of occupational and social psychiatry. This broad, practical and theoretical programme had roots in the ‘psychobiological’ approach to mental disorder developed by Adolf Meyer and an ‘emphasis on multiple causes... on the study of each patient as a unique individual’ and on psychological *and* physiological processes of maladaptation.⁵⁵⁶

⁵⁵⁵ *Ibid.*, p. 92

⁵⁵⁶ Michael Gelder, ‘Adolf Meyer and his influence on British Psychiatry’, *History of Psychiatry*, 14, (2003), p. 489

By relying on particular techniques such as the life-chart and collating information about patients spanning across the past and present, the staff of the Mill Hill would begin to tie cases who presented symptoms of fatigue, depression and anxiety to aetiologies that acknowledged the role played by a stressful life event, by their innate constitution and also, in some cases, an infection. This section focuses on laying out the institutional, administrative, and material context for these kinds of aetiologies, pivoting to a closer analysis of the specific circumstances in which they were made, the functions they served and their implications, in the next.

As with World War 1, historians have generally accepted that the years between 1939 and 1945 witnessed significant technical, technological, conceptual and institutional changes in British medicine and psychiatry, which were bound up with the belief that ‘ideal modes of operation demanded efficiency, speed and method’ and in turn required military and civilian populations able to live up to these ideals.⁵⁵⁷ According to Mark Jackson, World War 2 therefore marked a key ‘turning point’ for the discussions surrounding the ‘psychosocial’ determinants of health, illness and disease rooted in the mid-1930s, and which had since come to settle on, and mark out, the interwar problem of neurosis.⁵⁵⁸ Although this category had roots in the nineteenth century work of Sigmund Freud on ‘anxiety neurosis’, in the interwar period it was transformed by the changes in practice and administration implemented through

⁵⁵⁷ It is fair to say that there remains a predominant focus amongst historians on WW1 as opposed to WW2 when it comes to developments in psychiatry, due to the enduring fascination with the ‘shellshock episode’. Christopher Lawrence has also recognised the comparative dearth of scholarship on ‘military medicine’ in WW2 see Christopher Lawrence, ‘Review: Mark Harrison, *Medicine and Victory: British Military Medicine in the Second World War*’, *Medical History*, 49, (2005), p. 372; Mark Harrison’s work on medical and scientific developments during WW2 is notable exception, see Mark Harrison, *Medicine and Victory: British Military Medicine in the Second World War*, (Oxford, 2004). See also Hannah Simpson, Megan Girdwood, ‘World War II: Bodies Beyond the Battlefield’, *Medical Humanities*, 46, (2020), pp. 93-95

⁵⁵⁸ Mark Jackson, ‘An Introduction’, in Mark Jackson, (ed.), *Stress in Post-War Britain, 1945-85*, (London, 2015), p. 7; There remains considerable historical debate about when the concept of the ‘social’ emerged, as some, like Trevor Pearce, have traced its roots back to the nineteenth century work of philosopher Herbert Spencer on organism-environment interaction. In Chapter 2 of this thesis, we also saw how ideas of the ‘social environment’, drawn from nineteenth century Jacksonian theory and the work of paediatric George Frederic Still, were used by Auden in the early 1920s. With these caveats in mind, it remains necessary to acknowledge the historical contingencies associated with this category, how it was used, and therefore what it meant at different points in time and in different contexts. See Trevor Pearce, ‘From “Circumstances” to “Environment”: Herbert Spencer and the Origins of the Idea of Organism-Environment Interaction’, pp. 241-252

welfare schemes like NHI and through new forms of institutional space like the mental outpatient clinic.⁵⁵⁹ By encouraging medical officers like James Halliday, (who we met at the close of the previous chapter), and physicians like Stephen Taylor to link individual behaviour to social organisation, the cost of welfare provision and economic profit, these material and administrative changes fed into steadily increasing rates of neurosis amongst the population.

For many, a neurosis resulted from a clash between the ‘innate biological rhythms of the organism and the ‘twin forces of urbanism and industrialisation’ or, put simply, by the problem of ‘stress’.⁵⁶⁰ Over the past thirty years, stress has become the subject of a broad, diverse and extensive historiography, centred on the work of Allan Young on post-traumatic stress disorder and populated by individual histories which explore the emergence, evolution and translation of this concept in different contexts.⁵⁶¹ As we have seen, whilst the idea that external ‘environmental’ stimuli might invade and derail the organism was far from new to mid-century British psychiatrists or physicians, it is important to flag that in this chapter we are dealing with a pliable context-specific version of stress as a concept, which became used both to reference ‘disturbed physiological balance’ and a kind of psychological stimuli, whilst always remaining a ‘potent manifestation of an unsettled and fragmented post-modern

⁵⁵⁹ In the late nineteenth century, Freud had gathered together symptoms of irritability, anxious expectation, night waking, tremors and gastric disorders, tied them to ‘accumulated sexual excitation’ and ‘psychophysiological frustration’, and therefore formed the category of ‘anxiety neurosis’, see Sigmund Freud, ‘On the Grounds for Detaching a Particular Syndrome from Neurasthenia under the description ‘Anxiety Neurosis’ in J. Strachey (ed.), *The Standard Edition of Complete Psychological Works of Sigmund Freud*, (London, 1978), pp. 92-99

⁵⁶⁰ Rhodri Hayward, ‘Desperate Housewives and Model Amoebae: The Invention of Suburban Neurosis in Interwar Britain’, p. 47

⁵⁶¹ In general, the history of this concept has been recounted in two ways. According to Jill Kirby, some scholarly works operate according to a chronology which begins with sixteenth century ‘accounts of hardship and distress’ which later transitioned into ‘ideas about mechanics and engineering in the seventeenth and eighteenth centuries’ and in turn to ‘twentieth century theories about the effects of modern work and warfare on the individual.’ See Jill Kirby, *Feeling the Strain: A Cultural History of Stress in Twentieth Century Britain*, (Manchester, 2019), esp. Introduction; To others, the concept of ‘stress’ was a direct product of the post-war world, which as argued by Russell Viner, was moulded in line with the priorities of military and industrial officials, in order to ‘justify their pre-existing ideologies (about combat neurosis and work performance, respectively.) See Russell Viner, ‘Putting the Stress in Life: Hans Selye and the Making of Stress Theory’, *Social Studies of Science*, 29, (1999), p. 391-410. For other examples, see Allan Young, *The Harmony of Illusions: Inventing Post-Traumatic Stress Disorder*, (Princeton, 1995), also Dana Becker, *One Nation Under Stress: The Trouble with Stress as an Idea*, (Oxford, 2013)

world'.⁵⁶² As we shall see, this pliability would prove vital when it came to conceiving the relationship between infections and neurosis.

No longer simply viewed as the 'preserve of the exhausted aesthete or the overstretched white-collar worker' but also of figures like the suburban housewife, the problem of neurosis also subsumed the illnesses and symptoms hitherto attributed to the amorphous category of neurasthenia.⁵⁶³ According to some historians, by the late 1930s neurosis had become viewed as a psychological problem, tied to causes which were essentially of mental rather than (vague) physical origin.⁵⁶⁴ Whilst rising levels of this condition had informed calls for new kinds of social, economic and political intervention since the mid-1930s, the outbreak of war drew attention to a need for immediate action due to an inevitable increase in abnormal environmental stimuli such as 'broadcast news, evacuation, calling-up and blackout', but also separation, grief and potentially air raids.⁵⁶⁵ Mindful of how the population were likely to face the stresses of life spent (sometimes literally) under fire and in a constantly changing environment, members of Chamberlain's government began to prepare for the worst-case scenario and the possibility that the psychiatric would outnumber the physical casualties of war in a ratio of three to one.⁵⁶⁶

In 1939, these concerns about the mental and physical consequences of war would 'shatter the inertia' which had hitherto characterised state involvement in the health system, leading to a wholesale reorganisation that brought all hospitals together under the civil defence regional administration or, in other words, the kind of centralised control which would soon find

⁵⁶² Chris Millard, 'Creating "the Social": Stress, Domesticity and Attempted Suicide', in Mark Jackson, (ed.), *Stress in Post-War Britain, 1945-85*, (London, 2015), p. 182; Mark Jackson, 'An Introduction', in Mark Jackson, (ed.), *Stress in Post-War Britain*, p. 6

⁵⁶³ Rhodri Hayward, 'The Pursuit of Serenity', p. 288

⁵⁶⁴ Mathew Thomson, 'Neurasthenia in Britain: An Overview', in *Cultures of Neurasthenia from Beard to the First World War*, (Amsterdam, 2001), p. 82

⁵⁶⁵ Elizabeth H. Rosenberg and Eric Guttman, 'Chronic Neurotics and the Outbreak of War', *The Lancet*, 236, (1940), pp. 95-96; see also Aubrey Lewis and Eliot Slater, 'Neurosis in Soldiers: A Follow-Up Study', *The Lancet*, 239, (1942), pp. 496-498

⁵⁶⁶ Richard Titmuss, *Problems of Social Policy*, (London, 1950), p. 20

realisation in the National Health Service.⁵⁶⁷ According to Charles Webster, beyond ensuring that existing hospitals were ‘allocated the resources to transform the[ir] acute and casualty services’, this ‘Emergency Medical Service’ (EMS) introduced a new set of provisions which ranged from a national public health laboratory service to regional specialist facilities centred on rehabilitation, plastic surgery, neurology and psychiatry.⁵⁶⁸ Amongst these provisions was the Mill Hill Hospital. Formed of 550 beds and occupying the buildings and grounds of a school which had been obtained for medical use by the EMS, the Hospital was one of two institutions used to both rehouse the population of the Maudsley, who had been moved away from the main site on Denmark Hill in Camberwell, London, and also contain a ‘neurosis centre’ intended to provide short-term care and treatment for acute cases.⁵⁶⁹ In theory, patients were to be referred to hospitals like the Mill Hill after they had been examined and assessed at least once, either by a psychiatrist or neurologist on the frontline, at a mental outpatient clinic or by their panel or private doctor, who had established the need for ‘more prolonged treatment’.⁵⁷⁰

As earlier fears concerning mass breakdown on the home front proved unfounded, the neurosis centre at the Mill Hill became primarily devoted to the care and treatment of servicemen.⁵⁷¹ This impression that most civilians, and later soldiers, seemed able to cope with the stresses of war fed into questions about the assumed causes of neurosis and whether this condition was perhaps more a product of ‘an inherent weakness of the individual’: feeding into

⁵⁶⁷ Charles Webster, *The National Health Service: A Political History*, p. 6

⁵⁶⁸ *Ibid.*, p. 6, See also John B. Hunter, ‘The Emergency Medical Service and the Future’, *BMJ*, 1, (1941), pp. 326-329

⁵⁶⁹ Maxwell Jones, ‘Physiological and Psychological Responses to Stress in Neurotic Patients’, p. 392; Over the next six years, the neurosis centre would treat 20,000 neurotic patients, many of whom would have otherwise been admitted to the Maudsley Hospital. The staff and population of the Maudsley Hospital was split between the Mill Hill Hospital and the Sutton Hospital during the war, in turn igniting what some historians have described as a kind of professional rivalry between them, see Edgar Jones, ‘Aubrey Lewis, Edward Mapother and the Maudsley’, *Medical History*, 47, (2003), pp. 26-27

⁵⁷⁰ ‘Treatment of Neurosis in the Emergency Medical Service’, *BMJ*, 2, (1939), pp. 1242-1243

⁵⁷¹ This point had been made repeatedly by historians, see for example Edgar Jones, ‘Aubrey Lewis, Edward Mapother and the Maudsley’, p. 28; Noel Whiteside, ‘The Beveridge Report and Its Implementation: A Revolutionary Project?’, *Histoire@Politique. Politique, Culture, Société*, 24, (2014), p. 28

issues that became particularly pertinent in the allocation of war pensions.⁵⁷² In 1938, the Ministry of Pensions established a committee to advise on the entitlement of war-related neurosis cases to financial support or remuneration, chaired by psychiatric expert Dr Francis Prideaux.⁵⁷³ Accepting the principle that it was primarily ‘flawed temperaments that undermined resilience’ the Committee concluded that no pensions should be assessed or awarded until *after* the war, despite concerns of injustice expressed by the medical superintendent of the Maudsley, Edward Mapother.⁵⁷⁴

By the early 1940s some members of the British medical profession had begun to view neurotic soldiers as a ‘distinct sub-group’ whose condition could be tied to their ‘personality type’ and was an ‘inevitable manifestation of... [their] inherent instability’.⁵⁷⁵ In 1941, physician Stephen Taylor argued that these ‘neurotics’ were doomed to fail ‘the most primitive test of manhood, the school of war’ due to their ‘weak emotional make-up’ which ensured that they ‘started life with only half a talent’ and left them unable to cope with ‘an overpowering environment’, instead becoming a ‘burden which every community has to bear’ and costing ‘the state a lot of money’.⁵⁷⁶ Whilst historians have generally acknowledged how these practical problems ensured that the aetiology of neurosis was reorganised to acknowledge the blend of social factors such as stress and constitutional ones such as heredity which informed this mental

⁵⁷² Jill Kirby, *Feeling the Strain: A Cultural History of Stress*, p. 102

⁵⁷³ Prideaux argued that the criteria decided upon by the 1922 Committee on Shellshock had erroneously allowed claims for cases who, on later analysis of their records, turned out to have had a pre-war history of mental problems, had not served abroad, or had little exposure to battle, and who therefore formed an ‘underclass of inadequates’. Although these cases were not outright malingerers, their condition was a product of ‘constitutional predisposition, either inborn or acquired early in life’, rather than genuine traumatic experience, borne out by the fact that they only made claims months or years after the apparent causal event. Prideaux therefore concluded that without exception, all claims based on neurosis should be denied. See Ben Shepherd, *A War of Nerves: Soldiers and Psychiatrists in the Twentieth Century*, (Massachusetts, 2001), pp. 65-66

⁵⁷⁴ Mark Jackson, ‘Men and Women under Stress: Neuropsychiatric Models of Resilience during and after the Second World War’, in Mark Jackson, (ed.), *Stress in Post-War Britain, 1945-85*, (London, 2015), p. 118; For more on these debates, see Ben Shepherd, ‘Pitiless Psychology: The Role of Prevention in British Military Psychiatry in Second World War’, *History of Psychiatry*, 10, (1991), pp. 491-524

⁵⁷⁵ Elizabeth Roberts-Pedersen, ‘A Weak Spot in the Personality? Conceptualising ‘War Neurosis’ in British Medical Literature of the Second World War’, *Australian Journal of Politics and History*, 58, (2012), p. 409

⁵⁷⁶ Stephen Taylor, ‘The Psychopathic Tenth’, *The Lancet*, 237, (1941), pp. 321-323

illness, this chapter draws attention to the cases who came into conflict with this conceptual framework and whose condition would be tied to more physical causes such as an infection.

Although we shall see how links between an infection and neurosis emerged in line with a series of practical decisions concerning care and treatment, they also hinged on the ‘psychobiological’ approach taken by Mill Hill psychiatrists. Carried over to this hospital from the Maudsley, this approach had been introduced at the latter by medical superintendent Mapother in an effort to align with the scientific ideals and thus enlist the financial support of one of the world’s largest medical charities, the Rockefeller Foundation. In contrast to his psychoanalytically-minded contemporaries at the Tavistock Clinic, in the 1920s Mapother emphasised the need to view each individual case as a unity of mind and body.⁵⁷⁷ This holistic stance was rooted in the work of Adolf Meyer, a Swiss-born psychiatrist who in the early twentieth century had developed a ‘psychobiological’ programme of ‘scientific research, advanced training and therapeutics derived not only from the material data of the sick or autopsied body but also the ephemeral data of social dysfunction’.⁵⁷⁸

Meyer had explicitly positioned this approach in opposition to that of Emil Kraepelin, rejecting the principle that mental disorders were physical diseases with ‘specific cause[s] and definite anatomical and symptomatological manifestations’ and therefore susceptible to natural systems of classification.⁵⁷⁹ In contrast, through his work at the Henry Phipps Psychiatric Clinic in Baltimore, USA, Meyer reconceived mental breakdown as forms of ‘failed adaptation’

⁵⁷⁷ Edgar Jones, ‘Aubrey Lewis, Edward Mapother and the Maudsley’, p. 13, p. 38; As argued by Eilis Kempley, in line with their central desire to achieve progress through scientific research, in the 1920s and 1930s the Rockefeller Foundation viewed psychiatry as ‘an ideal vessel’ for the promotion of the ‘wellbeing of mankind’, in turn investing ‘millions of dollars in research institutes and psychiatric departments’ to ‘create a new generation of neuropsychiatrists grounded in the latest science’. Over the 1920s and 1930s, the Foundation would support the work of a cohort of ‘German émigrés’ at the Maudsley, such as Eric Guttmann, Alfred Meyer, William Mayer-Gross and Eric Wittkower, all of whom adopted psychobiological frameworks. See Eilis Kempley, ‘Drawing the Boundary Between Psychiatry and Art’, *British Journal for the History of Science*, 52, (2019), p. 284

⁵⁷⁸ Susan Lamb, ‘Social Skills: Adolf Meyer’s Revision of Clinical Skill for the New Psychiatry of the Twentieth Century’, p. 444

⁵⁷⁹ Shirley A. Martin, ‘Between Kraepelin and Freud: The Integrative Psychiatry of August Hoch’, *History of Psychiatry*, 18, (2007), p. 278

which were ‘mainly a product of social forces and other life experiences’ and therefore occurred as the individual attempted to adjust to their internal and external environment.⁵⁸⁰ Whilst mental health became understood as a kind of psychobiological equilibrium, mental breakdown was in turn equated to dissolution, and so a psychopathological process which was informed by a ‘constellation of causal factors with varying degrees of significance’.⁵⁸¹

Rather than seeking out specific kinds of causal evidence which spoke to the presence of anatomical lesions, toxins, or hereditary degeneration in order to make decisions as to diagnosis, prognosis and treatment, Meyer argued that it was more useful to engage in ‘direct observations of overall adaptive performance’ and to think in terms of different ‘reaction-types’.⁵⁸² By very broadly grouping cases based on how they behaved, through his paradigm of reaction-types Meyer acknowledged how ‘the specificity of anatomical, physiological and mental factors in the causal chain, as well as the patient’s subjective experiences and interpretive contexts’ informed seemingly ‘nebulous’ symptoms, in turn upending the ‘inveterate simplism that real pathology can only be anatomy and histology.’⁵⁸³ Whilst such ideas began to filter down through the staff and students of the Maudsley through the influence of Mapother, they were ultimately reaffirmed by Australian-born psychiatrist Aubrey Lewis. Appointed to the Maudsley in the late 1920s to begin a career which would lead him to be dubbed as the ‘representative psychiatrist of his generation in the mainstream of psychiatry’, Lewis had also gained an affinity for psychobiology after studying under Meyer in 1927 during a visit to the Phipps Clinic.⁵⁸⁴ In one of his most influential publications, Lewis underlined the need to adopt an approach to mental disorder which considered the intersection of past and present, therefore focusing on how the ‘combination of *single*

⁵⁸⁰ Michael Gelder, ‘Adolf Meyer and His Influence on British Psychiatry’, p. 482

⁵⁸¹ Susan Lamb, *Pathologist of the Mind: Adolf Meyer and the Origins of American Psychiatry*, (Baltimore, 2014), p. 88

⁵⁸² Adolf Meyer, ‘The Problems of Mental Reaction-Type, Mental Causes, and Diseases’, *Psychological Bulletin*, 5, (1908), pp. 245-261

⁵⁸³ Susan Lamb, *Pathologist of the Mind*, p. 158

⁵⁸⁴ Michael Shepherd, ‘Aubrey Lewis: The Making of a Psychiatrist’, *British Journal of Psychiatry*, 131, pp. 238-242

hereditary causes and... the effect of each individual's *special environment* throughout his life upon his development and behaviour' had led to their present *mental* condition.⁵⁸⁵

Beyond advancing a new theoretical approach to mental illness, Meyerian psychobiology also relied on specific practices and techniques which were to be deployed by a range of professionals. Case notes have featured recurrently throughout this thesis as a way to gather together data about the patient, their past and present over extended periods of time in ways, and for reasons, that were context-specific.⁵⁸⁶ Although proponents of psychobiology obtained such information through an initial clinical assessment of a patient, conversations with them or their families or from a referring doctor, they also often relied on the involvement of the psychiatric social worker (PSW). With roots in the work of charities such as the Mental After-Care Association, social work had started to emerge as an important branch of psychiatry in Britain by the late 1920s. By visiting patients in their homes, compiling case histories, negotiating 'the space between the sick and shrink' and acting as 'caseworkers, administrators, colleagues and chroniclers', PSWs played a central role in mapping out fluid, multifactorial aetiologies and thereby determining the kinds of care a patient was likely to receive.⁵⁸⁷ Once 'the ephemeral data of social adaptation' had been collected, this was distilled into the material format of the 'life chart' which provided 'the minimal units for what might be called a tabular or combinatorial mode of narrativization.'⁵⁸⁸ As argued by Ruth Leys, the life chart provided a specific, visual representation of the course and temporal span of each patient and their condition: arranging the 'calendar years vertically down the left-hand side of the page and the

⁵⁸⁵ My emphasis; Aubrey Lewis, 'Psychological Medicine', in Frederick W Price (ed.), *A Textbook of the Practice of Medicine*, (Oxford, 1941), p. 1835

⁵⁸⁶ Andrew Scull and Jay Shulkin, 'Psychobiology, Psychiatry and Psychoanalysis: The Intersecting Careers of Adolf Meyer, Phyllis Greenacre and Curt Richter', *Medical History*, 53, (2009), p. 11

⁵⁸⁷ Juliana Broad, 'Working in Cases: British Psychiatric Social Workers and a History of Psychoanalysis from the middle, c. 1930-60', *History of the Human Sciences*, 34, (2021), p. 2; For more on the PSW, see J. Stewart, "'I Thought You Would Want to Come and See His Home": Child Guidance and Psychiatric Social Work in Inter-War Britain' in Mark Jackson (ed.), *Health and the Modern Home* (Kindle edn, London, 2007), pp. 111-127, also Vicky Long, "'Often There is a Good Deal to be Done, But Socially Rather Than Medically": The Psychiatric Social Worker as Social Therapist, 1945-70', *Medical History*, 55, (2011), pp. 223-239

⁵⁸⁸ Ruth Leys, 'Types of One: Adolf Meyer's Life Chart and the Representation of Individuality', *Representations*, 34, (1991), p. 18

corresponding age down the right' as well as the growth curve of various bodily organs alongside information derived from 'conversations with the patient'.⁵⁸⁹

Through the life chart, Meyer and his followers were able to map out detailed aetiologies which acknowledged the interrelation of mind and body and thus the 'plurality of conditions' which determined the mental symptoms presented by each individual patient.⁵⁹⁰ Inspired by the intelligence tests developed by Alfred Binet and T. Simon, which presented a ratio of 'mental' to 'chronological' age, this data was then arranged in the form of 'fractions' whereby the denominator was comprised by the 'total personality-record or potentiality of the person' and the numerator by a 'sample of their performance' at present.⁵⁹¹ As this fraction condensed and represented the individuality of each patient in a numerical format, it also made it possible to distil, contain and handle the *complex, multi-factorial aetiological statements* which emerged as 'the evolution of the [patient] and that of the illness were traced along psychobiological lines', and to develop methods of care and treatment (explored in more detail in the next section) which could return them to their full potentiality.⁵⁹²

Under the leadership of clinical director Aubrey Lewis and through adopting this practical, technical and theoretical approach, the staff of the Mill Hill began to develop the mental acute category of neurosis. Through scrutinising both the past and present of each patient they would acknowledge the various biological and psychological factors which often informed their 'maladjustment', which was believed to be both impacted by the 'external reality' of life in modern Britain, for example the psychological experiences of loss, grief and separation, but also by the 'internal mental life' of the individual and any pre-existing, constitutional tendency to mental breakdown.⁵⁹³ Understanding the possible role played by a combination of these

⁵⁸⁹ *Ibid.*, p. 12

⁵⁹⁰ *Ibid.*, p. 16

⁵⁹¹ Adolf Meyer, 'The Psychobiological Point of View', in Eunice Winters, (ed.), *The Collected Papers of Adolf Meyer*, (Baltimore, 1950-52), Vol. 3, p. 436

⁵⁹² Michael Gelder, 'Adolf Meyer and His Influence on British Psychiatry', p. 489

⁵⁹³ Susan Lamb, 'Social Skills: Adolf Meyer's Revision of Clinical Skill', p. 451

factors was central to Meyerian psychobiology and in turn to the approach taken by the staff of the Mill Hill in the early 1940s. It would also lead them to consider other more physical factors that contributed to a neurosis, as will be reflected in the next section when our focus shifts towards the problem of effort syndrome. Through bringing in and acknowledging the role of a past infection, Lewis and Jones hoped to explain the continuing symptoms in some of these cases and to open up new programmes of treatment through the category of the 'postinfective'.

