

‘Under official and expert discussion’: An examination of the social status of expert scientists in Britain through a study of media portrayals of the benzodiazepines crisis, 1960- 1990

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Introduction

This article examines the social standing of research scientists in late twentieth-century Britain through an analysis of the contributions of one “expert scientist”, Professor Malcolm Lader, an eminent scholar of anxiety and addiction and one of the most important authorities on benzodiazepines, to two television programmes about tranquilliser dependence in the 1980s. The controversy surrounding tranquilliser addiction was a key issue in twentieth-century British medical history and, crucially, one of the major cases of the late-twentieth-century “challenge from below” in the form of patient self-help and pressure groups seen, for instance, in the AIDS movement. In this context, analysing the contributions of a traditional expert to media portrayals of tranquilliser addiction allows for a fruitful assessment of the status of medical expertise during the period while also illuminating the role of television in popular discourse about medicine in late-twentieth-century Britain.

There has been much debate by distinguished sociologists and media scholars about the importance of expertise in society in general, and the relationship between expert scientists and the media specifically. These debates will be examined in greater detail below, but most scholars argue either that lay regard for medical expertise

remains deeply entrenched in society or, conversely, that there has been a significant decline in respect for experts, including scientists, in Britain. Scholars studying the benzodiazepines controversy have also stressed the decline in patient confidence in general practitioners (GPs) that accompanied the unfolding crisis, concluding that lay regard for medical expertise was in serious jeopardy. This article aims to test such views with reference to Professor Lader's contributions to two previously unexamined episodes of a former ITV current affairs programme, *TV EYE*, in 1980. Jonathan Gabe and Michael Bury, two medical sociologists who have examined the benzodiazepines controversy in great detail, have argued that the media played a crucial role in fuelling concern about benzodiazepine addiction, and have noted the importance of expert contributions to television programmes on this particular issue. Thus, by focussing on expertise in the context of media portrayals of the benzodiazepines controversy, the article is able to draw on a rich source-base.

The article will proceed in two sections. After a brief overview of the emergence of the modern pharmaceutical industry, which will highlight the social significance of tranquilliser use and dependence, the first section will examine the benzodiazepines controversy and its portrayal in the media, drawing on the work of Gabe and Bury, to contextualise the following case study. The second section will then present a case study of Professor Malcolm Lader's contributions to two 1980 episodes of *TV EYE*, to date not examined in the mainstream scholarship, on the dangers of benzodiazepines with a view to assessing his role as the main medical expert in this crisis. Lader's involvement in the benzodiazepines controversy and the media will be outlined, drawing partly on an oral history interview with Professor Lader conducted by the author, which is a valuable addition to more conventional sources. The section will then present a two-fold analysis of Lader's role in the two episodes of *TV EYE* under consideration: firstly, a timeline of both programmes will be presented to contextualise his contributions and relate them to the messages conveyed in both episodes; and secondly, Lader's verbal and visual portrayal will be analysed with a view to assessing how his status as an expert scientist was conveyed by the programme's makers. The section shows that Lader's contributions were a crucial aspect of the programmes under consideration.

The article argues that, while there has been a clear change in the social standing of expert authority in the late twentieth century, as noted for instance by Anthony Giddens, the continuing importance and status of scientific experts is evident in Lader's contributions to media portrayals of the benzodiazepine controversy. The findings presented in section 2 highlight Lader's elevated social standing and the credibility his contributions conferred onto the programmes. The article adds to the literature by highlighting the need to distinguish between scientists as medical experts, i.e. university-based researchers with little or no patient interaction, and GPs and other health-care professionals in assessments of the social standing of medical expertise in society. As noted above, several scholars have presented arguments about the social standing of medical expertise, with Gabe and Bury focussing specifically on the benzodiazepines controversy. These writers have, however, generally either failed to distinguish between GPs and research-oriented scientists altogether, or tenuously linked a discussion of the latter with the former. In the context of this article, a conscious decision was made to focus on scientists who, by virtue of the research expertise, were perceived as experts on benzodiazepines, and the term "expert scientists" is used to distinguish these from "medical experts", a term generally used to refer to scientists as well as GPs.

Conflating scientists and GPs under this heading is inappropriate, particularly when examining the benzodiazepines crisis. Firstly because the earliest concerns about benzodiazepines in the 1970s focussed on over-prescription, and GPs were attacked for their role in bringing about the crisis in this sense almost consistently throughout the period. Thus, examining lay regard for medical professionals using this particular case study will naturally yield extremely negative and arguably atypical results concerning attitudes towards GPs. Secondly, the doctor-patient relationship is an extremely complex social institution that has generated vast amounts of scholarly debate. To name but one complicating factor, lay regard for doctors has traditionally been an extremely complex issue depending not only on general regard for medical expertise, but also interpersonal and micro-social factors, such as the likeability of a local doctor or the non-mainstream therapeutic beliefs held by a particular

patient.¹ In this sense, failing to distinguish between lay regard for medical expertise in general, as associated with research scientists, and lay attitudes towards – effectively – individual doctors and their therapeutic methods, is both inconvenient, as it complicates the topic unnecessarily, and inappropriate. The decision was thus made to define medical experts as scientists focussed on research with little or no patient interaction. In this way, the article provides a new perspective on an important aspect of both the tranquilliser controversy and the status of expertise in late-twentieth-century Britain.

I. Media health reporting and the benzodiazepines controversy: an overview

The benzodiazepines controversy was an important medico-social problem in twentieth-century Britain, and certainly one of the most crucial cases of iatrogenic, i.e. medicine-induced, addiction in recent history, and is thus well-suited to an examination of the status of medical expertise in society. To appreciate its full significance, it is necessary to grasp the immense social significance of benzodiazepines even before the emergence of concerns. Valium in particular was, in the words of David Herzberg, ‘the public face of psychopharmacology’ and the emerging crisis meant that in the 1980s the cultural power of the discipline, which had grown immensely throughout the twentieth century, was seriously weakened.² Furthermore, the controversy surrounding benzodiazepine over-prescription and dependence was an issue on the fringes between legitimacy and illegitimacy. The relationship between societal attitudes towards recreational drug use and the benzodiazepines controversy are particularly interesting because, as Herzberg notes, Valium was a ‘quintessentially middle-class medicine’ prescribed by reputable doctors to reputable patients.³ This was further complicated by the fact that these pills were prescribed in a therapeutic context, causing much anxiety about the status of modern medicine.⁴ Thus,

¹ Edward Shorter, *Doctors and Their Patients. A Social History*, (New Brunswick and London, 1993).

² David Herzberg, *Happy Pills in America*, (Baltimore, 2009) p. 149.

³ Herzberg, *Happy Pills in America*, p. 123.

