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To cite this article: Michael Tomlinson & Gerbrand Tholen (2023): Scarring effects for young people in challenging economic times: a conceptual synthesis and future policy and research agenda, Labour and Industry, DOI: [10.1080/10301763.2023.2251216](https://doi.org/10.1080/10301763.2023.2251216)

To link to this article: <https://doi.org/10.1080/10301763.2023.2251216>



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Published online: 28 Aug 2023.



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Scarring effects for young people in challenging economic times: a conceptual synthesis and future policy and research agenda

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ABSTRACT

A renewed conceptual framework of labour market scarring is developed. Due to economic shocks such as the COVID-19 pandemic, labour market scarring presents an important policy problem. The paper first outlines the theoretical mainstream view on scarring and argues that existing theoretical frame works on labour market scarring are not sufficient to understand the post-COVID labour market for graduates. We identify three areas in which mainstream understanding overlooks and discusses their explanatory value in understanding contextual mediatory factors and non-economic effects of initial scarring. A case is made for qualitative research and career development approaches to understand the processes of scarring as these provide further insight into its socio-psychological manifestations and consequences.

ARTICLE HISTORY

Received 27 April 2022
Accepted 21 August 2023

KEYWORDS

Graduates; labour market; scarring; economic shocks; disruptions

Introduction

Graduate labour markets in most countries have been severely affected by economic shocks in the last 25 years. The 2008 recession in particular had significant long-term and short-term labour market impacts for displaced workers (Clark 2015). The economic crisis caused by the COVID-19 pandemic has, likewise, severely impacted the labour market (Brewer et al. 2020; Gavin et al. 2022; Powell et al. 2020). Labour market shocks such as these continue to negatively affect career trajectories as graduates experience periods of unemployment and underemployment. However, they do not work in isolation from other shock events emerging from periods of economic turmoil, including the global financial recession in the late 2000s.

The negative long-term consequences of labour market mismatch or unemployment are well established. Unemployment tends to bring further unemployment in the future as well as decreased future earnings. Economists predicted that individuals could become scarred by initial unemployment if the value of their skills and qualifications gradually failed to be recognised by employers. Importantly, such individuals endure reduced wage

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potential and are more likely to be forced to accept jobs to which they are not matched and which provide fewer longer-term opportunities.

The impact of any recession depends on a variety of related factors, most typically related to the scale of labour market contraction, the availability of job openings and fluctuations in hiring and wage levels (O'Higgins 2012). Also related is the quality of employment, including opportunities for training and career development to support an employee's immediate and longer-term employment sustainability. It has been well-documented that young people, or at least those leaving formal education and entering the labour market for the first time, face the most acute challenges (Wolbers 2003). This is largely due to a combination of factors, not least their relative employment experience shortfalls, the propensity for firms to retain older employees who require lower training demands, and the higher proportion of this category in, or looking to enter, more precarious lower-skilled work (for instance, in retail and leisure). School and college leavers' job market prospects were significantly undermined by the COVID pandemic (Konle-Seidl and Picarella 2021; MacDonald et al. 2023; Wilson and Papoutsaki 2021).

Labour market scarring has been identified as a significant social policy issue in need of active labour market policy (Sage 2018; Wulfgramm 2014). After a prolonged period of economic downturn and high unemployment, labour market scarring has become an increased risk for many young workers who have been unemployed (or underemployed) during these periods. Those affected are hurt in many different ways. For instance, it has been shown that unemployment is associated with a variety of adverse outcomes, such as financial hardship (Gallie et al. 2000), poorer health (Janlert et al. 2015; Schröder 2013) or marital disruption (Covizzi 2008; Hansen 2005). Equally important are the negative impacts on careers and employment opportunities that scarring brings. Scarring effects, therefore, form a distinct societal and policy problem within both Western and non-Western countries. However, scarring is not confined to less advantaged groups such as lower-qualified school leavers. Studies have found profound negative labour market effects for seemingly advantaged social groups such as university graduates (Erdsiek 2021; Ordine and Rose 2015).