Section 2: Infection, emotion, neurosis

In June 1941, writing in *The Lancet* Mill Hill psychiatrists Maxwell Jones and Aubrey Lewis detailed the results of their study of 200 soldiers admitted to this hospital over a 12-month period, who had been diagnosed with and treated for a particular kind of neurosis: effort syndrome. This was a diagnosis 'seldom used in normal times' but which offered a convenient means of classifying symptoms of fatigue, exhaustion, and depression in soldiers during war.⁵⁹⁴ Moreover, a diagnosis of effort syndrome allowed practical decisions to be made about the medical care and treatment needed to return to the front, the need to be relocated elsewhere or perhaps discharged from the army entirely. Principally caused by emotion and therefore best conceived as a neurosis, Jones and Lewis also acknowledged that this condition might be 'psychogenic' or 'physiogenic' in origin.⁵⁹⁵ Although these emotional responses which thus potentially unleashed by a stressful event or tied to an existing predisposition in the individual patient, Jones and Lewis argued that this condition was also sometimes related to the physical bodily effects of an infection. In doing so, as we shall see, they underlined the need for a specific programme of physical treatment designed to provide time for mind and body to adapt to a series of temporary physiological changes. To Jones and Lewis, these patients needed to be separated out, defined, and dealt with as 'post-infective' and so returned to the front as soon as they had recovered. In the coming years, as many of these cases remained

⁵⁹⁴ Maxwell Jones and Aubrey Lewis, 'Effort Syndrome', p. 813

⁵⁹⁵ *Ibid.*, p. 816

unable to adapt to the challenges of military or civilian life and thus informed a new programme of social and occupational psychiatry, focus would begin to shift away from this infection, returning to the view that these were ‘mostly unstable men of psychopathic predisposition’.⁵⁹⁶

By highlighting the connection made by Mill Hill psychiatrists between an infection and a neurosis, and therefore the category of post-infective effort syndrome, we are once again interested in illnesses that troubled the binaries of mental/physical, acute/chronic, and therefore transcended the structures of the contemporary health system. As with shellshock, the history of effort syndrome in twentieth century British medicine and psychiatry has primarily been told through a narrative of transition from physical to psychological explanations. Linking effort syndrome to the war-time category of ‘soldier’s heart’, historians argued that this condition was believed to result from toxic absorption or infection which caused physical changes in the body and led to symptoms like heart palpitations that were aggravated by exertion.⁵⁹⁷ Despite the insistence of cardiologists like Thomas Lewis, many of his contemporaries remained sceptical about the infective causes of effort syndrome, arguing that ‘no evidence of poison existed, no structural changes were detected, and no specific nervous pathology was found’.⁵⁹⁸ By this logic, this exhaustion and these heart palpitations could be explicated in the same terms as neurasthenia, and understood as caused more by ‘emotion than exercise’.⁵⁹⁹

⁵⁹⁶ Aubrey Lewis, ‘Social Effects of Neurosis’, p. 169

⁵⁹⁷ See Edgar Jones and Simon Wessely, ‘War Syndromes: The Impact of Culture on Medically Unexplained Symptoms’, *Medical History*, 49, (2005), pp. 55-78; For early twentieth century studies of soldier’s heart, see Thomas Lewis, *The Soldier’s Heart and the Effort Syndrome*, (London, 1918), also Thomas Cotton, Thomas Lewis, and F. H. Thiele, ‘A Note on the ‘Irritable Heart’ of Soldiers’, *BMJ*, 2, (1915), p. 722

⁵⁹⁸ Sean Dyde, ‘The Chief Seat of Mischief: Soldier’s Heart in the First World War’, *Journal of the History of Medicine and Allied Sciences*, 66, (2011), p. 239

⁵⁹⁹ F. W. Burton-Fanning, ‘Neurasthenia in Soldiers of the Home Forces’, *The Lancet*, 189, (1917), p. 909

According to Edgar Jones and Simon Wessely, questions about causation were resolved in the early 1940s by the staff of the Mill Hill who established that this condition was caused by an emotional response to stressful activity.⁶⁰⁰ Acute symptoms such as sweating, palpitation, trembling and breathlessness were guided less by an inability to make effort than by the ‘situation in which effort may be required, and the emotional attitude of the man towards this situation’.⁶⁰¹ This aetiology was however often misinterpreted by the patient, their families or perhaps a well-meaning physician, who instead ‘blamed the heart’ and fed into a ‘vicious circle’ of emotion, blame, fear and so on.⁶⁰² Paul Wood, a cardiologist who worked at the Mill Hill for a short time, believed that although these symptoms often followed upon rheumatic fever, influenza and pneumonia, the chief factor in their development was not some form of physical change but ‘*the belief*, induced by the doctor, that the heart had been injured by the infection.’⁶⁰³

Wood underlined this point in relation to one young man who had developed symptoms which seemed linked to an unlucky streak of illnesses but were actually a result of his panic ‘during air raids or even when planes passed overhead’ and the fact that he had been coddled at an early age.⁶⁰⁴ Wood hinged this causal hypothesis on evidence that after being reassured by his doctor and promised that he would be discharged from the Army, this man had ‘improved to such an extent that he [was]... capable of full physical effort, symptom-free.’⁶⁰⁵ To Wood, acknowledging how these symptoms were a product of (irrational) *fears* about the physical effects of an infection rather than the infection itself, was of diagnostic, prognostic, therapeutic and preventive importance. This allowed him and his colleagues to identify particular vulnerabilities and find ways of making the ‘most of material which is not suited to warfare’.⁶⁰⁶ Perhaps understandably, Jones and Wessely have viewed Wood’s work as an illustration of

⁶⁰⁰ Edgar Jones and Simon Wessely, ‘War Syndromes: The Impact of Culture’, pp. 69-72

⁶⁰¹ Maxwell Jones and Aubrey Lewis, ‘Effort Syndrome’, p. 814

⁶⁰² Paul Wood, ‘Aetiology of Da Costa’s Syndrome’, *BMJ*, 1, (1941), p. 849

⁶⁰³ *Ibid.*, p. 847

⁶⁰⁴ *Ibid.*, p. 848

⁶⁰⁵ *Ibid.*, p. 848

⁶⁰⁶ *Ibid.*, p. 850

the shift from a physical to a psychological framework which ensured that effort syndrome 'fell out of favour' as attention shifted towards addressing what was now viewed as an anxiety neurosis or 'psychiatric disability'.⁶⁰⁷

A closer look at the literature surrounding effort syndrome suggests that this interpretation is perhaps a little simplistic. Although effort syndrome did become viewed as an acute neurosis and treated as a *mental* condition, this did not mean that the role played by the *physical* effects of an infection was disregarded entirely. Shortly after Wood had published his observations on effort syndrome Jones and Lewis weighed in on the debate about what caused this condition. They also emphasised the causal significance of the 'emotional attitude of the man', his desire to avoid effort, that his recovery rested on providing a 'positive explanation which he can accept and understand', and that they needed to be persuaded and re-educated to ensure they did not become 'lifelong hypochondriacs'.⁶⁰⁸ Although these cases were undoubtedly forms of 'neurosis' based primarily on a lack of 'definite and recognisable organic disease', Jones and Lewis stressed that this condition might still be informed by 'physiogenic' causes such as an infection, in turn forging parallels with the category of 'postinfective neurasthenia'.⁶⁰⁹ As acknowledged in Chapter 3, neurasthenia was a long-debated, much-contested category, hitherto used to offer a 'somatic location- the nerves- for a vast range of conditions which had no other obvious organic origin, from lethargy to insomnia, depression, headache, and bodily aches and pains' and thus validate 'the doctor's ministrations and the patient's suffering'.⁶¹⁰

This aetiological framework therefore allowed for the recognition of a variety of possible causes, such as an infection, which became understood to cause physiological changes such as a 'failure of cerebral blood flow, a deficiency in energy sources, a genetic fault or alternatively

⁶⁰⁷ Edgar Jones and Simon Wessely, 'War Syndromes', p. 69

⁶⁰⁸ Maxwell Jones and Aubrey Lewis, 'Effort Syndrome', p. 817

⁶⁰⁹ *Ibid.*, p. 817, p. 816

⁶¹⁰ Mathew Thomson, 'Neurasthenia in Britain', p. 79

excessive demands made by the body' but not permanent physical lesions.⁶¹¹ Whilst Jones and Lewis used the longstanding problem of 'post-infective neurasthenia' to reaffirm a similarly fluid physiological theory of causation in relation to effort syndrome, this was also more directly informed by an awareness of the 'parallels between physiological and psychological processes' which had recently come to inform approaches to mental disorder.⁶¹² As we have seen in Chapters 2 and 3 of this thesis, this idea that emotion was a bodily physiological process which held the power to protect or destabilise the organism and therefore cause mental breakdown, had emerged through the work of physiologists like Walter Cannon. Through relying on these theories, Jones and Lewis were able to view the physiological and psychological mechanisms at play in effort syndrome as 'two aspects of the same complex happening, each capable of more or less separate and independent activation', perhaps brought on by stress *or* an infection.⁶¹³

Reaffirmed by these causal theories, this aetiological link between emotion and infection also hinged on the psychobiological, experimental approach to diagnosis and therapy at the Mill Hill. This was informed by Meyer's work at the Phipps Clinic, where he had established 'uniform conditions' in order to record the idiosyncratic responses of each patient.⁶¹⁴ By establishing a theoretical baseline from which to approach every patient, these conditions were believed to be of therapeutic value, allowing patients to take the lead in 'overriding ineffective and deeply ingrained adaptive patterns and replacing them with habitual responses that were natural, wholesome, healthy, satisfying and efficient'.⁶¹⁵ Beyond engaging in recreation and occupational therapy, patients were also encouraged to exercise, eat and sleep well, stay hydrated and to perform seemingly unremarkable tasks like dressing themselves: in turn recasting 'symptoms and social interactions... as biological events' in the therapeutic

⁶¹¹ Simon Wessely, 'History of Postviral Fatigue Syndrome', *British Medical Bulletin*, 47, (1991), p. 921

⁶¹² Mark Jackson, 'Men and Women under Stress', p. 117

⁶¹³ Maxwell Jones and Aubrey Lewis, 'Effort Syndrome', p. 814

⁶¹⁴ Susan Lamb, *Pathologist of the Mind*, p. 162

⁶¹⁵ *Ibid.*, p. 163

process of readaptation.⁶¹⁶ At the Mill Hill, Jones, Lewis and their colleagues applied this approach to all cases of effort syndrome, regardless of any apparent differences in causation which might be revealed through their individual case notes and life charts.

In this approach, an ‘initial exploratory period’ was used to observe each patient, during which their treatment was primarily centred on providing ‘good food... a regular life’, and graduated exercise.⁶¹⁷ Despite its physical emphasis this exercise was also believed to be of psychological value, perhaps encouraging a man who had hitherto ‘entertained the conviction that he has a cardiac defect’ which could not handle ‘the hazards of exertion’, to see that this kind of activity ‘did not lead to calamity.’⁶¹⁸ Whilst some men might be presumed to be suitable or unsuitable for exercise ‘on psychological grounds’, this was monitored by physician Adolphe Abrahams who either ‘confirmed or corrected this conclusion in many cases.’⁶¹⁹ Whilst this programme sometimes allowed Jones and Lewis to pull causal emphasis towards ‘external’ causes such as the stress of army life, ‘separation from wife and family’ or the ‘constitution’ of the patient in terms of their ‘physique, habitus’, ‘personality, character, [or] instinctual trends’, it also led them to consider the role of an infection, even if a case had previously ‘exhibited some inconspicuous psychopathic traits’.⁶²⁰

Initially using the same set of techniques, practices and resources to treat every case admitted to the Mill Hill and moreover monitoring how they responded over time, Jones and Lewis began to map out clearer aetiologies and pursue programmes of treatment which returned cases to the front as quickly as possible. Those who came to be classed as ‘postinfective’ were consequently not only identified based on evidence of an illness like influenza, brought into focus in their life chart, but also based on their ability to respond positively to a specific

⁶¹⁶ *Ibid.*, p. 203

⁶¹⁷ Adolphe Abrahams, ‘Effort Syndrome: Diagnostic and Therapeutic Value of Exercises’, *The Lancet*, 237, (1941), p. 438

⁶¹⁸ *Ibid.*, p. 437

⁶¹⁹ Maxwell Jones and Aubrey Lewis, ‘Effort Syndrome’, p. 817

⁶²⁰ Aubrey Lewis, ‘Psychiatric Aspects of Effort Syndrome’, *Proceedings of the Royal Society of Medicine*, 34, (1941), p. 534; Maxwell Jones and Aubrey Lewis, ‘Effort Syndrome’, p. 815

‘general’ therapeutic programme of exercise and encouragement, which was sufficient to ‘prevent the convalescent patient from slipping into hypochondriacal invalidism’ without resorting to more formal, ‘specialised psychotherapy’.⁶²¹ Through this psychobiological approach to diagnosis and treatment, Jones and Lewis developed aetiologies that were far from fixed and instead could be adjusted over time, based on the ways in which a patient moved through and adapted to life at the Mill Hill. Moreover, links with an earlier acute infection were used to explain an emerging group of cases whose condition seemed neither related to stress or constitution yet still was to be handled at the Mill Hill and therefore understood as ‘mental’.

Despite marking out this group and suggesting they would perhaps only require a short, less intensive and time-consuming, expensive programme of treatment, Jones and Lewis were very open about the continuing questions which surrounded the issue of long-term prognosis. Acknowledging that relatively few cases of effort syndrome were discharged ‘quite free of symptoms’, perhaps due to the short-term nature of care and treatment available at the Mill Hill, Jones and Lewis also recognised the ability of a patient to get ‘rid of his incapacity’ was ultimately dependent on a combination of internal and external factors.⁶²² To establish a prognosis, ‘an appraisal of his aptitudes’ needed to be balanced ‘against the life he will be called on to lead’.⁶²³ Through follow-up studies conducted by psychiatric social workers who collated information on their present job, how long it had taken them to get to back to work, the total duration of unemployment, as well as their current health and domestic situation, it quickly became clear that many patients were earning and working less, were ‘less contented, less tolerable to live with, less healthy’ since they had been treated at the Mill Hill.⁶²⁴ With such outcomes observed across all cases of effort syndrome, including those previously separated out and described as ‘post-infective’ yet now defined as ‘postmeningitis invalid[s]’, Lewis

⁶²¹ *Ibid.*, p. 817

⁶²² *Ibid.*, p. 818

⁶²³ *Ibid.*, p. 818

⁶²⁴ Aubrey Lewis, ‘Social Effects of Neurosis’, p. 169

began to underline the view that these were all ‘unstable men of psychopathic predisposition’, in whom the likelihood that their illness ‘would lead to such a social situation... had been plain.’⁶²⁵

Faced with what now seemed to be persisting and perhaps chronic cases of neurosis, Lewis abandoned any kind of previous interest in the physical, bodily effects of an infection, instead reframing their condition in constitutional terms and aligning them with his own visions of more social and psychiatric mechanisms of rehabilitation.⁶²⁶ Alongside his colleagues like Jones, Lewis would therefore gradually, through the discipline of social psychiatry, build upon the basic idea that the health and productivity of every individual was heavily influenced by their surroundings. This served to advance programmes which enlisted ‘all the socialising influences we can while the patient is under our care in hospital’ in order to ‘fit him for his return to society, perhaps by altering much of the social setting to which he will return’ for example through the ‘annexure scheme’.⁶²⁷ Whilst he acknowledged that the chances of rehabilitating those whose neurosis was a product of inherited constitutional weakness might be slim, Lewis emphasised that it remained necessary to try and figure out ‘the type of military work, within broad limits, that [*all soldiers*] are fitted for’, and thus control the ‘social influences’ which ‘play a notable part in determining the course and form of mental illness.’⁶²⁸

Over the coming years, Lewis would repeatedly make calls for cooperation between the ‘doctor and employment exchange officer’ who would together facilitate ‘the most effective rehabilitation- suitable adjusted work’, basing this on the principle that a carefully ‘selected

⁶²⁵ *Ibid.*, p. 168

⁶²⁶ *Ibid.*, p. 169

⁶²⁷ Aubrey Lewis, ‘Social Aspects of Psychiatry’, *Edinburgh Medical Journal*, 58, (1951), pp. 214-247; This scheme was designed to allow certain soldiers to be retained in the army with adjustments to their roles and responsibilities. It was rooted in the practical distinction made by Lewis between cases whose incapacity could be tied to the fact they were simply unsuited to and discontented with their work, and those who were simply too ‘timid, immature, or otherwise psychopathic to endure any danger and discomfort, camp or campaign life, discipline and separation from their home’. See Aubrey Lewis, quoted in Robert H. Ahrenfeldt, *Psychiatry in the British Army in the Second World War*, (London, 1958), p. 155

⁶²⁸ Aubrey Lewis, *Inquiries in Psychiatry*, (Kindle edn, Hove, 2014), p. 264

occupation can be a more potent factor than psychotherapy or drugs in furthering mental health.⁶²⁹ As his work became increasingly devoted to the principles of occupational and social psychiatry, this also informed the view that an infection was best interpreted as a contributory cause which alongside ‘adolescence, marriage, pregnancy, menstruation, menopause, season, bereavement’ constituted one of the many stressful, emotional threats encountered as part of modern life and informed the development of a neurosis.⁶³⁰ As we shall see in the next section, in order to explain the growing number of chronic cases who relapsed after discharge from the Mill Hill, his colleague Mangalore Narasimha Pai would continue to explore this relationship. Emphasising how some patients were the victims of organic damage, observed and handled through psychiatric intervention, he would take advantage of a political appetite for reform and the need for the integration of general and mental medicine in a national health system.

Section 3: Deterioration, rehabilitation, integration

Confronted with the same problem which had been documented by Aubrey Lewis earlier that year, in November 1943 Mangalore Narasimha Pai drew attention to the growing number of patients who despite receiving treatment and being discharged from the Mill Hill, remained unable to serve in the army or work productively. Some of these patients, Narasimha Pai emphasised, had a shared history of ‘cerebrospinal fever’, an infectious illness that at the time was ‘passing through a period of unusual prevalence’.⁶³¹ Despite acknowledging how the persisting neurosis observed in these patients might be a product of ‘personality traits and previous mental health’, Narasimha Pai was also interested in exploring another possible causal hypothesis: the idea that at least some of these cases suffered from some kind of ‘organic syndrome’.⁶³²

⁶²⁹ ‘Special Article: Social Insurance and Neurotic Disorder, Recommendations of the RMPA’, *The Lancet*, 242, (1943), p. 775; Aubrey Lewis, quoted in Robert H. Ahrenfeldt, *Psychiatry in the British Army in the Second World War*, p. 169

⁶³⁰ Aubrey Lewis, *Inquiries in Psychiatry*, p. 119

⁶³¹ ‘Cerebrospinal Fever’, *BMJ*, 1, (1940), p. 776

⁶³² Mangalore Narasimha Pai, ‘Neuropsychiatric After-Effects of Cerebrospinal Fever’, p. 207

Beyond using this aetiology to underline the need for an alternative mode of rehabilitation, which would not unrealistically seek to ‘restore a patient to his previous functioning level’ but instead reframe his work and responsibilities around his remaining capacities, this section highlights how Narasimha Pai contributed to broader debates about the need for ‘closer cooperation and referral between the fields of mental and general medicine’.⁶³³ As reflected in the credits to his publications, Narasimha Pai was undoubtedly influenced by Walter Maclay: a man who was then medical superintendent to the Mill Hill, but would also play a central role in ‘furthering the development of psychiatric services within the scope of the newly-instituted health National Health Service’.⁶³⁴ By showing how cases could be separated out and viewed as ‘organic’ or ‘functional’ through *psychiatric investigations* conducted by a *psychiatric social worker* in the space of a *fever hospital*, Narasimha Pai’s work on the relationship between infections and neurosis directly informed, and was arguably shaped by, this political agenda.⁶³⁵

So far in this chapter, we have seen how the relationship between an acute infection, a neurosis and the category of ‘post-infective effort syndrome’ was shaped by and emerged in the context of a wartime neurosis centre during the 1940s: mapping this process onto a political, economic, and military emphasis on providing the resources, provisions needed to facilitate short periods of treatment, rapid recovery and a return to the front. As we shall see, this relationship would also be reshaped as the functions and implications of the Mill Hill shifted, becoming understood to symbolise the possibilities for a more comprehensive, *integrated* and consequently effective health system. In part through the psychosomatic approach developed by physicians such as James Halliday, by the early 1940s the rising levels of chronic illness, declining birth rate, economic instability, poor nutrition and education evidenced amongst, and experienced by, the population were no longer understood as problems of individual ‘biology rather than environment and value’, in turn becoming a ‘touchstone for political

⁶³³ Chris Millard, *A History of Self-Harm*, p. 62

⁶³⁴ ‘Walter Symington Maclay: An Appreciation’, *British Journal of Psychiatry*, 111, (1965), p. 205

⁶³⁵ Mangalore Narasimha Pai, ‘Changes in Personality After Cerebrospinal Fever’, pp. 292-293

justice'.⁶³⁶ Government officials had begun to accept the need to re-establish 'a sense of safety and to boost the health and productivity of a stressed nation', thereby feeding into the interlinked yet distinct disciplines of social medicine and social psychiatry: both of which 'insisted patients' treatment reflect their wider and social environment'.⁶³⁷ These new, more socialised disciplines were heavily informed by and therefore inseparable from a desire to make changes to the contemporary health system, which seemed 'inadequate in quality and organisation... unevenly distributed, racked by rivalry and competition, in constant financial crisis and unsuitable for any kind of large-scale planning'.⁶³⁸

According to Rhodri Hayward, this viewpoint was articulated in 1940 by economist and eventual Labour Party politician Evan Durbin, who linked the ideal of economic security to a 'new sense of psychological security achieved through a nationwide system of therapeutic intervention'.⁶³⁹ This security, according to physician Stephen Taylor, also hinged on a series of social and material changes which ensured better nutrition, better homes, a guarantee of a basic income and benefits, but also access to a comprehensive system of 'socialized medicine'.⁶⁴⁰ Guided by an 'awareness of the role of the social in shaping health and disease outcome', government officials would therefore begin to consider whether it might be possible to retain some of the institutional provisions, financial mechanisms and administrative

⁶³⁶ Mathew Thomson, *Psychological Subjects*, p. 200; Rhodri Hayward, 'The Pursuit of Serenity', p. 291

⁶³⁷ Mark Jackson, 'An Introduction', in Mark Jackson (ed.), *Stress in Post-War Britain*, p. 2; Andrew Seaton, 'The Gospel of Wealth and the National Health: The Rockefeller Foundation and Social Medicine in Britain's NHS, 1945-1960', *Bulletin of the History of Medicine*, 94, (2020), p. 94; Documenting the comprehensive historiography surrounding social medicine, is beyond the scope of this chapter. Social medicine has nonetheless been explored in most detail by Dorothy Porter, see Dorothy Porter, (eds), *Social Medicine and Medical Sociology in the Twentieth Century*, (Amsterdam, 1997)

⁶³⁸ Nigel Oswald, 'Training Doctors for the National Health Service: Social Medicine, Medical Education, and the GMC, 1936-48', in Dorothy Porter, (eds), *Social Medicine and Medical Sociology in the Twentieth Century*, (Amsterdam, 1997), p. 59

⁶³⁹ Rhodri Hayward, 'The Pursuit of Serenity', p. 292; See Evan Durbin, *Politics of Democratic Socialism: An Essay on Social Policy*, (London, 1940), p. 331

⁶⁴⁰ Stephen Taylor, referenced by Rhodri Hayward, 'The Pursuit of Serenity', p. 293

connections established as part of the wartime EMS in order to make medical and psychiatric care and social support ‘available to all citizens in the form of a state-funded health service’.⁶⁴¹ These ideals famously found expression in the government report produced by William Beveridge and published in 1942, which has since become viewed as the ‘foundation stone of the post-war British welfare state’.⁶⁴² Alongside the introduction of family allowances, as well as the involvement of the state in maintaining full employment across the population, Beveridge underlined the need for a free National Health Service to be established in line with the principles of ‘economy in administration, adequacy in benefits, and universality in scope’.⁶⁴³

Whilst we shall return to and document these developments in more detail in the next chapter, it is important to acknowledge how this interest in a state-funded health system filtered down to and shaped the work of staff at places like the Mill Hill. Many saw them as an opportunity to not only underline the central role played by psychiatry in an efficient, modern health system, but also to ‘bring mental disease back into close contact with general medicine.’⁶⁴⁴ In the years after 1942, Lewis encouraged his colleague and friend C.P. Blacker to assess the ‘existing services for neurotic patients’ in England and Wales in order to better understand if they were having a measurable positive impact in terms of recovery in the short and the long-term and make recommendations about ‘the shape of post-war psychiatric services’ in the context of an evolving health system.⁶⁴⁵ Beyond calling for psychiatry to move beyond more traditional spaces like the mental hospital into school, industry, the prison system, or

⁶⁴¹ Ann Oakley, ‘Making Medicine Social: The Case of Two Dogs with Bent Legs’, in Dorothy Porter, eds), *Social Medicine and Medical Sociology in the Twentieth Century*, (Amsterdam, 1997), p. 82

⁶⁴² Noel Whiteside, ‘The Beveridge Report and its implementation: a revolutionary project?’, p. 1; In his analysis, Chris Renwick has explored the foundation of the modern welfare state, and Beveridge’s commitment in detail, see Chris Renwick, *Bread for All: The Origins of the Welfare State*, (London, 2017)

⁶⁴³ Pat Thane, *The Foundation of the Welfare State*, p. 199; During this period, Lewis was appointed as honorary secretary to the Neurosis Sub-Committee of the Royal Medico-Psychological Association in 1942, see Michael Shepherd, ‘From Social Medicine to Social Psychiatry: The Achievement of Sir Aubrey Lewis’, *Psychological Medicine*, 10, (1980), p. 214

⁶⁴⁴ ‘Psychiatry in the General Hospital’, *BMJ*, 1, (1943), p. 637

⁶⁴⁵ Aubrey Lewis, ‘Psychiatric Investigation in Britain’, *The American Journal of Psychiatry*, 101, (1945), p. 486; Edgar Jones, ‘Aubrey Lewis, Edward Mapother and the Maudsley’, p. 36

‘reablement centres’, Blacker also emphasised how mental health services should in future be jointly administered by general and mental hospitals.⁶⁴⁶ These ideas and visions of reform filtered down to, and yet were perhaps also informed by, the work of Mill Hill psychiatrists like Mangalore Narasimha Pai.