⁴ Jonathan Gabe and Michael Bury, ‘Anxious Times: The Benzodiazepine Controversy and the Fracturing of Expert Authority’, in Peter Davis (ed.), *Contested Ground. Public Purpose and Private Interest in the Regulation of Prescription Drugs*, (New York and Oxford, 1996), p. 42; Michael Bury, ‘Caveat

tranquillisers allow an examination of ‘the complex interaction between medical innovation and [society]’.⁵ This section will begin with a brief overview of the history of the benzodiazepines, situated in the emergence of the modern pharmaceutical industry, before offering a summary of the portrayal of tranquilliser dependence in the media, drawing on Gabe and Bury’s work, to contextualise the following analysis.

The changes that took place in European and American health-care after the late nineteenth century transformed it almost beyond recognition. In the early nineteenth-century, European and American doctors were not licensed and did not receive training in science as part of their education, and patients largely turned to patent medicines, whose ingredients were not regulated and which were peddled by salesmen from door to door.⁶ David Healy notes that, until the last decade of the nineteenth century, the concept of a specific remedy for a specific illness was ‘tantamount to quackery’.⁷ This only changed with the rise of bacteriology and Louis Pasteur’s discovery of an antitoxin for diphtheria, which had ravaged populations for centuries, giving rise to a radically transformed modern medicine.⁸ This ability to identify the causes of diseases which, due to their deadly potential, were culturally extremely significant and the emergence of pharmacological cures for these led to a substantial rise in prestige for the medical profession during the early twentieth century.⁹

Furthermore, with the emergence of the organic chemical industry in the nineteenth century, which allowed the synthesis of increasingly complex molecules, the patent medicine industry declined and was replaced by a wide range of therapeutically efficient

vendor: social dimensions of a medical controversy, in David Healy and Declan P. Doogan (eds.), *Psychotropic Drug Development. Social, economic and pharmacological aspects*, (Anstey, 1996), p. 41.

⁵ Mickey C. Smith, *Small Comfort. A History of the Minor Tranquillisers*, (New York, 1985), p. 3.

⁶ David Healy, *Pharmageddon*, (Berkeley, 2012), p. 22

⁷ David Healy, *The Antidepressant Era*, (Cambridge, MA and London, 2003), p. 10.

⁸ Allan M. Brandt and Martha Gardner, ‘The Golden Age of Medicine?’, in Roger Cooter and John Pickstone, *Companion to Medicine in the Twentieth Century*, (London and New York, 2003), p. 21; Healy, *Pharmageddon*, p. 25; David Healy, *Psychiatric Drugs Explained*, (5th edn, Edinburgh, 2009), p. 287.

⁹ Brandt and Gardner, ‘The Golden Age of Medicine?’, p. 21; for cultural significance of disease see Susan Sontag, *Illness as Metaphor and AIDS and Its Metaphors*, (New York, 1989).

compounds, sold by increasingly profit-driven pharmaceutical companies.¹⁰ Innovation gathered pace and the research expenditure necessary to profit from new drug discoveries and stay in business increased accordingly as progress became increasingly expensive, risky and difficult.¹¹ This led to a situation where the focus of pharmaceutical research increasingly shifted from the cure of diseases that actively threatened life towards chronic disease management. Healy argues that this has led to patients viewing their bodies as ‘a series of behaviours to be managed by drug use’ in a bio-secular environment where moods were increasingly thought of in terms of brain chemistry and neurotransmitters.¹² The advent of increasingly marketable sedatives further reinforced this notion and the tranquilliser market advanced quickly in the first half of the twentieth century, with the opiates of the nineteenth century being surpassed by bromides, barbiturates and finally Miltown (meprobamate) in the 1950s, which became the first blockbuster drug, paving the way for the enormous commercial success of the benzodiazepines.¹³ The social significance of benzodiazepine tranquillisers should be seen in this context.

The emergence of concerns surrounding the benzodiazepines

The first benzodiazepine, Librium (chlordiazepoxide), was released in 1960, followed by Valium (diazepam) in 1963. Both were accepted as safer and more effective alternatives of the barbiturates and meprobamate and received an enthusiastic welcome from the medical profession.¹⁴ In the words of Gabe and Bury, ‘scientific breakthroughs and treatment regimens seemed to herald a new era for

¹⁰ Malcolm Lader, ‘The rise and fall of the benzodiazepines’, in David Healy and Declan P. Doogan (eds.), *Psychotropic Drug Development. Social, economic and pharmacological aspects*, (Anstey, 1996), p. 59.

¹¹ Michael H. Cooper, *Prices and Profits in the Pharmaceutical Industry*, (Oxford, 1966), p. 6.

¹² Healy, *Pharmageddon*, p. 5.

¹³ Healy, *Let Them Eat Prozac*, (Toronto, 2003), p. 26; Lader, ‘The rise and fall of the benzodiazepines’, p. 43; Healy, *Psychiatric Drugs Explained*, p. 149; Gabe and Bury, ‘Anxious Times’, p. 43.

¹⁴ Jonathan Gabe and Paul Williams, ‘Tranquilliser use: a historical perspective’, in Jonathan Gabe and Paul Williams, *Tranquillisers. Social, Psychological, and Clinical Perspectives*, (London and New York, 1986), p. 9; Lader, ‘The rise and fall of the benzodiazepines’, p. 60.

both doctors and patients.’¹⁵ Prescribing increased rapidly; various scholars have noted that between 1965 and 1970 prescriptions for benzodiazepine tranquillisers rose by 110 per cent, compared with 145 for *all* non-barbiturate hypnotics and a mere 9 per cent for all psychotropic drugs.¹⁶ In 1965, less than 5 million prescriptions for the three main benzodiazepines, Librium, Valium and the hypnotic Mogadon, were dispensed in English and Welsh retail pharmacies; this had increased to 12.5 million by 1970 before peaking at 31 million in 1979.¹⁷ Thus, Librium and Valium became household names and, in the words of Healy, the 1960s were ‘a world in which Librium and Valium were kings’.¹⁸

It was only during the 1970s that disquiet about the extremely widespread, long-term use of benzodiazepines emerged and their effectiveness, safety, dependence potential, and social implications were questioned by social scientists and psychiatrists.¹⁹ Feminists argued that unhappy housewives should be liberated from their patriarchal shackles rather than tranquillised, and concerns about their use for non-medical disorders emerged in terms of their use as “chemical crutches”.²⁰ Anxiety about the state of modern medicine also arose as tensions between the role played by doctors and the role they were trained for became apparent. Healy argues that, in the absence of other outlets, unhappy patients sought medical advice and comfort, and doctors, trained to treat illness in a predominantly physical way, prescribed tranquillisers with their apparently broad therapeutic remit.²¹ Helen Roberts concurs, writing that the rapid rise in benzodiazepine prescription may be explained by doctors’ considerable freedom to prescribe, the pressure they felt from patients and pharmaceutical companies and the fact that they were trained to

¹⁵ Jonathan Gabe and Michael Bury, ‘Tranquillisers and Health Care in Crisis’, *Social Science & Medicine*, Vol. 32 (1991), p. 449.