A better understanding of labour market scarring can help improve the policy interventions available. This applies, in particular, to Higher Education (HE) graduates whose labour positions are often understood to be distinct from and superior to the rest of the labour market (Tholen, 2014) despite the uneven labour market outcomes for this group. Graduate unemployment has traditionally been relatively modest in most Western countries. In the UK in 2019, 2.6% of workers with UG degrees experienced unemployment (4.6% of 21–30-year-olds). The COVID-19 downturn has increased UK graduate unemployment (Office for National Statistics 2021). Overqualification is becoming far more widespread for university graduates, with estimate of up to 40% of graduate being overqualified (Barone and Ortiz 2011; Boll et al. 2016; Office for National Statistics 2019).

This article critically assesses the existing understanding of labour market scarring and identifies distinct limitations to how well it can help understand scarring in the graduate labour market, focusing in particular on the UK context. It identifies three areas in which the mainstream literature is unable to sufficiently deal with the social nature of labour market scarring. These are related to: a) demand-side dynamics and employers; b) social and cultural capital mediation linked to relative socio-economic advantage; and c) socio-psychological costs. The current mainstream literature offers

an individualised view of scarring, which underplays the social context in which scarring occurs. We challenge it by calling for the use of insights from other fields, such as sociology, education and career studies, to create a non-reductive contingent and social understanding of scarring that is not confined to economic penalty. We argue for the need to explore a wide range of contextual, socio-cultural and personal mediators that can explain the potential prevalence and effects of scarring. Further, a renewed analysis of labour market scarring is needed to form a coherent basis for public policy to address this problem at both supply and demand levels of the labour market.

The paper is structured as follows. It first outlines some of the extant understandings and approaches to scarring and their dominant theoretical underpinnings, mainly related to human capital and signalling perspectives. It then identifies the three areas in which the current dominant perspective falls short. The way that the current literature on graduate transitions and early employment outcomes improves our current understanding is then explained. The conclusion outlines the contours of renewed understanding, which helps to underpin existing and new social policies to ease the effects of labour market scarring.

What we know about scarring and how it has been understood

Labour market scarring is understood to be an adverse effect from an employment experience or status, either immediate or long-term, which principally impacts a worker's subsequent employment prospects. The overall effect of employment scarring is the depletion of real and perceived employment outcomes, not only in decreased earnings capacity and likely future unemployment, but also in the ways individuals appraise their current and future employment prospects (Daly and Delaney 2013). Scarring has been understood as a generally detrimental effect that leads to unfavourable experiences through an individual's employment integration and progression. The experiences of unemployment and underemployment are two key sources of labour market scarring. A wide range of studies found that unemployment leads to severe labour penalties, such as spells of unemployment later on in a person's career (Cockx and Picchio 2013; Nordström Skans 2011) and an association with negative, long-term labour market outcomes, such as reduced future employment opportunities (Baert et al. 2013; Pedulla 2016) and lower earnings (Korpi and Tählin 2009) as well as negative impacts on wellbeing, efficacy, goal planning and life satisfaction (Daly and Delaney 2013; McQuaid 2015).

Underemployment is defined here as the level of misalignment between the demands of a workers' job and their capabilities. This extends to both perceptions of job quality and related forms of career development opportunities and the extent to which underemployment is a transient experience that does not significantly disrupt desired career outcomes. Underemployment can cause labour market scarring; however, its effect varies depending on its scale and duration. Thus, if individuals perceive penalties to being in a job that is misaligned with their skills, and this situation does not change course or form part of a clear strategy towards suitable outcomes, this potentially depletes future motivations and morale. It is latent because it results in unforeseen costs that go beyond immediate mismatch or wage. Overqualification is a form of underemployment and is

generally understood as the situation where individuals' qualifications, whether education or work-based, are greater than the demands of a job (Erdogan and Bauer 2020). It can lead to skill under-utility and pay penalties (Green and Zhu, 2010).

