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The convergence of late neoliberalism and post-pandemic scientific optimism in the configuration of scientistic learnification

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ABSTRACT

The forces of neoliberalism have profoundly reconfigured the landscape of educational policy and discourse, shifting focus from democratic values-based conceptions to exigencies for effective learning. The onset of the global recession of 2008, coupled with the ongoing effects of the global pandemic have resulted in the centring of crises discourses as fundamental to state strategies for educational policy. This paper adopts the theoretical conception of "late neoliberalism", structured through assemblage theory, to discuss the significance of these impacts in Irish education, with references to the United Kingdom and international contexts as appropriate, reflecting the globalising force of neoliberalism. In so doing, I also draw on perspectives from Leo Strauss' considerations of political philosophy with its critique of liberal society in order to refocus attention on the undercurrent ideology of scientism, which is masked in attempts to establish veils of neutrality in the knowledge basis of educational policy reformation. I argue that the recent crises have intensified the scientistic ideology that underpins a number of policy moves drawing on examples from both national and international contexts. I conclude the discussion by drawing upon Biesta's critical analysis of the learnification agenda in order to present the challenge of becoming "redemocratised" in our orientations to educational discourses.

Introduction

Neoliberalism has resulted in heightened metrification and accountability within education, positioning educators as holding the responsibility for the raising of educational performances, socio-politically conceptualised as attainment in large-scale standardised assessments. Moreover, the impact on educational policy globally has been profound, with the ushering in of an era of instrumentalism (Todd, 2022) concerned with technocratic visions of educational provision (Peters, 2012) and an obsessional focus on effective – often conflated as efficient – learning (Biesta, 2010). Concomitantly, the

impact on the field of educational research is significant in that it has been transformed by neoliberal politics into a vehicle for establishing the optimal "evidence" bases for efficient learning strategies. Within this neoliberal agenda education becomes servile to sociopolitical exigencies, namely ensuring the centrality of the school as a site of social reproduction. In this work I build on previous literature which analyses the various impacts of neoliberalism on contemporary education (e.g. Apple, 2006; Ball, 2012, 2016; Davies & Bansel, 2007; Liasidou & Symeou, 2018) to direct a focus on the ideologies inherent to the era of "late neoliberalism" (McGimpsey, 2017). While contemporary scholarship has delineated the forces that have disfigured public education and schooling, turning focus to learning efficiencies (Gibbons, 2018) and the erosion of the public sphere by privatised and market logics (Olssen & Peters, 2005), this work attempts to draw together more recent emergences following periods of global austerity and pandemic. In this conceptual article I present an analysis of both epochs as they relate to the effects on educational discourse. My goal is to problematise core themes of mainstream policy-related discourse in education and particularly to trouble the conjunction of "scientism" and late neoliberal governance in advancing "the optimal" idea for education. The article will reference key instances of discourse manifested in public exchanges and policy documents to support its analysis. In this sense, the article can be positioned within the canon of work emerging in the critical analysis of late neoliberal phasing (e.g. McGimpsey, 2017; McGimpsey et al., 2017; Youdell & McGimpsey, 2015) and drawing on assemblage theory (DeLanda, 2006; Deleuze & Guattari, 2013; Venn, 2006). This perspective conceptualises the complex, mobile apparatus composed of the productive relationships between diverse components of the late neoliberal regime (McGimpsey, 2018), where governance is captured by the heterogeneous knowledges, discourses, and practices (Gillborn et al., 2022) which interrelate to construct, shape and direct the conduct of people. Therefore, the sources referenced will necessarily involve an eclectic blend of discourses produced across multiple sites and actors and inflecting the globalised interconnections of policy discourses in contemporary education. While the unfolding discussion will focus on the Irish context, reference is made to the UK, and there are commonalities to other international education systems and contexts given the globalised reality of neoliberal education (Apple, 2006).

I start by sketching the impact that neoliberalism has achieved in reconfiguring education. I then move on to delineate the concept of "late neoliberalism" from McGimpsey (2017), detailing some of its characteristics following the global financial crash of 2008. In analysing the use of "crises" as policy impetus, I introduce the shock caused by COVID-19 and its conjunction with the global pandemic, leveraging a Straussian[1] perspective, to argue for the recrystallisation of scientism as central to contemporary state and inter-governmental policy discourses. This contribution is primarily aimed at problematising present mainstream educational discourses, and while proposing a suitable alternative is beyond the scope of the paper, it will signal potential sites of resistance where appropriate.

Neoliberal education and the entrepreneurial subject

Neoliberalism names a suite of complex practices that entail unstable, occasionally incoherent and even contradictory tenets mobilised around the conceptualisation of the "market" as the foundation for social relations (Shamir, 2008). This ideology has penetrated every sphere of life and formulates living praxis in terms of capital investment,

specifically emphasising humans themselves (Brown, 2015) and has become economic orthodoxy across the globe, including within the author's national context of Ireland (Kirwan & Hall, 2016). Within education, neoliberalism shifts the considerations of broader educational policy to servicing the national and global economy aligned to labour market exigencies (Apple, 2011; Riddell, 2013). This has had the profound general effect of mutating the practices of education towards a "strong instrumentalism" (Todd, 2022) and a concomitant devaluing of relationships and care (Lynch, 2022). Moreover, the elevation of the individualised subject as the focus for contemporary schooling complements neoliberal motivations surrounding the increasing of one's human capital, which in academic contexts is often realised within "knowledge capitalism" (Lundahl, 2012). Foucault (2008) centres the image of *homo economicus* as "entrepreneur of himself, being for himself his own capital, being for himself his own producer, being for himself the source of [his] earnings" (p. 226). This epitomises a characteristic of neoliberalism that elevates the individual in a competitive open marketplace, where success is predicated on a meritocracy. Of course, this seemingly open landscape of access is a fallacy that elides the colonial, racialised, gendered and heteronormative pillars of neoliberalism constituted within the larger sociopolitics of capitalism.

Neoliberal ideology has engendered a widespread policy imperative to increase learning efficiencies and related accountabilities (Ball, 2015; Brown et al., 2016; Liasidou & Symeou, 2018) that have ushered in a culture of "learnification" (Biesta, 2010) and "performative" schooling (Ball, 2015). Biesta (2016, 2017) argues that this agenda of learnification, within the global policy assemblage, has the deadening effect of negating meaningful considerations of educational purposes beyond the realm of *qualification*. This overemphasis on qualification results in the repression of other purposes for education, namely and of importance to a democratic education, *subjectification*, which relates to ways of being or becoming a subject of the world. If broader global sociopolitical movements of the last several years have shown anything it is that this purpose for education has never been more critical in an increasingly diverse and at time fractious social milieu. The occurrence of movements such as #BlackLivesMatter or the rise of 'far' and 'alt-right' ideologies (for example in Ireland at the time of writing the case of Enoch Burke[2]), highlight the fluid and shifting compositions of societal flows. Core to the resilience of neoliberal ideology and the general acceptance it receives among the public is its success in colonising the common sense through politics of naturalisation (De Lissovoy, 2015; Lynch, 2022) that, in the case of education, co-opt ostensibly progressive combinations of social justice arguments with notions of "quality" (Biesta, 2009). These politics contribute to the overall public-societal acceptance of neoliberalism, captured in the concept of "TINA" – or "there is no alternative" (Lynch, 2022, p. 199). Therefore, it is prudent to discuss the evolution of neoliberal ideologies, related to education, as a result of significant economic and social events in the last 15 years. There are two core reasons for this focus.

Firstly, considerations of the nuanced shifts in neoliberal politicking often remain underemphasised in the available literatures in education (Apple, 2017) and this occludes an accurate conceptualisation of a "history of the present" (Foucault, 1977, p. 31). Secondly, and foundational to the current argument, while "scientific" conceptions of educational research are typically argued as emerging at the beginning of the century (Baez & Boyles, 2009; Hyslop-Margison & Naseem, 2007), notable social and economic crises have to some degree altered the sociopolitical landscape in which these original

critiques of overt scientism originated, and primarily still reside. Therefore, there is a pressing need to recentre and advance some of the core critiques of these positions to facilitate contemporary discourse and debate as to their position within the globalised neoliberal education policy assemblage.[3] In connecting and problematising the conjunction of scientistic and neoliberal flows, this paper attempts to address an issue of "absent presences" (Apple, 2017, p. 150). More plainly, I attempt to excavate the workings of scientism typically absent in many literatures on neoliberalism in education that may help to unveil the nuance of neoliberal evolutions, and its increasing common-sense naturalisation across the policy assemblage of today. By making these visible my aim is to open a space for imagining potential resistances and new projects of education to counter some of the injustice within the neoliberal ideology. Two notable global events are worthy of consideration to the present work. These are the financial crash of 2008, which resulted in worldwide austerity measures being implemented, and the onset of the COVID-19 pandemic in March 2020, which forced educational institutions to adapt to rapid school closures.