¹⁶ Ibid.; Helen Roberts, *The Patient Patients*, (London, 1985), p. 69.

¹⁷ Gabe and Bury, ‘Tranquillisers and Health Care in Crisis’, p. 449; Bury, ‘*Caveat venditor*’, p. 44.

¹⁸ Healy, *Let Them Eat Prozac*, p. 28; Healy, *The Antidepressant Era*, p. 76.

¹⁹ Lader, ‘Benzodiazepines – The Opium of the Masses?’, *Neuroscience*, Vol. 3 (1978), p. 163.

²⁰ Simon Williams, et al., ‘The sociology of pharmaceuticals: progress and prospects’, in Simon J. Williams, et al., *Pharmaceuticals and Society. Critical Discourses and Debates*, (Chichester, 2009), p. 3.

²¹ Healy, *Let Them Eat Prozac*, p. 48.

expect an active role in the management of illness.²² This gave rise to concerns about the suitability of tranquillisers for long-term treatment, which ultimately led to examinations of their dependence potential.

More importantly, the widespread and long-term use of benzodiazepines alarmed a core group of expert scientists, including Malcolm Lader, Peter Tyrer and Heather Ashton, and it was ultimately their work that brought this issue widespread attention.²³ Despite the fact that it had been recognised almost since their discovery that benzodiazepines had the potential to induce dependence, this was only beginning to be recognised as a significant issue in the early 1980s.²⁴ Tyrer and Lader both published articles in 1974 and 1978, respectively, considering that long-term tranquilliser use could indicate that demand was led by patients dependent on the drugs, and both published studies in 1981 suggesting that withdrawal could occur in therapeutic doses in about one-third of long-term users.²⁵ These studies established the existence of a “withdrawal syndrome”, largely characterised by anxiety, tension, agitation and shakiness, as well as perceptual changes involving paranoia, hallucinations and intolerance of loud noise and bright lights.²⁶ Tyrer’s studies suggested further that between 27 and 45 per cent of long-term users may be dependent, which amounted to around 1.2 million people in Britain.²⁷ Thus, the mainstream view of benzodiazepines changed from one of extreme

²² Roberts, *The Patient Patients*, p. 69.

²³ Gabe and Bury, ‘Anxious Times’, p. 45; Healy, *The Creation of Psychopharmacology*, (Boston, MA, 2002); David Healy, *The Psychopharmacologists. Interviews by David Healy*, (2nd edn, London, 2002), p. 473.

²⁴ For earliest concern see L. E. Hollister et al., ‘Withdrawal reactions from chlordiazepoxide (“Librium”)’, *Psychopharmacology*, Vol. 2 (1961), pp. 63-68; for examples of early warnings see: Peter Tyrer, et al., ‘Gradual Withdrawal of Diazepam After Long-Term Therapy’, *Lancet*, Vol. 321 (1983), pp. 1402-1406; Hannes Petursson and Malcolm Lader, ‘Withdrawal from long-term benzodiazepine treatment’, *BMJ*, Vol. 283 (1981), pp. 643-645.

²⁵ Lader, ‘The rise and fall of the benzodiazepines’, p. 63; Hannes Petursson and Malcolm Lader, ‘Withdrawal from long-term benzodiazepine treatment’, *BMJ*, Vol. 283 (1981), p. 643.

²⁶ Jonathan Gabe and Michael Bury, ‘Tranquillisers as a social problem’, *The Sociological Review*, Vol. 36 (1988), p. 328.

²⁷ Bury, ‘Caveat venditor’, p. 46.

safety to them being ‘one of the greatest menaces in peace time’ and Lader suggested that there was ‘an epidemic in the making’.²⁸

Benzodiazepines in the media

Finally, the portrayal of benzodiazepine dependence in the media will briefly be examined to contextualise the following primary source analysis. Gabe and Bury have presented a number of sophisticated models for the emergence of the controversy about tranquilliser use in their extensive work on the topic. They have noted, in particular, the importance of clear, scientific evidence of dependence, the status and strategies of claims-makers, and the role of the media in providing a platform for these claims to be aired.²⁹ They note that a few scientists became media personalities, particularly Malcolm Lader, who was established as ‘the “resident expert”’, and have provided an important component to news and current affairs programmes in particular.³⁰ In their view, expert contributions were one of three major components of the television programmes under consideration, complementing individual anecdotes of dependence, usually viewers’ or listeners’, and programme makers’ own assessments of the problem.³¹ In addition, drawing on the work of John Fiske, Gabe and Bury have argued that a crucial aspect of the media’s contribution to the development of the controversy was its creation and structuring of meanings surrounding tranquilliser use into recognisable images and cultural narratives.³² This work will be discussed further in the context of the case study in the next section. They argue that tranquilliser dependence exemplified many of the issues, such as the commodification of medicine and the chemical management of the body, at stake in British medicine at the time in complex ways, and that television thus played a key role as a socio-cultural mediator, imposing order and meaning onto this socially ambiguous problem.³³

²⁸ David Healy and Declan P. Doogan, ‘Introduction’, in David Healy and Declan P. Doogan, *Psychotropic Drug Development. Social, economic and pharmacological aspects*, (Anstey, 1996), p. xi.

²⁹ Jonathan Gabe and Michael Bury, ‘Halcion Nights: A Sociological Account of a Medical Controversy’, *Sociology*, Vol. 30 (1996), p. 447; Gabe and Bury, ‘Tranquillisers as a social problem’, p. 325.

³⁰ Gabe and Bury, ‘Tranquillisers as a social problem’, p. 331-337.

³¹ *Ibid.*, p. 333.

³² Bury, ‘*Caveat venditor*’, p. 50.

³³ *Ibid.*, p. 90.

II. Case study of an expert scientist: Professor Malcolm Lader's contributions to *TV EYE*

At this stage, it is necessary to briefly situate the following case study in the major historical and sociological literature on medical expertise. As noted above, most writers have conflated public regard for scientific and medical expertise with attitudes towards individual doctors, and there have been various rather pessimistic accounts, stressing the monolithic status and power of medical professionals in Britain. Anne Karpf's predictions about medicine's continuing power to 'amaze and spellbind us' indicate a strong belief in the longevity of the appeal of medical expertise.³⁴ She has argued that medical experts retain 'enormous authority' vis-à-vis the media and criticises the widespread view that both groups are largely subjected to "trial by media", arguing that this perception is due to the inordinate respect commanded by this group.³⁵ In contrast, Gabe and Bury have argued that the controversy surrounding benzodiazepine dependence is symptomatic of 'a more general crisis of legitimacy in the efficacy of medical treatments and trust in medical authority.'³⁶ They argue further that divisions between hospital-based scientists and GPs are indicative of a process of expert knowledge becoming 'chronically contestable' and that the medical profession is no longer a 'protected species', particularly with regard to the media, reflecting a major shift in popular perceptions of medical authority.³⁷ Nonetheless, they recognise that medical experts – presumably the group referred to here as expert scientists – have played an important role in the development of the benzodiazepines controversy through their claims-making activities.³⁸ Finally, and perhaps most interestingly, Anthony Giddens has reflected on the changing status of expertise in what he has termed "high modernity". He has argued that the "disembedding" mechanisms of modernity, furthered by globalisation, have propelled social life away from the hold of pre-established practices and customs, and mediated experience has further served to highlight the increasing pluralism of choice in terms of lifestyles and

³⁴ Anne Karpf, *Doctoring the Media. The Reporting of Health and Medicine*, (London, 1988), p. 236.