The case of the COVID pandemic

The COVID pandemic serves here as an interesting case of how unexpected and unpredictable economic shocks can have on the graduate labour market. Forsythe et al (2022) report that the US labour market unexpected reallocation of customer-orientated and service jobs in severe decline during the pandemic as well as the biggest drop-offs in product demand. The scarring effects may become clearer in the future but much of the literature argues that they will impact graduates for a considerable time. Barrett et al (2023) analysed the effects of recessions on employment for past recessions as the greatest scarring has occurred following financial crisis recessions. The amount of scarring following the pandemic and epidemic recession in their sample is *in between* that of typical recessions and financial crises. The authors write 'Given that the COVID-19 crisis is global and more severe than those previous pandemics, however, the amount of scarring is likely to be greater' (p.229). Rothstein (2020) predicted that those who graduated in 2020, 2021 and 2022 will be permanently scarred through reduced employment but even between these groups there may be variety in the impacts that they face. Ray-Chaudhuri and Xu (2023) found for the UK that those graduating in 2020, struggled to find work three to six months after graduation, and were less likely to receive on-the-job training in their first year, and more likely to start in lower-paid occupations than previous cohorts. Yet these effects were only short-term and these graduates quickly recover lost ground. Those from disadvantaged backgrounds were more likely to be in the same job that they held at school or university. The authors stress that some negative effects of the COVID-19 pandemic are yet to materialise.

Later cohorts of graduates will have suffered disruption during their education due to the pandemic, as well as experienced a recession upon entry into the UK labour market. Other research (Tomlinson et al. 2023) reported widespread disruption and disorientation among those entering the pandemic-affected job market, including experience of job offer withdrawals, closed training pathways, and depleted recruitment opportunities. Further significant impacts were reported on emerging career trajectories and morale about the value of graduate qualifications during a weakened job market. Opportunities to build early forms of career capital were significantly weakened, and in many cases directly attributed to the labour market conditions of the pandemic.

Theoretical influences

The dominant, mainly economic literature uses human capital theory (HCT) and signalling in explaining why scarring occurs and how we understand its impacts (predominantly in earnings and the chance of becoming mismatched/unemployed in the future). The HCT approach assumes that skills or abilities explain why applicants with histories of unemployment or overqualification are deemed less desirable by employers (Acemoglu 1995; Becker 1964, 1993). Scarring represents a depreciation of the value of prior educational outcomes through the under-utility of core knowledge and skills, which become

depreciated or obsolete over time. In particular, unemployment leads to a decay of human capital or a lack of human capital accumulation, making it more difficult to find employment in the future (Acemoglu 1995; Mincer and Polachek 1974; Pissarides 1992). Becker (1993) distinguishes between 'general' human capital, which is transferable across employers, and 'specific' human capital, which is not. Workers may be assumed to possess both general knowledge and more specific capabilities that are of use only at particular firms, in particular occupations or in particular industries. Human capital theory states that when workers become unemployed, their firm-specific knowledge and skills are instantly and completely lost, while occupation-related skills are assumed to slowly depreciate with the increasing duration of unemployment. Prospective future employers will not reward non-relevant skills when making new job offers. Depending on the extent that workers' productive capabilities are largely specific to their former company, loss of employability is the result. Unemployed workers are often forced to accept jobs in different sectors and occupations, which do not rely on workers' skills, increasing the impact. New industry-specific requirements make these workers more vulnerable to future lay-offs (Narendranathan and Elias, 1993; Gangl 2006; Gregg 2001).

The deterioration of general skills associated with a spell of unemployment (or permanent loss of firm-specific human capital) can also lower future wages and reduce opportunities for finding employment (Acemoglu 1995; Ljungqvist and Sargent 1998). Being unemployed for a long period can further destroy existing skills. Individuals with experience are more attractive than those without experience, as employers aim to keep the training costs of workers as low as possible. So, previously unemployed workers face difficulties competing with continuously employed workers. This further reduces the prospect of securing suitable and matched employment, which leads to lowered wage returns. These lower wage returns generate subsequent negative returns as human capital value diminishes the longer individuals can capitalise on their potential for securing favourable employment (Gregg 2001; Heckman and Borjas 1980).

Other theoretical perspectives on why scarring occurs include signalling and screening theories, which are largely complementary. Employers screen and job seekers signal. Both theories emphasise that employers do not tend to have reliable or sufficient information about applicants' innate productivity. Hiring is seen as an investment under uncertainty. According to signalling theory (Perri 1994; Spence 1974) and screening theory (Stiglitz 1975), applicants can help solve the problem. Employers evaluate job candidates based on a range of observable personal characteristics (for instance, educational credentials, job experience, race and sex).