It is difficult to find and therefore provide much in the way of biographical information about the life of Narasimha Pai. Unlike the physicians we have encountered across this thesis, he seems not to have been the focus of any obituaries published in contemporary medical journals, nor memorialised in the Munk’s Roll compiled by the Royal College of Physicians.⁶⁴⁷ In the absence of such information, the most we are able to responsibly say is that at some point before the mid-1940s, Narasimha Pai qualified with a degree in medicine obtained from the University of Madras in India and had arrived in Britain to take up a role at the Mill Hill.⁶⁴⁸ In what seems to be his first publication in a British medical journal, in November 1943 Narasimha Pai turned his attention to the ‘neuropsychiatric after-effects of cerebrospinal fever’ (CSF), which he had studied in 54 cases who had been referred to the neurosis centre at the Mill Hill for ‘neuropsychiatric investigation and treatment’.⁶⁴⁹ This opportunity, he claimed, had been presented by an epidemic outbreak of this disease across Britain in 1940, after which there had been spike in the rate of neurosis which seemed to be associated with a history of CSF.

⁶⁴⁶ ‘Neurosis and the Mental-Health Service: The Present and the Future’, *The Lancet*, 247, (1946), p. 279

⁶⁴⁷ Whilst this lack of information might be attributed to authorial oversight, it also perpetuates the almost total absence in the historical record of the role of migrant workers in the mid-twentieth century British health system. This has been recently highlighted by historians, who have drawn attention to how a view of the ‘NHS as a ‘typically British’ institution (in a restrictive white sense rather than in an inclusive sense) tends to prevail in public perceptions of the organization and in its self-image.’ More historians are now seeking to address this ‘collective amnesia’. The life, work and contribution of Mangalore Narasimha Pai to British psychiatry might be a way to contribute to this endeavour. See Julian M. Simpson, Aneez Esmail, Virinder S. Kaira and Stephanie J. Snow, ‘Writing migrants back into NHS history: addressing a ‘collective amnesia’ and its policy implications’, *Journal of the Royal Society of Medicine*, 103, (2010), pp. 392-396.

⁶⁴⁸ He was also appointed to the Royal Medico-Psychological Association in 1944, see Royal Medico-Association, 1948-49, Ordinary Members of the Association, xliii,

<https://catalogues.rcpsych.ac.uk/FILES/1948-49.pdf>, [accessed 6th September 2022]

⁶⁴⁹ Mangalore Narasimha Pai, ‘Neuropsychiatric After-Effects of Cerebrospinal Fever’, pp. 205-207

Positioned alongside EL and poliomyelitis as part of the 'triad' of recurring epidemic diseases faced by modern society, CSF was understood to have 'originated' in Geneva during February 1805, becoming quickly recognised elsewhere in Europe, North and South America, Australia, and Africa.⁶⁵⁰ In Britain, this disease was made compulsorily notifiable in 1912 through both the 1889 Infectious Disease (Notification) Act and the Public Health (Cerebrospinal Fever and Acute Poliomyelitis) Regulations, thereafter reaching 'epidemic' proportions with peaks in incidence occurring during and after WW1 and WW2.⁶⁵¹ Like EL, CSF was understood to be tied to nervous inflammation of the brain and the spinal cord, which caused an acute illness characterised by muscular rigidity, delirium, high temperature, often preceded by headache, vomiting and a rash. Unlike EL, however, CSF was associated with 'positive' pathological signs, based on abnormalities in the cerebrospinal fluid and the evidence of a specific causal agent: the meningococcus.⁶⁵²

According to Narasimha Pai in 1943, CSF had therefore until then been primarily viewed as an acute physical disease which either concluded in full recovery or death. Reaffirming many of the points previously made by physician Humphrey Rolleston, Narasimha Pai aimed to explore the impression that this illness was sometimes of a much more prolonged duration and linked to a chronic neurosis, interpreting these cases in a way that generated a conflict between these physical and mental binaries.⁶⁵³ Gesturing towards this broad, scientific debate to justify his interest in the neuropsychiatric after-effects of CSF, through his account

⁶⁵⁰ Arthur MacNalty, *Epidemic Diseases of the Central Nervous System*, (1928), p. 65

⁶⁵¹ *Ibid.*, p. 36; For more information on the outbreak of cerebrospinal fever amongst soldiers, see Humphrey Rolleston, 'Cerebrospinal Fever in the Royal Navy (August 1st 1917-July 31st, 1918)', *Journal of the Royal Naval Medical Service*, 5, (1919), pp. 131-141; Comparisons between 1915 and 1940 were made in the *BMJ*, where the 2,566 cases notified in 1915 were positioned in opposition to the 5,093 cases notified in the first quarter of 1940. Moreover, although the anonymous author noted that the incidence of this disease had been rising since 1923, they attributed this peak to 'coincidence of mobilization with one of the most rigorous winters in history.' See 'Cerebrospinal Fever', *BMJ*, 1, (1940), pp. 776-777

⁶⁵² C. Worster-Drought, 'The Diagnosis of Cerebrospinal Fever', *Postgraduate Medical Journal*, April 20, (1944), pp. 99-107

⁶⁵³ Unlike EL, however, this relapse was often accompanied by fluid abnormalities, and therefore was taken to be more reliable and objective physiological evidence, see Sir Humphrey Rolleston, 'Cerebrospinal Fever in the Royal Navy (August 1st, 1917-July 31st, 1918)', pp. 7-8

Narasimha Pai would also reinforce a much more practical institutional agenda, namely the integration of general and mental medicine.

Narasimha Pai began by acknowledging how the 32 patients who were the focus of his study had been identified through a survey of neurosis, which had investigated a total of 10,335 patients. These cases presented symptoms which seemed to affect both mind and body: manifesting in the form of a headache, depression, forgetfulness/loss of memory, changes in personality, dizziness, fatigue and effort syndrome. To Narasimha Pai and his colleagues working in the military, these cases seemed as a rule to have a prognosis that was ‘worse than in other neurotic patients’, as they often remained ‘incapacitate[d]... for work for prolonged periods’, were associated with a ‘recovery-rate [that] was appreciably lower than in neuroses arising without a history of meningitis’, and therefore constituted ‘particularly in the Services, an appreciable man-power problem.’⁶⁵⁴ Upon admission, information had been gathered about each patient prior to, during and since their ‘neuropsychiatric’ illness. This information was likely arranged in the format of the life chart. Beyond focusing on their personal and familial history and the features and duration of their infective illness, Narasimha Pai also recorded data about any pathological results, the Wassermann reaction, an intelligence test, electroencephalogram or a Rorschach Test as well as reports concerning their performance in the workplace or military.⁶⁵⁵

Through such information, Narasimha Pai began by making some broad generalisations. He argued that although these neuropsychiatric problems sometimes occurred in those who were

⁶⁵⁴ Mangalore Narasimha Pai, ‘Neuropsychiatric After-Effects of Cerebrospinal Fever’, p. 207; S.I. Ballard, ‘Sequelae of Cerebrospinal Meningitis: an analysis of sixty cases’, *The Lancet*, 246, (1945), p. 274

⁶⁵⁵ Katherine Hubbard has explored the history of the Rorschach Test, and how it came to be used as a diagnostic device in the twentieth century. The test rested on the presentation of ‘stimuli’, in the form of ink blots to the patient, who had to report what they saw in these shapes or pictures. See Katherine Hubbard, *Queer Ink: A Blotted History Towards Liberation*, (London, 2020); The Electroencephalogram has also become the subject of extended historical analysis, see for example Rhodri Hayward, ‘The Tortoise and the Love-Machine: Grey Walter and the Politics of Electroencephalography’, *Science in Context*, 14, (2001), pp. 615-641, also Cornelius Borck, ‘Recording the Brain at Work: The Visible, The Readable, and the Invisible in ElectroEncephalography’, *Journal of the History of the Neurosciences*, 17, (2008), pp. 367-379

already ‘timid and dependent persons with a fair work record’ or ‘chronic neurotics with poor work records, hysterical persons, psychopaths and borderline mental defectives’, there was also a group who had previously been ‘well-organised and stable persons with friends, hobbies and interests, and with good work records.’⁶⁵⁶

In order to understand whether these cases could be related to distinct organic or functional aetiologies, he then applied the Meyerian framework of mental reaction-types. As acknowledged in the first section of this chapter, Meyer’s theory of reaction-types had emerged to challenge ‘systems that forced all cases into fixed categories’ and instead assessed and grouped cases based on their ‘overall adaptive performance’, with similarities cohering around ‘causal factors, symptomatology, the course of disease, or pathological experiences’, and a particular process of maladaptation.⁶⁵⁷ Through this approach, Meyer engaged in acts of diagnosis which no longer relied on signs of lesions, toxins or degeneration, instead broadly identifying cases based on ‘typical maladaptive reactions’.⁶⁵⁸ Borrowing Meyer’s framework, Narasimha Pai aimed to establish whether at least some of the persisting neuropsychiatric effects observed in cases at the Mill Hill were a product of an organic mental reaction, caused by physical, bodily damage. Whilst many of these cases seemed to display behaviours that bore no striking differences to other neurotics without a history of CSF, Narasimha Pai argued that it was possible establish their ‘organic’ nature based on a series of common features such as a mild but persistent depression without self-reproach, frontal headaches, forgetfulness, a pronounced tendency to invalidism and changes in personality, all of which moreover showed ‘variation in their intensity’.⁶⁵⁹ This pattern of behaviours, he moreover suggested, often followed upon a period of acute delirium which had caused a ‘disturbance of consciousness’ and in turn a ‘temporary alteration of cerebral function’.⁶⁶⁰

⁶⁵⁶ Mangalore Narasimha Pai, ‘Neuropsychiatric After-Effects of Cerebrospinal Fever’, p. 205

⁶⁵⁷ Susan Lamb, *Pathologist of the Mind*, p. 155

⁶⁵⁸ *Ibid.*, p. 157

⁶⁵⁹ Mangalore Narasimha Pai, ‘Neuropsychiatric After-Effects of Cerebrospinal Fever’, p. 206

⁶⁶⁰ *Ibid.*, p. 207

Through applying this framework, Narasimha Pai showed that although these cases did not seem to show any ‘neurological signs of cerebral damage’, as reflected in intellectual impairment, they displayed an overall, clinical picture which ‘resembled clearly that of organic cases of known pathology.’⁶⁶¹ Correlating this to the psychological data collected in the life chart, of the thirty-two patients included in his study he identified seven who seemed to display an organic syndrome, and within this, four who had no history of stress or predisposition and three who did. In contrast, he identified eight cases whose condition seemed neurotic but could not be related to predisposition or psychological stress. There were a further nine cases who although seemed predisposed to a neurosis based on their history, had not been exposed to any known psychological stress. All of this seems decidedly complicated to a twenty-first century reader. However, as Narasimha Pai would acknowledge two years later, through these psychiatric investigations it had become possible to establish if the ‘total picture’ of a case was ‘suggestive of a functional disorder or of an organic process’ and therefore to pursue the correct kind of rehabilitative intervention.⁶⁶² For those whose condition was believed to be tied to organic change and who he diagnosed with ‘meningococcal encephalopathy’, Narasimha Pai underlined the need to acknowledge their ‘disability’ and seek to make the most of their ‘residual capacities’.⁶⁶³ In contrast, for those whose condition was ‘functional’ and thought to be more a product of psychological causes like stress or predisposition, he argued that it was necessary to provide treatment which restored them to their ‘previous functioning level’.⁶⁶⁴

Despite emphasising these differences in rehabilitative intervention, which in turn broadly correlated to whether their condition was tied to psychological responses or a kind of organic physical pathology, Narasimha Pai also underlined one important commonality between these cases. Given the *temporal*, if not *causal*, link between the onset of the neuropsychiatric after-

⁶⁶¹ *Ibid.*, p. 207

⁶⁶² Mangalore Narasimha Pai, ‘Changes in Personality after Cerebrospinal Fever’, *BMJ*, p. 292

⁶⁶³ *Ibid.*, p. 292

⁶⁶⁴ *Ibid.*, p. 292

effects observed in all these cases and an earlier infection, all required an initial psychiatric investigation. Based on this, these were all cases whose condition could be conceptualised as *mental*, tied to a specific set of resources, provisions, and policies available at (or to) the neurosis centre, and brought within the contemporary health system. Almost certainly influenced by calls for the integration of general and mental medicine which found expression in the work of his colleagues, (for example in C.P. Blacker's study of neurosis and the mental health service and Walter Maclay's recommendations regarding the national health service), Narasimha Pai argued that such investigations were best carried out whilst patients were still receiving care at a 'fever hospital', responsible for treating infectious diseases during the acute stage. As Chris Millard has shown in relation to post-war mental observation wards, Narasimha Pai thus used these cases to embed a form of 'psychiatric scrutiny in a general hospital setting' and achieve a new kind of 'integration'.⁶⁶⁵

These were aetiologies that were bound up with a particular set of practical, administrative, and bureaucratic concerns which reinforced the need for a new, more expansive, accessible, *integrated* and effective health system, able to tend to the *mental and physical* needs of the population in the same spaces and perhaps at the same time. Whilst this point had been made by using psychiatry to examine a group of cases with a physical disease, and thus conceptualise them as organic or functional (yet still mental), Narasimha Pai had also marked out a further group whose condition still did not fit into these boxes. Based on their behaviours or reactions, these cases were neither able to be viewed as 'organic' but also lacked the typical causal markers of a neurosis, namely a history of psychological stress or predisposition. Whilst Narasimha Pai broadly alluded to how they had acquired a tendency to neurosis due to the infection, it remained clear that they still came into conflict with the resources, provisions and policies used to deal with cases defined as mental. As we shall see in the final section, through drawing on his own work on personality and the statistical methods emerging at the Mill Hill, his colleague Stephen Krauss would aim to explain this group. We therefore conclude this

⁶⁶⁵ Chris Millard, *A History of Self-Harm*, p. 67

chapter by exploring how the idea of a ‘post-infectious state’ became used to refer to a vague kind of physical bodily process and linked to the onset of a chronic, mental neurosis. Hinging on a context-specific set of psychiatric modes of investigation and rehabilitation, these categories emerged and became used to further underline the need for a new, integrated, national health system.

Section 4: The ‘post-infectious’ state

After just over five years of debate at the Mill Hill concerning the relationship between an acute infection and a persisting neurosis, in 1946 Stephen Krauss would offer some resolution through his analysis of ‘chorea’.⁶⁶⁶ Characterised predominantly by movement disorders which followed upon an acute infective illness but were also influenced by environmental factors and constitutional predisposition, chorea itself had long been a focus of interest amongst the staff of the Maudsley. In 1935, Aubrey Lewis and Louis Minski had acknowledged how this condition ‘as a whole stultifie[d] any finally exclusive way of study’, or in other words, their ability to ‘cleave physiological or neurological from psychological’.⁶⁶⁷ Through the financial support of the prestigious Rockefeller Foundation, Eric Guttmann had also explored the constitutional aspects of this disease and its sequelae.⁶⁶⁸ To the staff of the Maudsley, chorea (like EL and cerebrospinal fever) was a disease associated with persisting illnesses that could not easily be conceptualised as mental *or* physical, acute *or* chronic.

Arriving to England in 1939 from Jerusalem, in the mid-1940s Krauss would bring his expertise and experience to these debates, thereby resolving a question left open by Narasimha

⁶⁶⁶ Stephen Krauss, ‘Changes of Personality After Chorea Minor’, *Swiss Archives of Neurology and Psychiatry*, (1934), p. 34

⁶⁶⁷ Aubrey Lewis and Louis Minski, ‘Chorea and Psychosis’, *The Lancet*, 1, (1935), p. 538; In the context of twentieth century medicine, chorea was an umbrella category, used to broadly refer to and group various forms and severities. It is important to flag a terminological difference between severe forms of chorea, often termed as the ‘Huntington’ variety and tied to progressing, organic damage, and the ‘acute’ forms, which were often related to the work of Thomas Sydenham, defined as ‘chorea minor’, and were the focus of Krauss’ work.

⁶⁶⁸ See Eric Guttmann, ‘On Some Constitutional Aspects of Chorea and its Sequelae’, *Journal of Neurology and Psychopathology*, 17, (1936), pp. 16-26

Pai about whether it was possible for an infection to precipitate the development of a neurosis, in the absence of evidence to suggest organic damage, stress or predisposition. Supplementing his own analysis of ‘personality’ with the new ‘experimental’ methods developed at the Mill Hill by Hans Eysenck, Krauss would frame the behaviours of ‘post-choreic’ cases in the same terms as other neurotics, engaging in statistical, factorial analysis and making their personalities ‘inscribable, calculable, and manageable’ but also, most importantly, ‘aetiologically crucial’.⁶⁶⁹ As we shall see, this experimental statistical technique and mode of psychiatric investigation allowed Krauss to provide evidence of the physical effects of an infection which had left these cases unable to provide a specific ‘output of energy’ due to their ‘impaired vitality’.⁶⁷⁰ Constituting a minor or major disability, this personality type often set up the possibility for emotional conflicts, maladjustment, and the onset of a neurosis, and therefore needed to be flagged through psychiatric examination prior to enlistment or employment. Making many of the same practical points as Narasimha Pai, this chapter concludes by acknowledging how Krauss had come to mark out the *physical* problem of a ‘post-infectious state’ and to establish its relationship to an often chronic *mental* neurosis through relying on a context-specific set of *psychiatric* arrangements, practices and theories, in line with a political and economic agenda for health reform and integration.

Before we explore Krauss’ approach and arguments in closer detail, it is necessary to provide a little context on the disease at the centre of his studies: chorea. Emerging initially in the work of the ‘British Hippocrates’ Thomas Sydenham, chorea was a disease primarily understood to impact movement, thus generating symptoms such as ‘involuntary, purposeless and rapid distal’ contractions, as well as the tensing and extension of the limbs.⁶⁷¹ It was only through

⁶⁶⁹ Nikolas Rose, *Governing the Soul*, p. 235, p. 236

⁶⁷⁰ Stephen Krauss, ‘Post-Choreic Personality and Neurosis’, p. 92

⁶⁷¹ Thomas Sydenham, quoted in Thiago Cardoso Vale and Francisco Cardoso, ‘Chorea: A Journey through History’, *Tremor and Other Hyperkinetic Movements*, 5, (2015), p. 1; *Ibid*, p. 1; In general, the nineteenth century category of chorea is understood to have replaced ‘St Vitus’ dance’; an epidemic condition observed across Europe in the twelfth century, where ‘crowds of people would suddenly form circles, start dancing and continue for many hours until exhausted.’ Until the sixteenth century, St. Vitus’ Dance was believed to be tied to demoniacal causes. After this, Paracelsus distinguished the dancing mania from ‘chorea sancti viti’, which he divided into three groups

the rise of nineteenth century neurology and the involvement of Jean-Martin Charcot, Silas Weir Mitchell, William Osler and William Gowers, that ‘Sydenham’s chorea’ (as distinct from Huntington’s chorea) became understood as an ‘infectious disorder frequently associated with endocarditis’ and therefore to tied specific bacterial agents, such as a ‘diplococcus’.⁶⁷² As separately recognised in 1927 by two men we met earlier in this thesis (Shrubsall and Kinnier Wilson), cases of chorea often bore striking similarities with those of EL. Such similarities not only rested on shared symptoms of involuntary movement or tremor, but also on a ‘diminution in the power of sustained attention, or a ‘temporary increase of irritability’.⁶⁷³ Influenced by this impression that chorea might affect both mind and body (and perhaps be directly motivated by the lure of financial investment) Guttman, Lewis and Minski also began to explore how these symptoms might last for long periods of time and be mediated by a range of causes, such as a ‘possible constitutional factor, an earlier rheumatic infection,... an intoxication of some sort’, as well as forms of ‘emotional movement’.⁶⁷⁴ Lewis and Minski ultimately concluded that the ‘psychoses’ which often followed upon chorea were at least in part an ‘expression of cerebral damage’ which stultified any ‘exclusive way of study’, given that the psychological method fell short as did ‘the pathophysiological if used to account for all the phenomena.’⁶⁷⁵

Whilst it is important to set Krauss’ studies of chorea against this broader backdrop, he also aimed to reaffirm the points made, and resolve the questions left open, by Narasimha Pai. As we saw in the previous section, although Narasimha Pai had used a psychobiological framework to separate out ‘organic’ from ‘neurotic’ cases and move beyond more traditional,

depending on causation; imagination, sensual desire, or corporal causes. See R.H.R. Park, M.P. Park, ‘Saint Vitus’ Dance: Vital Misconceptions by Sydenham and Bruegel’, *Journal of the Royal Society of Medicine*, 83, (1990), p. 513

⁶⁷² Thiago Cardoso Vale and Francisco Cardoso, ‘Chorea: A Journey through History’, p. 2

⁶⁷³ Despite its predominant association with movement disorders, like cerebrospinal fever, chorea was a key, differential diagnosis for EL, see Ivy Mackenzie, ‘Chorea’, *Glasgow Medical Journal*, 83, (1915), p. 415

⁶⁷⁴ Aubrey Lewis and Louis Minksi, ‘Chorea and Psychosis’, p. 537; Eric Guttman, ‘On Some Constitutional Aspects of Chorea and its Sequelae’, pp. 16-26; For more on the involvement of the Rockefeller Foundation in funding research at the Maudsley in the 1930s, see Edgar Jones, ‘Aubrey Lewis, Edward Mapother, and the Maudsley’, pp. 17-19

⁶⁷⁵ Aubrey Lewis and Louis Minksi, ‘Chorea and Psychosis’, p. 538

often eugenic assumptions about the link between predisposition and a chronic neurosis, he had also marked out a group of cases whose condition still seemed to some extent inexplicable. Whilst these cases did not follow specific behaviour patterns nor experience an acute, delirious attack, indicating that their condition was best diagnosed as a neurosis, they also had no history of stress or ‘hereditary or personal tendencies’ to explain their breakdown. This led Narasimha Pai to suggest that the infection had set up some kind of predisposition. Faced with practical questions about how best to deal with cases whose persisting symptoms seemed neither fully organic/physical or functional/psychological, in 1946 Stephen Krauss set out to develop a category designed to contain these ambiguities, turning his attention to their personalities and a new set of psychological tests.⁶⁷⁶

Historians have acknowledged how the development and use of new ‘personality tests’ in the 1940s informed very different approaches to the diagnosis and treatment of mental disorder, which no longer hinged on scrutinising ‘moments of unguarded speech’ but on the collation of ‘aggregated scores process through the punched cards of early calculating machines’.⁶⁷⁷ This shift has moreover been attributed to the work and contributions made by Hans Eysenck: a German émigré who was appointed to the Mill Hill by Aubrey Lewis in the early 1940s to assist with the psychological screening of neurotic patients and with ‘putting psychiatry on a secure scientific footing’.⁶⁷⁸ Informed by his understanding of psychometrics, gained through the teachings of ‘Britain’s most eminent educational psychologist’ Cyril Burt, Eysenck produced an understanding of personality which relied on the questionnaire and on small-scale experimental studies.⁶⁷⁹ To Eysenck, personality was constituted by the ‘sum-total of the actual or potential *behaviour patterns* of the organism’, which originated in and were the ‘cognitive (intelligence), conative (character), affective (temperament), somatic (constitution)’

⁶⁷⁶ Edgar Jones, Shahina Rahman, Robin Woolven, ‘The Maudsley Hospital: Design and Strategic Direction, 1923–1939’, *Medical History*, 51, (2007), p. 376

⁶⁷⁷ Rhodri Hayward, ‘Medicine and the Mind’, p. 535

⁶⁷⁸ Maarten Derksen, ‘Clinical Psychology at the Maudsley’, in G.C. Bunn, A.D. Lovie, G.D. Richards (eds), *Psychology in Britain: Historical Essays, Personal Reflections*, (Leicester, 2001), p. 271

⁶⁷⁹ See N.J. Mackintosh (ed.), *Cyril Burt: fraud or framed?*, (Oxford, 1995)

sectors of the brain.⁶⁸⁰ When a patient developed a neurosis, Eysenck argued, this was due to the ways in which their individual ‘personality’ and the ‘environmental set-up of the moment’ collided with one another causing a ‘generalised type of behaviour and signif[ying] a failure of adaptation.’⁶⁸¹

Although Eysenck therefore continued to acknowledge how conditions like a neurosis might be product of a range of internal and external causes, through his conception of personality he argued that there was a ‘certain amount of generality’ or patterning in how they presented.⁶⁸² Collating information about each individual case in their ‘Item Sheet’ and engaging in statistical or ‘factorial’ analysis, Eysenck aimed to ‘discover the smallest number of independent factors or variables which will adequately describe and classify mental abilities and temperamental traits’, and in turn identify specific behaviour patterns which are both caused by the ‘reagents of individual constitution and the environmental set-up of the moment.’⁶⁸³ As he used this standardised, statistical method to show that ‘particular acts could be grouped together into habitual responses, which themselves could be grouped into traits that could be organised into general factors of personality’, he also began to move away from firm and specific theories of causation.⁶⁸⁴ To Eysenck, attempting to tie the behaviours observed in many of these cases to particular causes was of little practical importance, given that it was *the personality itself* that ‘determined the kinds and extent of stress that would precipitate behavioural abnormalities’ and was therefore ‘*aetiologically crucial*.’⁶⁸⁵