³⁵ Anne Karpf, 'Medicine and the Media', *BMJ*, Vol. 296 (1988), p. 1389.

³⁶ Gabe and Bury, 'Anxious Times', p. 42; Gabe and Bury, 'Halcion Nights', p. 448.

³⁷ *Ibid.*, p. 464.

³⁸ *Ibid.*, p. 53.

beliefs.³⁹ However, he argues further that the reflexivity of modernity does not create greater certainty, but instead greater doubt, and disembedding and globalisation have also given rise to new risks, for instance the global, profit-driven pharmaceutical industry, which has increased lay reliance on expert knowledge.⁴⁰ Kenneth Tucker notes that this process is cyclical, with doubt and man-made disasters necessitating ever-more specialised expertise.⁴¹ Thus, despite the increase in lay dependence on expertise that Giddens argues for, expertise is less dependable, creating uncertainty and doubt in a world of multiple authorities.⁴²

With reference to the media, Anne Karpf has argued that doctors and other medical professionals have retained more control over reporting than almost any other social group, and are accorded certain unique privileges, for instance the right to re-record interviews.⁴³ Despite recognising the enduring cultural authority of medical professionals, both vis-à-vis the media and in society in general, her account is simplistic and fails to take more critical media portrayals seen particularly during the 1980s into account. Indeed, an examination of media portrayals of medical issues and professionals in the second half of the twentieth century indicates a definite ambivalence towards these, if not a greater willingness to point out flaws. Clive Seale, for instance, has noted that non-fictional portrayals of scientific activity generally adopted a critical tone, stressing ‘monstrous’ creations like tampons and their alleged propensity to induce toxic shock syndrome.⁴⁴

This trend is also evident in the imagery used and the latent meanings conveyed by news and current affairs programmes about benzodiazepines. As part of their analysis, Gabe and Bury make use of John Fiske’s approach to “reading television”, employing various stylistic and symbolic analytical tools to analyse television narratives

³⁹ Shorter, *Doctors and Their Patients*, p. 20.

⁴⁰ Anthony Giddens, *Modernity and Self-Identity. Self and Society in the Late Modern Age*, (Cambridge, 1991); Kenneth Tucker, *Anthony Giddens and Modern Social Theory*, (London, 1998), p. 145.

⁴¹ Tucker, *Anthony Giddens and Modern Social Theory*, p. 146.

⁴² Anthony Giddens and Christopher Pierson, *Conversations with Anthony Giddens: Making Sense of Modernity*, (Cambridge, 1998), p. 111; Tucker, *Anthony Giddens and Modern Social Theory*, p. 146.

⁴³ Karpf, ‘Medicine and the Media’, p. 1389.

⁴⁴ *Ibid.*, p. 89.

and myths. They argue that the images, narratives, and myths under consideration appear to have played a significant role in further heightening concern. Specifically, they have examined the portrayal of patients and pills: while patients were generally portrayed as “ordinary people”, usually women in distress, which was often directly attributed to individual GPs or pharmaceutical companies, the drugs themselves were portrayed as innocuous in appearance but clearly associated with addiction through the use of sequences describing or showing addiction or withdrawal.⁴⁵ *Brass Tacks*, for instance, opened with a view of a benzodiazepine addict filling a syringe with blue Ativan solution.⁴⁶ The portrayal of the blue, i.e. unnatural, solution being drawn into a syringe, a potent symbol of illicit drug use in the late twentieth century, clearly links benzodiazepine addiction with a more menacing narrative of drug use and addiction. Through the use of these images, they argue, the media were able to convey myths; for example, about the villainous pharmaceutical industry, about tranquilliser use, situated in accepted socio-cultural narratives.⁴⁷ This function of the media will be explored further in the context of the following case study.

Thus, contrary to Karpf’s assertions, this case study indicates a weakening of medical power – both of GPs and scientists – over media agendas, which appeared increasingly concerned with the welfare of viewers. However, despite these developments, this section will also show that *individual* scientists still played an important role in legitimating concern about tranquilliser dependence and as sources of official information in television programmes on the topic, as noted by Gabe and Bury. Crucially, the article aims to show that tensions between expert scientists and GPs were not symptomatic of a decline in expert authority as these groups, and their social standing, differed in important ways. Thus, it is argued that, while sociological assessments of medical dominance need to take the more dynamic and pluralistic nature of the British health care market into account, expert scientists remained important sources of health information in the period.

⁴⁵ Michael Bury and Jonathan Gabe, ‘Hooked? Media Responses to Tranquilliser Dependence’, in Abbott, Pamela and Geoff Payne, *New Directions in the Sociology of Health*, (London, 1990), p. 95.

⁴⁶ Bury and Gabe, ‘Hooked?’, p. 102.

⁴⁷ *Ibid.*, p. 95.

Malcolm Lader and *TV EYE*: a qualitative analysis

As discussed, television has an important role in society in the mediation of social reality and the creation and discussion of cultural meanings. Fiske and Hartley write that it offers, for instance, an ‘accurate symbolic representation of the esteem with which a society like ours regards such positions and the people who hold them.’⁴⁸ This section will analyse Professor Malcolm Lader’s role as a scientific expert in two episodes of the weekly ITV current affairs programme *TV EYE*: ‘What Price Tranquillity?’ (21 February 1980) and ‘Tranquillisers – The Second Warning’ (27 March 1980). The analysis will proceed in two sections: first, through a timeline of both programmes, his contribution will be assessed with reference to the programmes’ general messages and other actors; and second, Lader’s visual and verbal portrayal will be analysed semiotically.

Gabe and Bury have noted that the programmes on tranquillisers they examined were largely structured around three main components: individual anecdotes of dependence, usually by viewers; statements by experts; and the programme makers’ own assessments of the problem.⁴⁹ They argue that addiction cases are generally situated at the beginning of the episode to generate interest, and interspersed throughout the programme to stress the intensity of the problem.⁵⁰ Thus, individual addicts, usually female, are portrayed as victims of a menacing force beyond their control while tranquillisers are portrayed as unquestionably threatening, and GPs and pharmaceutical companies are cast as villains.⁵¹ As noted above, these messages are reinforced by expert statements and the commentary of the programmes’ presenters.