Incentivising austere social policy

Acknowledging the material and contextual factors influencing the realisation of neoliberal educational policy across different nation states, this article is primarily concerned with the Irish context. However, there will be tenets of the present discussion applicable to broader international contexts. Moreover, the similarities in the political operationalisation and reinforcement of disciplinary neoliberalism across nations such as, the UK, USA and Ireland, is supported by Dukelow and Kennett (2018), supporting the global appeal of the argument. As Mercille and Murphy (2017, p. 372) discuss, Ireland can be considered as a "prototypical neoliberal state where a low level of funding for public services coalesces with light regulation of the financial sector, supported by private interests and reliance on a flexible labour pool". This is evident in the deregulation of financial sectors since the 1980s as well as the famously low corporate tax rate lauded by state officials as a ploy for attracting international corporate business. The resilience of the neoliberal ideology confirmed itself in the practices adopted in response to the 2008 global recession, which represented a tipping point in chief governmental rationalities.

Whereas the recession challenged the ideology of capitalism, as a means of structuring societies in the Western world, governmental responses only served to reinforce and intensify it (Dukelow & Kennett, 2018; Kitching, 2020). In the European context Ireland is often taken as an ideal of the austerity response engaged as means to stem the destruction of the recession. Ireland was the first country to employ widescale austerity measures in an attempt to resolve the crisis by providing financial bailout to its banking sector, while maintaining low tax rates to solidify a positive market sentiment (Allen, 2012). The dramatic collapse of the economy led to the Irish Government agreeing a financial bailout with the International Monetary Fund (IMF), ushering in a new era of overt surveillance from the EU (Allen & O'Boyle, 2013). Dukelow (2015, p. 99) signals this new heightened financial accountability regime in Irish politics as a paradigmatic shift which simultaneously reconfigured the state's approach to social policy centred on the *sortie* of "crisis" and framed around "excessive growth in public expenditure, a related loss of competitiveness and loss of reputation". It was in the mobilisation of crises discourses

– a characteristic of austerity politics globally – that restructuring of policy problems shifted from a focus on "puzzling anomalies" to a "powering over" as the primary means of framing change rationales (Blyth, 2013), in reaction to socioeconomic "shocks" (Klein, 2007). Allen and O'Boyle (2013) argue for combinations of naïve ethnonationalist capitalism and a sociopolitical culture of social partnership – arising from a postcolonial Ireland in the twentieth century – as primary contributors to a unique commonsense defeatism among the public. This defeatism combined with crises discourses, amplified with the 2008 recession, facilitated mechanisms for the reconfiguration of education in Ireland where trends of capitulation from trade unions – as a result of social partnership ties – resulted in significant cuts to funding, teacher numbers, and a logic of increased productivity from a lesser base of resources (Allen, 2012; Allen & O'Boyle, 2013; Meade, 2018). The espoused "chaos" induced by the financial crash has facilitated the proliferation of a public anxiety surrounding repeated crises and allowed for a new "philosophical frame for education" (De Lissovoy, 2015, p. 15). This article argues that the confluence of this cultural defeatism and "dialectics of emergency" (De Lissovoy, 2008), has primed the education landscape for a new intensified phasing of neoliberalism.

Late neoliberal phasing in the educational policy assemblage

The concern for the recoupment of Ireland's international reputation, resulting from financial concerns introduced by the recession, held central sway in policy discourses after 2008. In particular, and reflective of global policy trends in education, there was an intensification of neoliberal urgencies concerning the education of students, viewed as important elements of economic recovery. In discussing the construction of Ireland's "maths crisis", Kirwan and Hall (2016) highlight the introduction of bonus points[4] for students studying Leaving Certificate[5] higher/advanced mathematics resulting from concerns about Ireland's performance in international assessments. The authors highlight the resistance from educationalists and the Irish Universities Association, who considered curriculum change as the more impactful approach; views which were in tension with privatised business interests (ibid). In this instance we can observe the clear "powering over" of public debate on the matter, with the bonus points scheme introduced in 2012, reflective of the use of crises discourses to enact significant policy reconfigurations contra to the central claim of a liberal politics (Kokushkin & Pettys, 2016). These practices subsume any democratic resistance by mobilising crises exigencies, such as underperformance on international measures (i.e. "PISA shock"), supported by political narratives appealing to the importance of international reputation and competitiveness (Allen & O'Boyle, 2013; Klein, 2007; Kokushkin & Pettys, 2016). Through these political junctures in educational policy, the intensification of neoliberalism is realised through the invasion of public education by the logics of marketisation and the elevation of desirable qualities focused on rational individualism under the overarching governance of international bodies. It is important to note that the present article is not arguing the pre-crisis features of neoliberalism have been replaced but more so that there has been an intensification of these features.

McGimpsey (2017) delineates "late neoliberalism" as a new phasing within austerity premised on the reconceptualization of value in public services and the widescale adoption of technologies of market finance used to preserve the legitimacy of neoliberalised

ideologies. Visualising policy as assemblage, rather than a unified state, emphasises the potential for connections and multiplicities as a "productive conjunction of parts" (McGimpsey et al., 2017, p. 68). This enables a more nuanced analysis of policy construction, and a more encompassing understanding of the intensification of neoliberalist education. Within this late neoliberal phase, the logics of marketised performativity have coalesced with tools of capture to proliferate a culture of constant evaluation by numbers (Ball, 2015) where concerns for "good education" are assuaged by commitments to raising examination performances (Mooney-Simmie et al., 2019). In a milieu of heightened educational surveillance, students and teachers are tethered to the "truth" of neoliberal life (De Lissovoy, 2015). Pertinent to the present discussion, the quantitative framing of performance and intensified "datafication" that have monopolised mainstream education discourses (Selwyn & Gašević, 2020) have instilled a veil of objectivity, where "rational" policy decisions are portrayed as value-free educational goods directed towards the enhancement of learning for the betterment of society (Biesta, 2009). However, there is a need to focus on the idea of a "value-free" neutrality characteristic of mainstream sociopolitical discourses (Lynch, 2022). In considering the broader realm of the late neoliberal policy assemblage, a reading using Strauss' *What is Political Philosophy?*, is constructive. In comparing the *Ancients* and the *Moderns* of humanity, Strauss makes the case that a core feature of the politic of modernity concerns its "character of 'abstractness', and has therefore engendered … a movement, not from opinion to knowledge, not from the here and now to what is always and eternal, but from the abstract toward the concrete" (Strauss, 1957, p. 357, my ellipsis). This perspective illustrates the suppression of human values within the core narrative of modern politics (also see Lynch (2022) on this). In today's educational policy assemblage this feature of modernity is operationalised in the "learnification" agenda, where Biesta (2010) has argued learning is conflated with education and engenders discourses centred on broad notions of progress (e.g. enhancing teaching and learning), resulting in the "clinical" turn in educational policy (Mooney-Simmie, 2014). Principally, this discourse focuses on improving teaching and learning practices within the ideal of accountability culture. This builds upon the foundational role of sciences in the capitalist worldview (Nixon, 2017), constitutive to the devaluing of care and relationships in preference for rationality (Lynch, 2022), and allied to liberal ideals of free trade and competition sets the context for the imbuement of logics of marketisation, as an "objective good", within education.

An example of the marketised late neoliberalist reconfigurations of policy in Ireland concerns the introduction of a national policy in STEM education in 2017. The *STEM Education Policy Statement 2017–2026* makes a case for the necessity of a strong STEM education system which "underpin[s] much economic development leading to the establishment of creative enterprises and rewarding careers" (DES, 2017a, p. 5). These neoliberal rationalities capitalise on the close associations between STEM and capitalist expansion since its inception (Delahunty, 2023). However, a reading in light of late neoliberal phasing centres the discourse of this policy which reconfigures students as a new generation of STEM talent "to participate, influence and succeed in a changing world" (DES, 2017a, p. 13). This is exemplified in the opening section of the policy where necessities for "a national focus on STEM education in our early years settings and schools to ensure we have an engaged society and a highly skilled workforce in place" (ibid, p. 5), are delineated. While the policy is welcome in promoting an emphasis

on STEM learning in early childhood, it is also clear that the "subjectiviating" force of the late neoliberal phasing regime (McGimpsey, 2017) has melded with the global "schoolification" of early years settings (Patton & Winter, 2022) reconstructing childrens' bodies as viable sources of human capital. These forces are not isolated to STEM policy alone. In *Languages Connect: Ireland's Strategy for Foreign Languages in Education 2017–2026* (DES, 2017b), the centrality of economic rationales are to the fore. This policy welcomingly touches upon democratic citizenship in its situation of "a changing, multicultural and multilingual Ireland" as globally immersed and where "[a]s citizens of Europe and the world, we [Irish people] are also exposed to many other languages and cultures" (DES, 2017b, p. 13). However, this is somewhat undone through an economic priority evinced through the acknowledgment of "the increasing globalisation of the world economy, and the ruse of emerging non-English speaking markets as a major source of growth" (ibid, p. 13). The centrality of foreign language competencies in facilitating access to more market space is further manifested in the necessity to support and maintain immigrants' native languages "which constitute a new resource, as yet largely untapped, for Ireland" (ibid, p. 13). This not only elides the racialised politics of viability (Kitching, 2010) core to neoliberal educational policy in Ireland, but signals an extractivist colonial–capital logic (Issar, 2021) of accumulation for enhanced economic competitiveness, replete in the global educational policy assemblage (Shahjahan, 2011). These reconfigurations within Irish educational policy are justified within associated late neoliberal "dialectics of disequilibrium" (i.e. "succeeding in a changing world") spawned from the crises dialogues of post-austerity. This late neoliberal policy context builds on the learnings from austerity and a defeatist public passivity, where acceptance of such educational reformations is governed by an orientation to the indeterminacy of the future (Mertanen et al., 2022) bolstered by acceptance of the doctrine of "TINA" (De Lissovoy, 2015; Lynch, 2022).