Employees can send a signal about their potential productivity level to an employer based on their educational credentials. Employers believe that educational credentials are positively correlated with greater ability compared with low ability, as low-ability workers are less likely to invest in obtaining advanced qualifications. Therefore, based on educational credentials, employers can reliably distinguish low-ability workers from high-ability workers. Other signals, such as a criminal record, may be seen as undesirable. Similarly, periods of unemployment can be viewed as a signal of low productivity (Lockwood 1991). If the applicant has been considered unworthy of jobs in the past, why should the applicant be considered worthy now? Some have offered that other firms' hiring and dismissal decisions shown on the candidate's CV can also become an external signal of their employability ('rational herding') (Lockwood 1991; Oberholzer-Gee 2008)

According to the theory, sustained unemployment – or lack of skilled employment – is informative for the employer in regard to the applicant’s ability, trainability and ability to sustain effort or to act cooperatively. What periods of unemployment or overqualification exactly signal to employer may be organisational and/or sector specific. Pedulla (2016) found that, for US employers, unemployment signals perceive competence but not commitment. In classic signalling accounts, the signals between jobseeker and employer contrive to reinforce the effects of initial scarring. If employers perceive unemployment as a signal of lower productivity, this becomes a screening mechanism by which they exclude the already unemployed (and potentially scarred) jobseeker. The job seeker interprets this exclusion as a signal of their lack of employment potential, which may reduce their ability to present effective signals about their attractiveness to employers. Some emphasise that reduced relative positioning to other candidates creates a disadvantage. If the labour market is conceptualised as a queue (Thurow 1975; Kornrich 2009) in which employers rank candidates based on desirability, those with unemployment or overqualified work histories are pushed to the back.

Problems and limitations of the mainstream view

The conventional economic view has provided some pertinent insights on the various forms of employment scarring, but has distinct limitations. The economic toolbox for understanding beyond signalling or HCT is limited and theoretical perspectives that do justice to contextual specificity are more likely to be more aligned with reality. The following sections provide an alternative analysis of scarring by paying further attention to contextual determinants and mediators of scarring and the ways this may be manifest beyond simple earnings penalties. We identify three salient areas that are often overlooked in mainstream scarring analysis. These relate to: a) demand-side dynamics and employers; b) social and cultural capital mediation; and c) socio-psychological costs, in explaining the potential causes, manifestations and adverse effects of initial employment scarring.

In both human capital and signalling approaches, scarring is largely reduced to an employees’ diminished productivity potential based on information about the value of their qualifications and other profile features. They ostensibly focus on wage and skills return deficits as key scarring influences, stripping analysis of contextual influences that influence the prevalence and scale of scarring and how individuals make sense of their employment situations.

A key limitation of the dominant view is that it presents a reductive way of understanding how scarring works. The problem is either reduced to the depletion of human capital or adverse signals to employers. Although the economic approach does not deny that other factors matter, in particular, the behaviour of job seekers, for instance, job searching approaches, it ignores the social context in which unemployment/overqualification is experienced, for instance, relative levels of social advantages and resources, the nature of workplace forms and design, and employer incentives for skills development and workplace learning. Employment scarring is reduced to the outcome of the hiring process in which employers avoid hiring those with non-standard work backgrounds. There are also some vital differences between experiences of overqualification and unemployment, which are not well explained by these large theoretical frameworks.

Nunley et al. (2016) found that overqualification is substantially more harmful than unemployment in subsequent job opportunities for recent US graduates. Baert and Verhaest (2019) found evidence of a larger stigma effect of unemployment than over-education through a randomised field experiment with Belgian employers.

Understanding demand-side dimensions

The demand-side and employer-specific context matters to signalling and HCT only because it either influences the skill needs of employers or affects what employers screen and what candidates signal. As such, it remains an under-theorised influence on scarring, in general, and the graduate labour market, specifically. Three broad, but inter-related, dynamics relating to demand-side employer behaviour can explain initial scarring: vacancy and wage shortfalls, variable employer engagement and training pathways, and inequities in recruitment.