Indeed, ‘What Price Tranquillity?’ conforms to Gabe and Bury’s model, operating in three broad sections. The programme begins and closes with the case of Barbara Gordon, a well-known US film producer, and her addiction to Valium and struggle with withdrawal. The clips of her emotional testimony are interspersed with images and

⁴⁸ Fiske and Hartley, *Reading Television*, (London and New York, 2003), p. 11.

⁴⁹ Gabe and Bury, ‘Tranquilliser use as a social problem’, p. 333.

⁵⁰ *Ibid.*, p. 334.

⁵¹ *Ibid.*, p. 335.

audio from a 1979 investigation into tranquilliser use and dependence in America, outlining the status quo in the US. The programme then turns to the concerns voiced by British scientists, citing Dr Alan Richens' experiments on day-time drowsiness and the "hangover effect" as well as Lader's work on tranquilliser dependence. The views voiced by Lader, including his alarming comparison between tranquilliser and heroin addiction, are reinforced by a short segment featuring a recovering tranquilliser addict, "John", whose interview is interrupted when he experiences palpitations. His working-class accent suggests that his case is intended to supplement Gordon's dramatic account with the example of an "ordinary" British patient.

The final section assesses the culpability of GPs in the context of the crisis. After an interview with a Newcastle GP who makes an emphatic case for minimising tranquilliser prescription, five different passers-by in the streets of Newcastle are interviewed about their interactions with their GP. All present their doctors in a rather negative light, with one young woman stating that '(laughs) quite frankly, my doctor, as soon as I walked in the door before he'd even looked at me had asked me what my name was and written my name down on the prescription [...], which I didn't think was quite fair'. Similarly, a middle-aged woman stated emphatically that her doctors had never helped her in the withdrawal process, noting instead that 'I don't think they were particularly interested, they wanted me to go back on them. I was so adamant about coming off them that we had a bit of an argument actually because I wouldn't go on them. [...] It's so easy that they'll just say if you've got a problem we'll put you on Valium. Or Librium. They're not really interested.' This final segment is interspersed with commentary from Professor Lader, in which he calls on GPs to be 'more selective' in their prescription of medicines. The programme ends with an assessment of the issue by the commentator, Bryan Gould, and an update on Gordon's situation which ends on a more positive note.

In presenting these elements in the order they are in the episode conveys a number of messages. Most importantly, it establishes tranquilliser dependence and side-effects as a serious issue. The situation is assessed thus: innocent patients have fallen victim to a severe pharmaceutical mishap; GPs are at least partly to blame due to their irresponsible prescribing habits; and British scientists are

carrying out important work researching and raising awareness of this issue. As will be explored further below, the claims making of the two expert scientists featured played an important role in linking first-hand testimonies of addiction with the identification of GPs as a guilty party in the third part of the episode. This not only demonstrates the media's important role in exploring contentious social issues, like the widely accepted use of tranquillisers and the issues within the medical profession this raises, but also highlights that expert scientists and GPs were two distinct groups, with some scientists in fact blaming GPs for the crisis. This demonstrates further that analysing the status of both groups jointly as "medical experts" is inappropriate.

The second episode is structured rather differently, although Lader still plays a key role in legitimating the assessment of the situation advanced by *TV EYE*. 'The Second Warning' focusses largely on confronting the parties deemed culpable in the context of the publication of the CRM's first review on benzodiazepines in March 1980. In this context, *TV EYE* is presented more clearly than in the first episode as a heroic force, bringing the issues surrounding tranquilliser dependence to light and confronting GPs and the pharmaceutical industry directly. This message is conveyed in three sections. The programme begins with a summary of the concerns raised in the first episode, repeating Lader's comparison of tranquilliser withdrawal and heroin withdrawal, before presenting a case study of a middle-aged woman who, upon watching the first episode of *TV EYE*, contacted the programme makers, who put her in touch with Professor Lader so she could embark on her withdrawal journey. This section clearly establishes the first episode of *TV EYE* as a key factor in this patient's journey back to normality and clarifies the programme's mission to bring the guilty parties to justice in defence of patients.

The episode then proceeds to interrogate both culpable parties, first through a group interview with five London GPs and then through a panel discussion with two expert scientists and a representative of the pharmaceutical industry. In keeping with the episode's format as a current affairs programme, the interview of GPs is measured but the questions asked clearly require the doctors to justify their own actions as well as those of their colleagues. Similarly, the panel debate with Lader, who is introduced as a member of the

CSM, which was assessing the safety of benzodiazepines at the time, Professor Mike Rawlins, who studied benzodiazepine use in the elderly, and Dr Eric Snell, the Director of Scientific and Medical Affairs at the Association of British Pharmaceutical Industries is measured but the questions posed to Snell reveal a preoccupation with getting him to defend the pharmaceutical industry, which he is seen to represent. Both segments are framed with critical assessments of the response of Roche to the crisis, stressing their unwillingness to comment beyond denying dependence as a serious problem. Interestingly, however, despite his status and importance in both episodes, Lader is also criticised for the failure of scientific researchers to alert the public to the problem of dependence sooner. Thus, *TV EYE* is positioned as an unbiased mediator, ultimately concerned with helping patients. The episode ends with a repetition of the fact that the new CRM guidelines were due to be published the following day and a call on GPs to modify their prescribing behaviour in the context of the problems discussed in both episodes. Thus, 'Tranquillisers – The Second Warning' conveys the message that the programme, and the media more generally, is concerned first and foremost with the welfare of viewers and patients and, by exploring this important and timely issue, is providing a service to its viewers in an increasingly hazardous health care market.

Lader's portrayal as an expert: verbal and visual

The verbal representation of Lader, and scientific research in general, conveys the status associated with this social group. The first episode portrays Lader in a relatively typical way, which supports the assessments made in the literature so far. The segment on British research begins by stating that 'the medical literature does warn of some problems', noting, however, that 'there's little sign that doctors pass on these warnings'.⁵² Researchers are thus presented in a positive light by virtue of their role in illuminating the dangers of tranquillisers, and are, furthermore, presented as distinct from GPs, who are criticised. Then, Lader is introduced against the backdrop of an experimental setting, where a man is lying down with electrodes attached to his head. The commentator explains: 'More serious, the question of addiction. Professor Lader of the Institute of Psychiatry

⁵² *TV EYE*, 'What Price Tranquillity?', *ITV*, 21 February 1980, 08.18.

leads the British research.’⁵³ Thus, Lader is presented as the main authority in his field, leading research on the most threatening aspect of tranquilliser use and is thus portrayed as the most important and courageous scientist featured. In addition, unlike Dr Alan Richens, who was shown in the context of the “hangover effect”, Lader is introduced by name and clearly associated with research on addiction. It is also noteworthy that, in the first programme, expert scientists and patients are the only two groups not overtly criticised by the presenter, casting him as the hero who, in conjunction with *TV EYE*, acts in patients’ interests.