Beyond making it possible to rely on a specific set of routine standards and criteria to diagnose a neurosis, this conception of personality also opened up the space for new kinds of therapy

⁶⁸⁰ Hans Eysenck, *Dimensions of Personality*, (London, 1947), p. 16

⁶⁸¹ Hans Eysenck, ‘Types of Personality: A Factorial Study of Seven Hundred Neurotics’, *JMS*, 90, (1944), p. 851

⁶⁸² Hans Eysenck, *Dimensions of Personality*, p. 15

⁶⁸³ Jeffrey Gray, ‘Obituary: Hans Jurgen Eysenck (1916-97)’, *Nature*, 389, (1997), p. 794; Hans Eysenck, ‘Types of Personality: A Factorial Study of Seven Hundred Neurotics’, p. 851

⁶⁸⁴ Nikolas Rose, *Governing the Soul*, p. 235

⁶⁸⁵ My emphasis; *Ibid.*, p. 235

which would approach the condition of patients admitted to spaces like the Mill Hill as a ‘contingent mis-shaping of a psychology that was not sick’.⁶⁸⁶ In this shift away from a psychoanalytical emphasis on unconscious causes and history, neurotic symptoms became instead viewed as ‘simple learned habits’ which could be tackled through ‘symptomatic treatment’.⁶⁸⁷ This therapeutic shift aligned with the pragmatic psychiatric approach adopted at the newly reopened Maudsley Hospital in the post-war period. Hinged on behavioural training rather than psychotherapy, Mill Hill psychiatrists who adopted this approach aimed to maintain the ‘continued exposure to original stimulus in a pleasant and reassuring environment’, and therefore on the ‘teaching of new skills rather than *the removal of not very well-defined illnesses*’.⁶⁸⁸

In his studies of personality at the Mill Hill, Eysenck used a series of statistical techniques and material practices to develop a new, more scientific way of diagnosing and treating cases of neurosis, which focused on identifying specific maladaptive patterns as a way to resolve the complex issue of what caused these mental problems. Although Eysenck acknowledged that this approach was less easily extended to cases in whom ‘various physical factors and symptoms complicated the simple neurotic picture’, in 1946 Stephen Krauss would combine this framework with his own studies of personality to inform new ‘diagnostic techniques, theoretical codes, treatment modalities’, and ultimately develop the category of the post-infectious state.⁶⁸⁹ As Krauss acknowledged, his own interest in the ‘personalities’ of ‘postchoreics’ dated back to his study conducted in 1933 which focused on twenty-four children who had received treatment in the acute stage at the University Hospital for

⁶⁸⁶ *Ibid.*, p. 238

⁶⁸⁷ Hans Eysenck, ‘Learning theory and behaviour therapy’, *JMS*, 105, (1959), p. 65; In order to explicate this treatment, Eysenck provided the example of enuresis nocturna, or bedwetting, which he claimed was a result of an inadequate, conditioned response to waking up to a conditioned stimulus of bladder extension. Eysenck proposed a ‘simple course of training’, where a bell rang loudly whenever the child began to urinate, ‘thus activating an electric circuit embedded in his bedclothes’, and thus establishing the ‘missing connection.’ See *Ibid.*, 66

⁶⁸⁸ My emphasis; Rhodri Hayward, *Transformation of the Psyche*, p. 129; Nikolas Rose, *Governing the Soul*, p. 242

⁶⁸⁹ Hans Eysenck, ‘Types of Personality: A Factorial Study of Seven Hundred Neurotics’, p. 851; Nikolas Rose, *Governing the Soul*, p. 236

Children's Diseases in Basle, Switzerland and had later been invited back for a re-examination.⁶⁹⁰ In these investigations, Krauss claimed to have 'prove[d] that a certain complex of symptoms can be found, to a higher or lesser degree, in every post-choreic person even after ten to twenty years have passed since the acute disease', broadly grouped as 'hyperkinetic, 'neurasthenic', or 'psychasthenic' symptoms, or under the banner of 'peculiarities of character development' or 'temperament'.⁶⁹¹

Revisiting these ideas in 1946, Krauss began by engaging in the 'usual psychiatric exploration', relying on the testimony of parents then moving to psychological technologies like the Rorschach Test, physical examinations designed to assess constitution and detect heart trouble as well as motor tests, EEGs, intelligence testing, and factorial analysis through a Characterological Item Sheet. Through this approach, he began to highlight how patients with a history of chorea often displayed specific *patterns of symptoms* which affected both mind and body, manifesting in the form of fidgetiness, tics, shakiness, headache, vertigo, forgetfulness, fatigue, or quietness which in turn gave the impression of 'colourless, lame or faint personalities without much drive in life'.⁶⁹² Aware of the presumed causal relationship between these kinds of symptoms and functional/psychic processes, perhaps informed by heredity, Krauss took time to make a series of disruptive comparisons. Drawing parallels with EL, he noted how the tics associated with this disease were residual symptoms caused by focal lesions, and how the 'dynamic weakness of psychic functions' observed after carbon monoxide poisoning might also follow upon a 'subcortical lesion'.⁶⁹³ These were behaviours, Krauss aimed to suggest, which might be related to physical changes in the body. Rather than seeking

⁶⁹⁰ The results of Krauss' study were published in 1934, see Stephen Krauss, 'Changes of Personality After Chorea Minor', p. 34; Whilst there is no direct evidence to confirm this link, it is worth appreciating how Krauss' study of post-choreic cases in Switzerland was perhaps influenced by the work of influential Swiss psychiatrist Eugen Bleuler, who in his studies of schizophrenia famously acknowledged a blend of organic and functional factors. See Yorgos Dimitriadis, 'History of the opposition between psychogenesis and organogenesis in classic psychiatry: Part 2', *History of Psychiatry*, 31, (2020), p. 277

⁶⁹¹ Stephen Krauss, 'Post-Choreic Personality and Neurosis', p. 76

⁶⁹² *Ibid.*, p. 76, p. 77

⁶⁹³ Krauss was very interested in the relationship between chorea and heredity, see for example Stephen Krauss, 'Brain Activity and Heredity in Sydenham's Chorea', *BMJ*, 1, (1942), p. 91; Stephen Krauss, 'Post-Choreic Personality and Neurosis', p. 77

out evidence of lesions or degeneration, Krauss nonetheless reaffirmed this point by pulling attention towards patterns in how these patients reacted and behaved, here and now. Through this work Krauss began to ‘unroll the complete picture of the postchoreic personality’ and, based on these similarities, establish the causal significance of one common, physical factor: an infection.⁶⁹⁴

Whilst Krauss in part marked out the nature of a postchoreic personality through these new kind of material, statistical practices of diagnosis he also relied centrally on observing the reactions of patients to treatment. Many of the cases admitted under his care at the Mill Hill had received the same treatments used in relation to ‘post-infective’ cases of effort syndrome, such as ‘sedation and reassurance, P.T. [Physical Therapy], occupational therapy, participation in a less authoritative community life and help in family affairs’.⁶⁹⁵ Many of these ‘postchoreic’ cases had improved and were as a result often ‘regraded’ (if serving in the military), and recommended for ‘more suitable positing and work’, perhaps through the Annexure Scheme developed by Lewis or the new kinds of provisions implemented through the 1944 Disabled Persons Employment Act.⁶⁹⁶ There was also a group in whom such therapies seemed less successful. For example, Krauss described how ‘Case 17’ had been left ‘backward and afraid of teachers’ and ‘not fond of company’ after suffering from chorea as a child and had later reacted badly to a physical injury sustained during war, after which he developed ‘insomnia, anxiety dreams... and showed a lack of concentration.’⁶⁹⁷ Based on his poor

⁶⁹⁴ *Ibid.*, p. 82

⁶⁹⁵ *Ibid.*, p. 82

⁶⁹⁶ This change in policy was in part a product of trade union pressure to extend workmen’s compensation and to develop rehabilitation services in the years prior to the war, and therefore established centres which offered vocational training and the requirement for employers to offer jobs to ‘disabled persons’, who were in turn paid at normal rates. Policymakers nonetheless remained aware of the potentially significant financial responsibility associated with unconditionally supporting ‘disabled persons’, and therefore stated that they had to demonstrate enthusiasm for their work or risk being removed from the register, and moreover, had to be able to do their job as well as someone without disabilities. As argued by Pat Thane, whilst this policy (like many others which guided the foundation of the welfare state), was therefore passed ‘amid a rhetoric of equalizing opportunities and protection from stigma to the disabled’, it was only of benefit for a minority, instead ‘doing less than was possible to assist many others to achieve independence.’ See Pat Thane, *Foundations of the Welfare State*, p. 192

⁶⁹⁷ Stephen Krauss, ‘Post-Choreic Personality and Neurosis’, p. 88

response to the therapies described above, and thus ‘poor prospect of giving further satisfactory service’, Krauss recommended that he be discharged from the army altogether due to a moderately severe ‘chronic anxiety state’.⁶⁹⁸

Through paying attention to how patients responded to particular kinds of *physical* rather than psychological therapies, Krauss marked out the transition from a ‘post-choreic state’, (viewed as a specific period of time as well as a particular set of behaviours), to an ensuing perhaps chronic, neurosis. These distinctions in turn mapped onto practical decisions about resource-allocation or, more specifically, the transition of a patient from one set of therapeutic techniques and administrative and bureaucratic mechanisms of rehabilitation to another. Relying on these psychiatric methods of diagnosis and therapy, Krauss presented a highly context-specific aetiology, which acknowledged how the neurosis which sometimes followed upon an infective illness like chorea or cerebrospinal fever was the product of a loss of energy, strength or vitality or a defect in ‘psychosomatic constitution’ linked to the physical effects of an infection.⁶⁹⁹ This impairment, or ‘disability’, left cases unable to cope with ‘conscription or direction of labour... separation... air raids and lack of commodities’ and therefore susceptible to maladaptation, emotional conflict and developing a neurosis.⁷⁰⁰ Acknowledging how a series of ‘physical’ bodily causes might subsequently inform the development of chronic, ‘mental’ neurosis, Krauss showed that a post-infectious state was a problem able only to be diagnosed, treated and therefore addressed through a distinctly psychiatric mode of investigation.⁷⁰¹

⁶⁹⁸ *Ibid.*, p. 88

⁶⁹⁹ *Ibid.*, p. 92

⁷⁰⁰ *Ibid.*, p. 92

⁷⁰¹ Krauss’ work on chorea also contributed to a much broader interest in ‘post-infectious’ or ‘post-febrile’ states, described by David Kennedy Henderson and R.D. Gillespie in their 1946 *Textbook of Psychiatry*. Bringing these states under the banner of an ‘organic-reaction type’, Henderson and Gillespie argued that they often followed upon diseases like malaria, influenza, pneumonia, and acute rheumatism, manifested in the form of invalidism, depression, apathy, fatiguability or memory defects, sometimes persisted over long periods of time, and yet ultimately concluded in a complete recovery. See D.K. Henderson and R.D. Gillespie, *A Textbook of Psychiatry*, (London, 1946), p. 442

Unlike Narasimha Pai, Krauss did not explicitly emphasise the need to appoint psychiatric staff who would work in and therefore support the functions of 'general' medical provision. This was however implicit in the aetiology he mapped, which both separated out but also firmly linked an acute, physical, viral illness to a chronic mental condition. If left unaddressed, perhaps through ensuring that people recovering from infections were subjected to psychiatric assessments or received particular kinds of treatment, these were problems that could inform incapacity which warranted permanent, state-funded welfare support. Krauss was also clear about the necessity of the neurosis centre, like the one at Mill Hill, in the modern health system. As argued by his colleague Maxwell Jones in the same year, the new psychiatric institutions and provisions which had been established as part of the wartime Emergency Medical Service remained 'urgently needed' in the context of modern Britain given how they facilitated the 'treatment, selection, and placement of neurotic civilians', perhaps sending them back to work, recommending adjustments to their roles or placing them in 'sheltered employment'.⁷⁰² Without specifically highlighting how such provision related to those who had a history of illness like chorea or cerebrospinal fever, through his analysis Krauss had shown why these cases, whose condition and disability was (broadly, vaguely) classed as physical, would benefit from 'the fullest possible inquiry from psychological, psychiatric and industrial angles'.⁷⁰³ In a slightly different way to Narasimha Pai, who was perhaps more literal in his vision of integration, Krauss ultimately made the same point, intertwining general, medical and psychiatric forms of investigation and underlining their combined value in a national health system.

Conclusion

By the eve of the National Health Service Act, which would be introduced to Parliament in early 1946, the staff of the Mill Hill had provided a set of categories and aetiologies which could be used to parse the relationship between infections and a (sometimes persisting) neurosis.

⁷⁰² Maxwell Jones, 'Rehabilitation of Forces Neurosis Patients to Civilian Life', *BMJ*, 1, (1946), p. 534

⁷⁰³ *Ibid.*, p. 534

Initially developed to meet the demands of an acute, wartime neurosis centre and thus the need for a specific programme of treatment, over time these categories were reshaped to align with a broader emphasis on reform, thus reinforcing the central role of psychiatry in a modern health system and the need to ensure its integration with general medicine. Whilst Mangalore Narasimha Pai's 'organic' category of 'meningococcal encephalopathy' was used to diagnose cases whose condition seemed to be related to some kind of permanent bodily damage, perhaps in the form of lesions, Krauss' 'post-infectious state' instead brought in and contained illnesses that were tied to *an increasingly vague, yet still physical, bodily process*. In both instances, the diagnosis, treatment and rehabilitation of patients hinged on distinctly *psychiatric* modes of intervention, which were either to be provided in the space of the neurosis centre or by a specially trained worker, ultimately leading their condition to be conceptualised as '*mental*'. Shaped in line with the institutional arrangements and material practices of the Mill Hill and later the Maudsley, these categories were highly contingent. With this in mind, the next and final chapter will explore how this relationship between infection and neurosis, or influenza and 'depression' would be reconceived once again, as this ideal of 'integration' was put into practice.

As we shall see, this process was bound up with the reforms in provision and policy implemented through the foundation of the NHS which moved responsibility for certain kinds of psychiatric care and treatment out of hospital spaces like the Mill Hill into general practice. Faced with a growing number of patients who presented with a persisting depression after influenza, many general practitioners would initially map out an aetiology which shared striking similarities with the 'post-infectious state' recognised by Krauss and his psychiatric colleagues, but which crucially emerged through and line with context-specific, practical concerns. By relying on their own, biographical, and psychosocial knowledge of patients in their lived environment over extended periods of time, and moreover prescribing an eclectic range of therapies, general practitioners like C.A.H. Watts would mark out the problem of post-influenzal depression, using this acute, physical category to navigate pressures of time

and resource. As the practical, technical and conceptual circumstances of general practice began to shift in the face of government concern regarding the misuse and abuse of NHS resources, clearer distinctions began to emerge between mental/physical, acute/chronic forms of disease, during which process the category of post-influenzal depression was torn apart.

Chapter 5: Influenza, integration, and the NHS c.1950-c.1975

In 1976, general practitioner C.A.H. Watts published the 'third impression' of a book on the problem of 'depression', which was designed to appeal to consultants, other general practitioners and the 'lay public' alike.⁷⁰⁴ Depression, Watts argued, was best described as 'a lowering of mental and physical vitality to the point of distress' which was often tied to 'many causes', amongst which were 'all the virus diseases'.⁷⁰⁵ Watts expanded upon this point in his description of an 'old man of seventy' whom he had cared for during an attack of influenza, noting that even after the 'fever had gone his spirits had remained very low'.⁷⁰⁶ Initially assuming that this man's depression was an understandable psychological reaction to the social circumstances of life, Watts was nonetheless struck by the fact that it had failed to lift even after he received £3000 from a relative, which he believed should have relieved any stress and concern about his financial situation. In contrast, Watts noted how this patient had only become himself again after several weeks, leading him to consider a possible causal link between his depression and an acute period of viral illness.

In linking a depressive illness and an acute episode of influenza, Watts followed in the footsteps of fellow members of the British medical and psychiatric profession whose work we have explored over the course of this thesis. Guided by a desire to deal with a group of cases which had emerged and come into conflict with the provisions, resources and policies which informed diagnosis and treatment in the context of general practice, Watts had mapped out an aetiology which bore striking resemblances to that which emerged at the Mill Hill in the 1940s, acknowledging how a viral infection had caused bodily changes that left a patient vulnerable to a persisting, perhaps chronic, mental condition. Watts diagnosed these patients with 'post-influenzal depression' and forged a category which, by 1976, was nonetheless on the brink of collapse. Through contextualising the emergence and evolution of this category in this

⁷⁰⁴ C.A.H. Watts, *Depression: Understanding a Common Problem*, (London, 1976)

⁷⁰⁵ *Ibid.*, pp. 9-14

⁷⁰⁶ *Ibid.*, p. 14

context and the aetiological relationship it established between viruses and particular forms of long-term illness, this chapter aims, for one last time, to evidence and contextualise the binary distinctions which despite narratives of integration and progress, continued to structure and allow the British health system to function.

This chapter begins by providing an overview of post-war general practice in the newly established, comprehensive, state-funded NHS. In the years after 1948, as efforts were made to integrate general and mental medicine, acute and chronic care in the community, the responsibilities of the general practitioner expanded: now including the diagnosis, treatment, and management of mental illnesses, such as neurosis and depression, alongside other more physical conditions, caused for example by viruses. From a historical perspective, general practice therefore provides us with an opportunity to interrogate the narrative of progress and integration sustained by some histories of the modern British health system. In Chapters 2, 3 and 4 of this thesis, we saw how physicians and psychiatrists acting across different institutional spaces developed categories that often hinged on ambiguity, but which ultimately always drew focus towards one side of the mental/physical, acute/chronic binaries: perhaps stressing, for example, the physical basis of changes in behaviour that were nonetheless sustained more directly by psychic factors. Although this contention will ultimately be borne out in our analysis of general practice, the category which emerged from this context to contain illnesses that existed at the peripheries of influenza and depression, was initially far less clear in its relationship to these binaries. Less a product of a rigid adherence to medical theory, this relationship can nonetheless be mapped onto and understood in line with the administrative, material, and financial conditions of general practice during this period.

As will be shown in the first section, the establishment of the NHS guided a fairly significant transformation in the roles of the general practitioner, who now became responsible for handling, treating and managing mental *and* physical, acute *and* chronic forms of illness. In contrast to the illnesses which emerged in the hospital system, those confronted in general

practice instead become understood as much more ‘ill-defined’. In the second section, this contention is explored in closer detail through tracing how general practitioners came to acknowledge the depression which sometimes persisted after an acute, viral attack of influenza, due to how these illnesses came into conflict with the binary concepts which allowed them to make practical decisions about medical treatment and financial support. Aided by a series of diagnostic and therapeutic resources provided to facilitate integrated care, in the third section we shall see how the general practitioner developed a category designed to contain these illnesses and allow them to navigate the practical challenges and constraints which guided their day-to-day work: post-influenzal depression. Although general practitioners related this condition, and the broader problem of the ‘post-viral state’, to a series of resources often used to facilitate a recovery from an acute viral illness, they were also able to maintain a kind of agnosticism about what precisely caused this persisting depression.⁷⁰⁷ As we shall see, this category emerged in line with the ideals of integration and progress envisioned in the first decades of the NHS, and by a political commitment to funding the use of the resources and provisions which blurred the distinctions between mental/physical, acute/chronic. This ill-defined, physical (yet also perhaps mental) category would therefore inevitably not last.

After a decade of life with NHS, in the early 1960s politicians began to express concern regarding how material and financial resources of the state were being used by doctors, and perhaps abused by patients whose condition was not truly ‘deserving’ of care and support. As demonstrated in the fourth and final section, these concerns aligned with efforts made by the psychiatric profession to gain a clearer understanding of the psychiatric morbidity which no longer reached them in hospital, instead staying in the community and the hands of the general practitioner. Drawing upon emerging sociological theories of the ‘sick role’ and ‘illness behaviour’, psychiatrists such as Neil Kessel and Michael Shepherd would show that much of

⁷⁰⁷ Desmond O’Neill, ‘The Post-Viral State’, *Medical World*, 90, (1959), pp. 233-236

the illness confronted in general practice had a distinctly psychiatric element.⁷⁰⁸ With their condition often mistakenly tied to physical changes, these patients took up a disproportionate and inappropriate amount of time and resource. Psychiatric classifications which could be used to identify and deal with the illnesses confronted in general practice therefore become understood to be practically, financially, and materially vital.

As doctors were equipped with new diagnostic techniques and therapeutic resources which provided and relied on more numerical, statistical evidence regarding duration and severity, depression would begin to be reframed in line with a much more biomedical approach. This chapter concludes by acknowledging a return to categories that could be related more clearly and routinely to the binary concepts which continued to structure the health system. As the problem of depression became tied to diagnostic and therapeutic techniques which focused on symptoms rather than causes, thereby evidencing the role played by chemical/physical change, general practitioners would no longer need to sustain links with an earlier acute viral event. Whilst depression was therefore initially to be dealt with in general practice as a physical problem, corrected through a course of medication, a more persisting, treatment resistant, perhaps chronic form of depression instead became understood to warrant a different kind of psychiatric intervention, provided in more formal mental health services, warranting a referral out of and away from general practice. No longer tied to the physical effects of a virus, depression re-emerged as a category able to conform to the acute/chronic, mental/physical binaries that structured the modern British health system.

Section 1: General practice, psychosocial knowledge, ill-defined illness

Upon the establishment of the NHS in 1948, general practice emerged as a key node in a much broader, interconnected, and comprehensive health system, which now assumed responsibility for the integrated care of mental *and* physical illness, but also increasingly for

⁷⁰⁸ Neil Kessel and Michael Shepherd, 'The Health and Attitudes of People Who Seldom Consult a Doctor', *Medical Care*, 3, (1965), pp. 6-10

the management of more chronic forms of illness.⁷⁰⁹ In order to navigate these responsibilities general practitioners adopted a personal, psychosocial approach to diagnosis and treatment, which negated clear and consistent distinctions between these different kinds of illness. As many came to emphasise, illness was a ‘process whose context and essential nature was contained within a [prolonged] temporal trajectory’, and often influenced by the patient’s ‘heredity, his parents, his family life, his home, his work, his tastes and recreations’ represented their unique contribution to the post-war health system.⁷¹⁰ In contrast to those which often culminated in admission to a mental or general hospital, the illnesses which became the primary focus of the post-war general practitioner were therefore understood to be much more ‘ill-defined’, and unable to fit into boxes of mental/physical, acute/chronic which otherwise informed a series of practical decisions, perhaps regarding the allocation of medical treatment or sick pay.⁷¹¹ By broadly mapping out such context, this section seeks to give a sense of the practical, administrative and theoretical conditions which would lead general practitioners to begin to acknowledge the links between acute influenza and depression, as a way to parse and deal with illnesses which came into conflict with and exposed the binary structures of the modern British health system.

Widely documented by historians, the post-war period marked a key moment of transformation in the British health system, as part of the much broader changes ushered in through the foundation of the welfare state. Since its inception, the origins of the welfare state have been a consistent topic of debate amongst historians, who have often provided somewhat celebratory or critical accounts.⁷¹² More recently still, focus has begun to shift away from

⁷⁰⁹ See Kathleen Jones, *Mental Health and Social Policy*, p. 148; Martin Moore, *Managing Diabetes, Managing Medicine*, p. 47

⁷¹⁰ David Armstrong, ‘Space and Time in General Practice’, *Social Science and Medicine*, 20, (1985), p.663; G.O. Barber, ‘Discussion: What is General Practice?’, *Proceedings of the Royal Society of Medicine*, 44.2, (1951), p.113

⁷¹¹ W. P. D. Logan and Eileen M. Brooke, *The Survey of Sickness 1943–1952: Studies on Medical and Population Subjects, No. 12*, (London, 1957), p. 52, p. 54

⁷¹² Gareth Millward has made this point in his recent work on the rise, use and evolution of the sick note as a technology of the modern welfare state, see Gareth Millward, *Sick Note: A History of the British Welfare State*, (Oxford, 2022), p. 15; Bernard Harris has also documented this historiography, and the shift from ‘classic’ histories to more ‘critical’ ones which adopt a Marxist, feminist, ‘post-structuralist’, or anti-collectivist perspective, see Bernard Harris, *The Origins of the British Welfare*

outlining various changes in provision and policy, to instead explore how they were experienced by members of the population.⁷¹³ Although this chapter similarly provides an alternative, more critical perspective on these changes over a period spanning the 1950s and 1970s, it nonetheless does so by showing how, despite political rhetoric of progress and integration, this was a health system that remained structured and continued to conceptualise illness as mental/physical, acute/chronic.