This strategy of "eternal disequilibrium" was and is reinforced in post-austerity educational narratives situated within what Fisher (2009) describes as a socioculturally instituted basic existence of precarity bolstered by enhanced surveillance and accountability. This, De Lissovoy (2015) contends, produces a fragmented individual whose subjectivity has been naturalised within ideologies of accountability and enclosure. It is this notion of enclosure that is characteristic of the intensification of neoliberal ideology within the late neoliberal phase, where Hardt and Negri (2009) claim that a seizure of commons is taking place where intricate human creativities, such as knowledge production, are claimed, appropriated and reorientated to the necropolitical generation of value surplus. Importantly, the rational individual subject constitutive of earlier neoliberalism is not replaced (Bradbury et al., 2013), but is now enmeshed in a culture of incentives and threats (Ball, 2000, 2003). Analysing the function of "Nudge" strategies in late neoliberal educational policy, Bradbury et al. (2013) demonstrate how focus on the rational individual has evolved to encompass, from a lens of behavioural economism, the irrational vices requiring subjects to be guided towards making smart self-serving choices, elided within the falsified encouragements of free choices of concepts like "flexible learning" (Houlden & Veletsianos, 2021). The ostensibly altruistic rhetoric to "[p]rovide opportunities for all learners to participate … " (DES, 2017a, p. 18) in all forms of educational provision, is a core characteristic of this late neoliberalisation of educational policy, masking the larger operations of governance whereby a diversified subject of policy is sketched for deeper

assimilation within forms of self-governance (McGimpsey et al., 2017; Mertanen et al., 2022; Youdell & McGimpsey, 2015). Within this context the fore-fronting of the psychologised individual and insights from behavioural sciences are offered as paths to solutions of austerity generated policy problems arising from multiply irrational subjectivities (Bradbury et al., 2013; De St Croix et al., 2020; McGimpsey et al., 2017; Stein et al., 2021).

Viewing educational policy as an assemblage highlights a further salient feature of late neoliberalisation, which is the strategic use and adaptation of diverse knowledges to inform and legitimise policy. Kiely and Meade (2018), in the context of the Irish Youth Work sector, have demonstrated how the finance capital behaviourism logics have transformed policy towards an evidence-based dogma, similar to the case of educational policy and discourse based on "learnification" (Biesta, 2007, 2010). A strategy utilised by intergovernmental policy sources, in particular the OECD, is to infuse the field of neuroscience into discourses surrounding the enhancement of learning opportunities[6] in the school. For example, in *Understanding the Brain: The birth of a new learning science*, the OECD (2007) presents a comprehensive report on the utility of neuroscience in the development of educational understandings. Welcomingly it does include some critical considerations such as the ethics and intrusiveness of using such scientific approaches in education, but overall, it presents a very sanguine defence for its application to enhancing learning. This is deftly illustrated in their (un)rhetorical question, "[c]an neuroscience truly improve education? This report suggests a complex, but nonetheless definite answer: 'yes, but … '" (OECD, 2007, p. 21). Despite appealing to a balanced, "scientific" discussion of the topic, the report itself is replete with simplistic reductions of the complexities of mind–brain–consciousness relationships and the promotion of a neoliberalistic reduction of learning emphasising its familiar instrumental construction (Hall et al., 2014). The imbuement of neuroscience into discourse before austerity has grown following the financial crisis, within the late neoliberal phase where "translations of knowledge from emerging scientific fields into policy making" (McGimpsey et al., 2017, p. 908), are plentiful within OECD discourse.

> But things have started to change in recent years, most importantly in the field of scientific research itself. Human learning became the object of research in many more scientific disciplines than pedagogy or education science. Well-established disciplines, such as cognitive psychology, and social and behavioural sciences, and also neuroscience, brain research, computer science and even engineering, are amplifying efforts to better understand human learning … a new "science of learning" is in the making, with enormous potential for improving teaching and learning practices. These developments offer fascinating new perspectives, based on technological advances …
>
> (Andreas Schleicher in Kuhl et al., 2019, foreword, my ellipsis)

The appropriation of insights from psychology and behavioural sciences epitomise the evidence-based ideology of the OECD, under the directorship of Schleicher, who embodies the "technosolutionist" stance (Elfert, 2023) to educational improvement. Disturbingly, Schchleicher's foreword makes clear the ideological commitment to a "scientific" field of learning to fix an "education [that] seems too vulnerable to myths and erroneous ideas, born out of romantic ideals, wishful thinking, or love for children" (Schleicher in Kuhl et al., 2019, foreword). The mobilisation of this rhetoric, framed as "scientific" in the late neoliberal phasing, has intensified the ideal of the rationalised

subject of educational policy, increasingly reconfigured within a psychologised visage of modern childhoods, and it would appear antithetical to inclusions of emotive or care perspectives, as excavated from neoliberal ideology by Lynch (2022).

To be clear, this article acknowledges the potential value of scientific evidence as a partial basis for educational policy and its inclusion in broader discourse but is arguing that the form of evidence mobilised in mainstream discourses is of a particular character aligning with Strauss' theorising on the "abstractness" of modern society; that of the supposedly "scientific", or as I will argue further below, "scientistic".

The COVID-19 pandemic as threat to governing by assessment

The COVID-19 pandemic represents another major impact on the world of education. In March of 2020, across the world, schools were forced to close and rapidly adapt to a wide-scale strategy of digital teaching and learning. While research continues to emerge on the innovation of pedagogical practices (e.g. Judge, 2021), as well as the deleterious impact on broader mental health (Quinn et al., 2021), there is a growing awareness that the intersection of neoliberal ideologies with pandemic policies has led to the widening of social inequalities, namely in education (Mohan et al., 2021; Zanoni & Mir, 2022). For example, in the UK there was a marked regression in student attainment over the course of the pandemic but this was exacerbated for those in lower socioeconomic groups, who were reported as spending less time on schoolwork and having less access to the resources required for online learning (Blundell et al., 2022). More broadly, authors such as Cherry et al. (2023) posit that the pandemic has exposed the impact of decades of neoliberal politics spanning from precarious work and economic deprivation to narrow social policies, particularly concerning youth contexts (e.g. De St Croix, 2018). It is in education where the core focus of the present work resides so acknowledging the clear infrastructural inequalities that the pandemic has illuminated, I will focus on the specificity of late neoliberal phasing of the pandemic in education for this section.

Mezzadri (2022) delineates the major unsettlement of neoliberal capitalism as the closure of physical workspaces entailing the transition of "labouring bodies" to home-working and blurring of work and homelife worlds (pp. 385–386). However, it is in the context of the changes to national assessment models where the intensification of neo-liberalised tropes of "impartiality" and "fairness" – evincing the professed apolitical scient-ism of late neoliberal discourses – were notable for education. In countries such as Ireland and the UK, rather than sitting a summative examination due to the threat of COVID-19, a calculated grades model was implemented. Briefly, this involved rapid policy changes that placed the onus on teachers to assess their students followed by the application of a standardisation process where students' results were normalised in relation to school and yearly trends to counteract grade inflations (Kelly, 2021). This presented a challenge to the regime of assessment, integral to neoliberal education (De Lissovoy, 2015), through the possibility of increased reliance on teacher professional judgements, which would elevate their professional autonomy, coupled with an opportunity to debate alternatives. However, the reticence of the teaching body in openly accepting the understandably difficult task of assessing their own students in a high-stakes matriculation context, and the accompanying personal anguish caused to teachers as a result (Lysaght, 2023), instead evinced the implications of the increasing neoliberalisation of education in the

pre-pandemic era. This was notable in the Irish context where formal assessment occurs later in the calendar year than in the UK. The UK approach to calculated grades in 2020 had demonstrated the significant bias that can be maintained in the application of standardisation algorithms, where several cases of students being downgraded unfairly within a " … 'blackbox' of politically motivated manipulation" (Kelly, 2021, p. 727), were highlighted. The resulting public backlash in the context of the UK's A-levels reverberated in the Irish context, where teacher unions came to the defence of their members citing the overwhelming liability teachers would be threatened with and public concern for the potential misgivings of the standardisation process were elevated. Arguably, this is the result of years of increased systemic pressures, caused by neoliberal policy, where the intensification of accountability and "audit culture", have mutated the common-sense of the education profession. Ultimately, a significantly stripped down standardisation process was implemented where prior school performance data and national subject area trends were no longer included (Kelly, 2021). This is not to place blame on the teaching body as the critique here is levied at the systemic evolutions promoted by neoliberal capitalism which made it appear to the profession that there was no other option within a potentially derisive sociocultural landscape.