The first is a more immediate manifestation of a recessionary economic context. Labour market contraction and reduction in vacancies shut off opportunities for early career entry, and school leavers and graduates are most at risk (Office for National Statistics 2021). Youth unemployment was shown to be rising before the 2008 economic recession, and it is young workers rather than experienced workers who are most adversely impacted (O'Reilly et al. 2015). A related effect of recessions and the resultant imbalance in labour supply and demand is that employers can raise entry bars around the types of qualifications and experience they demand, which, in turn, creates further obstacles for young people and devalues qualifications that, during previous periods, would have enabled entry. Consequently, first-time job market entrants are not only in competition with more established employees, but also with others in their cohort entering at similar stages (Hora 2020)

The second is the reduction in employers' commitment to meaningful forms of employer engagement and training pathways, including anything approaching a guaranteed opportunity to develop sustainable employment and training. The current evidence indicates that when employers have played a leveraging role within institutions, this has been through the provision of appropriate work-integrated learning and higher-quality training (Wolf 2015). Employer engagement activities such as work placements in the form of internships entail students being engaged in a structured programme of work that provides them with a closer link to future employment. One of the key benefits here is improved bridging ties that such work-related experiences offer school and college leavers; both job seekers and employers are provided with richer information and insight into each other's potential. In both cases, and especially for the former, it provides a more direct route to a targeted workplace and enables students to transfer educationally acquired knowledge and skills into the workplace and engage in early occupational socialisation that prepares them for the demands of their chosen careers (Silva, 2018).

The third factor, concerning employer recruitment, brings into play the deleterious impacts of early forms of social exclusion. While HCT and signalling approaches have provided a generic understanding of why employers value education, they are much less clear on how employers view overqualification and unemployment and how workers approach the hiring process. The rationalist approach extends to employers' behaviour and assumes that employers recruit predominately on skills and work experience and

operate a largely technicist criteria that take skills to be a proxy of productive potential. Yet the reality may be more complex. A study by Atkinson et al. (1996), based on a survey and interviews with 800 UK employers, found that unemployment was a relevant selection criterion for only half of employers. In their survey, they asked the open-ended question, 'Assuming you wished to recruit, what sort of factors might discourage you from choosing an unemployed applicant?' Reasons such as difficulties in getting back into work, suspicions about why they became unemployed, not being able to stick to a job, bad character and other negative personal attributes were all frequently mentioned. Expectations around a lack of motivation and bad attitude were mentioned the most (21%) (confirmed by Van Belle et al. 2018). Human capital concerns were mentioned by only a minority of employers (10%) (pp.127–129). Almost two-thirds of employers did not think that the unemployed generally do not have the right sort of skills or experience to be taken on (pp.142–143) demonstrating the limitations of human capital theory. The findings also do not fully support signalling theory. The majority of employers do not consider that hiring unemployed candidates is riskier. Only very few mentioned bad experiences with previous unemployed applicants. Thus, the expected rational calculations on the probability of adverse productivity or trainability may not reflect how employers think. Assumptions on motivation, confidence and fear of behavioural issues impact their judgement on social fit more than their assessment of productivity or trainability.

Most evidence indicates that, even for specialist job areas, recruitment preferences are not solely determined by anticipated skills matching, but are instead influenced by other factors, most typically the ascribed social characteristics of the job applicant (Rivera 2012). When recruiting candidates, employers signal their expectations of favoured candidates in terms of desired personality traits, values, personal skills, and qualities as a basis for encouraging applications from individuals where a 'match' is likely. These further connect with contextual features of different work organisations that include the socio-cultural fit between job candidates and organisations that employers ultimately regulate. Gender, ethnicity, and class interact with the experience of unemployment and overqualification in the recruitment and selection process (see Pedulla 2020). There is an abundance of evidence on how gender, race and cultural similarities regularly drive matching processes (Friedman and Laurison 2019; Gorman 2005; Woodson 2015), demonstrating the limits of rationality and instrumentality in hiring. Thus, in cases where exclusion from employment opportunities interacts with other forms of disadvantage, such as class, gender, sexuality, age and ethnicity, a potential socio-cultural scar may ensue and lead to high opportunity penalties for more less advantaged groups. This is likely to be the case for those excluded from desirable, yet exclusive, employed fields.