His portrayal in the second episode is rather more diverse. Lader is re-introduced early on during the summary of the previous episode. He is presented, again, by name and shown sitting at his desk – an image that will be examined below – stating that withdrawal from tranquillisers could, for some patients, be worse than withdrawal from heroin.⁵⁴ The second time he features is during the case study of the middle-aged tranquilliser addict from South London, Diane Hilton, who decided to withdraw after watching the first *TV EYE* episode. The presenter notes that Hilton contacted *TV EYE* in search for help and was redirected to Professor Lader, ‘who is now helping her give up the drugs’.⁵⁵ Thus, he is not only helping patients through his research but also by taking over a duty allegedly often neglected by GPs: providing professional medical help during withdrawal. Finally, Lader is introduced again during the panel discussion with Professor Rawlins and Dr Snell. After surveying five GPs’ viewpoints the presenter states ‘and now that of the experts’.⁵⁶ This suggests that scientists are the real experts who, by virtue of their status, are qualified to comment on the failings of doctors. Furthermore, the questions asked indicate the level of esteem or culpability each party is seen to have. While Lader and Rawlins were generally asked straightforward factual questions that allowed them to demonstrate their expert knowledge, the questions posed to Snell were more difficult, and he was frequently asked to defend the actions of the pharmaceutical industry, which he is seen to represent. The interviewer, Bob Southgate, begins by asking Lader what the most

⁵³ *TV EYE*, ‘What Price Tranquillity?’, 11.16.

⁵⁴ *TV EYE*, ‘Tranquillisers – The Second Warning’, *ITV*, 27 March 1980, 01.36.

⁵⁵ *Ibid.*, 04.10.

⁵⁶ *Ibid.*, 14.35.

significant feature of the CRM's new guidelines is, then moving on to asking Rawlins about the problems he has identified in his work on benzodiazepine use in the elderly. Rawlins explains that tranquillisers are often poorly tolerated in the elderly, noting that this phenomenon was first recognised in 1972. Southgate then proceeds to ask Snell why, if such information has been available for a number of years, the pharmaceutical industry has not responded appropriately. Snell counters that such problems frequently emerge with effective drugs, but is pushed by Southgate to explain why the pharmaceutical industry appears to have been unaware of these findings. Snell retorts that pharmaceutical companies conduct research and notes that it is 'disgraceful' that the CRM's findings are discussed on *TV EYE* before being made available to pharmaceutical companies. Southgate then turns to Lader and asks Lader, apparently sarcastically, to comment on the 'two disgraceful things' raised by Snell. After Lader's response, the interviewer turns to Snell once more, asking him whether he thought drug companies had a responsibility to educate the public about the potential dangers of pills. Snell retorts once more by criticising the 'unbalanced, extremist, not to say *alarmist*' style of *TV EYE*'s presentation of the issue. This is dismissed by Southgate: 'Well, we're of course giving you the opportunity to redress the balance, if such redress were to be found to be necessary.' This kind of questioning indicates a clear, if unsurprising, agenda to bring the pharmaceutical industry to justice with the help of expert scientists. Interestingly, however, as noted above, Southgate also challenges Lader towards the interview, noting that 'It's taken you a lot of time to put [evidence of dependence] down on a piece of paper hasn't it?' This questioning of the scientific research it generally relies on so heavily indicates the programme's unequivocal support of patients, even vis-à-vis a trusted source of information.

Similarly, the visual portrayal of Lader conveys latent messages about his social status and role in the programme. Fiske and Hartley have explored the visual communication of meanings in television programmes in some detail, suggesting semiotics, the "science of signs" developed by the Swiss linguist Ferdinand de Saussure, as an appropriate methodology for studying these. They argue that viewers are primed to recognise, or "read", the meaning of televisual images in a similar way to how individuals recognise their own name when

flicking through a book.⁵⁷ Television uses images which are generally deeply familiar in structure and form, using codes which are usually closely related to the perception of reality itself.⁵⁸ Furthermore, Greg Philo has argued that news reporters favour striking, if exaggerated, images, citing the example of empty supermarket shelves during the Winter of Discontent in 1979, and noting that, ironically, reporters struggled to find such shelves in reality.⁵⁹ Similarly, Gabe and Bury have shown that images endowed with emotional and symbolic meaning were used to construct third-level narratives about responsibility and good and evil in the benzodiazepines crisis.⁶⁰ The myth of good and evil forces clashing, for instance, was invoked particularly clearly in *The Cook Report* during Cook's confrontation with the chairman of Wyeth, cited above.⁶¹ Thus, it is necessary to isolate certain poignant images and analyse the meanings these convey to assess televisual messages. Semiotics combines two central concerns: the culturally determined relationship between a sign, such as a white medical coat, and its meaning, and the way such signs are combined into codes.⁶² They note that signs operate on different levels of meaning, or orders of signification; while first order signs operate on a basic level of meaning where the sign refers plainly to what it signifies, second order signs imbue the signified with a range of separate cultural meanings, which cohere into comprehensive, cultural messages on the third level.⁶³ They note further that factual news programmes, including the one under consideration, draw on a limited number of elite people, recurring over various episodes, who are generally portrayed according to their cultural function rather than their individual attributes.⁶⁴ While Lader was one such elite expert, his appearances were limited to programmes about a specific topic, tranquillisers, but the same principles apply, as will be shown.

Specifically, three images of Lader will be discussed with a view to assessing how his status is conveyed. We are first introduced to Lader sitting in front of complex machinery (see Appendix A). The

⁵⁷ Fiske and Hartley, *Reading Television*, p. 4 and 22.

⁵⁸ *Ibid.*, p. 4.

⁵⁹ Greg Philo et al., *Really Bad News*, (London and New York, 1982), p. 8.

⁶⁰ Gabe and Bury, 'Tranquillisers and Health Care in Crisis', p. 452.

⁶¹ *Ibid.*, p. 452.

⁶² Fiske and Hartley, *Reading Television*, p. 22.

⁶³ *Ibid.*, p. 25.