Hitherto formed of various fragmented provisions, which were in turn tied to specific resources and policies, the changes implemented as part of the ‘great constructive enterprise’ of the wartime EMS had reinforced the desire amongst governmental officials for a more centralised system of health and welfare provision, to ensure that all members of the population could access medical care and treatment, regardless of their ability to pay.⁷¹⁴ As detailed in the previous chapter, the Beveridge Report was published in 1942 and envisioned a series of changes to address the ‘five giants’ of ‘want, disease, ignorance, squalor and idleness’ through a uniting ‘reform of all social services designed to provide a minimum of subsistence and care for the whole population’.⁷¹⁵ Whilst Beveridge’s vision extended across provisions relating to education, pensions and unemployment, in this chapter we are interested in the changes made to the health system.⁷¹⁶

State: Society and Social Welfare in England and Wales, pp. 2-5; More recently, historians like Nicholas Timmins have been lauded for their ability to take a more balanced, or ‘sensible’ view of the successes and failures of the welfare state, see Nicholas Timmins, *The Five Giants: a Biography of the Welfare State*, (London, 2001), also Rudolf Klein, ‘The Five Giants: A Biography of the Welfare State’, *BMJ*, 311, (1995), p. 818; For more critical histories, see for example B. J. Gleeson, ‘Disability studies: A historical materialist view’, *Disability & Society*, 12, (2010), pp. 179–202

⁷¹³ See for example Anne Borsay, *Disability and Social Policy in Britain since 1750: A History of Exclusion*, (Basingstoke, 2005); Jameel Hampton, *Disability and the Welfare State in Britain: Changes in Perception and Policy 1948-1979*, (Bristol, 2016), Alex Mold, Peder Clark, Daisy Payling, *Placing the Public in Public Health in Post-War Britain, 1948-2012*, (Cham, 2019)

⁷¹⁴ Charles Webster, *The National Health Service: a political history*, p.7

⁷¹⁵ Pat Thane, *Foundations of the Welfare State*, p.200

⁷¹⁶ Historians have acknowledged that the welfare state was ‘born’ on the 5th of July 1948, when the National Health Service, National Insurance and National Assistance Acts, came into effect. Despite offering a comparatively broad range of support and benefits, this chapter focuses on the changes in provision and policy which ensured universal access to medical care within the space of the hospital or general practice, and to sick pay funded via flat-rate contributions in return for flat-rate benefits. Timmins discusses these provisions in more detail in his work, see Nicholas Timmins, *The Five Giants: A Biography of the Welfare State*, p.135

In February 1944, the Labour Party published a White Paper detailing the prospect of a 'National Health Service', which would ensure access to medical care, treatment and financial support that was not only 'comprehensive and reliable, but also easy to obtain.'⁷¹⁷ Positioned at the 'extreme edge of a real consensus for change which had been born in the late 1930s and had come to maturity during the war', this White Paper ultimately informed the passage of the National Health Service Act in 1946, which was introduced by Minister of Health Aneurin Bevan and came into effect on 5th July 1948.⁷¹⁸ Designed to 'rectify [an] inequitable and unequal geography of expertise' and funded through taxes, historians have also acknowledged how the NHS also marked the integration of general and mental services, as well as efforts to provide chronic care outside of institutional spaces like the general hospital.⁷¹⁹

This integration of general and mental medicine has been primarily traced back to the development of more centralised, administrative structures, which grouped voluntary, mental and infectious hospitals together under the control of various regional boards, in turn feeding into what has since been shown to be rhetorical claims to have finally dissolved the distinctions between mental and physical ill-health.⁷²⁰ Despite retaining their contractual and financial freedom under the NHS, general practitioners also faced the 'painful political compromise' of becoming the 'operationally marginalised', 'first line of defence' for both general and mental hospitals.⁷²¹ On a day-to-day basis, a general practitioner was therefore now tasked with

⁷¹⁷ 'A National Health Service', Ministry of Health, Department of Health for Scotland, (London, 1944), <https://www.sochealth.co.uk/national-health-service/the-sma-and-the-foundation-of-the-national-health-service-dr-leslie-hilliard-1980/a-national-health-service/> [accessed 26 July 2022]

⁷¹⁸ Pat Thane, *Foundations of the Welfare State*, p. 215

⁷¹⁹ Martin Moore, *Managing Diabetes, Managing Medicine*, pp. 55; The need to reduce hospital-based provision for the 'chronic sick' was acknowledged in a report produced by the Ministry of Health in the 1950s, which highlighted the need for health and welfare services devoted more centrally to 'homecare'. See C.A. Boucher, *Survey of Services Available to the Chronic Sick and Elderly, 1954-1955, Reports on Public Health and Medical Subjects, No. 98*, (London, 1957)

⁷²⁰ See for example Vicky Long, 'Rethinking Post-war Mental Health Care: Industrial Therapy and the Chronic Mental Patient in Britain', *Social History of Medicine*, 26, (2013), pp. 738-758; Also Vicky Long, *Destigmatising Mental Illness? Professional Politics and Public Education in Britain, 1870-1970*, (Manchester, 2014)

⁷²¹ Charles Webster, 'Review: Frank Honigsbaum, *The Division in British Medicine: a history of the separation of general practice from hospital care 1911-1968*', *Social History*, 8, (1983), p. 129; Frank Honigsbaum, *The Division in British Medicine: a history of the separation of general practice from hospital care, 1911-1968*, p. 318; Whilst the name suggests nationalisation of the entire health system, under the NHS general practitioners retained their status as 'independent contractors' who received

examining, identifying and separating out conditions that might be *mental or physical*, in order to understand if they required a specific kind of institutional care and treatment and to make a referral. Beyond moving general practice to the frontline of psychiatric as well as physical surveillance in a 'new world of preventative mental health', (with consequences that shall be explored more closely in the next section), as we shall see this shift in roles and responsibilities also ensured that an 'alternative vision of clinical practice' came into focus.⁷²²

This vision was also reinforced as general practitioners assumed responsibility for managing more chronic forms of illness. The foundation of the NHS had similarly marked an change in outlook amongst policymakers 'in the care of the chronic sick, both in the organisation of the professional work involved and in the type of accommodation which should be provided.'⁷²³ As the number of chronic patients who remained treated in general hospitals and the burden they imposed on the health system was brought into sharp focus by the 1940s, the British Medical Association underlined the need for a more effective triage system, which would separate them out based on whether they were incurable, convalescent or able to receive some kind of care in their own homes.⁷²⁴ According to historians like Moira Martin, in response to concerns that hospital beds were 'being blocked by long-stay patients', members of the medical profession began to divide up the broad problem of chronic illness, bringing some patients within the new speciality of geriatrics but also aligning others with new programmes of management which were to be handled in the community.⁷²⁵

their income through capitation fees (as with the 1911 NHI scheme), see Charles Webster, *The National Health Service*, pp. 26-27

⁷²² Rhodri Hayward, *Transformation of the Psyche in British Primary Care*, p. 82; David Armstrong, *Political Anatomy of the Body*, p. 74

⁷²³ Nuffield Provincial Hospitals Trust, *The Hospital Surveys: The Domesday Book of the Hospital Service*, (London, 1946), p. 16

⁷²⁴ British Medical Association, *The Right Patient in the Right Bed. First Supplement to the Report (1947) of the Committee on the Care and Treatment of the Elderly and Infirm*, (London, 1948)

⁷²⁵ Moira Martin, 'Medical Knowledge and Medical Practice: Geriatric Medicine in the 1950s', *SHM*, 8, (1993), p. 443; See also George Weisz, *Chronic Disease in the Twentieth Century*, p. 182, P. Bridgen, 'Hospitals, Geriatric Medicine, and the Long-Term Care of Elderly People, 1946-1976', *SHM*, 14:3 (2001), pp. 507-23

This desire amongst government officials to both integrate general and mental medicine and reform approaches to chronic illness was inseparable from the ‘productionist’ belief that increasing the economic output of Britain required investment in the health and happiness of the population on the one hand, whilst also balancing and reducing cost wherever possible on the other.⁷²⁶ As these changes informed a shift towards models of diagnosis, care and treatment that could be deployed in spaces like general practice, they would also gradually inform new ways of thinking about and distinguishing between mental and physical, acute and chronic illness: all of which, as we shall see, aligned with an enduring desire to use the resources of the health system as efficiently and rationally as possible.

As hospitals became the primary focus of government funding and interest, equipped with new technologies and resources in order to act as ‘large regional teaching and research centres’, general practitioners also began to carve out their own niche in the post-war health system.⁷²⁷ In contrast to the hospital consultant, who increasingly only came into contact with patients after their illness had progressed or become understood to require a particular kind of specialist care, the work of the general practitioner became centred on ‘an almost calculated mundanity’, resting at the most ‘unremarkable, yet compulsively detailed level of existence’.⁷²⁸ Operating in the ‘snug atmosphere’ of surgeries based in the communities they served rather than ‘in the cold comfort of the clinic’, general practitioners would gradually emphasise their uniquely personal, psychosocial insight to the lives of their patients over prolonged periods of time.⁷²⁹ Moreover, by mapping the ‘regressions, disappearances, appearances and exacerbations’ of an illness onto a new ‘grid formed by the intimacies of social relationships’, they would claim to be able to identify disease in its earliest stages, prevent any subsequent

⁷²⁶ Gareth Millward, *Sick Note*, p. 28; For a full explication of this ‘productionist’ logic, see John Pickstone, ‘Production, Community and Consumption: The Political Economy of Twentieth-Century Medicine’, in R. Cooter and J. Pickstone, (eds), *Medicine in the Twentieth Century*, (Abingdon, 2003), pp. 1–20

⁷²⁷ Charles Webster, *The National Health Service*, p. 39

⁷²⁸ Thomas Osborne, ‘Epidemiology as an Investigative Paradigm: The College of General Practitioners in the 1950s’, *Social Science and Medicine*, 38, (1984), p. 320

⁷²⁹ ‘Health Education in General Practice’, *JRCGP Research Newsletter*, 9, (1955), p.1 27

progress and act as a buffer to the hospital system, instead maintaining care in the community.⁷³⁰ This unique perspective had been initially brought into focus through a series of studies conducted by the first President of the newly formed Royal College of General Practitioners (RCGP) William Pickles. In the late 1940s, Pickles mapped the location, spread and timing of various epidemic diseases amongst patients under his care, not by seeking out pathological evidence of particular infectious agents, but through paying attention to their social relationships and interactions with one another.⁷³¹ Showing that it was useful to view illness as a gradual, prolonged temporal process rather than a clear or sharp moment of clinical revelation, and therefore the need to pay attention to the whole person, Pickles' work formed the theoretical bedrock of post-war general practice and the problem of ill-defined illness.

Although individual general practitioners were aware that the illnesses presented by their patients were informed by the psychosocial circumstances of their lives, the scale of this phenomenon was highlighted through a series of national morbidity surveys in the early 1950s. These surveys had been conducted to provide a clearer understanding of illness in the community, and received support from the MoH through the Central Health Services Committee or British Medical Association (BMA) and, after 1952, by the RCGP.⁷³² Asked to classify the illnesses amongst their patients according to a diagnosis code and moreover provide numerical information about its duration, many of the general practitioners who contributed highlighted how these surveys had simply reinforced the view that they primarily

⁷³⁰ 'Research in General Practice', *The Lancet*, 208, (1926), p.863; David Armstrong, *Political Anatomy of the Body*, p. 75

⁷³¹ See William Pickles, *Epidemiology in a Country Practice*, (Bristol, 1939)

⁷³² These surveys were intended (in part) to respond to and address the criticisms levelled by New Zealand born Doctor Joseph Collings, who in 1950 drew attention to a lack of basic furnishings, queues extending to 200 yards, waiting times of hours in order to be seen for just 5 minutes, and most concerningly, a lack of any 'real standards.' To Collings, these material problems posed a threat to 'the one remaining link that gives the patient some continuity of care' as well as the ability of GPs to monitor and deal with 'non-organic problems- the psychological, economic and social worries of the people' that significantly influenced morbidity. See Joseph S. Collings, 'General Practice in England today: A Reconnaissance', *The Lancet*, 255, (1950), p. 555

dealt with ‘vague symptom-complexes rather than clearly defined diseases.’⁷³³ Reflecting on his own experiences in 1959, general practitioner C.R.G. Howard recounted how he had monitored each of his patients over a period of three months, attempting to match them to one of 70 possible diagnostic categories. Howard nonetheless felt that these classifications had failed to represent ‘the complete picture of their diseases’, which had been distilled down or simplified in order to comply with the criteria of the study.⁷³⁴ This sense of cutting across patients and their illnesses also came through in a report which later summarised a National Morbidity Survey, where the authors debated whether to record a consultation for a patient living with chronic illness as ‘a new episode or a re-attendance for the same episode’ and how to identify the ‘primary’ cause of an illness if a patient had several other diagnoses.⁷³⁵ Reflecting ‘an ephemeral point at which patient characteristics, relationships, and context reinforced themselves’, these were illnesses which did ‘not fit into clear categories’.⁷³⁶

These morbidity surveys therefore provide clearly illustrate that many of the illnesses which formed the workload of the post-war general practitioner defied clear categorization, and moreover, that this was something that members of the profession appreciated and perhaps exploited themselves in order to underline the unique contribution of this work to the modern NHS. The next section seeks to develop a practical understanding of precisely how and why this was the case, through focusing in on a group of illnesses that seemed unable to fit into the boxes of mental/physical, acute/chronic. Equipped with a (comparatively) unlimited set of

⁷³³ Thomas Osborne, ‘Epidemiology as an Investigative Paradigm’, p. 323; The difference between a symptom-complex and disease was a topic of longstanding debate, with the former understood to be rooted in ‘the times of Hippocrates and of Sydenham’ and to refer to ‘a series of symptoms (and signs) grouped together clinically without any consideration as to their relationship with a lesion or functional disturbance of an organ’, and the latter to a specific pathological process and aetiology, identified by the likes of Pasteur, Lister and Koch. See A.P. Cawadiaz, “Symptom-Complex” or “Syndrome”?, *BMJ*, 2, (1927), p. 1006

⁷³⁴ C.R.G. Howard, ‘The Problem of Defining the Extent of Morbidity in General Practice’, *JRCGP Research Newsletter*, 2, (1959), p. 130

⁷³⁵ ‘The Continuing Observation and Recording of Morbidity: A Study by the Research Committee of the College of General Practitioners’, *JRCGP*, 1, (1958), p. 107

⁷³⁶ Thomas Osborne, ‘Epidemiology as an Investigative Paradigm’, p. 318; Similar points have also been made by David Armstrong, who was also influenced by the work of Foucault, see David Armstrong, *Political Anatomy of the Body*, p. 80; Ali Haggett, *A History of Male Psychological Disorders in Britain, 1945-1980*, (Kindle edn, Basingstoke, 2015), p. 25

material and financial resources supplied in the first decade of the NHS in line with a political commitment to investment, as we shall see post-war general practitioners were able to explicate and deal with illness in ways that straddled cases across and blurred the distinctions between these binaries.

In the post-war period, general practitioners began to adopt a view of illness as an extended temporal process, determined by a range of factors which spanned the past and present of each patient, which could (or more specifically needed to) be drawn out through a specific kind of *psychosocial* knowledge. In the coming years, general practitioners would double down on this approach: contrasting illnesses confronted in hospital where a ‘satisfactory diagnosis, [was] morphologically and aetiologically possible’, with those in general practice which could only be understood based on ‘history’ alone, often in the absence of the ‘deficiencies of a diagnostic classification *which force[d] either an organic or psychogenic descriptive label*’.⁷³⁷ Avoiding such rigid classifications and a concept of ‘disease’ based on ‘variations in pathology and biased by the bacteriologist’ became integral to the approaches adopted by post-war general practitioners, allowing them to underline their uniquely personal perspective and understanding of their patients as individuals and in turn their contribution to the post-war welfare state but as we shall see, to navigate the challenges of their day-to-day practice.⁷³⁸ In order to explore this contention in detail, our focus now shifts to understanding how and why the problems of influenza and depression would begin to be linked to one another, ultimately leading general practitioners to develop the category of post-influenzal depression.

Section 2: In-between depression and influenza

Through using their ‘intimate knowledge’ of patients to facilitate decisions regarding diagnosis and treatment, by the 1950s doctors working in general practice had begun to establish their role in the modern health system, in turn acting as one node in a broader ‘network of

⁷³⁷ My emphasis; D.L. Crombie, ‘Diagnostic Process’, *JRCGP*, 6, (1963), p. 587

⁷³⁸ C.R.G. Howard, ‘The Problem of Defining the Extent of Morbidity in General Practice’, p. 130

surveillance that discovered, identified and monitored the common disease, the minor symptom, the transient illness which hardly marked the body of the patient'.⁷³⁹ The previous section was devoted to outlining the emergence of this approach, which through recasting illness as a physical yet also psychosocial process rather than moment of revelation, also informed a shift away from rigid diagnostic categories. As we shall soon see, although general practitioners would continue to broadly frame illness as acute/chronic, mental/physical, they were able to do so without developing a firm understanding of causation. We begin by providing two separate (and brief) historical overviews of influenza and depression in the context of British health system prior to the 1950s, acknowledging how both categories were associated with forms of illness that came into conflict with the resources hitherto used to handle these acute, physical/mental conditions. Faced with a growing number of patients whose presenting complaint might have been influenza *or* depression, by the mid-1950s some general practitioners would nonetheless begin to group them together, developing methods of diagnosis, treatment and in turn a category which was sustained by a context-specific set of material and financial resources which did not impose clear aetiological judgements.

As acknowledged in the previous section, the years after the foundation of the NHS witnessed a marked change in the role of the general practitioner, who now acted as a buffer between his patients and the space of the hospital. The general practitioner became responsible not only for examining, diagnosing, and treating acute physical and psychological illnesses but also more chronic forms, which needed to be monitored and treated over long periods of time. According to historians, this shift towards more chronic forms of care was directly related to a concurrent fall in the number of acute epidemic infections amongst the populations, primarily through the development and use of antibiotics, as well as the rollout of vaccination programmes.⁷⁴⁰ Whilst this is certainly reflected for example in how serious diseases such as

⁷³⁹ David Armstrong, *Political Anatomy of the Body*, p. 84

⁷⁴⁰ See for example Gareth Millward, *Vaccinating Britain: Mass Vaccination and the Public Since the Second World War*, (Manchester, 2019), p. 6, p. 114; As argued by Geoffrey Rivett, whilst it was 'custom' for poliomyelitis cases to be admitted to isolation hospitals, then transferred to orthopaedic hospitals for convalescent care in the late 1940s and early 1950s, 'the tide turned when Jonas Salk

poliomyelitis became less common in children, the post-war general practitioner nonetheless continued to be responsible for handling high levels of ‘respiratory and upper respiratory tract infections’ amongst their patients, numbers of which exceeded digestive diseases, neuroses, skin disorder and cardiovascular diseases.⁷⁴¹ Central to this group was the problem of ‘influenza’, which emerged as a comparatively mild yet persistent problem in post-war general practice.⁷⁴² Out of general paralysis, EL, CSF and chorea, influenza is often viewed as the archetypal infectious disease of the twentieth century.⁷⁴³ Like these other categories, the issue of what precisely caused influenza was also a matter of recurrent debate. Believed since the late nineteenth century to be associated with illnesses that persisted long after the initial febrile attack, despite subsequent developments in microbiology and links with Pfeiffer’s bacillus, influenza broadly remained understood as a ‘somatopsychic infection’, mediated by ‘stressful urban lifestyles’ and heredity.⁷⁴⁴

As outbreaks of acute influenza became a recurrent feature of life in modern Britain, so did an array of persisting illnesses which were believed to be in some way related to this disease. In contrast to the striking and uncharacteristic changes in behaviour and assumed presence of

developed an inactivated vaccine in the USA’, see Geoffrey Rivett, ‘1948-1957: Establishing the National Health Service’, *The History of the NHS*, <https://www.nuffieldtrust.org.uk/chapter/1948-1957-establishing-the-national-health-service#infectious-disease-and-immunisation>, [accessed 25 July 2022]

⁷⁴¹ Marshall Marinker, ‘What is Wrong’ and How We Know It: Changing Concepts of Illness in General Practice’, in Irvine Loudon, John Horder and Charles Webster, (eds), *General Practice under the National Health Service 1948-1997*, (Oxford, 2008), p.65; John Fry, ‘A Year of General Practice: Study in Morbidity’, *BMJ*, 2, (1952), p. 252

⁷⁴² John Fry acknowledged that there were seven discernible epidemics at his practice in London between 1950 and 1966, see John Fry and J.B. Dillane, ‘Influenza, 1966’, *JRCGP*, 13, (1967), p. 298

⁷⁴³ Influenza has received the most extensive historical attention of all these diseases, particularly in recent years due to apparent parallels with the COVID-19 pandemic, see for example David Killingray, Howard Phillips, Terry Ranger, John S. Oxford (eds), *The Spanish Influenza Pandemic of 1918-1919: New Perspectives*, (London, 2003), as well as Mark Honigsbaum, *The Pandemic Century: One Hundred Years of Panic, Hysteria, and Hubris*, (Oxford, 2019)

⁷⁴⁴ Mark Honigsbaum, “‘An Inexpressible Dread’: Psychoses of Influenza at fin-de-siecle’, *The Lancet*, 381, (2013), p. 988; According to Julius Althaus, a Senior Physician to the Hospital for Epilepsy and Paralysis at the time, the ‘febrile or initial delirium’ which occurred *during* (my emphasis) the ‘feverish attack’ of influenza had been recognised ‘as long ago as 1510’, and thereafter by eighteenth century physician François Boissier de Sauvages de Lacroix. Althaus himself was perhaps one of the first to refer to the problem of ‘post-influenza’, which he believed caused psychoses. See Julius Althaus, ‘On Psychoses After Influenza’, *JMS*, 39, (1893), p. 163. For references to the role of lifestyle in influenza and its long-term consequences, see Thomas Stretch Dowse, *On Brain and Nerve Exhaustion (Neurasthenia) and on Nervous Sequelae of Influenza*, (London, 1894), pp. 83-84; For references to heredity, see George H. Savage, ‘Influenza and Neurosis’, *JMS*, 38, (1892), p. 360

organic damage in cases of EL, influenza was instead tied to more vague, lingering, yet ‘obstinate’ ‘feelings of Languor, Depression and Loss of Strength’.⁷⁴⁵ Given links to what was often a ‘contradictory bacteriological picture’ and thus unproven links to a virus, during the early to mid-twentieth century influenza remained broadly viewed as a ‘peculiarly fatiguing disease that depleted nervous energy’, treatable and preventable through consuming ‘food and drink rich in “nerve”-building nutrients and the avoidance of “depressing influences, such as cold weather or “overwork” and “overstrain.”’⁷⁴⁶ Any persisting illnesses which seemed linked to this disease were moreover understood in similar terms to the longstanding problem of ‘neurasthenia’, taken to be a result of psychophysiological exhaustion and treated through the use of equally unspecific ‘tonics’, such as ‘virol’, alcohol and rest.⁷⁴⁷

Despite persistently ‘small advances in ascribing aetiological causes’ through laboratory studies, this link between influenza and a series of persisting illnesses also re-emerged in the context of post-war general practice.⁷⁴⁸ General practitioner John Fry thus acknowledged how the malaise, chills, aching back, head and limbs, running nose and a ‘dry explosive cough’ which lasted an average of 3 to 5 days, might cause patients to seek medical attention, and perhaps also be followed by ‘depression’ and ‘debility’.⁷⁴⁹ Another general practitioner in

⁷⁴⁵ Lori Loeb discusses these therapeutic approaches in detail, see L. Loeb, ‘Beating the Flu: Orthodox and Commercial Responses to Influenza in Britain, 1889–1919’, *Social History of Medicine*, 18 (2005), p. 206

⁷⁴⁶ Michael Bresalier, ‘Uses of a Pandemic: Forging the Identities of Influenza and Virus Research in Interwar Britain’, *Social History of Medicine*, 25, (2012), p. 104; Mark Honigsbaum, ‘Regulating the 1918-19 Pandemic: Flu, Stoicism and the Northcliffe Press’, *Medical History*, 57, (2013), p.175; ‘Virol and Milk’, *Daily Mail*, 9 Jan 1924, p. 8653; For contemporary references to these bacteriological challenges, see R.E. Hope Simpson, ‘Aetiology of Influenza’, *BMJ*, 2, (1940), p. 765; See also ‘The Cause of Influenza’, *BMJ*, 2, (1922), p. 137

⁷⁴⁷ Links between the long-term effects of influenza and neurasthenia have been widely acknowledged and made by historians, for example see Ruth E. Taylor, ‘Death of Neurasthenia and its Psychological Reincarnation: A Study of Neurasthenia at the National Hospital for the Relief and Cure of the Paralyzed and Epileptic, Queen Square, London, 1870–1932’, *BJP*, 179, (2001), pp. 550–557. Passing references are also made throughout the chapters in Marijke Gijswijt-Hofstra, Roy Porter, (eds), *Cultures of Neurasthenia: From Beard to the First World War*, (Amsterdam, 2001), p. 45, p. 62, pp. 291–292

⁷⁴⁸ John Fry, ‘Influenza’, *The Lancet*, 265, (1955), p. 356

⁷⁴⁹ John Fry, ‘Common Upper Respiratory Tract Infections’, *JRCGP Research Newsletter*, 7, (1955), p. 44; This link between influenza and depression was also acknowledged in an editorial published in the *JRCGP* in 1955, as part of a broader analysis of the links between viral illness and depression. See ‘Leading Articles: Virus Disease and the Nervous System’, *JRCGP Research Newsletter*, 7, (1955), p. 7

Buckinghamshire made a series of similar observations, acknowledging how the symptoms of the acute attack such as ‘shivery feelings and sore throat’, headaches, pains in the back and limbs, ‘irritating cough’, abdominal pain and vomiting were a decidedly ‘melancholy business’ for the patient, which dragged on for four or five days and left them ‘weak and depressed.’⁷⁵⁰ Whilst these kinds of symptoms seemed to have followed upon and to be perhaps linked to influenza, general practitioners were also aware that they were much more commonly a result of a mental illness, which was also becoming increasingly common amongst their patients and remaining their responsibility in line with the integrated care of the NHS, was believed to be caused by factors such as stress or predisposition, and diagnosed as ‘depression’.