Social and cultural capital mediators

Much of the existing evidence on graduate employment has consistently shown the differential value that the labour market gives to certain degrees and graduate profiles. This extends to well-documented research revealing skewed access to more 'elite' or at least premium-friendly occupational fields, typically occupied by more advantaged graduates (SMCPC 2019; Sutton 2019). Many of these sectors (for instance, medicine, law and finance) often fall within the hard-to-fill category, providing some degree of insulation to

the worst effects of labour market contraction. They also tend to be disproportionately skewed towards individuals with existing socio-economic advantages, including those who attended the most prestigious universities (Boliver 2013). Furthermore, the reduction of employer commitment to sponsoring internships, and especially for lower socio-economic groups, results in (un)paid internships becoming a mechanism in accessing sought-after employment areas (Hunt and Scott 2020).

One of the dominant challenges within the current graduate economy is the relative access different groups of graduates have to equitable and sustainable 'graduate-level' employment opportunities, as reflected in the significant income dispersal and quality of initial employment. A significant factor is the relative socio-economic profile of different graduates in influencing access to competitive, tough-entry and higher-reward occupations that have more favourable wage premia and pathways to better longer-term prospects (Wright and Mulvey 2021). In essence, less advantaged graduates are less able to engage in opportunity stacking pursuits (e.g. unpaid internships, prestigious extra curricula engagements) that provide direct advantages.

These inequities have a number of effects on those who have struggled to access these areas. Firstly, access to such areas diminishes further with more stringent, formal (and informal) hiring practices, disadvantaging those with fewer social and cultural resources attached to their profile (Rivera 2015). Another related issue is the general bumping process during recruitment and the displacing of those who struggle to access traditional occupational levels below them (Lene 2011). A socially advantaged, well-profiled graduate who cannot access an elite occupational field during a recession displaces a less advantaged individual who might have enjoyed a generic graduate training programme, who then displaces an even less advantaged graduate who may be seeking part-time work experience to build their profile. Such job bumping impacts further down the employment value chain, including non-graduates competing with graduates.

Overall, a precarious labour market context serves to intensify social mobility challenges as closure to elite occupations becomes more acute for less advantaged graduates; this has further consequences for those who are most likely to experience scarring. The evidence, therefore, indicates that some graduates are more at risk of scarring as a result of exclusion and higher prospects of unemployment and underemployment. Graduate labour market inequality in relation to class, gender, ethnicity and the related diminishing of labour market opportunities can explain scarring effects. For instance, Erdsiek (2016) found that parental education is a strong determinant of overqualification at the start of German graduates' careers. Capsada-Munsech (2020) found that, for Spanish workers, their mothers' education is the most relevant social background indicator to predict overqualification, even when controlling for firm characteristics and skill level.

Evidence on job hiring and employers' construction and regulation of talent reveals strong levels of discrimination among graduates, which marginalises those who do not conform to ideal, culturally derived expectations of a desirable employee (McDonald et al. 2022). One effect of negative signalling from employers is self-selection from specific occupational areas and a scaling down of employment goals (Arulampalam 2001; Dieckhoff 2011; Gregory and Jukes 2001). Much of this reveals again how those with lower cultural and social capital levels are more likely to experience transitional challenges, including prolonged spells of sub-graduate work (Bathmaker et al. 2016; Merrill et al. 2020). Reduced access to more hidden job markets and finding connections with key

gatekeepers reinforces cycles of exclusion, further diminishing the prospect of acquiring the less tangible soft skills that have signalling value in hiring processes. The initial period of lockdown and reduced access to quality social engagement and exchange appears to have inhibited the crucial acquisition of important career capitals that assist access to employment openings. Furthermore, this period can depreciate any capital gains acquired by graduates during HE, and more so for those who had fewer socio-economic advantages before entering.

Socio-psychological costs

The non-economic scars individuals form, including health, wellbeing and job satisfaction are significant (Lange, 2013; McQuaid, 2015). There appears to be increased acknowledgement that scarring has negative impacts, not only on personal health indicators, but also on a range of socio-psychological areas such as self-esteem, morale and life satisfaction. The potential for this to bleed into the ways in which individuals approach their career development may be significant, including how they feel about their job futures and their levels of career confidence and planning. Self-stigma around unemployment or underemployment can become a self-fulfilling prophecy, including job seekers presenting themselves less favourably to employers (Brand, 2015).