⁶⁴ *Ibid.*, p. 154.

presenter is explaining the experiments Lader and his team have been carrying out relating to tranquilliser addiction, the main focus of the episode. Lader then proceeds to explain the particulars of the study, which involve measuring brain responses to clicks while patients are withdrawing from tranquillisers. On the first level of meaning we see a man in a suit sitting in front of a complex machine, whose purpose is not quite discernible, although the commentary suggests it is important. However, the denotative meanings of the image cohere with the factual information we are given about Lader and his work, forming a complex impression of his status and contribution to the programme in the viewer's mind. His suit and tie cohere with his status, which the presenter informs us of, to present an image of a respectable, trustworthy and knowledgeable professional. Furthermore, it is significant that our first visual impression of Lader shows him interacting with complex equipment. Portraying complex scientific experiments is a common theme in television reports, and indeed the first expert scientist shown in the episode, Dr Richens, is also introduced in the context of an experiment, which is shown in detail. However, rather than actively engaging in the experiment, the first time we see Richens he is sitting at his desk. Lader is later also shown at his desk, but it seems that the image in Appendix A portrays him as both a research leader *and* concerned enough, both in terms of his facial expression and his actions, to actively engage with his experiment and explain to the off-screen interviewer, and by extension the viewer, the important work he is doing.

The second image under consideration (Appendix B), taken from our second encounter with Lader, shows him sitting at his desk, answering the questions of an off-screen interviewer. The screenshot is replete with images that convey Lader's status, however, firstly, it must be noted that Lader's demeanour adds to his likeability and credibility as an expert. In the words of Anne Karpf, he has a 'smooth, white, middle-class, male voice with cultural authority'.⁶⁵ While this is not unique to Lader, and does not serve to distinguish him from any of the other experts on the programme, it does distinguish him from the patients shown, who were generally portrayed as "ordinary", and Lader is thus included in a group of elite, well-respected, and trustworthy experts. In addition, Fiske and Hartley note that the

⁶⁵ Karpf, *Doctoring the Media*, p. 106.

widespread portrayal of people of this class reflects their place in our culture's hierarchy.⁶⁶ Secondly, during this segment he is once again shown to be concerned about the welfare of viewers and patients, which is reinforced by the subtitle, reminding us of his professional status. Finally, there are various piles of papers and open books on his desk. This not only portrays him as knowledgeable and underlines his status as an intellectual professional but also further portrays him as concerned for the welfare of patients by suggesting that he has interrupted his work to give this important interview. Indeed, when I interviewed Professor Lader as part of his investigation, he explained the process by which he became involved in television programmes of this type. He states that he preferred being interviewed in a television studio because of the extensive process involved in setting up his office for interviews. 'First of all they put up things to stop the sunlight getting in and they move everything about and it takes you about a week to sort out what they've moved about, but, I mean, I don't mind that, but they prefer to do that: they like to see you in site [*sic*] rather like an ethnological study.'⁶⁷ This indicates that the meanings conveyed by these images are not accidental.

Finally, a third image will be analysed (Appendix C). It is taken from the end of the second episode and shows a panel discussion between, from left to right, Professor Rawlins, Professor Lader, the presenter Bob Southgate, and Dr Snell. It is no coincidence that Dr Snell, the representative of the pharmaceutical industry, is seated on the right, opposite the two scientists. This adversarial atmosphere is reinforced by the tendentious questioning discussed above. Furthermore, as noted above, these visual portrayals cohere into a third-order myth, i.e. on the highest, or ideological level, that may be seen in terms of the struggle of good versus evil. Gabe and Bury have shown that tranquillisers themselves were portrayed as menacing while patients were portrayed as innocent victims. The portrayal of expert scientists as trustworthy, knowledgeable professionals, concerned with the welfare of patients and prepared to criticise the pharmaceutical industry thus coheres into a third-order myth of tranquilliser dependence where scientists are portrayed as a heroic group using their special skills in the discovery of knowledge to help

⁶⁶ Fiske and Hartley, *Reading Television*, p. 33.

⁶⁷ Interview with Professor Malcolm Lader, London, UK, 22 June 2015, 26.33-26.54.

patients; not shy to confront the pharmaceutical industry, the villain; and committed to the publication of their findings in association with the media, the facilitator, in the interest of helping patients, the innocent victims. This reflects, to some extent, myths about modern health care and society more generally, including a disillusionment with major institutions, like the pharmaceutical industry and its profit-driven nature, and respect for individual achievements, particularly knowledgeable, benevolent people like scientists, concerned with patients' wellbeing rather than profit.⁶⁸ This is situated in the "culture of fear", noted by Clive Seale, which emerged in the 1970s.⁶⁹ Medical disasters, and the institutions responsible for them – GPs and pharmaceutical companies – are an integral aspect of 'the continual drip-feeding of [...] frightening images or stories' which, Seale notes, creates 'a cumulative effect in which consciousness of safety issues has reached chronic levels.'⁷⁰ Media discussion of the tranquilliser crisis, and portrayals of scientists as heroes, should be seen in this context.

The findings presented above indicate that expert scientists played a highly significant role as sources of trustworthy knowledge during the benzodiazepines crisis, but also show the increasing importance of television as a central player in the dissemination of information to viewers and patients as consumers of health care. Furthermore, the case study has confirmed the important differences between attitudes towards the group referred to here as expert scientists and GPs, particularly in this context. It has shown that lay regard for scientists can be high while regard for GPs is low, demonstrating that attitudes towards GPs are affected by different factors, including prescribing behaviour and experiences with individual doctors. It is thus inappropriate to evaluate lay regard for "medical experts", particularly in the context of the benzodiazepines crisis, without differentiating between the two groups.

Conclusion

This article has examined the social status of expert scientists in late twentieth-century Britain through an assessment of Professor Malcolm Lader's contributions to two previously unexamined

⁶⁸ Fiske and Hartley, *Reading Television*, p. 30.

⁶⁹ Clive Seale, *Media and Health*, (London, 2002), p. 68.

⁷⁰ Seale, *Media and Health*, p. 68.

episodes of *TV EYE* on benzodiazepine use and dependence. In doing so, the case study built on similar analyses presented by Gabe and Bury concerning the semiotic portrayal of meanings by television programmes, but focussed specifically on the portrayal of expert scientists to present a more nuanced approach to assessing the ramifications of the benzodiazepines controversy for the status of medical expertise in Britain. In the context of arguments presented by eminent sociologists about the importance of expertise in modern societies, particularly in the medical context, the above case study showed that expert scientists remained an important and respected source of information during the benzodiazepines controversy. This is evident particularly when comparing the portrayal of GPs and scientists, demonstrating the importance of differentiating between the two groups in discussions of the social standing of medical expertise. Thus, the article adds to the literature by highlighting the need to differentiate between scientists and GPs in assessments of the status of medical expertise in late twentieth-century Britain, suggesting that conflating these groups, as some scholars have done, is inappropriate and unnecessarily complicates the analysis.