In setting out a policy to transfer the burden of assessment on to teachers, thus maintaining an official form of assessment integral to the heightened modes of surveillance elided with the late neoliberal phasing, the state's urgencies of maintaining and adapting existing modes of governance is clear. Teachers in the case of Ireland have never held such responsibility before, representing a serious challenge to their professional identities (Bailey & Gibson, 2023). However, in maintaining allegiances to supposedly neutral political manoeuvres, the state's *ad hoc* application of a standardisation algorithm, can be seen at once as both curbing the undesirable irrationalities of teachers (the implicit doubting of teachers' professional abilities to fairly assess students) and appealing to a "scientific" basis for ensuring public trust. Notably, and aligning with McGimpsey's (2018) characterising of late neoliberalism's desire for a stronger alignment with the behavioural tools of finance capitalism, the centrality of the algorithm itself is replete in debate. In the Irish case vexation towards the "irrationalities" of teachers was also evident after the first instance of calculated results were available in 2020, where sources in the Department of Education maintained there was "no evidence that the students of 2020 were expected to achieve such a jump in performance" and that "[s]uch uncontrolled growth in scores [in comparison to available statistics from pre-pandemic state examinations] is not credible in one school year" (O'Brien, 2020, para 8). The combination of these discourses with a general "consensualism" in Irish culture surrounding the system of the Leaving Certificate (Mccormack et al., 2020) portrays the reticence from both government and the public in altering this model of assessment within a neoliberal polity. It would seem that the predominant discourse that simultaneously sought to scold teachers and lobby to sustain a system of assessment replete with well documented inequalities (Canny & Hamilton, 2018), centred upon the ironic notion of "fairness" and appeals to objective procedures at the core of neoliberal politics.

Arising from these trends this article contends that the broad discourse within this late neoliberal phase represents the recrystallisation of the Straussian notion of "abstractness", where the ideals of secular science – represented in behavioural economic logics – are readily mobilised in the justification or criticism of policy decisions. This is supported

by authors such as Stein et al. (2021) who have argued that the nature of "gold standard" scientific approaches, such as randomised control trials, share commonalities with mainstream neoliberal ideology, namely "methodological individualism". This cannot be argued away by mere coincidence given that both " … [stem] from a common desire for scientism" (ibid, p. 71). It is within this milieu that the BCS; The Chartered Institute for IT in the UK, argued that the algorithm employed in the A-levels controversy was substandard, implying a lack of rigorous testing. Additionally, they go on to claim that the solution is for a more stringent governance of data science in general (Klovig Skelton, 2020). These comments reveal an implicit belief in the necessity for more rigour in the process as solution, rather than a more dialectical approach to consider whether an algorithm can ever be objective (Noble, 2018) or whether it is appropriate to rely on such data as a measure of a student's capability in the first place. This implicit belief in the limitless progress of science and its method for understanding has salience as we emerge into a post-pandemic world.

The "infodemic" of COVID-19 and "liberating" science

There are indications that the popularity of science grew among the public during the pandemic (O'Connor et al., 2021). For example, in the Irish context the media regularly portrayed the questionable governmental decisions on pandemic responses, contrary to the advice of leading medical scientists, as cases of "magical thinking" (Farry, 2021). This was further cemented in another national newspaper that argued "where many politicians have sadly demonstrated their feet of clay, the public has instead turned to science as the safest guide through the treacherous twists of this dark tunnel enveloping the entire world" (Daly, 2020, p. 22). Within Ireland, Professor Luke O'Neill quickly rose to national fame in providing weekly updates via national radio and media outlets on the progress in vaccination trials. The opening of his book published in 2020, goes on to claim an understanding of societal issues such as "control over your life", "euthanasia" and "racism" using his "scientific training", proclaiming that "I have in the imitable words of Matt Damon in The Martian, literally 'scienced the shit' out of them" (Neill, 2020, p. 3). The title of O'Neill's book, *Never Mind the B#ll*cks, Here's the Science*, is an excellent example of the exclusionary positionality that pervades the popular discourse on science, where it is heralded as the only meaningful way of understanding our world and its various issues. This is a point eschewed by Strauss when discussing the "state of decay and perhaps of putrefaction" (Strauss, 1957, p. 345) aided by a modern positivism that "aims no longer … at absolute knowledge of the Why, but only … knowledge of the How following its modification by ' … utilitarianism, evolutionism, and neo-Kantianism'" (ibid, pp. 346–347). In discussing the mutation of positivism by utilitarian ideals, Strauss points us to the dangers of scientism to democratic principles by bifurcating values from reason, " … undermining the beliefs and identity required to preserve the democratic west" (Fennell & Simpson, 2008, p. 57).

The repopularising of science during the crisis of the pandemic is significant in understanding the deeply seated illusionary apoliticism associated with modern educational policy assemblages, particularly those dominated by a downward flow of power from state-private interests. It would be irresponsible to contextualise my argument on the popularising of science without acknowledging the insipient dangers of the associated

era of "post-truth". Generally considered in the pejorative, post-truth is typically associated with concepts such as "fake news", "alternative facts", and conspiracy theories often mobilised by politically valorising forces such as those associated with Brexit or the Trump presidential era (Peters, 2022). It is important to acknowledge the rise of conspiracy theories, given their proliferation during the COVID-19 pandemic, and common association with the *alt-right* which represents a neoconservative reactionary force, globally mobilising heteronormative, patriarchal and racialised sentiments to serve political agendas. While space is limited here to fully analyse the interaction of these latter post-truth forces with the elevation of scientific knowledge during the pandemic, it is useful to point out the complexity apparent in the sociopolitical landscape relating to the use of knowledge claims. Kwok et al. (2023), in offering an alternative reading, point to these tensions as a potential emergent scepticism among the body politic in relation to the manners in which truths are ordered and legitimised. This useful reading further supports the present argument as a critical contribution where increased scepticism, within the late neoliberal regime, suggests the potential for engendering new forms of resistance and pedagogical imaginings within the educational policy assemblage.

To be clear, this article has no doubts about the value of science and the significant progress that was made during the pandemic in battling COVID-19, nor is it a narrative in support of the conspiracy theories emerging in opposition to scientific decisions. However, of issue is the predominance of the use of these "scientific" bases as the optimal evidence base to inform educational policy creation, and the narrow conceptions of science within. This paper argues that in envisioning the rampant march of late neoliberalism and its intersection with the COVID-19 political response, there is a need for increased critical analysis of scientific claims in educational discourse, in particular those oppressive tenets of scientism essential to the expansion of the neoliberal learning agenda.

Converging crises, sticky scientism, and the abstractness of learning

So far, I have shown how late neoliberalism has intensified the marketisation of educational policy creation and considerations of the subjectivities of students. I have also argued for the productive conjunction, aligning with a conceptualisation of education policy as assemblage, of crises discourses enmeshed in the occurrences of post-austerity and global pandemic politics which have led to a re-intensified scientism as core to late neoliberal ideology. In this section I seek to problematise these forces as inherent to late neoliberalism and discuss associated implications resulting from the oppressive potentialities of scientism in educational discourse.

Scientism in this context is not a new concept within educational discourse and notable critiques have been levied against the ideology since its apparent crystallisation and rise at the start of the century (see Baez & Boyles, 2009 for a comprehensive treatment). Scientism should be distinguished from true scientific thinking in its idealisation of science in the form of a "zealous metaphysical commitment and a requisite orthodoxy in [the scientific] method" (Williams, 2016, p. 3). Emphasising the power of scientism as an ideology of contemporary politics, Muller (2021, p. 139) defines the concept of "*performative scientism*, in which decision-makers seek credibility for their approach by performing excessive deference to what they believe to be 'science'" (original emphasis). While the

positive impact of scientific achievements in the natural sciences, medicine, and in technological development are indisputable, the transmogrification into scientism results from sociocultural shifts stemming from trends such as the eager optimism to apply scientific method and rationalism to broader areas (e.g. psychology, sociology), and the shifting nature of liberal democracies under capitalism and its expansion (Jasanoff, 2004b). While the present argument centres on revitalising the discourse and problematising this ideology in late neoliberal educational policy discourse, there are of course strong epistemological reasons to doubt the appropriateness of applying procedures from the natural sciences to the study and organisation of socioculturally situated complex phenomena in education, considering the role of agency, ethics, morals and so forth, that are at stake in the educational encounter (St.Pierre, 2006; Wrigley, 2018).