Like influenza, the history of depression as a diagnostic category is long, multi-faceted and much debated. This category is understood to be rooted in nineteenth century work on melancholia or neurasthenia and to have itself emerged in 1940s to become understood as a ‘syndrome’ present in many mental and physical illnesses.⁷⁵¹ Separated from the broader problem of neurosis, during this period depression became parsed in line with the psychosocial framework explored in Chapters 3 and 4 of this thesis, which by the 1940s had emerged into focus in line with the developing post-war state health system. Embedded in the communities they were employed to care for, general practitioners played a central role in the application of this framework, using information regarding the lives of their patients to show why conditions like depression were ‘triggered as much by environmental factors as by the individual’s psychological makeup’.⁷⁵² Recognising how present tensions such as ‘personal and intergenerational conflict, changing moral values and burgeoning consumerism’ often

⁷⁵⁰ ‘Public Health: Influenza’, *The Lancet*, 268, (1955), pp. 300-301

⁷⁵¹ Alain Ehrenberg explores this history in his work, which starts from the nineteenth century idea of ‘mental suffering’, moves to the ‘classical’ age of the ‘ill-self’, to the changes ushered in through therapies such as ECT and anti-depressants, which he claimed succeeded in ‘socialising depression’. See Alain Ehrenberg, *The Weariness of the Self: Diagnosing the History of Depression*, (Montreal, 2010), in particular pp. 21-105; Historian Åsa Jansson has rightly questioned the idea of a ‘simple transition’ between these categories, or from ideas of ‘low mood’ to the ‘depression’ recognised by members of the medical profession in the 1950s, see Åsa Jansson, *From Melancholia to Depression: Disordered Mood in nineteenth century Psychiatry*, (Cham, 2021)

⁷⁵² Clark Lawlor, *From Melancholia to Prozac: A History of Depression*, (Oxford, 2012), p. 155

combined with and informed the inability of an individual to adapt, general practitioners began to view depression as guided by the stress of modern life.⁷⁵³

Broadly understood as a result of maladaptation, in the post-war period depression nonetheless began to evolve in line with a series of changes in practice rather than theory, or more specifically, the use of different kinds of therapy. As argued by C.A.H. Watts, the man perhaps most centrally responsible for ‘the making of the general practitioner psychiatrist’, the depression observed in many of his patients did not require the kind of ‘deep therapy’ associated with anxiety neuroses, which if used could in contrast ‘aggravate the condition’, but instead seemed able to benefit from a more personal, informal approach.⁷⁵⁴ Motivated by a desire to ensure that these cases of depression were treated effectively, Watts and his colleagues used their psychosocial expertise to separate out, distinguish and diagnose different kinds, which by the mid-1950s were increasingly described as ‘reactive’ or ‘endogenous’. Broadly these distinctions hinged on two different models of causation, with a reactive depression understood to be tied to ‘external’ factors or such as ‘environmental pressures’ and endogenous depression to the internal ‘influence of biochemical factors’ and ‘genetic abnormalities’.⁷⁵⁵

According to William Mayer-Gross, a leading figure in British psychiatry, this distinction was vital from ‘both the prognostic and the therapeutic points of view’ and relied on the clinical intuition of the doctor.⁷⁵⁶ A reactive depression, believed to be a ‘response to the stress of circumstance’ in people who the general practitioner believed was ‘quite capable of dealing with environmental pressure’, was often ‘alleviated for a few hours by such things as the society

⁷⁵³ Rhodri Hayward, ‘Sadness in Camberwell: Imagining Stress and Constructing History in Post-War Britain’ in David Cantor and Edmund Ramsden, (eds), *Stress, Shock and Adaptation in the Twentieth Century*, (Rochester, 2014), p. 324; Jill Kirby, *Feeling the Strain: A Cultural History of Stress in twentieth century Britain*, p. 134

⁷⁵⁴ Rhodri Hayward, *Transformation of the Psyche*, p. 57; C.A.H. Watts, ‘Endogenous Depression in General Practice’, *BMJ*, 1, (1947), p. 13

⁷⁵⁵ Ali Haggett, *Desperate Housewives, Neuroses and the Domestic Environment, 1945-1970*, (London, 2012), p. 86

⁷⁵⁶ William Mayer-Gross, ‘The Diagnosis of Depression’, *BMJ*, 2, (1954), p. 949

of cheerful friends', and moreover was susceptible to environmental changes or to psychotherapy.⁷⁵⁷ An endogenous depression was comparatively 'persistent and seem[ed] never to lift', in turn implying 'little or no environmental aetiology', and perhaps proving to be chronic.⁷⁵⁸ As acknowledged by Watts, an endogenous depression therefore warranted a different set of treatments, which first and foremost rested on a 'firm rapport' between doctor and patient, and thereafter on 'reassurance', prescriptions of sedatives, encouragement to work, and in some cases on electroconvulsive therapy, accessed through a referral to more formal mental health services.⁷⁵⁹ For the most part, the history of depression has been framed around these two, separate theories of causation, reinforcing the idea of a broader shift towards psychological modes of approach and explanation by the mid-century. These explanations nonetheless often ignore that many general practitioners also recognised how depression might emerge as a 'graft on to established organic disease', which therefore required 'due recognition' if the patient was to receive distinct kind of 'adequate treatment'.⁷⁶⁰

Given that the practical approaches taken to different kinds of depression hinged on the psychosocial data about their life and history, as well as their responses to specific kinds of treatment, it made sense for general practitioners to consider the role of other factors to explain cases whose symptoms seemed not to fit the criteria of this mental, acute/chronic condition. In 1957, Watts described how one of his patients who had been confined to bed for seven years 'with a poker back and ankylosing arthritis of both his hips', but who accepted his prognosis 'and adjusted himself to the limited little world in which he was compelled to live.'⁷⁶¹ This man periodically grew 'restless and demanded further investigation', based on a belief that 'life in his deplorable state was not worth living'.⁷⁶² Despite no change in his physical,

⁷⁵⁷ *Ibid.*, p. 949; Ali Haggett, *Desperate Housewives*, p. 84

⁷⁵⁸ William Mayer-Gross, 'The Diagnosis of Depression', pp. 949-950

⁷⁵⁹ C.A.H. Watts, 'Endogenous Depression in General Practice', p. 13, p. 12; According to Alain Ehrenberg, electroconvulsive therapy was the 'magic wand that broke the spell of melancholia', which through the use of electrical charges, 'shook the bodies of sick individuals' and 'miraculously gave them the desire to live.' See Alain Ehrenberg, *The Weariness of the Self*, p. 19, pp. 70-103

⁷⁶⁰ C.A.H. Watts, 'The Mild Endogenous Depression', *BMJ*, 1, (1957), p.8

⁷⁶¹ *Ibid.*, p. 5

⁷⁶² *Ibid.*, p. 5

psychological or social circumstances, this depression nonetheless often lifted on its own, ensuring that the patient became 'his old self again, seemingly adjusted to his physical limitations.'⁷⁶³ Acknowledging how this condition seemed unrelated to his environment (and therefore seemed not to be reactive), and yet seemed to come and go (unlike a more permanent, endogenous depression), Watts therefore turned his attention to consider if, perhaps, there were other causes at play. Cases like these therefore came into conflict with the diagnostic and therapeutic frameworks hitherto used to deal with the problem of the depression: a *mental* condition which was conceptualised as *acute* or *chronic* based on an connection to stress or predisposition, made based on the general practitioner's psychosocial understanding of the patient. In order to open up a different set of possibilities for medical intervention, Watts and many of his colleagues would begin to explore connections with physical diseases. Amongst these was influenza.

As we shall see in the next section, for the post-war general practitioner understanding whether or not a depression was caused by stress, predisposition, or a physical disease was necessary to allow them to make a series of practical, material and financial decisions: about whether to issue a prescription, allocate sick pay, to focus on persuading and supporting the patient themselves, or perhaps referring them on to more formal, mental health services. By the late 1950s, as general practitioners across Britain widely agreed that influenza was often associated with persisting symptoms which seemed to resemble those associated with depression (mood changes, fatigue, apathy), they also began to bring and contain them within a single category: post-influenzal depression. As we shall see in the next section, this category rested on a similar kind of aetiology to Krauss' post-infectious state, linking a persisting depression back to a now-concluded, acute, physical, viral illness through the *combined effects* of bodily disarray and maladaptation. Through this aetiology, general practitioners were able to connect cases of post-influenzal depression to an eclectic range of therapeutic resources, often used to deal with symptoms associated with both mental and physical, acute and chronic

⁷⁶³ *Ibid.*, p. 5

illness. Whilst this category and its ambiguous aetiology allowed general practitioners to make effective diagnostic and therapeutic decisions, in the coming years it would also become a central focus for concerns about how the resources of the NHS were being allocated and used, and in turn, for standardisation.

Section 3: Post-viral states, political pressures, practical problems

In an issue of *Medical World* published March 1959, a physician named Desmond O'Neill described the persisting depression that often followed upon an attack of influenza, and which he defined as the key characteristic of a 'post-viral state'.⁷⁶⁴ Although O'Neill had also observed this condition in patients referred by general practitioners to the psychiatry department at St Mary's Hospital in London, his description came from a much more personal experience of a flu-like illness, which had left him under 'under a cloud of a quite severe depressive state' for three to four weeks.⁷⁶⁵ Characterised centrally by a 'lack of zest, apathy, gloomy forebodings about the future and fitful sleep', O'Neill argued that this depression was due to a virus which had 'hit the nervous system very hard, and almost knocked it flat', leaving him unable to deal with a coinciding moment of 'considerable upheaval in [his] personal life'.⁷⁶⁶ To O'Neill, whilst his condition was undoubtedly in part produced by bodily changes due to a virus, it was also linked to stress: thus to a combination of physical and psychological causes. In describing this 'post-viral state', O'Neill renamed many of the illnesses which hitherto had been related to the more specific problem of 'post-influenzal depression' but also which had begun to be

⁷⁶⁴ Desmond O'Neill, 'The Post-Viral State', pp. 233-236

⁷⁶⁵ *Ibid.*, p. 233; The historical contingencies which informed O'Neill's ability to speak to his audience in this way (by referencing his personal experiences) is worthy of closer analysis, which might perhaps follow the framework recently laid out by Chris Millard. Such analysis would also provide an interesting comparison point with how doctors currently continue to use experiential evidence in debates regarding post-viral illness and more recently, Long Covid. See Chris Millard, 'Using Personal Experience in the Academic Medical Humanities: A Genealogy', *Social Theory and Health*, 18, (2020), pp. 184-189, who in turn drew upon the work of Leon Rocha, (Leon Rocha, 'That Dazzling, Momentary Wake of the lettre de cachet' in R. Duschinsky and L.A. Rocha ed., *Foucault the Family and Politics*, (Basingstoke, 2012), pp. 189-219), Joan Scott, (Joan Scott, 'The Evidence of Experience', *Critical Inquiry*, 17, (1991), pp. 773-797), and Judith Butler, (Judith Butler, *Giving An Account of Oneself*, (Oxford: 2005))

⁷⁶⁶ Desmond O'Neill, 'The Post-Viral State', p. 233

recognised after other diseases, such as infective hepatitis.⁷⁶⁷ By maintaining our focus on understanding how and why general practitioners came to forge links between influenza and depression, we are also able to shed light on the functions of this broader umbrella category, which became tied to an aetiology formed of the combined effects of a virus on the nervous system but also the psychosocial circumstances of life.

Throughout this thesis, we have explored the argument that in order for illnesses to be tied to specific resources, policies and provisions and brought within the modern British health system, they had to be made to fit into categories that conformed to the binaries of mental/physical, acute/chronic. This point will be reinforced once again in this section, albeit from a slightly different perspective. Functioning in the context of a service which was configured to diagnose and treat both mental *and* physical, acute *and* chronic forms of illness as part of a longitudinal relationship with their patients, as we shall see general practitioners were able to forge and sustain a category that straddled and therefore blurred the distinctions between these binaries. By establishing the principle that a vague, physical-psychic illness was a valid, medical problem, this category nonetheless quickly became symbolic of a broader, political concern regarding how the provisions of the welfare state were being used, by both patients and doctors, in turn feeding into a series of practical problems.

Initial references to the specific problem of post-influenzal depression can be traced back to the work of general practitioners in the mid-1950s. Referring to the ‘symptoms of mental depression’ which appeared during ‘the later stages’ but more often ‘early in convalescence’ from influenza, to general practitioner R.K. Pillay the ‘post-influenzal state’ was the source of much ‘distress and disability’ amongst his patients, who felt tired, listless, lacking in

⁷⁶⁷ Detailing the variety of infectious or viral diseases which might have been subsumed under the umbrella of the (post-war) ‘post-viral state’ is well beyond the scope of this chapter, but for references to infective hepatitis, as well as glandular fever, see ‘Virus Disease and the Central Nervous System’, *RCGP Research Newsletter*, 7, (1955), pp. 38-40 or I.M. Scott, ‘Psychological Disturbance in Association with Infective Hepatitis’, *RCGP Research Newsletter*, 7, (1955), pp. 58-59

concentration and hypersensitive to light and noise.⁷⁶⁸ Since their illness, these patients had struggled to conform to the demands of social life, to change their clothes, wash or shave, instead wishing ‘to be left alone and not fussed over’ and thus losing their ‘relationships within the family and outside the home.’⁷⁶⁹ Many were also fearful to return to work.⁷⁷⁰ As noted by Desmond O’Neill, although this depression bore striking resemblance to the other, more reactive or endogenous forms he had observed in the space of a psychiatric clinic, it was distinguished by the fact that prior to this, many of these patients had ‘not been prone to depressive attacks’ which struck them ‘like a thunderbolt’.⁷⁷¹ This view was shared by Pillay, who noted how many patients changed from being ‘good-natured’ to becoming ‘bad-tempered *for no obvious reason*’: illustrating the belief that ‘the life-situation’ of many patients was insufficient to explain their condition.⁷⁷² One patient, who had previously been ‘an intelligent, middle-aged man, a senior scientific research worker’, now felt that his ‘brain was not in command’, meaning that he made mistakes that he ‘would never have done normally.’⁷⁷³ O’Neill alluded to this when describing his own condition, and how he had been unable to cope with a period of significant stress. Informed by the impression that this depression was common in people who had no history of mental breakdown and in whom this reaction had emerged somewhat randomly, Pillay, O’Neill and many of their colleagues claimed pointed towards the causal significance of a flu attack.

Whilst this theory of causation seemed justifiable based on psychosocial knowledge about these individual patients and their lives prior to and since their illness, there was still ‘no consensus of opinion’ about the precise role played by influenza.⁷⁷⁴ Despite flagging the possible role of ‘toxic or allergic factors’, or an infection which left the ‘organism in a reduced functional condition and with marked demineralisation’, doctors avoided making firm,

⁷⁶⁸ R.K. Pillay, ‘Post-Influenzal Depression’, *Medical World*, (August 1959), p. 120

⁷⁶⁹ *Ibid.*, p. 120

⁷⁷⁰ R.M. Harrison, ‘Post-Influenzal Depression’, *BMJ*, 1, (1958), p. 460

⁷⁷¹ Desmond O’Neill, ‘The Post-Viral State’, p. 235

⁷⁷² R.K. Pillay, ‘Post-Influenzal Depression’, p. 120; Desmond O’Neill, ‘The Post-Viral State’, p. 235

⁷⁷³ *Ibid.*, p. 120

⁷⁷⁴ R.K. Pillay, ‘Post-Influenzal Depression’, p. 120

aetiological judgements about post-influenzal depression through relying on the eclectic range of therapies at their disposal in the context of post-war general practice, which ranged from prescriptions to more vague forms of advice.⁷⁷⁵ The idea that general practitioners could simply advise their patients and ‘prescribe themselves, their medical and social authority, and their very own existence as psychosocial guides’ as a form of therapy was rooted in the work of psychiatrist Michael Balint, which in the 1950s became a subject of interest amongst members of the RGCP and, eventually, the profession more widely.⁷⁷⁶ Meeting with a group of 12 general practitioners to discuss the ‘specific difficulties and challenges in treating psychosocial problems under the new NHS scheme’, Balint and his colleague Henry Dicks had initially aimed to understand the ‘medical and human aspect’ of providing medical care in and to the community, ultimately underlining the need to ‘educate patients towards a mature attitude to their illness’.⁷⁷⁷

To Balint, Dicks, and the general practitioners who were influenced by their work, when a patient presented seeking medical care or financial support, their condition was also highly vulnerable to the ‘miasmatic influence of the doctor’s personality’, which threatened to engulf and shape their ‘body and behaviour’ through a transfer of ‘infectious emotions’.⁷⁷⁸ If a doctor seemed pessimistic about their ability to recover, the patient was likely to internalise this in their own psychic and emotional responses, in turn reaffirming and perhaps exacerbating their symptoms. Balint and Dicks argued that the treatment and recovery of the patient thus often hinged on the ability of the doctor to moderate their own responses, to listen, to validate their symptoms, how they made them feel and therefore impacted their day-to-day lives. This point is borne out by returning to the scientific research worker described by R.K. Pillay, who had started to criticise himself and become depressed when he made mistakes, in turn

⁷⁷⁵ *Ibid.*, p. 119

⁷⁷⁶ Michael Balint, *The Doctor, Patient and his Illness*, (Edinburgh, 2000); Shaul Bar-Haim, ‘The Drug Doctor: Michael Balint and the Revival of General Practice in Postwar Britain’, *History Workshop Journal*, 86, (2018), p. 127

⁷⁷⁷ Michael Balint, quoted in *Ibid.*, p. 121

⁷⁷⁸ Rhodri Hayward, *Transformation of the Psyche*, pp. 114-115

representing what he perceived as loss of previous freedoms and abilities.⁷⁷⁹ Through a combination of medical treatment and his own advice, Pillay noted that this patient made a full recovery in a fairly short period of time. Without denying that the depression described by this patient was a product of a viral infection, the fact that he had also been able to benefit from a kind of informal encouragement illustrated how its persistence was perhaps informed by more psychological factors. This therapeutic technique thus gave rise to a decidedly ambiguous aetiology.

This impression was also embedded as general practitioners also began to treat cases through the use of the many medications deployed during this period, which ranged from traditional ‘bottles of ineffective but harmless medicine- expectorants, linctuses, tonics and antacids’, as well as sedatives, to the new forms introduced in the 1950s to treat psychoses, anxiety and depression.⁷⁸⁰ With prescriptions now free to the public through the NHS, these therapies had become ‘one of the most expensive parts of primary care’, sought out by patients but also readily dispensed by their doctors, who felt a ‘pressure to prescribe that was difficult to control in the new world of “wonder drugs”’.⁷⁸¹ Although historians like Rhodri Hayward have shown how the introduction of ‘anti-depressants’ would ultimately feed into a new regime of psychological truth (which we shall explore further in the next section), to a doctor working in general practice in the 1950s, like other forms of medication this kind of treatment could be used without implying anything about aetiology, in order to address some kind of physiological imbalance produced by a physical illness, but perhaps by the ‘suggestibility of the anxious patient’.⁷⁸² Deployed in ways that blurred the distinctions between illnesses otherwise classed as mental or physical, acute or chronic, in this context prescriptions were

⁷⁷⁹ R.K. Pillay, ‘Post-Influenzal Depression’, p. 120

⁷⁸⁰ Irvine Loudon and Mark Drury, ‘Clinical Care in General Practice’, in Irvine Loudon, John Horder and Charles Webster (eds), *General Practice under the National Health Service, 1948-1997*, p. 99

⁷⁸¹ *Ibid.*, p. 102; Ian Tait and Susanna Graham-Jones, ‘General Practice, its Patients and the Public’, in Irvine Loudon, John Horder and Charles Webster (eds), *General Practice under the National Health Service, 1948-1997*, p. 231

⁷⁸² Rhodri Hayward, *Transformation of the Psyche*, p. 118

practically useful: acting as the most ‘effective method of closing consultations for the overworked and emotionally exhausted family doctors.’⁷⁸³

Faced with the ‘depression or debility’ which often followed upon influenza and informed a ‘slow and often prolonged convalescence’, general practitioner John Fry therefore prescribed a programme of medical treatment which rested on the use of ‘analgesics’ and ‘linctuses’.⁷⁸⁴ Acknowledging that these medications were designed to treat cases on a symptomatic basis during their acute physical illness but also during whatever emerged and persisted afterwards, Fry was arguably well aware that this programme of therapy allowed him to sidestep the issue of causation, and instead to broadly gesture to the lingering, physical effects of a viral illness. Moreover, although most patients required only 10 to 14 days ‘off work’, he also acknowledged that many experienced a ‘recurrence’ of symptoms ‘some 10 to 21 days from the initial onset’ yet failed to mention if and how this mapped on what likely became vague, variable programmes of treatment.⁷⁸⁵ Describing his approach to treating post-influenzal depression, R.K. Pillay also acknowledged how he had begun with ‘sedatives of different types, tonics and multivitamin preparations’, later shifting to an antidepressant called ‘captodiamine’ or ‘Covatin’.⁷⁸⁶ By stabilising the emotions, this medication was also understood broadly ‘stabilise the autonomic nervous system’ by producing ‘sedation without any impairment of alertness’.⁷⁸⁷

Although Pillay aimed to correct some kind of bodily, physiological disorder which he theorized *could have* been caused by an infection, he also acknowledged that this medication had proved successful in mild depressive states, which might be viewed as a psychic response to stress, or a reflection of the inherent makeup of the patient. This shows, again, how Pillay

⁷⁸³ *Ibid.*, p. 118

⁷⁸⁴ John Fry, ‘Influenza A (Asian) 1957: Clinical and Epidemiological Features in a General Practice’, *BMJ*, 1, (1958), p. 259

⁷⁸⁵ *Ibid.*, p. 259

⁷⁸⁶ R.K. Pillay, ‘Post-Influenzal Depression’, p.120

⁷⁸⁷ *Ibid.*, p. 120

pursued a therapeutic approach which did not impose clear aetiological judgements, instead focusing on resolving what he hoped would soon turn out to be a temporary period of post-influenzal depression. Allowing general practitioners to make prescriptions without establishing a fine, detailed grasp of causation, this ambiguous category was moreover practically useful: allowing doctors to prescribe and send patients on their way, thus mitigating a sharp rise in the number seeking care and treatment now 'free' through the NHS.⁷⁸⁸

Beyond treating post-influenzal depression with medications which addressed a somewhat vague physiological imbalance caused by a virus, general practitioners also argued that these patients needed to be given the time and support needed to recuperate. Echoing the therapeutic approaches adopted in relation to post-encephalitis patients at Winchmore Hill, as well as the post-infective cases at the Mill Hill, in the post-war period general practitioners ensured this rest by prescribing sedatives but also through the provision of a sick note. Although the general practitioner had been involved in medical certification long before the foundation of the welfare state, this responsibility intensified through the post-war National Insurance (NI) system. Still providing health insurance 'paid for by employers, employees and the general taxpayer, from cradle to grave' as long as they were aged between 16 and 60, this new system nonetheless also marked the introduction of a new set of certificates: the 'Med 1', Med 2a and Med 2b.⁷⁸⁹ Each correlating to a different stage of illness, these sick notes required general practitioners to examine and monitor their patients and assess the veracity of any initial and continuing claims for financial support.

⁷⁸⁸ David Armstrong, 'Space and Time in British General Practice', pp. 662-663; Reflecting on his time in general practice, John Fry recognised that although he continued to work from the 'same premises as before with the same arrangements for consultations and home visits', after the Appointed Day he and his colleagues across the country experienced a sharp rise in the number of patients registered at and attending their surgeries, see John Fry, *General Practice and Primary Health Care, 1940s-1980s*, (London, 1988), p. 12; This sharp increase in demand was also acknowledged by social researcher Richard Titmuss, who argued that the NHS had 'inherited the debts of a decade of sacrifice and neglect, financial poverty and disorganisation', and therefore unleashed an 'immense pent-up demand for treatment' and certification, see Richard Titmuss, 'The National Health Service in England: Some Facts about General Practice', in R. Titmuss, *Essays on the Welfare State*, (Kindle edn, Bristol, 2018), Loc, 2251-2287

⁷⁸⁹ Nicholas Timmins, *The Five Giants*, p. 135

Tasked with making diagnostic decisions that were not only dictated by pressures of time but also by the need to protect finite financial resources, general practitioners were often accused of misdiagnosing their patients.⁷⁹⁰ Such concerns arose in allegations that doctors simply labelled some patients ‘neurotic and... appl[ied] psychiatric labels without making as sure as possible that the symptoms do not arise from some organic cause’, but also led others to believe that their illnesses were based in physical bodily change and therefore at risk of progressing further.⁷⁹¹ Such misdiagnosis wasted the resources of the state in two ways: on patients whose condition was guided by a desire to avoid work, or on those whose symptoms were assumed to be psychological yet eventually culminated in chronic incapacity. To avoid this, when allocating sick notes many general practitioners provided ‘*ipse dixit*’ statements (assertions without proof), which rested on their ‘opinion’ as opposed to rigorously tested scientific fact and in turn diagnostic categories which avoided clear aetiological judgements, such as post-influenzal depression.⁷⁹²

Whilst general practitioners remained unable to explain what precisely caused the depression that sometimes followed upon influenza, by the mid-1950s they had developed a category that was nonetheless able to function in practice. This category in part hinged on methods of diagnosis informed by their own uniquely intimate psychosocial perspective, but also on therapies that first and foremost aimed to correct a physiological imbalance, believed to be caused by an infection but also perhaps dictated by other, more emotional and psychological factors. Remaining (arguably deliberately) unclear about precisely what caused this condition, and its mental or physical nature, general practitioners also avoided making generalisations

⁷⁹⁰ Millward, *Sick Note*, p. 6

⁷⁹¹ John Whitby, Mangalore Narasimha Pai, ‘Some Aspects of Psychiatry in General Practice’, *Proceedings of the Royal Society of Medicine*, 47, (1954), p. 506

⁷⁹² Gareth Millward, *Sick Note*, p.38; According to Millward, this terminology was used recurrently by the BMA and government departments in debates regarding medical certification in the 1960s and 1970s, see *Ibid.*, pp. 102-124; As argued by contemporary doctor R.S. Brock, it was important that general practitioners should not feel pressure to do anything other than ‘express impartially their honest opinion’ when providing a sick note, given that they had neither the time nor technological resources to make diagnoses that met the standards of a court of jurisdiction, see R.S. Brock, “‘Disqualification’ of Doctors under the Bill”, *BMJ*, 1, (1946), p. 585

about precisely how long it may last and when it should be conceptualised as chronic. Through embracing ambiguity, general practitioners were able to provide prescriptions and sick notes which *did not* have to rely on time-consuming examinations, on diagnostic labels that made clear assertions about the presence or absence of physical change or about the temporal span of the illness. This category was therefore shaped in line with the needs of and sustained by a service facing ever-increasing demand.