Related is a reduction in confidence and motivation about finding suitable employment, characterised by the strain of perceived positional disadvantage in a closed and competitive recruitment environment. The psychological and social effects of becoming unemployed may decrease workers' readiness (DiPrete and Eirich 2006: 287ff). Therefore, emotional scars reinforce employment scars (Daly and Delaney 2013; Young 2012). This affects how job seekers approach the labour market, including choices around what is deemed suitable employment and knowledge about alternative labour market opportunities.

Another potentially powerful effect of early labour market exclusion is the destabilisation of emerging career goals and identities, which have been shown to be critical in helping graduates navigate meaningful pathways and develop stronger connections (Holmes 2015; Tomlinson, 2017). Identity spoiling potentially results in graduates engaging in less purposive and proactive behaviours when confronted with a misalignment between their ideal and imagined selves and the realities of their current situation. A fracturing of graduate identity diminishes self-concept and emerging employment narratives as well as the way this is played out and presented through interactions with significant others. The relationship between career goals and employment prospects is not firmly established, although evidence indicates that graduates who are more proactive and generic in their approaches to their future labour market outcomes, including job-search behaviours, generally have higher perceived employability, at least to begin with (Author A, 2020). Table 1 summarises the shortcomings of the dominant understating of scarring and their implications for policy.

Ways forward – policy and future implications

This article has used insights into the (graduate) labour market to broaden our understanding of labour market scarring, usually linked to unemployment or overqualification.

Table 1. The mainstream understandings of scarring and their limitations.

Mainstream understanding of scarring	Lacking understanding of	Focus for policy
Human Capital Theories Signalling/ Screening theories	demand side	recessions/employer engagement in training/wider employer preferences; improved employment pathways/guarantees for unemployed graduates
	social cultural capital mediation	providing equitable and wider opportunity channels with non-traditional or at-risk graduates at both supply and demand levels; improving career ecosystems within institutions; fairer access to prestigious internships
	Socio-psychological costs	Personalised support and mentorship for scarred graduates, including extended alumni network and job coaching in career centres and job centres.

The existing theoretical frameworks on labour market scarring are not sufficient to understand the labour market for graduates, which is holding back social policy to ameliorate some scarring effects. Although Human Capital Theory and signalling theory are never intended to be anything but partial, their limitation hinders our understanding of how and why scarring occurs. Labour market scarring is a social problem, and a policy issue needs to be placed in these wider contexts.

Managing economic shock events

In more recent career development literature, there has been a theme of framing college-to-work transitions as shock events (Akkermans et al. 2020). Emerging literature on career shocks has depicted external events such as global recession and pandemics as shock events that essentially jolt individuals' current career trajectories and force them to adapt and re-appraise their situations. This is partly contextual, depending on the scale, intensity and direction of the shock event and how much risk and disruption this engenders. For example, being made redundant shortly after an appointment with limited forewarning represents a more intense shock than anticipating the situation and having some level of preparation and fall-back options. This is also mediated by individuals' responses, which, again, is linked to the types of resources they have been able to accrue at the point when they graduate, including economic resources that can help buffer any sustained period of unemployment and enable them to engage in profile-building free labour. Individuals who are less adaptable to unexpected career disruption, and have more limited support networks or contingent plans, may experience career shocks more acutely. We would argue that there is a potential relationship between employment shocks and scars that may depend on the specific ways in which an economic challenge such as COVID-19 has specifically impacted the employment situations of graduates. This has proved to be a particularly challenging 18-month period, compounded by intensified competition with newer cohorts entering a period of relative economic upturn. Research would need to engage more fully with the timescale of career disruption (including how much anticipation individuals had) and factors that may mitigate its more adverse effects. Related is the extent to which shocks serve to scar individuals or work as a potentially enabling factor in

helping individuals adapt or learn from such events to move forward in their career planning.

Measures to mitigate initial scarring

Any discussion of scarring effects requires some consideration of measures that can be used to mitigate these at both supply and demand level. The former relates mainly to practices within educational institutions that may either better prepare those leaving education for outcomes that minimise the likelihood of scarring or help them adapt when confronted with adverse employment situations (Bayerlein et al. 2021). This type of preparedness is not so much related to direct labour market productivity (i.e. the conventional employability/supply-side narrative) but a wider approach to career readiness and sustainability that includes responding to labour market adversity. The demand side relates to meaningful (and proactive) forms of employer activity that help minimise the more adverse effects of scarring, and in ways that prevent the longer-term depreciation of a graduate's potentiality beyond short-term scarring.