There are notable features of neoliberalism which have primed the educational policy assemblage as overwhelmingly accepting of scientistic forces, and as this article argues this has intensified within the late phasing. This phase being characterised by increased marketisation of education and schooling, employing the tools of financial capital, has led to a general sensitivity among stakeholders to the era of performativity and accountability (Ball, 2015; De Lissovoy, 2013; Mooney-Simmie, 2014; Watson, 2011). This is regularly denoted by the use of crisis discourses to justify educational policy reform in response to international assessment performances (Kirwan & Hall, 2016), to the point that performance in these types of assessments has been taken as the indicator of quality education (Biesta, 2017). This article has focused on the features of this period in the Irish context, however, as I have argued there are commonalities to other nations such as the UK. In Ireland, the onslaught of late neoliberal phasing builds upon an entrenched suite of consensualism, essentialism, and meritocracy (Lynch, 1987) with an undergirding scientism which solidifies the visage of a common sense culture of performativity. The dominance of quantitative measures of student performance has washed over discourse in education (Ball, 2015) to the point that the autonomy of teachers, as professionals, has been diluted (Holloway & Brass, 2018) and focus on the democratic and liberal potentials of education have been consumed by an overemphasis on the much emptier concept of learning (Biesta, 2015). This overemphasis suppresses a true consideration of educational values (Biesta, 2015) and engenders the regime of evidence-based practice with a "what works" culture in educational policy creation (Biesta, 2010, 2017). Core narratives in late neoliberal phasing centre on the rationale of value-added investments, where state policy and service interests are determined by calculable returns to the economy (McGimpsey, 2018), a logic inherent to the Irish policy assemblage (Brown et al., 2016). Importantly, in reimagining the landscape of education in light of democratic reflections, this evidence-based agenda need not be positioned as conflictual to a focus on broader purposes advocated by Biesta. A focus premised on evidence and concerned with establishing the effectiveness of pedagogical strategies could support a broader democratic vision for education, however at present this stance dominates the assemblage to the neglect of holistic purposes.

The evolution of late neoliberal forces, which have intensified the image of the rationalised individual subject and denounced the irrational who requires intelligent "nudging" to make appropriate self-serving decisions (Bradbury et al., 2013; Gane, 2021; McGimpsey et al., 2017), has been bolstered by a scientistic technocracy, naturalised in the public conscious (Ezrahi, 2012), that, in education, presents any perspective outside of

psychologised learnifications as "irrational". This assertion draws upon theories of "co-production" that highlight the intricate constitutive relations between science and politics, interwoven into nation state processes of governance and resting on the construction of certain visions of social reality (Ezrahi, 2012; Jasanoff, 2004b, 2011). As Jasanoff (2004a, p. 29) lucidly propounds "[d]oing science merges … into doing politics". Infusing historicity to the analysis of scientific advancements and the growth of liberal and neoliberal democracies allows for the excavation of the inherent politicised constructions of the "common sense" facilitated by a "disinterested" modern science (Ezrahi, 2012). This common sense elides the particular ideologies, as well as the implicit knowledge and power, structuring the "self-evident" apparency of the world and scaffolding a particular set of politics for the instrumental governance of a populace (Jasanoff, 2015; Muller, 2021). The intricate relationship between social and human sciences and their essential role in the modern managerial logics of neoliberalism (Lynch et al., 2012) were most saliently uncovered by Foucault (1994), who details the normalisation of mental illness and sexuality, and the deviance associated with divergences from that norm. According to Jasanoff (2004a) further examples across history such as the rise of social statistics, intelligence testing and technologies of hierarchisation of populations and people are clear instances of the evolving co-production of science and politics. Ezrahi (2012) further expands the nuance of this "materialistic common sense realism" that uses a complex network of onto-epistemic discourses and practices for the construction of the world as a natural "hypostatized object" (p. 88). Further, he highlights the central role of political technologies, provided through scientific advancements, and including *inter alia* maps and statistics, that frame the perceptions and behaviours of people's encounter with the social world. The nuance of the co-production perspective forwarded by Jasanoff (2004b) lies in the rejection of some form of a natural clean slate for societies, where science and democracy co-evolved cleanly, and instead centres the extant order that pre-exists these systems, contained within the collective ways of knowing inherent to people and populations and specifically in what counts as nature or culture. From a posthumanist perspective, the prominence of science, and its exponential growth following the Enlightenment, has facilitated the further bifurcation of nature and culture (Braidotti, 2013), and the instrumental means of man's control of the former. This also reflects the political-scientific strategies that denounced certain indigenes as sub-human (part of nature) justifying settler colonisation (Tuhiwai Smith, 2012) and facilitating the core of racist coloniality at the heart of Western capitalism, science, and modern democracies (Andrews, 2022). Collectively, this has resulted in the modern social imaginary of today that idolises the image of the rational individual based upon a presupposition of scientistic onto-epistemic relations (Ezrahi, 2012). Moreover, the inflections within education are notable in the mainstream neoliberal assemblage of policy discourses.

In the recent OECD (2022) report, *Who Cares about Using Education Research in Policy and Practice?*, scientistic logics are evident in the castigation of education research, which "moves at a snail's pace" (p. 3), residing in the very first paragraph of the foreword. In addition, the same foreword goes on to rebuke educational researchers for "not even attempt[ing] to study their [research study's] long-term efficacy" and finally taking aim at practitioners who "forget that data are not plural of anecdote, and often … are simply too busy to look for research-based answers" (ibid, p. 3, my ellipsis). Conspicuously, no author is identified with this disturbingly scientistic authoritarian foreword, however it

is clear that this "research engagement strategy" document is building upon late neoliberal forces, contemptuous of irrational actors, to further solidify the common-sense of "scientific" research as the solution to global educational problems, in this case with anyone impeding the "impact" of educational research in improving learning outcomes, narrowly conceived as quantitative gains in standardised assessments (Apple, 2006; Ball, 2015), as irrational barriers to progress. Given the power of organisations such as the OECD in promoting neoliberal ideology, there is an increased danger of these "scientific" claims to education hiding surreptitious motives and continuing to refigure neoliberal secularised visions of childhood/adolescence school subjectivities, couched in false claims of neutrality.

While I have shown the intensified marketisation of late neoliberalism evident in Irish policy earlier, these critical considerations need to be understood in the broader sociopolitical milieu of advanced capitalism in order to comprehend the resilience of these discourses to democratic dismantlement. This is further complicated in the late neoliberal phase. Strauss' earlier theorising on the increasing polarisation between facts and values indicates the increasing power of knowledge-based claims to justify political decisions and policy.

Ezrahi's (2012) theory of "imagined democracies" highlights the dynamic social constructions and discourses that are utilised in establishing order. The role of nature and natural laws are signalled in democratic imaginaries where the right of equality is redefined in terms of "the rights of man as primordial, presocial, and prepolitical, and … the law as impersonal and objective" (Ezrahi, 2012, pp. 63–64). This is argued to reposition law abiding individuals as "following one's own reason as guided by the laws of nature" (ibid, p. 64) – the connection to the neoliberalised rational individual is glaring. Following the rise of this logic, along with the advancement of scientific discoveries and associated technological breakthroughs, the centrality of a technocracy (Olson, 2016) as the basis for organisation of society was solidified (Jasanoff, 2004b). This technocratic reliance on expertise is notable in educational policy in late neoliberalism through the co-option of diverse disciplinary knowledges and "experts". The OECD and its elevation of "learning sciences" is typical of this agenda, building upon a "commonsense realism" of scientism that sketches an implicit "cognitive-perceptual space" (Ezrahi, 2012) of educational realities, relying on an increasingly constructed passive public consciousness where neoliberal forces can be concealed as apolitical evidence-based goods. The space or image of these educational cartographies, or indeed student bodies themselves, are increasingly objectified in the intensification of psychology as the predominant scientistic form, with its behaviourist and neuroscientific subfields where problems of our everyday subjectivities are constructed as psychological problems (Williams, 2017). Psychology and its predominantly positivist worldview (Mazur, 2021) facilitates the maintenance of what Strauss (1957) denotes as "social science positivism" core to ostensibly neutral social policy/political strategies. This framing draws on scientism as ideological power in setting restrictions on what counts as true and valid bases (knowledge) for policy decisions (Foucault, 1976).

Late neoliberalism has facilitated a novel conjunction of marketised conceptions of contemporary learning with the intensified logics and tools of behaviourist economics, refocusing on the now "hyper-rationalised" individual subject of the educational policy assemblage. Biesta (2010, 2015) has cohesively theorised the logics of the learnification agenda in promoting an educational culture focused on optimising effective and

efficient learning, and as importantly showcasing the conception of value as shifting to only encompassing that which can be measured. Aligning this with McGimpsey and colleagues' insightful exposition of the notion of state value on investments as a core guiding logic in late neoliberal educational policy, demonstrates a disfiguring of educational values, to only that which is quantifiable and defining only those policy investments which result in measurable learning productivity as valuable. The core of the argument for the present article lies in problematising this conjunction of scientism and late neoliberal phasing. The role of science, and more precisely scientism, in the construction of modern common-sense edu-political imaginaries, conceals insidious colonial logics (Patel, 2016) enabling the reproduction of significant inequalities in ostensibly neutral actions such as student centred conceptions of learning. Using assemblage theory to conceptualise the potential diversity of intellectual flows which may inform policy creation allows the excavation of the inherent scientism concealing significant injustices. Building from the same conceptualisation of policy, Gillborn et al. (2022) have convincingly demonstrated such policy actor networks comprising the juncture of "IQists, Anti-Antiracists and Authoritarian Educators", supported by an apparently altruistic platform promoting quality scientific research for teachers, *ResearchED*, in reproducing white supremacy in the UK educational policy context. Such research is key to challenging the elided common sense of scientism that permeates late neoliberal policy creation.