To Pillay, O'Neill and many of their colleagues, the somewhat vague physical-psycho condition of post-influenzal depression therefore became a valid composite medical problem, tied to and sustained by a particular set of diagnostic practices and therapeutic techniques. In the resulting category of post-influenzal depression, we are able to see two of the key principles associated with the foundation of the NHS in action: the integration of general and mental healthcare and a more fluid, progressive approach to chronic illness in the community. Although general practitioners might have broadly defined the depression which followed upon influenza as the result of an acute physical disease, they were nonetheless able to draw upon resources that made no firm judgements as to causation, given how they were regularly used to deal with and thus blur the distinctions between different kinds of mental/physical, acute/chronic illness. This approach, as we have seen, allowed general practitioners to navigate the day-to-day demands of working for the new NHS, during a period characterised by increasing demand, by the 'creation and consolidation' of services and provision, and thus a willingness to invest.⁷⁹³

According to Charles Webster, this initial phase of NHS development ended sometime in the early 1960s, as government officials and health policymakers became more aware of a 'heavy legacy of unsettled problems, without realistic prospects of attracting a substantial influx of additional resources and lacking clear guidelines for the future direction of policy.'⁷⁹⁴ This

⁷⁹³ See Charles Webster, *The National Health Service*, pp. 1-64

⁷⁹⁴ *Ibid.*, p. 65

second 'stage' was marked by a growing concern about the material realities of running and funding a national health system, and in turn assuming collective responsibility for the health of the nation from cradle to grave. As argued by Nicholas Timmins, since 1948 the welfare state had gradually grown 'bigger, better and more comprehensive than anything that had gone before', with the health service 'treating more patients with better techniques in slowly improving hospitals surrounded by GPs who now felt they had a future'.⁷⁹⁵ These changes in provision, policy and process had demonstrated- at least to politician Antony Crosland- that it was quite possible to achieve 'full employment, generous services and social security' and provide the population with the comforts needed to live happy, healthy lives.⁷⁹⁶

Whilst Crosland viewed this as one of the key successes of the Labour Party, members of the opposition nonetheless took a very different view, arguing that these changes had led some members of the population to see themselves as entitled to such support and, worst of all, to become reliant upon them. In a series of lectures ran by the Conservative Political Centre on the 'Future of the Welfare State' in 1958, the director of the centre Peter Goldman criticised a willingness to 'squander public money on providing indiscriminate benefits and subsidies for citizens, many of whom do not need them and some of whom do not want them.'⁷⁹⁷ Although Goldman's concerns were far from mainstream at the time, they did reflect a growing concern about what Enoch Powell would come to define as an 'infinity of demand'.⁷⁹⁸ In 1966, Powell questioned the widely-accepted yet 'vulgar assumption' introduced by Beveridge that if the state provided a quantifiable amount of free medical care, 'no more would be demanded' by members of the population, thus reducing the need for further investment.⁷⁹⁹ In contrast, every time that a 'discovery' was made in medical science, the 'horizon of "need" for medical

⁷⁹⁵ Nicholas Timmins, *The Five Giants*, p. 246

⁷⁹⁶ Antony Crosland, *Paying for the Social Services*, (London, 1969), pp. 9-10

⁷⁹⁷ Peter Goldman, 'Preface' in Conservative Political Centre, *Future of the Welfare State: Seven Oxford Lectures*, (London, 1958), p. 8

⁷⁹⁸ Enoch Powell, 'A New Look at Medicine and Politics', Section 4, (1966), <https://www.sochealth.co.uk/national-health-service/healthcare-generally/history-of-healthcare/a-new-look-at-medicine-and-politics/a-new-look-at-medicine-and-politics-4/>, [accessed 22 July 2022]

⁷⁹⁹ *Ibid.*

care' was 'suddenly enlarged', and would continue in this way as more people sought to have their 'incipient or suspected ailments detected and treated sooner.'⁸⁰⁰ Whilst Powell acknowledged how this demand was at present circumscribed by informal gatekeeping devices, such as the waiting list, it had become more necessary than ever to ensure that the resources of the NHS were used efficiently and protected.

These problems were principally reflected in general practice, where it was believed that doctors had steadily increased the number of patients registered under their care in order to see the same rise in their income, which continued to be funded through capitation fees. According to Powell, many were therefore unable to devote 'to consultation the amount of time and care' which was required to ensure efficient, accurate diagnosis and treatment.⁸⁰¹ In this context, a doctor would likely be more willing 'to prescribe a placebo, or the drug recommended by the patient, or to complete the desired certificate', rather than engage in 'skilled and conscientious care'.⁸⁰² These concerns were reflected in rising levels of sickness absence, which according to a report published by the Office for Health Economics (OHE) had by the end of the 1960s begun to cost the state around £400 million a year.⁸⁰³ There were also fears about the use of prescriptions and how they had become used by many general practitioners as the 'most potent and most economical psychotherapy'.⁸⁰⁴ As the use of medications continued to rise into the 1960s, the BMA produced a report to the MoH which highlighted the inappropriate use of such therapies by many general practitioners, exemplified by the prescription of antidepressants to patients who simply needed to rest.⁸⁰⁵

⁸⁰⁰ *Ibid.*; Timmins expands upon the re-entry of these ideas into political discourse in closer detail in his analysis, see Nicholas Timmins, *The Five Giants*, p. 287

⁸⁰¹ Enoch Powell, 'A New Look at Medicine and Politics', <https://www.sochealth.co.uk/national-health-service/healthcare-generally/history-of-healthcare/a-new-look-at-medicine-and-politics/a-new-look-at-medicine-and-politics-4/>

⁸⁰² *Ibid.*

⁸⁰³ Office for Health Economics, *Off Sick*, (London, 1971), p. 19

⁸⁰⁴ R.E. Hope Simpson, 'The First Gale Memorial Lecture: Opportunities and Pitfalls of General Practitioner Research', *JRCGP Research Newsletter*, 1, (1958), p. 231

⁸⁰⁵ TNA: Certification, MH 153/299, BMA, 'Reduction in Certification', Report for the Ministry of Health, 1965

According to some general practitioners, this tendency to grant ‘another sickness certificate and some more face-saving pills’ was informed by their fears of misdiagnosis and therefore by a deliberate decision to wait until their patients reported to feel ‘perfectly well’.⁸⁰⁶ Whilst this rationale might have been accepted by an earlier government committed to short-term financial investment for long-term gain, by the late 1960s opinion had begun to shift: with the allocation of medical certificates and prescriptions understood as processes that with ‘a little ingenuity and perseverance’ could be exploited by patients who played upon the sympathy or inattention of their doctor.⁸⁰⁷ As members of the medical and psychiatric profession would seek to develop new programmes of diagnosis and treatment which could be used in the context of general practice, they would also begin to destabilise the categories believed to pose a ‘heavy cost to society in terms of drugs and medical care’, such as post-influenzal depression.⁸⁰⁸

As we shall see in the next and final section, these practical, political concerns would encourage efforts to better understand and define the morbidity which constituted the workload of the general practitioner, separating out mental from physical, acute from chronic illness, as a way to ensure that the material and financial resources of the NHS were being used efficiently and appropriately. In the process, many of the illnesses observed by the general practitioner became reframed as psychiatric problems which ‘often masquerade[ed] in somatised symptoms’, consumed much of the time and resource of the doctor and required a ‘strengthening of the family doctor in his therapeutic role’.⁸⁰⁹ Equipped with a new set of sociological theories and psychological tools, the general practitioner would begin to more

⁸⁰⁶ George Day, ‘Absence from Work Attributed to Sickness’, *BMJ*, 2, (1969), p. 52; Many general practitioners also felt that certificates unnecessarily added to their workload, and as a result felt much resentment to employers, see J.A. Eddington and J.L.A. McVicker, ‘Points from Letters: The Curse of Certificates’, *BMJ*, 2, (1964), p. 192

⁸⁰⁷ Alex Crawford, ‘Certification’, *BMJ*, 2, (1963), p. 808

⁸⁰⁸ Desmond O’Neill, ‘The Post-Viral State’, p. 236

⁸⁰⁹ Leon Eisenberg, ‘A Very British Kind of Social Psychiatry’, *BJP*, 171, (1997), p. 312; M. Shepherd, B. Cooper, A.C. Brown, G.W. Kalton, *Psychiatric Illness in General Practice*, (London, 1966), p. 176

routinely identify and deal with psychiatric problems such as depression, in turn severing the long-suspected, yet never definitively confirmed, causal connection with influenza.

Section 4: Sociological theories, psychological techniques, old binaries

We began this chapter by exploring how two separate categories came to be intertwined in the context of post-war general practice, to explain illness which followed upon and persisted beyond the acute stage of influenza and manifested in ways that bore resemblance to the problem of depression. Through these connections, general practitioners forged the composite yet ambiguous category of post-influenzal depression: mapping out an aetiology understood to be partly informed by an acute physical event, but also by a process of maladaptation and perhaps by stress. As we have seen, the diagnosis and treatment of this condition hinged on the psychosocial knowledge of the general practitioner and an eclectic range of therapies designed to help patients recover, both mentally and physically, for varying periods of time. Whilst post-influenzal depression was arguably understood as the persisting effect of an acute physical event, it was also a category that was sustained by a programme of diagnosis and treatment that required little, if any, firm understanding of causation. From a historical perspective, this category can therefore be viewed as a direct product and reflection of the integration and progress envisioned by health reformers in the mid-1940s, and of political commitment to a system of provision which blurred the distinctions between mental/physical, acute/chronic.

In the face of practical, material, and financial concerns about how the resources of the NHS were being used and allocated, this commitment would not last. Instead, by the late 1960s general practitioners would come to rely upon a new programme of diagnosis and treatment and to approach the problem of depression in line with a new regime of 'psychological truth'.⁸¹⁰ As this condition came to be identified through material forms like the questionnaire, dealt

⁸¹⁰ Rhodri Hayward, *Transformation of the Psyche*, p. 119

with through a new set of pharmaceuticals and tied much more decisively to biochemical physical changes in the body, general practitioners would no longer look to forge connections with an acute viral illness. Recast in line with a biomedical framework as a physical condition resolved through medication, general practitioners were now able to align cases of depression with a consistent chronology: marking out the point at which it was necessary to refer a patient out of their care and towards formal mental health services, for a condition that now became chronic and mental. Our focus is therefore primarily on the changes which had fundamentally transformed and began to break this category apart by the mid-1970s. Although this was arguably informed by the extension of similar approaches to the problem of influenza, this is the scope and space of this thesis. This chapter concludes by mapping the disappearance of post-influenzal depression from British medical discourse onto the emergence of a new programme of diagnosis and treatment, a category which was able to align with the binaries of mental/physical, acute/chronic, and in line with a health system increasingly informed by ‘individualised understandings of human beings as competitive and market-driven’ and stringent criteria regarding the allocation of medical care and treatment and financial support.⁸¹¹

As demonstrated in the previous section, by the mid-1960s politicians had begun to question the long-term viability of a health system which provided treatment and support free and available to all. This imbued a longstanding scientific and epidemiological interest in psychiatric morbidity amongst the community with new, political, and financial importance. Partly in response to the shift towards the community-based care of mental illness inaugurated by the 1959 Mental Health Act, which also dissolved all remaining legal and institutional distinctions between mental and physical illness, a dedicated General Practice Research (GPR) Unit had been established at the Institute of Psychiatry in the late 1950s.⁸¹²

⁸¹¹ Chris Millard, *A History of Self-Harm in Britain*, p. 2

⁸¹² The 1959 Mental Health Act is widely viewed by historians as a key moment in the history of mental health and psychiatry in Britain, see for example Kathleen Jones, *Mental Health and Social Policy 1845-1959*, pp. 178-203; F.M. Martin, *Between the Acts: Community Mental Health Services 1959-1983*, (London, 1984), pp. 1-13, also pp. 107-124

The Unit was headed by psychiatrist Michael Shepherd, staffed by a combination of medically qualified workers and social scientists and funded by the Nuffield Foundation, the Mental Health Research Fund and the governmental Department of Health and Social Security, engaging in studies which furthered ‘clinical and aetiological knowledge’ but also provided ‘data for the rational planning of services’ within the NHS.⁸¹³ As a student, friend and follower of Aubrey Lewis, Shepherd was also a key proponent of a ‘very British kind of social psychiatry’, was directly interested in how social causes influenced the presentation, course and treatment of mental illness but also committed to statistical, epidemiological methods of study.⁸¹⁴

In the early 1960s, Shepherd and his colleagues at the GPR began to conduct studies which broadly aimed to better understand the distribution of psychiatric morbidity amongst the community and therefore, the patients who came under the care of the general practitioner. Whilst these studies were often led by psychiatrists, such as Shepherd or his colleague Neil Kessel, they also relied centrally on the involvement of a range of other professionals.⁸¹⁵ General practitioners and psychiatric social workers were enlisted to provide information about ‘presenting complaint, the diagnosis and the number of consultations recorded for each separate illness’ but, also with regard to the former, their own psychosocial ‘knowledge of the patient extending over many years, together with experience of his family and awareness of social and economic difficulties’.⁸¹⁶ This information was in turn analysed by medical statisticians, who illuminated and presented patterns of incidence in quantitative, objective terms. Through these collaborations, in 1960 Kessel and Shepherd thus presented their concept of ‘conspicuous psychiatric morbidity’ (CPM). This referred to the number of patients

⁸¹³ Michael Shepherd, ‘The General Practice Research Unit at the Institute of Psychiatry’, *Psychological Medicine*, 3, (1973), p. 525; See also Greg Wilkinson, ‘The General Practice Research Unit at the Institute of Psychiatry’, *Psychological Medicine*, 19, (1989), p. 787

⁸¹⁴ Leon Eisenberg, ‘A Very British Kind of Social Psychiatry’, pp. 309-313

⁸¹⁵ The group included Michael Fisher, Ida Fisher, Charles Benn, Lilian Morgan, Lilli Stein, and K. Colwell.

⁸¹⁶ W.I.N. Kessel, ‘Psychiatric Morbidity in a London General Practice’, *British Journal of Preventive and Social Medicine*, 14, (1960), p. 17

believed to have attended their doctor 'during the survey years for one or more illnesses in which an important psychiatric component had been detected', such as anxiety or depression.⁸¹⁷

Patients believed to have a CPM in turn often presented in particular ways: by either 'complaining of being anxious, depressed or fearful', with 'somatic symptoms which could not adequately be explained by physical illness' or with psychological reactions to indisputable physical illness which seemed in 'some way abnormal'.⁸¹⁸ After identifying these kinds of patients, Kessel and Shepherd attempted to class their condition in line with the International Classification of Diseases (ICD), as well as dividing them up according to their gender. They showed in statistical terms how often a specific kind of disease was accompanied by psychiatric morbidity and whether or not this was more common in men or women. Going one step further, Kessel and Shepherd moreover tracked if these patients were commonly referred on to psychiatrists, as well as the number of times they returned to and sought advice, treatment, and support from their general practitioner.

Through this study, and in line with their concept of conspicuous psychiatric morbidity, Kessel and Shepherd were able to draw several conclusions. First and foremost, their study had shown that some of the morbidity encountered in general practice had an important, psychiatric element and secondly that this was not confined or limited to certain kinds of disease. Whilst this kind of co-morbidity was more common in relation to diseases of the nervous system, it also occurred in those which affected the respiratory or circulatory system, or the bones, skin or movement. Hitherto treated as fundamentally different, Kessel and Shepherd had begun to show that the psychiatric condition of these patients, perhaps manifesting in the form of a depression, represented one important commonality. They had also compared patients grouped within the same diagnostic classification, such as nervous

⁸¹⁷ *Ibid.*, p.17

⁸¹⁸ *Ibid.*, p.17

disease, based on their respective attendance records. Accordingly, it seemed fair to conclude that CPM patients, most of whom were women experiencing ‘domestic or family troubles’, often had ‘higher than average consultation rates’, based on evidence that 40% visited their doctor more than ten times a year, in comparison to only 20% of other patients.⁸¹⁹ Moreover, this attendance rate continued into the year after the study had concluded, with 52 of the 86 CPM patients presenting with the ‘same symptoms’, suggesting ‘by that criterion that the illness had continued or returned.’⁸²⁰ Whilst these patients still often had diagnoses that could be conceptualised as *physical*, Kessel and Shepherd had also begun to show that they also often had an important *psychiatric element* to their condition and more importantly, that it was *this* that influenced how they interacted with and relied on the health system over long periods of time.

These arguments were quickly picked up by hospital consultants like Robert Kemp, who in 1963 described the ‘familiar faces’ who sought treatment for complaints they believed were physical but were in fact ‘purely psychiatric’, as a way to ‘attract sympathy, to give self-importance, to act as a shield from the unpleasant parts of life and so on’.⁸²¹ Drawing upon hospital-based modes of pathological testing and screening, Kemp argued that these patients needed to be examined in order to establish the absence of ‘somatic disease’ and thereafter simply reassured and encouraged through a ‘simple common sense- almost lay approach’.⁸²² More explicitly than Kessel and Shepherd, Kemp underlined the point that identifying these patients was practically, materially and economically important, thus preventing ‘the chronic waste of energy and happiness that is otherwise inevitable.’⁸²³ Kessel and Shepherd’s contention that patients might suffer from physical illnesses that had an important psychiatric

⁸¹⁹ *Ibid.*, p. 19; Kessel and Shepherd would later engage in a more focused study of those who did not consult their doctor at all, in turn reiterating concerns that some patients were dominating how the provisions associated with the NHS were being used. See W.I.N. Kessel and Michael Shepherd, ‘The Health and Attitudes of People Who Seldom Consult a Doctor’, *Medical Care*, 3, (1965), pp. 6-10

⁸²⁰ W.I.N. Kessel, ‘Psychiatric Morbidity in a London General Practice’, p. 19

⁸²¹ Robert Kemp, ‘The Familiar Face’, *The Lancet*, 281, (1963), p. 1223

⁸²² *Ibid.*, p. 1226

⁸²³ *Ibid.*, p. 1226

component which in turn shaped how they engaged with the health system, also fed into theories emerging from the field of sociology. Amongst these was Talcott Parsons' 'sick role' concept, which this American sociologist had introduced in 1951 to describe the social process which occurred 'when people felt ill or had an injury'.⁸²⁴ Allowing them to absolve their social responsibility as a worker, housekeeper, partner, parent or student, the sick role also imposed an obligation on the individual 'to seek medical treatment and comply with the doctors' orders'.⁸²⁵

Parsons' concept has since become a subject of debate and critique by academics across a range of disciplines however, for our purposes, offers a clear sense of the view emerging in British medicine, that illness was as much a social as a biological process.⁸²⁶ David Mechanic and Edmund Volkart also explored this idea in their work on 'illness behaviour', where they used this concept to refer to 'the ways in which given symptoms may be differentially perceived, evaluated and acted (or not acted) upon by different kinds of persons.'⁸²⁷ Mechanic would pursue and disseminate these ideas further during a year-long research fellowship at the Social Psychiatry Research Department based in the Maudsley, where he explored how social and psychological factors determine 'whether people recognise symptoms, make contacts with doctors, accept or reject advice about treatment and remain under or discontinue medical supervision'.⁸²⁸ Still acknowledging how much illness was informed by 'stress', Mechanic nonetheless began to move away from a broad, physiological view of this

⁸²⁴ Chris Millard, 'Concepts, Diagnosis and the History of Medicine: Historicising Ian Hacking and Munchausen Syndrome', *Social History of Medicine*, 30, (2017), p. 571; John C. Burnham, 'Why Sociologists Abandoned the Sick Role Concept', *History of the Human Sciences*, 27, (2014), p. 71; Talcott Parsons, *The Social System*, (Glencoe, 1951)

⁸²⁵ Arthur W. Frank, 'From Sick Role to Practices of Health and Illness', *Medical Education*, 47, (2013), p. 19

⁸²⁶ This criticism appears in the work of Simon Williams, who has emphasized Parsons incorrectly accepted the idea of a consensual relationship between the individual and medical authorities, ignored the differences between acute and chronic illness, as well as the variations tied to class, gender, age and ethnicity. See Simon J. Williams, 'Parsons Revisited: From the Sick Role to...?', *Health*, 9, (2005), pp. 123-44

⁸²⁷ David Mechanic and Edmund H. Volkart, 'Illness Behavior and Medical Diagnoses', *Journal of Health and Human Behavior*, 1, (1960), p. 87

⁸²⁸ David Mechanic, 'Response Factors in Illness: The Study of Illness Behavior', *Social Psychiatry*, 1, (1966), p. 12

problem as produced by the environment of the modern world and instead emphasised the ‘definitional’ component. Highlighting a study which focused on the responses of parents anticipating the deaths of their children, Mechanic showed that there were often important differences between them despite experiencing the same kind of life-changing event. He put this down to the ‘relief’ felt by some who had ‘already worked through a substantial part of their grief’, whilst others experienced a ‘marked acceleration after the child died’.⁸²⁹ This study, Mechanic argued, underlined the growing need to recognise the ‘tremendous variability’ in how different individuals reacted to environmental stimuli and, in turn, ‘the probable link between coping reactions and physiological responses under “stress”’.⁸³⁰

In their own ways, these studies all fed into a theoretical principle which by the late 1960s was widely accepted by members of the British medical and psychiatric professions: that patients came to request medical care and financial support for reasons that were as much social and psychological as physical, which in turn spoke to their ability to cope with the challenges of modern life. Understanding and finding ways of identifying these ‘secondary’ factors was vital to ensuring that the resources of the NHS were only used and allocated to those who were able to benefit from them, rather than those who simply sought to exploit them. Given how many of these patients presented and often remained in the community, focus quickly shifted to developing a more standardised and ‘generally agreed classification’ of the diseases confronted in general practice, like depression.⁸³¹ As we shall see, by gradually coming to rely on a new set of diagnostic techniques like the questionnaire and rating scale to aid diagnosis as well as new pharmaceutical therapies, general practitioners also began to code symptoms of depression in new ways: breaking links to physical, bodily damage, focusing on the psychosocial responses

⁸²⁹ Mechanic referred to a study conducted by S.B. Friedman in 1963, see S.B. Friedman et al ‘Behavioral Observations on Parents Anticipating the Death of a Child’, *Pediatrics*, 32, (1963), pp. 610-625

⁸³⁰ David Mechanic, ‘Response Factors in Illness’, p. 15

⁸³¹ David Mechanic, ‘The Study of Illness Behaviour: Some Implications for Medical Practice’, *Medical Care*, 3, (1965), p. 32

of the individual and their apparent (in)ability to cope, thus returning to old powerful binary distinctions.

This transition was informed by the emergence of a new kind of ‘psychological truth’ in general practice during the early 1970s.⁸³² As we have seen, until then general practitioners had generally relied on their psychosocial insight on patients to understand and deal with conditions such as ‘neurosis’, paying attention to factors which spanned both past and present. In line with a wavering political commitment to providing unlimited access to the resources of the NHS and the state, allied to the belief that often patients presented in surgery with complaints they claimed to be physical but which were instead psychiatric, general practitioners gradually began to adopt new, more standardised, statistical methods of diagnosis. By moving away from what had hitherto been subjective forms of data, perhaps gathered in case notes and which set and interpreted a period of depression in the context of the life history of the patient, techniques such as the questionnaire and rating scale allowed general practitioners to visualise these problems very differently, through ‘the external marks of test scores and overt behaviour’.⁸³³

A key example of this approach can be found in the General Health Questionnaire (GHQ), developed by Maudsley psychiatrist David Goldberg and psychiatrist-turned-general practitioner and described in the *BMJ* in May 1970.⁸³⁴ Building upon the statistical techniques developed by Hans Eysenck at the Mill Hill in the 1940s, (and explored in Chapter 4), techniques like the GHQ were designed to facilitate a view of the patient and their personality as a ‘conglomeration of variables that could be mapped and measured.’⁸³⁵ By condensing

⁸³² Rhodri Hayward, *Transformation of the Psyche*, p. 119

⁸³³ *Ibid.*, p. 127

⁸³⁴ D.P. Goldberg and B. Blackwell, ‘Psychiatric Illness in General Practice: A Detailed Study Using a New Method of Case Identification’, *BMJ*, 2, (1970), pp. 439-443

⁸³⁵ Rhodri Hayward., *Transformation of the Psyche*, p. 128; Other examples included the Cornell Medical Index (CMI), the Beck Depression Inventory, and the Maudsley Personality Inventory. For context on the CMI, see M.R. Polliack, ‘The Relationship Between the Cornell Medical Index Scores and Attendance Rates’, *JRCGP*, 21, (1971), pp. 453-459

down and representing the responses of a patient in a statistical format, these approaches were also informed by the cybernetic belief ‘that the behaviors(sic) of both inanimate and living systems could be modelled mathematically and the ‘unruly phantom aspects of selfhood’ constrained through administration, thus providing medical histories that were more complete and more accurate than those ‘taken by conventional means’.⁸³⁶ In their study, Goldberg and Blackwell had asked 553 ‘consecutive attenders’ at one general practice to complete a sheet formed of 60 questions, which focused both on physical symptoms and ‘more overtly psychiatric items’, in order to give information ‘about the *present* mental state rather than personality traits or the liability to fall ill in the future’.⁸³⁷ The answers provided by the patient were only analysed after both a general practitioner and psychiatrist had passed their own, separate diagnostic judgements: all of which were then used to measure the questionnaire and its validity.