There is clearly some role for supply-side institutions to enhance graduates' career management and preparation well before graduates have entered the labour market, although the extent to which this is their primary responsibility or sole focus remains open to debate. One of these concerns is the role of supply-side institutions to orientate graduates to the changing demands and realities of the contemporary labour market. Related is the value of high-quality forms of career provision and guidance that is effectively embedded into formal provision and made a stronger feature of learning experiences. Forms of career guidance that encourage graduates to develop resources that better help them navigate declining opportunity structures, including enhancing their social capital and resilience, may work towards buffering future scars of initial unemployment if they provide young people and those leaving formal education with a strategic pathway for managing sustainable employment (Mann et al. 2019). Overall, a clearly defined career development ecosystem that incorporates more meaningful and sustained interaction between employers and graduates will help facilitate better transition pathways in competitive and challenge labour markets (Blackmore et al. 2016)

Scarring effects need to be understood far beyond the nexus between job applicants and employers. Without social policies that target wider socio-economic issues, the scarring effect will be distributed unevenly. There are distinct limits to diminishing labour market scarring if economic and social inequality are not tackled simultaneously. Therefore, there is a potentially considerable role for employers to mitigate scarring for highly-qualified and employable graduates entering a contracted labour market on the demand side. First is the role of employers in reducing, rather than reinforcing, labour market opacity during the period when young people are about to make important transition choices. An individual's career decisions can also be shaped by demand-side screening on education (for instance, which programme, where, what qualification), or what might be understood as 'pull factors' from the labour market. This principle rests on providing clear and equitable information about skills demands, employers' realistic expectations concerning candidates' profiles, and further training needs. Reducing existing information asymmetry (Stiglitz 2002) between employers and graduates through more meaningful signals about what employers prefer, and how and where they are

recruiting, enables those at the supply side to respond more meaningfully to shifting demands.

We know that proactive and strategic employer participation in programmes is crucial to reintegrate jobseekers into employment (Orton et al. 2019). Employers need to provide proactive forms of labour signalling and support for early employment access, including high-value traineeship and structured work-experience/internship that might be subsidised by governments. Such support may offer an important bridging mechanism in accessing initial employment leading to more sustainable career development, especially for those who have experience unemployment for over six months. There is an urgent requirement for proactive employment support policies for higher-risk school leavers and graduates, including those with disabilities, special educational needs and mental health challenges as many with less protective support buffers struggle to access initial employment (Vincent and Favri 2021).

Employers need to compensate for diminished opportunity structures caused by the economic disruption, given that those who have recently graduated are at higher risk of initial unemployment. Any social policy intervention should be tailored to specific groups and individuals, including forms of social disadvantage that intersect the disadvantage caused by their labour market histories. Traditional active labour market policies may be very effective in ameliorating the health and social costs of unemployed graduates, especially if they are sensitive to the 'multiple and complex experiences of loss many unemployed people feel' (Sage 2018, 1056). There are currently very few ideas around what type of policy options could reduce underemployment, as UK governments are fixated on the supply of skills in the labour force rather the extent to which skills are being utilised despite damaging consequences of skill underutilisation for workers' wellbeing (Heyes et al. 2017).

Conclusions and contributions

The significance of the paper lies in our contribution to scarring research and in understanding graduate labour markets frequently affected by major economic disruptions, in which a large number of graduates could become scarred. This article makes three contributions to current academic and policy understanding of scarring. First, it identifies three key areas in which dominant theoretical frameworks either have little to say about or misunderstand its significance.

Second, it demonstrates that the analysis needs to shift beyond purely economic accounts of scarring or find ways of integrating these with more sociological and career development approaches. We extend the notion of the scarring effect, which encompasses personal and identity costs, social and self-stigma, which carry through to how people conceptualise career opportunities and understand their personal employability. Third, the article considers a range of measures, on both the supply and demand side, which may mitigate some of the effects of scarring to support a policy framework that best supports young people trying to integrate into the labour market.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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