Conclusion: Becoming "redemocratised"

This paper has attempted to unpack the inherent ideology of scientism elided within much of the contemporary educational policy assemblage. It has teased out examples of the logics of intensified marketisation colonising educational discourses, the increased salience of scientistically psychologised tropes of childhood (Burman, 2012), as well as adolescence/adulthood (Williams, 2017), and the use of nudge doctrines to condemn and stem irrationalities of those seen as outside of these scientist learnified cartographies. A core contribution is in synthesising the theory of McGimpsey and colleagues on late neoliberal phasing with that of Strauss and Ezrahi to situate the recrystallisation of scientism in the educational policy assemblage, situating it within the constructed social consciousness Strauss identifies in liberal and for Ezrahi (2012), neoliberal democracies. Lastly in tying this analysis with Biesta's comprehensive critique of the learning society, I argue for the necessity to challenge and resist naïve affiliations to a "scientific" educational ontology, interrogating those positions and thought for divergences into scientism. In his keynote at the Educational Studies Association of Ireland, Kitching (2023) compellingly demonstrated the hidden inequalities encompassed within supposed secular educational ideologies and policy, challenging the educational community to "re-affirm education spaces as political". Taking inspiration from this I wish to propose that it is incumbent that we do the same in the realm of "educational science" and re-affirm the politicalness which is often strategically hidden within knowledge claims.

Notes

1. In this article I am adopting Leo Strauss' perspective on the "abstractness" of society as he saw it evolving in light of liberal developments and social science positivism. While arguably a

neoconservative philosopher, I am drawing upon the work of Fennell and Simpson (2008) who have demonstrated that many of these claims are misreading and that he has useful critiques of the liberal organisation of society.

2. Enoch Burke was a secondary school teacher who rose to controversy in Ireland for refusing to acknowledge a transgender student by their preferred pronouns, defending his so-called right to do so based on his evangelical Christian beliefs. For full story see https://www.independent.ie/irish-news/explained-why-was-teacher-enoch-burke-dismissed-from-his-school/42315661.html#:~:text=Mr%20Burke%20was%20a%20history,was%20suspended%20at%20the%20time.

3. For the purposes of the article I am using the denotation of educational policy assemblage to encapsulate policy actor networks and the broader field of educational research and policy as central to the discourse and design of educational policy.

4. Performance/grades are typically converted to a points system and used for the purposes of ranking and allocating students to their desired University degree programme through the Central Applications Office (CAO).

5. The Leaving Certificate is the State Examination typically employed at the end of the period of secondary school in Ireland, and is typically utilised for the purposes of matriculation to University.

6. The utility of neuroscience in supporting understandings of learning in the classroom is not in itself a nefarious strategy, and is a concept that I as an early career researcher saw much promise in and contained within my earlier works. However, this work positions this concept within the dialectics of the late neoliberal policy assemblage, where this knowledge is manifesting as a component apparatus of the behavioural economics governance rationality of mainstream policy discourse, engendering a restriction of educational possibilities. This work not only represents my attempts to critique these positions, but also signifies my development as a critical psychologist reflecting on my own naïve positionalities as an early career scholar in the neoliberal academy.

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Disclosure statement

References

Allen, K. (2012). The model pupil who faked the test: Social policy in the Irish crisis. *Critical Social Policy*, *32*(3), 422–439. https://doi.org/10.1177/0261018312444418

Allen, K., & O'Boyle, B. (2013). *Austerity Ireland: The failure of Irish capitalism*. Pluto Press.

Andrews, K. (2022). *The new age of empire: How racism and colonialism still rule the world*. Penguin.

Apple, M. W. (2006). Understanding and interrupting neoliberalism and neoconservatism in education. *Pedagogies: An International Journal*, *1*(1), 21–26. https://doi.org/10.1207/s15544818ped0101_4

Apple, M. W. (2011). Democratic education in neoliberal and neoconservative times. *International Studies in Sociology of Education*, *21*(1), 21–31. https://doi.org/10.1080/09620214.2011.543850

Apple, M. W. (2017). What is present and absent in critical analyses of neoliberalism in education. *Peabody Journal of Education*, *92*(1), 148–153. https://doi.org/10.1080/0161956X.2016.1265344

Baez, B., & Boyles, D. (2009). *The politics of inquiry: Education research and the "culture of science"*. State University of New York Press.

Bailey, L., & Gibson, M. T. (2023). School leaders' experiences of high-stakes assessments during the Covid-19 pandemic in England. *School Leadership & Management*, *43*(3), 189–209. https://doi.org/10.1080/13632434.2023.2176482

Ball, S. (2000). Performativities and fabrications in the education economy: Towards the performative society? *The Australian Educational Researcher*, *27*(2), 1–23. https://doi.org/10.1007/BF03219719

Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education Policy*, *18*(2), 215–228. https://doi.org/10.1080/0268093022000043065

Ball, S. J. (2012). *Global Education Inc.: New policy networks and the neo-liberal imaginary*. Routledge.

Ball, S. J. (2015). Education, governance and the tyranny of numbers. *Journal of Education Policy*, *30*(3), 299–301. https://doi.org/10.1080/02680939.2015.1013271

Ball, S. J. (2016). Neoliberal education? Confronting the slouching beast. *Policy Futures in Education*, *14*(8), 1046–1059. https://doi.org/10.1177/1478210316664259

Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational Theory*, *57*(1), 1–22. https://doi.org/10.1111/j.1741-5446.2006.00241.x

Biesta, G. (2009). Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability*, *21*(1), 33–46. https://doi.org/10.1007/s11092-008-9064-9

Biesta, G. (2010). *Good education in an age of measurement: Ethics, politics, democracy*. Paradigm Publishers.

Biesta, G. (2015). What is education for? On good education, teacher judgement, and educational professionalism. *European Journal of Education*, *50*(1), 75–87. https://doi.org/10.1111/ejed.12109

Biesta, G. (2016). *The beautiful risk of education*. Routledge.

Biesta, G. (2017). Education, measurement and the professions: Reclaiming a space for democratic professionality in education. *Educational Philosophy and Theory*, *49*(4), 315–330. https://doi.org/10.1080/00131857.2015.1048665

Biesta, G. J. J. (2010). Why 'what works' still won't work: From evidence-based education to value-based education. *Studies in Philosophy and Education*, *29*(5), 491–503. https://doi.org/10.1007/s11217-010-9191-x

Blundell, R., Costa Dias, M., Joyce, R., Cribb, J., Waters, T., Xu, X., & Wernham, T. (2022). Inequality and the Covid crisis in the United Kingdom. https://ifs.org.uk/publications/inequality-and-covid-crisis-united-kingdom

Blyth, M. (2013). Paradigms and paradox: The politics of economic ideas in two moments of crisis. *Governance*, *26*(2), 197–215. https://doi.org/10.1111/gove.12010

Bradbury, A., McGimpsey, I., & Santori, D. (2013). Revising rationality: The use of 'nudge' approaches in neoliberal education policy. *Journal of Education Policy*, *28*(2), 247–267. https://doi.org/10.1080/02680939.2012.719638

Braidotti, R. (2013). *The posthuman*. Polity Press.

Brown, M., Mcnamara, G., & O'Hara, J. (2016). Quality and the rise of value-added in education: The case of Ireland. *Policy Futures in Education*, *14*(6), 810–829. https://doi.org/10.1177/1478210316656506

Brown, W. (2015). *Undoing the demos: Neoliberalism's stealth revolution* (1st ed.). Zone Books.

Burman, E. (2012). Deconstructing neoliberal childhood: Towards a feminist antipsychological approach. *Childhood (copenhagen, Denmark)*, *19*(4), 423–438. https://doi.org/10.1177/0907568211430767

Canny, A., & Hamilton, M. (2018). A state examination system and perpetuation of middle-class advantage: An Irish school context. *British Journal of Sociology of Education*, *39*(5), 638–653. https://doi.org/10.1080/01425692.2017.1377599

Cherry, K., Leotti, S. M., Panichelli, M., & Wahab, S. (2023). Pandemic possibilities: Confronting neoliberalism in social work education. *Social Work Education*, *42*(6), 831–846. https://doi.org/10.1080/02615479.2021.1989397

Daly, J. (2020). Coronavirus has made science sexy. Irish Independent. https://www.independent.ie/opinion/comment/coronavirus-has-made-science-sexy/39122946.html

Davies, B., & Bansel, P. (2007). Neoliberalism and education. *International Journal of Qualitative Studies in Education*, *20*(3), 247–259. https://doi.org/10.1080/09518390701281751

De Lissovoy, N. (2008). Dialectic of emergency/emergency of the dialectic. *Capitalism Nature Socialism*, *19*(1), 27–40. https://doi.org/10.1080/10455750701859380

De Lissovoy, N. (2013). Pedagogy of the impossible: Neoliberalism and the ideology of accountability. *Policy Futures in Education*, *11*(4), 423–435. https://doi.org/10.2304/pfie.2013.11.4.423

De Lissovoy, N. (2015). *Education and emancipation in the neoliberal era: Being, teaching and power*. Palgrave Macmillan.