Like Kessel and Shepherd before them, in their study Goldberg and Blackwell demonstrated that 24.4% of patients had a ‘psychiatric’ element to their condition which had been flagged through the questionnaire but also identified by the general practitioner and the psychiatrist. There were others who had not been identified by their general practitioner at all yet still picked up by the questionnaire. By alerting them ‘to feelings the patient would not otherwise volunteer’ and, most importantly, helping general practitioners to find a way through the psychosocial fog which obscured the true nature of their condition, the questionnaire acted as a kind of safety net, catching those patients who would have otherwise evaded their gaze and grasp.⁸³⁸ Inseparable from a practical, material and financial need to more reliably and efficiently diagnose and deal with those who consumed the resources of general practice and the state, these statistical methods would also begin to mark out the character and confines of

⁸³⁶ Andrew Lea, ‘Computerizing Diagnosis: Keeve Brodman and the Medical Data Screen’, *ISIS*, 110, (2019), p.232, p. 235; Rhodri Hayward, *Transformation of the Psyche*, p.128, see also M. Derksen, ‘Discipline, Subjectivity and Personality: An Analysis of the Manuals of Four Psychological Tests’, *History of the Human Sciences*, 14, (2001), pp. 25-47

⁸³⁷ My emphasis; P. Goldberg and B. Blackwell, ‘Psychiatric Illness in General Practice’, p. 439

⁸³⁸ *Ibid.*, p. 442

depression as a still broad yet more composite diagnostic category. In Goldberg and Blackwell's study, tracking their patients over long periods of time through the questionnaire also began to break down the distinctions between reactive and endogenous forms of depression, which instead seemed to occupy similar temporal spans. Faced with these similarities, general practitioners therefore began to abandon the long-accepted distinctions between what precisely caused depressive symptoms, such as stress, predisposition but also, as we have seen, an acute infection. By introducing new more objective and scientific modes of assessment which hinged on numerical statistical scores, the roll-out and use of questionnaires like the GHQ in general practice also changed the hitherto personal relationship between doctor and patient, which had guided diagnosis and sustained ill-defined categories like post-influenzal depression.

This re-emergence of depression as a more composite, coherent category also hinged on a new array of pharmaceutical therapies. In line with the development of 'new generation' of tricyclic antidepressants, amitriptyline and imipramine, which correlated to 2.9 million prescriptions between 1965 and 1970, these therapies began to transform how the problem of depression was both handled and understood in general practice.⁸³⁹ These drugs, David Healy has argued, were developed to focus on less 'severe' conditions of neurosis and depression, given that the rates of severe psychotic disorders had been reduced through the successes of chlorpromazine.⁸⁴⁰ Whilst many believed that the roll-out of pharmaceuticals constituted a revolution in general practice according to contemporary medical sociologist Peter Parish, this was nonetheless a negative development. By encouraging general practitioners to focus instead on correcting symptoms and behaviours brought into focus through the material format of the questionnaire without addressing any root, psychological causes, Parish believed that these therapies would simply serve to mask the emotional reactions which informed depression. The general practitioner had therefore instead become a 'key figure in drug

⁸³⁹ Rhodri Hayward, *Transformation of the Psyche*, p. 125

⁸⁴⁰ David Healy, *The Creation of Psychopharmacology*, (London, 2002), p. 4

marketing strategy', required to choose from 'a very large number of competitive products', deal with 'a large amount of advice on drug prescribing, biased and unbiased', often without 'the training, time and experience to evaluate all the evidence available.'⁸⁴¹

Historians have debated the factors which guided this rise in the use of pharmaceuticals in general practice during the 1970s: tying this either to popular demand, the efforts of drug companies to market these antidepressants through emphasising their wide application and medicalising 'trivial complaints', as well as their status as the preferred option amongst members of the public to seeking more formal treatment from psychiatric services.⁸⁴² This increase might also be tied to a desire amongst general practitioners to adopt more standardised, efficient programme of treatment, which would no longer hinge on their unique, yet time-consuming psychosocial expertise. Faced with ever shortening 'consultation times, large lists of patients, and minimal ancillary support', general practitioners became increasingly aware that adopting a personal, individual approach to every depressed patient was not practically feasible, and would only at best translate to vague 'informal counselling, advice and reassurance' which often failed to resolve the problem.⁸⁴³ To Ali Haggett, these practical constraints and challenges directly informed the rise of a 'pharmacological treatment of depression and anxiety' in general practice but, also with this, the possibility that the former could be dealt with and viewed as a *physical* problem, caused by biochemical changes in the brain.⁸⁴⁴

⁸⁴¹ Peter A. Parish, 'What Influences Have Led to Increased Prescribing of Psychotropic Drugs?', 23, *JRCGP*, (1973), p. 51

⁸⁴² See Christopher Callahan and German Berrios, *Reinventing Depression: A History of Treatment of Depression in Primary Care, 1940-2004*, (Oxford, 2005), p. 108; Jill Kirby, *Feeling the Strain*, pp. 176- 177; The roll out of pharmaceuticals in the 1960s and 1970s, and the idea of 'mother's little helper' has also been explored by Ali Haggett, Andrea Tone and Elianne Riska, see Andrea Tone, *The Age of Anxiety: A History of America's Turbulent Affair with Tranquilizers*, (New York, 2009), Elizabeth Ettore, Elianne Riska, *Gendered Moods: Psychotropics and Society*, (London, 1995), Ali Haggett, 'Housewives, Neuroses and the Domestic Environment in Britain, 1945- 70', in Mark Jackson (ed.) *Health and the Modern Home*, (London, 2007)

⁸⁴³ Christopher Callahan and German Berrios, *Reinventing Depression*, p. 37; Ali Haggett, *A History of Male Psychological Disorders*, p. 101

⁸⁴⁴ *Ibid.*, p. 101

By the mid-1970s, members of the British medical and psychiatric profession had begun to accept the view that depression was a ‘pathophysiological disturbance’, tied to various possible aetiological factors, yet ultimately ‘mediated through a final common pathway’.⁸⁴⁵ In the process, they embedded a biomedical understanding of and approach to this disease which remains, in contingent form, with us today. As demonstrated by historians, this new category of depression therefore aligned with a much more broader, more standardised, efficient and rational framework of health, illness and disease, which had emerged as part of an intensification of research in the life sciences, the hunt for novel molecules and a new alliance between biologists and the state’.⁸⁴⁶ By tying depression to biochemical changes in the body, visualised in the questionnaire and treated through medication, this framework (in a similar, yet context-specific way as we observed in Chapter) reaffirmed the status of this category as a ‘physical’ disease, which could be related to specific resources, policies and provision, and thus deployed in the space of general practice.

As these new diagnostic techniques, therapies and theories of causation transformed the category of depression, the links hitherto made with influenza in general practice would also begin to be broken. This contention is reflected in the work of John Fry. We briefly met Fry in the third section of this chapter, based on his recognition of the links between influenza and depression, and his decision to pursue a therapeutic programme of rest and analgesics. By 1974, Fry’s focus was very different. Completely avoiding any reference to the role played by influenza, Fry argued that methods of treating depression should be discerned based on the period of time the condition had lasted, given that many patients would ‘recover without serious difficulties’.⁸⁴⁷ If the depression was not ‘severe’, perhaps judged in part based on scores obtained through a questionnaire but also still based on the insight of the general

⁸⁴⁵ Henry Miller, ‘Depression’, *BMJ*, 1, (1967), p. 262

⁸⁴⁶ Viviane Quirke and Jean-Paul Gaudilliere, ‘The Era of Biomedicine: Science, Medicine, and Public Health in Britain and France after the Second World War’, *Medical History*, 52, (2008), p. 443; The development and application of this model has been explored extensively by Callahan and Berrios, see Christopher Callahan and German Berrios, *Reinventing Depression*, in particular Part 2

⁸⁴⁷ John Fry, *Common Diseases: Their Nature, Incidence and Care*, (Letchworth, 1974), p. 182

practitioner, it remained reasonable to ‘wait for a little while (2-3 weeks) in order to see whether there [was] improvement with support and mild sedatives’ alone.⁸⁴⁸ Antidepressants were only indicated if the patient had a history of previous attacks which had responded well to this therapy, if the depression had ‘been present for some weeks’ without improving, and was characterised by ‘symptoms causing much distress’.⁸⁴⁹ Whilst antidepressants were a useful way of managing long-term chronic care in general practice, Fry acknowledged that for ‘some acute and severely depressed’ patients, it was also often necessary to refer them to a psychiatrist.⁸⁵⁰ By making such a referral, Fry acknowledged that this could act as a ‘therapeutic measure in itself for reassurance and as an alternative source of support in order to arrange ECT [Electroconvulsive Therapy] or arrange admission to hospital.’⁸⁵¹

Whilst Fry thus continued to recognise that there were differences in the types of therapy used to treat patients, this no longer mapped onto differences in causation. Until then, a patient diagnosed with post-influenzal depression would have been treated through a combination of medication, advice and sick pay, provided in different degrees and over varying periods of time, in order to address an aetiologically vague, physiological imbalance which had emerged in the wake of an acute physical disease. In 1974, Fry nonetheless described a very different approach. He argued that depression was now best handled in line with a sliding, chronological scale of treatment: which moved from preliminary informal advice to a prescription of medication (in both cases putting responsibility back with the patient) but also, if this was deemed insufficient, a referral on and out of general practice to formal psychiatric services. This model of treatment was moreover to be applied even if this depression followed upon and therefore seemed related in some way to an acute viral illness: given that this condition, whatever the specific causes, was tied to the same kinds of biochemical change in the brain. Alongside new more statistical modes of diagnosis, the use of this programme of

⁸⁴⁸ *Ibid.*, p. 182

⁸⁴⁹ *Ibid.*, p. 182

⁸⁵⁰ *Ibid.*, p. 182

⁸⁵¹ *Ibid.*, p. 182

treatment in general practice informed a category which could now either be used to position cases at the *acute or chronic* stages of a *mental or physical* disease process, and thus allow them to be fitted into and channelled across the health system. Fixed to more rigid criteria and standards which determined if, how and when diagnosis should be made and specific forms of treatment provided, this category had also become more clearly aligned with the binaries of mental/physical, acute/chronic, therefore resolving political concerns about wasted resources and meeting the needs of the modern NHS.⁸⁵²

Conclusion

To conclude, it is useful to briefly return to where this chapter began: with the links made by C.A.H. Watts between influenza and depression. First established in the mid-1950s as a way to contain and deal with illnesses that came into conflict with the binary concepts used to diagnose and treat illness in the context of general practice, by the time that Watts came to describe the problem of post-influenzal depression in 1974, he did so in the context of a health system which would soon become (or had perhaps already) unable to sustain this category. Watts' continued belief in the existence of this problem perhaps maps onto a personal desire to maintain the unique psychosocial contribution of the general practitioner, which over the course of 1980s and 1990s would nonetheless give way in the face of 'biotechnical models of diseases and treatments', and by goals of efficiency, economy and controls defined by a neoliberal state.⁸⁵³ Without suggesting that the transition between these approaches and the categories sustained by them happened overnight, this chapter has shown how this might be traced back to a series of practical, financial and material problems rooted in the 1950s, and therefore to the foundation and implications of a modern state-funded health system.

⁸⁵² Although there is neither the time nor space to explore this contention in relation to influenza, there might elsewhere be an opportunity to consider if and how a similar process occurred in relation to this category, in line with the adoption of biomedical techniques, approaches and theories.

⁸⁵³ Marshall Marinker, 'What is Wrong' and How We Know It: Changing Concepts of Illness in General Practice', p. 89

In this chapter, we have maintained our focus on a group of persisting illnesses which in context-specific ways failed to fit into, and therefore exposed the enduring binaries which structure the modern British health system. Over the 1950s and 1970s, general practitioners dealt with these cases through developing and containing them within the category of post-influenzal depression. As we have seen, this was an ill-defined condition believed to be characterised by physiological imbalance which followed upon and was perhaps at least in part caused by an acute viral illness, hinging on the unique, psychosocial insight of the general practitioner and therapies that blurred the distinctions between mental/physical, acute/chronic illness. Emerging through and therefore reflecting the consequences of a more integrated progressive healthcare system, we saw this category brought into question in line with a shifting political commitment to providing unlimited access to state-funded mechanisms of support.

By the mid-1970s, general practitioners had become armed with a new set of tools and techniques. With regard to depression, these changes in practice and technique tied cases to aetiologies that could again be classed as mental *or* physical, acute *or* chronic, and to practical decisions which allowed them to be brought within, channelled through and which, most importantly, protected the resources of the NHS and the state. Although it is beyond the scope of this thesis to move much further forward in time, it should be clear that the life cycle of post-influenzal depression had played out, albeit in relation to different categories and contexts and for contingent reasons, many times before. Over the course of the twentieth century British physicians and psychiatrists had repeatedly wrestled with yet contained these kinds of illnesses in categories conceptualised as mental/physical, acute/chronic, thus allowing the modern British health system to function. In the Conclusion to this thesis we shall move more explicitly into the present, exploring how current debates about the relationship between viruses and long-term illness illustrate that these binary structures remain with us today.

Conclusion

Written during a worldwide outbreak of an acute, viral disease which has left a trail of long-term illnesses in its wake, this thesis has told a story where the past bleeds into the present. Such analysis has provided a history which is intended to help us understand why we still live today with a health system which views illness as *either* mental *or* physical, acute *or* chronic, showing that this should be traced back to material, bureaucratic and administrative concerns rather than vague Cartesian philosophy.⁸⁵⁴ Without obscuring their contingent functions and meanings, as we have seen these binary concepts have been in place and thus structured the modern British health system since the early twentieth century. Paying attention to an extended period of time, moving across different contexts and therefore different provisions and services, this thesis has maintained focus on illnesses which persisted after an acute viral event, came into conflict, and yet were ultimately realigned with these binaries through new aetiologies and categories.

With the exception of those associated with EL, these categories functioned within and were sustained as long as they aligned with an enduring need to use a limited set of material and financial resources in the most efficient, rational way possible. All beginning from moments where the distinctions between mental/physical, acute/chronic were challenged or blurred, each chapter ultimately witnessed a gradual return to these binaries, for reasons that were context-specific yet practical, administrative, and political and understood as necessary to allow the modern British health system to function. In this conclusion, we shall briefly consider if and how this framework maps onto what might be usefully viewed as the most recent iteration of these context-specific yet recurring conflicts, generated by the emergence of long-term illnesses linked to COVID-19 in a health system still reliant on binaries.

⁸⁵⁴ As acknowledged in the Introduction, this philosophy relates to a binary, mind/body distinction rooted in the work of Rene Descartes.

Following an infection with COVID-19, it had become clear by mid-2020 that many people across Britain had begun to present persisting illnesses, ranging from breathlessness, fatigue, brain fog, to muscle and body aches, skin rashes, anxiety, and depression. From the outset, the aetiology of these illnesses was unclear, attributed by some to a virus which lingered in and continued to cause physical changes to the body, or to a psychiatric condition such as depression, anxiety, or post-traumatic stress disorder.⁸⁵⁵ Primarily through the efforts of patients, these illnesses began to be grouped and defined as Long Covid. This terminology was deliberate: forging a clear connection with the physical presence and action of a virus in the body even with a negative test result, side-stepping the markers of ‘post’ or ‘chronic’, and therefore visualising ‘suffering that might otherwise have languished in the shadow[s]’.⁸⁵⁶ As with the categories explored across this thesis, Long Covid might therefore be understood to contain illnesses that have come into conflict with the conceptual structures of the health system.

Broadly understood as a result of physical, bodily changes following a viral infection which *might* have ended, over the last two years Long Covid has gradually become connected to and *sustained by* a specific set of institutional provisions and material resources. In October 2020 chief NHS executive Simon Stevens announced an investment of £10 million over that year to ‘kick start and designate long covid clinics in every area across England’ and complement existing forms of care in the community.⁸⁵⁷ Accessed primarily through a referral from a general practitioner, these clinics ‘provide *joined up care for physical and mental health*’ through assessments of every patient, which are intended to draw focus towards an existing respiratory or cardiac condition, or perhaps towards a problem which was now related to sleep, movement or mental health.⁸⁵⁸ As demand for these services rose, in July 2022 the NHS

⁸⁵⁵ Michael J. Peluso, Steven G. Deeks, ‘Early Clues Regarding the Pathogenesis of Long Covid’, *Trends in Immunology*, 43, (2022), pp. 268-270; B.D. Kelly, G. Gulati, ‘Long Covid: The Elephant in the Room’, *QJM*, 115, (2022), pp. 5-6

⁸⁵⁶ Felicity Callard, ‘Epidemic Time’, p. 735

⁸⁵⁷ ‘NHS to offer ‘Long Covid’ sufferers help at specialist centres’, 7th October 2020, <https://www.england.nhs.uk/2020/10/nhs-to-offer-long-covid-help/>, [accessed 1st September 2022]

⁸⁵⁸ *Ibid.*

set out an updated action plan, which would invest a further £90 million to supplement an existing of specialist Long Covid clinics and hubs for children and young people, and also support training and guidance to help general practitioners manage this condition.⁸⁵⁹ Through establishing a holding space in which to provide integrated, ‘holistic’ assessments, these Long Covid clinics are serving a specific function: allowing patients to be sorted, separated out and then referred onto more specialist mental *or* physical, acute *or* chronic services, and into a system structured by binaries. Through analysing illnesses which persisted following an acute, physical, viral event, this thesis has traced similar, yet context-specific processes, mapped them onto financial, bureaucratic, administrative, or legal concerns, and shown how they informed categories which could be used to make efficient, rational decisions and meet the needs of a comprehensive yet often ill-resourced health system.

Acknowledging these parallels allows us to draw several conclusions. If we want to critique any injustices faced by patients diagnosed with Long Covid going forward, but also those living with other, long-term virus-related conditions such as ME/CFS, our focus needs to be practical, rather than theoretical. Rather than seeking to reframe these illnesses in ways that reaffirm the binary distinctions between mental *or* physical, acute *or* chronic, we might want to focus on contextualising the functions of these concepts, on understanding why they exist and what they are used *to do* in the first place. Although it might be tempting to criticise the tendency of clinicians to reduce and define illnesses in binary terms, it is also important to appreciate that they are working within a health system which remains structured along these lines, and has recently informed calls for ‘parity of esteem’ and different approaches to chronic illness.

Mentioned in the Coalition’s mental health strategy in 2011, Prime Minister Theresa May claimed that her government had finally achieved parity of esteem between mental and

⁸⁵⁹ ‘NHS sets out Long Covid action plan for thousands of people with persistent symptom’, 28 July 2022, <https://www.england.nhs.uk/2022/07/nhs-sets-out-long-covid-action-plan-for-thousands-of-people-with-persistent-symptom/>, [accessed 1st September 2022]

physical illness in 2017.⁸⁶⁰ Almost immediately debunked as political rhetoric, the emptiness of this claim has also been brought into focus more recently. Despite initial optimism about a government commitment to mental health and therefore achieving parity with physical, in 2022 the President of the Royal College of Psychiatrists Adrian James highlighted how the overall proportion of the NHS budget devoted to mental health had fallen for a third year running. Focus instead remained on ‘one off investments’, which merely acted as a ‘short-term sticking plaster’ for the rise in demand due to the pandemic.⁸⁶¹ Those who rely on the NHS to receive care and support for chronic illness have also highlighted similar inequalities and injustices. These have been related to the patchy geographic distribution of services, to medical programmes which ignore the non-linear nature of ‘crip time’ to focus instead on readjusting people to meet the demands of the ‘fast-moving neoliberal workplace’, and of welfare reforms which view ‘certain types of illness or disability [as] less deserving of unconditional public support than others’ (also often reinforcing the lack of parity between mental and physical).⁸⁶²

In the coming months and years, as cases of Long Covid will be referred across this ‘fragmented health system and care environment, focused on symptoms and specialties’, and characterised by stark inequalities due to a neoliberal focus on ‘market structures... increased individualism, and curbing of public spending’, we might also expect to see the illnesses associated with this condition start to shift and break apart, instead becoming tied to distinct

⁸⁶⁰ HM Government, *No Health Without Mental Health: A Cross-Government Mental Health Outcomes Strategy for People of All Ages*, (London, 2011)

⁸⁶¹ Adrian James, ‘Why Has Mental Health Been Forgotten in the Government’s Recovery Plans?’, *Royal College of Psychiatrists*, 376, (2022), p. 585

⁸⁶² Emma Sheppard, ‘Performing Normal But Becoming Crip: Living with Chronic Pain’, *Scandinavian Journal of Disability Research*, 22.1, (2020), p. 43; Ellen Samuels, ‘Six Ways of Looking at Crip Time’, *Disability Studies Quarterly*, 37, (2013); Clare Bamba and Katherine E. Smith, ‘No Longer Deserving? Sickness Benefit Reform and the Politics of (Ill) Health’, *Critical Public Health*, 20, (2010), pp. 71-83; ‘Crip time’ is a concept increasingly used by people living with chronic illness and disability to describe how they experience time, thus referring for example to their need for more or extra time to rest, to move, to think or to do daily tasks. It is a way of showing how their needs are often not met by modern health systems, workplaces, schools, or society more broadly; The idea that current approaches to chronic illness are decidedly neoliberal is pervasive amongst scholars working in Disability Studies, see for example Magrit Shildrik, ‘living on; not getting better’, *Feminist Review*, 111, (2015), pp. 10-24, also J.K. Puar, ‘Coda: The Cost of Getting Better: Suicide, Sensation, Switchpoints’, *GLQ: A Journal of Lesbian and Gay Studies*, 18, (2012), pp. 149-158

mental *or* physical, acute *or* chronic aetiologies.⁸⁶³ In 2022, there are some signs that this process is already taking place, borne out in policy recommendations which subtly collapse illnesses previously diagnosed as ‘*Long Covid*’ into the problem of ‘*Post Covid*’: a category with distinct causal and temporal connotations, and therefore practical implications.⁸⁶⁴ All of this, it should by now be clear, is guided by and can therefore be traced back to the enduring binary structures of the modern British health system.

Since the beginning of the twentieth century, our health system has been structured in line with the binary concepts of mental/physical, acute/chronic. Developing diagnostic categories which align with these concepts has allowed medical professionals to allocate medical care and treatment or financial support, channel cases towards relevant services, but perhaps most importantly has enabled this health system to function. As we have seen, these concepts should be understood as shaped and sustained by ‘complex- and very particular’ administrative, financial, bureaucratic, and political, rather than philosophical, ontological or epistemological configurations, in order to meet the needs of an increasingly comprehensive, yet often inadequately equipped modern health system.⁸⁶⁵ By providing an account of the past which is happening in and inseparable from the present, this thesis has aimed to make ‘visible the premises upon which the organising categories’ of our world and our identities have been built, and therefore to offer some tools to begin to subject them to review and critique.⁸⁶⁶ This thesis has therefore hoped to shed light on, but also provide the analytical framework to better understand why the modern British health system became and still remains structured

⁸⁶³ David R. Thompson, Hiyam Al-Jabr, Karen Windle, Chantal F. Ski, ‘Long Covid: Supporting People Through The Quagmire’, *British Journal of General Practice*, 71, (2021), p. 561; Kate Bayliss, ‘Can England’s National Health System Reforms Overcome the Neoliberal Legacy?’, *International Journal of Health Services*, 52, (2022), p. 481

⁸⁶⁴ National Institute for Health and Care Excellence, Scottish Intercollegiate Guidelines Network and Royal College of General Practitioners, *COVID-19 Rapid Guideline: Managing the Long-Term Effects of COVID-19*, (2022), p. 5

⁸⁶⁵ Felicity Callard, ‘Psychiatric Diagnosis: The Indispensability of Ambivalence’, *Journal of Medical Ethics*, 40, (2014)

⁸⁶⁶ Joan Scott, ‘History-Writing as Critique’, in Keith Jenkins, Sue Morgan, Alun Munslow, (eds), *Manifestos for History*, (Abingdon, 2007), pp. 34-35

according to the binaries of mental/physical, acute/chronic, and therefore in the 'process, ha[s] transformed our world'.⁸⁶⁷

⁸⁶⁷ Rhodri Hayward, 'Medicine and the Mind', p. 525
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