The article also found, however, that, as noted above, the media emerged as an important alternative source of information for viewers as consumers of health care. Contemporary television programmes displayed a clear viewer- and patient-focussed agenda, committed to informing the public about socially contentious issues, and co-operated with emergent self-help groups to complement more traditional sources of health information and support. This goes against Karpf's argument about the power of medical experts vis-à-vis the media, which, as discussed above, failed to take these changes into account. Indeed, Gabe and Bury have argued that medical dominance was increasingly questioned in the 1980s due to a rationalisation of expert knowledge and the rise of health-care consumers, educated and empowered by the media.⁷¹ While they rightly recognise the importance of the rising perception of patients as consumers, the material presented here does not support their view of these changes as a 'crisis' in British health care and indicates, once again, that their argument is weakened by their failure to differentiate between media portrayals of GPs and scientists.

⁷¹ Gabe and Bury, '*Halcion Nights*', p. 448.

Finally, Anthony Giddens has argued that the disembedding mechanisms of high modernity have acted, on the one hand, to decrease doctors' monopoly over knowledge, making medical expertise "chronically contestable", and on the other hand, created dangers that have increased lay reliance on expert opinion.⁷² The case study presented here indicates that, while the actions of certain medical groups, particularly GPs, were indeed increasingly contestable, Giddens may have underestimated the enduring reliance of lay people on expert knowledge, particularly in the context of the emergence of new threats, such as the increasingly profit-driven nature of the pharmaceutical industry. Furthermore, while the media emerged as an important new claims-making party, it was shown to depend significantly on claims made by experts, suggesting that the extent to which medical experts lost their monopoly over knowledge may be questionable. Thus, a picture emerges of British health care in the 1980s as increasingly diverse but still centrally dependent on the knowledge and status of research scientists, who remained culturally significant, respected authorities during the benzodiazepines crisis. This not only expands on existing scholarship on the importance of expertise in the late twentieth century and about the benzodiazepines crisis but also highlights a number of important changes in health care, including its diversification, the noticeably more public division between doctors and medical researchers, and the increasingly important role of television as a key social force for mediating controversial situations.

Naturally, the scope of the article constrained the analysis somewhat and a number of methodological issues merit brief discussion. Perhaps most importantly, it must be stressed that the evaluation of the status of expert scientists presented here was based on a rather limited examination of the benzodiazepines crisis. While this is a fascinating period in recent British medical history and highlights a number of important changes that took place in the late twentieth century, it is also a case with specific characteristics, for instance the clear role played by GPs in bringing about the crisis, which naturally affected attitudes towards the groups involved. Thus, the potential to extrapolate from the findings presented here is limited

⁷² Giddens, *Modernity and Self-Identity*, p. 141.

to an extent. To that end, future scholarship might consider a comparative study of the role of expert scientists and other medical professionals during different medical crises. Nonetheless, as noted above, the article offers interesting new insights into a key medical controversy in recent British history and the changing social relations explored above. Secondly, a conscious choice was made to focus on Malcolm Lader's contributions to television programmes at the expense of other media. Despite being a valuable source for an investigation of this type, the medium has a number of specific characteristics, being, for instance, more entertainment-centred than newspapers or current affairs periodicals. Thus, a comparative study of the contributions of expert scientists to a variety of media in the context of the benzodiazepines crisis may yield interesting insights concerning the differences between media, particularly their dependence on expert testimonies.

Nonetheless, this article has presented a reinterpretation of the major historical and sociological arguments surrounding the social status of expertise in late-twentieth century Britain, as well as the role of expert scientists during the benzodiazepines crisis. Both the argument that scientists and GPs should be recognised as distinct groups in evaluations of this type and the semiotic analysis of Professor Lader's contributions to two 1980 episodes of *TV EYE* are original additions to the existing literature and it is hoped that this work will enrich understandings of this episode in British medical history.

Appendices

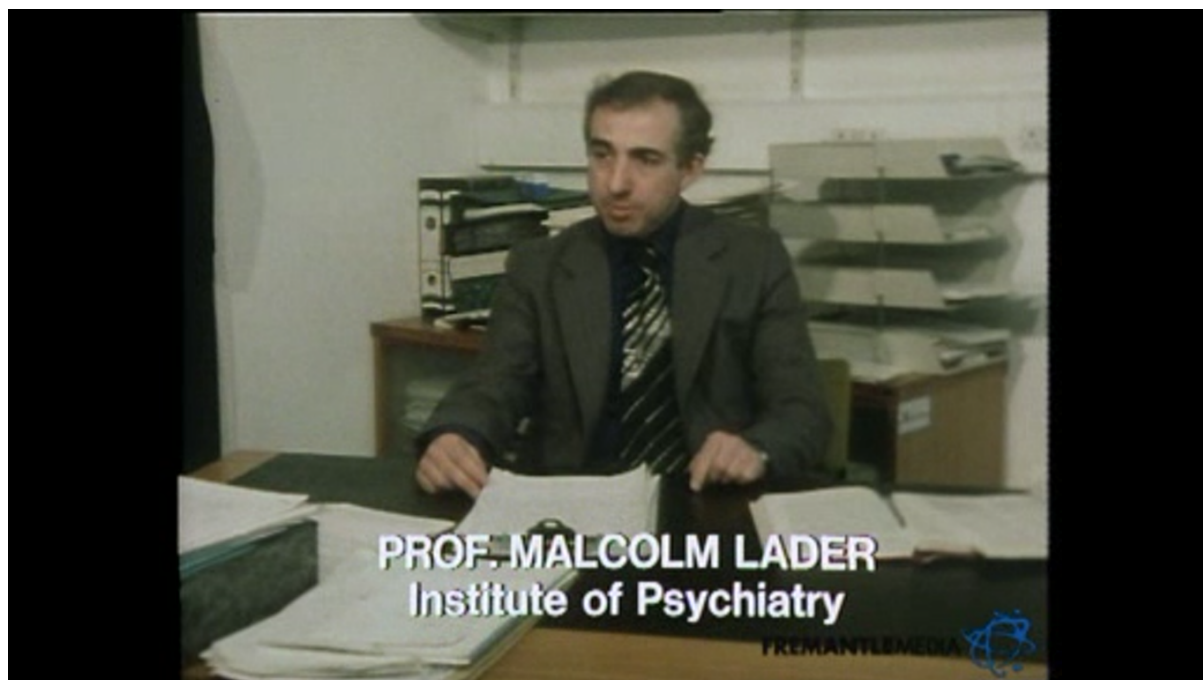
Appendix A



Screenshot from *TV EYE*, 'Tranquillisers – The Second Warning', 21 February 1980⁷³

⁷³ *TV EYE*, 'What Price Tranquillity', 11.47.

Appendix B



Screenshot from *TV EYE*, 'Tranquillisers – The Second Warning', 21 February 1980⁷⁴

⁷⁴ *TV EYE*, 'What Price Tranquillity', 12.22.

Appendix C



Screenshot from *TV EYE*, 'Tranquillisers – The Second Warning', 27 March 1980⁷⁵

⁷⁵ *TV EYE*, 'Tranquillisers – The Second Warning', 15.26.