De St Croix, T. (2018). Youth work, performativity and the new youth impact agenda: Getting paid for numbers? *Journal of Education Policy*, *33*(3), 414–438. https://doi.org/10.1080/02680939.2017.1372637

De St Croix, T., McGimpsey, I., & Owens, J. (2020). Feeding young people to the social investment machine: The financialisation of public services. *Critical Social Policy*, *40*(3), 450–470. https://doi.org/10.1177/0261018319854890

Delahunty, T. (2023). The learning sciences as a mindset for STEM education research. In T. Delahunty & M. Ní Ríordáin (Eds.), *Perspectives in contemporary STEM education research* (pp. 48–60). Routledge.

DeLanda, M. (2006). Deleuzian social ontology and assemblage theory. In M. Fuglsang & B. M. Sorensen (Eds.), *Deleuze and the social* (pp. 250–266). Edinburg University Press.

Deleuze, G., & Guattari, F. (2013). *A thousand plateaus: Capitalism and schizophrenia*. Bloomsbury.

Department of Education and Skills (DES). (2017a). STEM Education Policy Statement 2017-2026. Dublin. https://www.education.ie/en/The-Education-System/STEM-Education-Policy/stem-education-policy-statement-2017-2026-.pdf

Department of Education and Skills (DES). (2017b). Languages connect: Ireland's strategy for foreign languages in education 2017–2026. Dublin. https://www.gov.ie/pdf/?file = https://assets.gov.ie/79116/5a5cb48b-09e1-464e-9a2e-4ff231cb090b.pdf#page = null

Dukelow, F. (2015). 'Pushing against an open door': Reinforcing the neo-liberal policy paradigm in Ireland and the impact of EU intrusion. *Comparative European Politics*, *13*(1), 93–111. https://doi.org/10.1057/cep.2014.43

Dukelow, F., & Kennett, P. (2018). Discipline, debt and coercive commodification: Post-crisis neoliberalism and the welfare state in Ireland, the UK and the USA. *Critical Social Policy*, *38*(3), 482–504. https://doi.org/10.1177/0261018318762727

Elfert, M. (2023). Humanism and democracy in comparative education. *Comparative Education*, *59*(3), 398–415. https://doi.org/10.1080/03050068.2023.2185432

Ezrahi, Y. (2012). *Imagined democracies: Necessary political fictions*. Cambridge University Press.

Farry, O. (2021). Matters of life and death, trust and expertise: Richard Chambers revisits Ireland's pandemic response and the dangers of magical thinking; Prof Luke O'Neill extols the power of positive, well-informed thinking. The Irish Times. https://www.irishtimes.com/culture/books/ireland-s-pandemic-response-new-books-by-richard-chambers-and-luke-o-neill-1.4718363

Fennell, J. M., & Simpson, T. L. (2008). Leo Strauss: Education and the body politic. *Critical Studies in Education*, *49*(1), 49–65. https://doi.org/10.1080/17508480701813540

Fisher, M. (2009). *Capitalist realism: Is there no alternative?* Zero Books.

Foucault, M. (1976). The political function of the intellectual. *Radical Philosophy*, *17*(13), 126–133.

Foucault, M. (1977). *Discipline and punish: The birth of the prison*. Random House.

Foucault, M. (1994). *The birth of the clinic: An archaeology of medical perception*. Vintage Books.

Foucault, M. (2008). *The birth of biopolitics: Lectures at the Collège de France, 1978–79*. Palgrave Macmillan.

Gane, N. (2021). Nudge economics as libertarian paternalism. *Theory, Culture & Society*, *38*(6), 119–142. https://doi.org/10.1177/0263276421999447

Gibbons, A. (2018). Neoliberalism, education policy and the life of the academic: A poetics of pedagogical resistance. *Policy Futures in Education*, *16*(7), 918–930. https://doi.org/10.1177/1478210318774675

Gillborn, D., McGimpsey, I., & Warmington, P. (2022). The fringe is the centre: Racism, pseudoscience and authoritarianism in the dominant English education policy network. *International Journal of Educational Research*, *115*, 102056. https://doi.org/10.1016/j.ijer.2022.102056

Hall, K., Curtin, A., & Rutherford, V. (2014). *Networks of mind: Learning, culture, neuroscience*. Routledge.

Hardt, M., & Negri, A. (2009). *Commonwealth*. Belknap Press of Harvard University Press.

Holloway, J., & Brass, J. (2018). Making accountable teachers: The terrors and pleasures of performativity. *Journal of Education Policy*, *33*(3), 361–382. https://doi.org/10.1080/02680939.2017.1372636

Houlden, S., & Veletsianos, G. (2021). The problem with flexible learning: Neoliberalism, freedom, and learner subjectivities. *Learning, Media and Technology*, *46*(2), 144–155. https://doi.org/10.1080/17439884.2020.1833920

Hyslop-Margison, E. J., & Naseem, M. A. (2007). *Scientism and education*. Springer.

Issar, S. (2021). Theorising 'racial/colonial primitive accumulation': Settler colonialism, slavery and racial capitalism. *Race & Class*, *63*(1), 23–50. https://doi.org/10.1177/0306396821996273

Jasanoff, S. (2004a). Ordering knowledge, ordering society. In S. Jasanoff (Ed.), *States of knowledge: The co-production of science and social order* (pp. 13–45). Routledge.

Jasanoff, S. (2004b). *States of knowledge: The co-production of science and social order*. Routledge.

Jasanoff, S. (2011). Civic epistemology. In S. Jasanoff (Ed.), *Designs on nature* (pp. 247–271). Princeton University Press.

Jasanoff, S. (2015). Future imperfect: Science, technology, and the imaginations of modernity. In S. Jasanoff & S.-H. Kim (Eds.), *Dreamscapes of modernity* (pp. 1–33). The University of Chicago Press.

Judge, M. (2021). Covid 19, school closures and the uptake of a digital assessment for learning pilot project during Ireland's national lockdown. *Irish Educational Studies*, *40*(2), 419–429. https://doi.org/10.1080/03323315.2021.1917443

Kelly, A. (2021). A tale of two algorithms: The appeal and repeal of calculated grades systems in England and Ireland in 2020. *British Educational Research Journal*, *47*(3), 725–741. https://doi.org/10.1002/berj.3705

Kiely, E., & Meade, R. (2018). Contemporary Irish youth work policy and practice: A governmental analysis. *Child & Youth Services*, *39*(1), 17–42. https://doi.org/10.1080/0145935X.2018.1426453

Kirwan, L., & Hall, K. (2016). The mathematics problem: The construction of a market-led education discourse in the Republic of Ireland. *Critical Studies in Education*, *57*(3), 376–393. https://doi.org/10.1080/17508487.2015.1102752

Kitching, K. (2010). An excavation of the racialised politics of viability underpinning education policy in Ireland. *Irish Educational Studies*, *29*(3), 213–229. https://doi.org/10.1080/03323315.2010.498278

Kitching, K. (2023). The Reactionary Use of Concepts of Secularism, Pluralism, and Free Expression [Keynote presentation] Educational Studies Association of Ireland [ESAI] Annual Conference Belfast, Northern Ireland.

Kitching, K. (2020). *Childhood, religion and school injustice*. Cork University Press.

Klein, N. (2007). *The shock doctrine: The rise of disaster capitalism*. Allen Lane.

Klovig Skelton, S. (2020). Ethical and professional data science needed to avoid further algorithm controversies. Retrieved June 17, 2023, from https://www.computerweekly.com/news/252488438/Ethical-and-professional-data-science-needed-to-avoid-further-algorithm-controversies

Kokushkin, M., & Pettys, A. M. (2016). 'Shock therapy' as a neo-liberal response to an economic crisis. *Territory, Politics, Governance*, *4*(1), 118–136. https://doi.org/10.1080/21622671.2015.1036914

Kuhl, P. K., Lim, S.-S., Guerriero, S., & Damme, D. V. (2019). *Developing Minds in the Digital Age*. OECD. https://doi.org/10.1787/562a8659-en

Kwok, H., Singh, P., & Heimans, S. (2023). The regime of 'post-truth': COVID-19 and the politics of knowledge. *Discourse: Studies in the Cultural Politics of Education*, *44*(1), 106–120. https://doi.org/10.1080/01596306.2021.1965544

Liasidou, A., & Symeou, L. (2018). Neoliberal versus social justice reforms in education policy and practice: Discourses, politics and disability rights in education. *Critical Studies in Education*, *59*(2), 149–166. https://doi.org/10.1080/17508487.2016.1186102

Lundahl, L. (2012). Educational theory in an era of knowledge capitalism. *Studies in Philosophy and Education*, *31*(3), 215–226. https://doi.org/10.1007/s11217-012-9304-9

Lynch, K. (1987). Dominant ideologies in Irish educational thought – Consensualism, essentialism and meritocratic individualism. *The Economic and Social Review*, *18*(2), 101–122.

Lynch, K. (2022). *Care and capitalism: Why affective equality matters for social justice*. Polity Press.

Lynch, K., Grummell, B., & Devine, D. (2012). *New managerialism in education: Commercialization, carelessness and gender* (1st ed.). Palgrave Macmillan.

Lysaght, Z. (2023). What's trust got to do with it? The 'washback effect' of engagement in the 2020 calculated grades process on teachers' trust and future senior cycle reform in Ireland. *European Journal of Education*, *58*(1), 51–66. https://doi.org/10.1111/ejed.12541

Mazur, L. B. (2021). The epistemic imperialism of science. Reinvigorating early critiques of scientism. *Frontiers in Psychology*, *11*, 609823. https://doi.org/10.3389/fpsyg.2020.609823

Mccormack, O., Gleeson, J., & O'Donoghue, T. (2020). An analysis of national newspaper coverage relating to the leaving certificate programme in two newspapers in the Republic of Ireland. *Irish Educational Studies*, *39*(1), 1–18. https://doi.org/10.1080/03323315.2019.1664314

McGimpsey, I. (2017). Late neoliberalism: Delineating a policy regime. *Critical Social Policy*, *37*(1), 64–84. https://doi.org/10.1177/0261018316653552

McGimpsey, I. (2018). The new youth sector assemblage: Reforming youth provision through a finance capital imaginary. *Journal of Education Policy*, *33*(2), 226–242. https://doi.org/10.1080/02680939.2017.1361551

McGimpsey, I., Bradbury, A., & Santori, D. (2017). Revisions to rationality: The translation of 'new knowledges' into policy under the coalition government. *British Journal of Sociology of Education*, *38*(6), 908–925. https://doi.org/10.1080/01425692.2016.1202747

Meade, R. R. (2018). The re-signification of state-funded community development in Ireland: A problem of austerity and neoliberal government. *Critical Social Policy*, *38*(2), 222–243. https://doi.org/10.1177/0261018317701611

Mercille, J., & Murphy, E. (2017). The neoliberalization of Irish higher education under austerity. *Critical Sociology*, *43*(3), 371–387. https://doi.org/10.1177/0896920515607074

Mertanen, K., Vainio, S., & Brunila, K. (2022). Educating for the future? Mapping the emerging lines of precision education governance. *Policy Futures in Education*, *20*(6), 731–744. https://doi.org/10.1177/14782103211049914

Mezzadri, A. (2022). Social reproduction and pandemic neoliberalism: Planetary crises and the reorganisation of life, work and death. *Organization*, *29*(3), 379–400. https://doi.org/10.1177/13505084221074042

Mohan, G., Carroll, E., Mccoy, S., Mac Domhnaill, C., & Mihut, G. (2021). Magnifying inequality? Home learning environments and social reproduction during school closures in Ireland. *Irish Educational Studies*, *40*(2), 265–274. https://doi.org/10.1080/03323315.2021.1915841

Mooney-Simmie, G. (2014). The neo-liberal turn in understanding teachers' and school leaders' work practices in curriculum innovation and change: A critical discourse analysis of a newly proposed reform policy in lower secondary education in the Republic of Ireland. *Citizenship, Social and Economics Education*, *13*(3), 185–198. https://doi.org/10.2304/csee.2014.13.3.185

Mooney-Simmie, G. M., Moles, J., & O'Grady, E. (2019). Good teaching as a messy narrative of change within a policy ensemble of networks, superstructures and flows. *Critical Studies in Education*, *60*(1), 55–72. https://doi.org/10.1080/17508487.2016.1219960

Muller, S. M. (2021). The dangers of performative scientism as the alternative to anti-scientific policy-making: A critical, preliminary assessment of South Africa's Covid-19 response and its consequences. *World Development*, *140*, 105290. https://doi.org/10.1016/j.worlddev.2020.105290

Neill, L. O. (2020). *Never mind the b#ll*cks, here's the science*. Gill Books.

Nixon, J. (Ed.). (2017). *Higher education in austerity Europe*. Bloomsbury Academic.

Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. New York University Press.

O'Brien, C. (2020). Higher leaving cert grades to push up CAO points: Teachers award more than twice normal level of H1s in calculated process. The Irish Times. https://www.irishtimes.com/news/education/cao-points-set-to-rise-under-leaving-cert-calculated-grades-1.4344232

O'Connor, C., O'Connell, N., Burke, E., Nolan, A., Dempster, M., Graham, C. D., Nicolson, G., Barry, J., Scally, G., Crowley, P., Zgaga, L., Mather, L., & Darker, C. D. (2021). Media representations of science during the first wave of the COVID-19 pandemic: A qualitative analysis of news and social media on the Island of Ireland. *International Journal of Environmental Research and Public Health*, *18*(18), 9542. https://doi.org/10.3390/ijerph18189542

OECD. (2007). *Understanding the brain: The birth of a learning science*. OECD Publishing.

OECD. (2022). *Who cares about using education research in policy and practice?* OECD. https://doi.org/10.1787/d7ff793d-en

Olson, R. (2016). *Scientism and technocracy in the twentieth century: The legacy of scientific management*. Lexington Books.

Olssen, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: From the free market to knowledge capitalism. *Journal of Education Policy*, *20*(3), 313–345. https://doi.org/10.1080/02680930500108718

Patel, L. (2016). *Decolonizing educational research: From ownership to answerability*. Routledge.

Patton, K., & Winter, K. (2022). Children's agentic capacity, schoolification and risk: Competing discourses and young children's experiences in pre-school settings. *Journal of Curriculum Studies*, *54*(5), 647–664. https://doi.org/10.1080/00220272.2022.2113916

Peters, M. A. (2012). Neoliberalism, education and the crisis of western capitalism. *Policy Futures in Education*, *10*(2), 134–141. https://doi.org/10.2304/pfie.2012.10.2.134

Peters, M. A. (2022). Public intellectuals, viral modernity and the problem of truth. *British Journal of Educational Studies*, *70*(5), 557–573. https://doi.org/10.1080/00071005.2022.2141859

Quinn, P., Mcgilloway, S., & Burke, J. (2021). COVID-19 and the class of 2020: A national study of the mental health and wellbeing of leaving certificate students in Ireland. *Irish Educational Studies*, *40*(2), 375–384. https://doi.org/10.1080/03323315.2021.1916564

Riddell, R. (2013). Changing policy levers under the neoliberal state: Realising coalition policy on education and social mobility. *Journal of Education Policy*, *28*(6), 847–863. https://doi.org/10.1080/02680939.2013.812247

Selwyn, N., & Gašević, D. (2020). The datafication of higher education: Discussing the promises and problems. *Teaching in Higher Education*, *25*(4), 527–540. https://doi.org/10.1080/13562517.2019.1689388

Shahjahan, R. A. (2011). Decolonizing the evidence-based education and policy movement: Revealing the colonial vestiges in educational policy, research, and neoliberal reform. *Journal of Education Policy*, *26*(2), 181–206. https://doi.org/10.1080/02680939.2010.508176

Shamir, R. (2008). The age of responsibilization: On market-embedded morality. *Economy and Society*, *37*(1), 1–19. https://doi.org/10.1080/03085140701760833

St.Pierre, E. A. (2006). Scientifically based research in education: Epistemology and ethics. *Adult Education Quarterly*, *56*(4), 239–266. https://doi.org/10.1177/0741713606289025

Stein, H., Cunningham, S., & Carmody, P. (2021). The rise of "behavioral man": Randomized controlled trials and the "new" development agenda. *Human Geography*, *14*(1), 62–75. https://doi.org/10.1177/1942778620987068

Strauss, L. (1957). What is political philosophy? *The Journal of Politics*, *19*(1), 343–368. https://doi.org/10.2307/2126765

Todd, S. (2022). Reframing education beyond the bounds of strong instrumentalism: Educational practices, sensory experience, and relational aesthetics. *Educational Theory*, *72*(3), 333–347. https://doi.org/10.1111/edth.12534

Tuhiwai Smith, L. (2012). *Decolonizing methodologies: Research and indigenous peoples* (2nd ed.). Zed Books.

Venn, C. (2006). A note on assemblage. *Theory, Culture & Society*, *23*(2–3), 107–108. https://doi.org/10.1177/026327640602300218

Watson, C. (2011). Accountability, transparency, redundancy: Academic identities in an era of 'excellence'. *British Educational Research Journal*, *37*(6), 955–971. https://doi.org/10.1080/01411926.2010.508514

Williams, A. (2017). Are we all psychologists now? In A. Williams, T. Billington, & T. Corcoran (Eds.), *Critical educational psychology* (pp. 127–134). Wiley Blackwell.

Williams, R. N. (2016). Introduction. In R. N. Williams & D. N. Robinson (Eds.), *Scientism: The new orthodoxy* (pp. 1–22). Bloomsbury Academic.

Wrigley, T. (2018). The power of 'evidence': Reliable science or a set of blunt tools? *British Educational Research Journal*, *44*(3), 359–376. https://doi.org/10.1002/berj.3338

Youdell, D., & McGimpsey, I. (2015). Assembling, disassembling and reassembling 'youth services' in austerity Britain. *Critical Studies in Education*, *56*(1), 116–130. https://doi.org/10.1080/17508487.2015.975734

Zanoni, P., & Mir, R. (2022). COVID-19: Interrogating the capitalist organization of the economy and society through the pandemic. *Organization*, *29*(3), 369–378. https://doi.org/10.1177/13505084221090633