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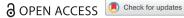Published online: 23 Oct 2023.

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Agency and the structural determinants of regional growth: towards a retheorisation

Helen Dinmore[a] , Andrew Beer[a] , Jacob Irving[a] and Markku Sotarauta[b]

ABSTRACT
This paper addresses debates on the role of agency in shaping the economic future of regions. Scholarship on agency departs from the earlier focus of evolutionary economic geography, which highlighted the role of pre-existing structural conditions. This paper challenges the notion that agency is only found in intentional action and is limited to key actors within a region. It questions exclusive focus on the impact of entrepreneurial leaders, place leaders and government, and identifies agency in the accumulated micro-decisions of multiple decision-makers, using the example of workers affected by the closure of Australia's passenger vehicle industry. In so doing, it underscores the twin roles of collective vision and meaningful implementation in the successful transformation of regions.

KEYWORDS
agency; Australia; economic transformation; regional pathways; plant closure; policy intervention

1. INTRODUCTION

Recently there has been a flourishing of interest in the question of agency and its capacity to shape the growth trajectories of regions, especially those experiencing externally induced change (Gong et al., 2022; MacKinnon et al., 2019; Morisson & Mayer, 2021). This scholarship has emerged from established research literatures, of which evolutionary economic geography (EEG) is the most significant. It has sought to identify why and how change has arisen in some places, while others have remained prisoners of their past. The newly reawakened interest in human agency has been built on the belief it is possible to add analytical leverage to the question of why some regions develop better (or worse) than others, and does so by linking actors to structural processes.

Many conceptualisations have relied on Emirbayer and Mische's (1998, p. 962) definition of agency as an 'embedded process of social engagement, informed by the past … but also oriented toward the future'. In regional development studies, the goal of this 'embedded process' remains that of enhancing a region's economic, societal or ecological prosperity. Writing on agency has sought to extend the analytical lens from shedding light on the impact of structural factors – such as pre-existing institutions and the history of development in that region – to include

insights into the role of individual decisions and behaviours in determining economic outcomes at that scale. Critically, many of the structures emphasised in the regional development literature are constructs of human society: industries, universities and transport systems.

Hallmark contributions, including that of Grillitsch and Sotarauta (2020), have emphasised the impact of three forms of agency: institutional; entrepreneurial; and collective, or place-based, leadership. Influenced by the work of Hassink et al. (2019), researchers have highlighted agency as an outcome of the *intentional* decisions and actions of a range of actors operating regionally, while also acknowledging the unintended consequences of human actions. There has been widespread acceptance that agency should be understood as a purposeful intervention in the fortunes of a region, *as those with the capacity to act* identify and work to expand their 'room to manoeuvre' (Hutchinson & Eversole, 2022), thereby seeking to reshape the economic future of their region. Generally, these strategic actors are seen to operate at the levels of systems and firms.

This paper seeks to complement this focus on agency as intentional action, as well as adding a new analytical dimension to our understanding of who has 'the capacity to act' to influence regional transformation. Using data from a study of the closure of the Australian automotive

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industry (Irving et al., 2022), it seeks to understand how the decisions of those made redundant through plant closures reposition regional trajectories. It argues the micro-decisions of workers have a powerful impact on future growth prospects, with their choices shaped by landscape-level policy settings (De Propris & Bailey, 2021; Weller, 2020) that potentially strip away the potential for new, high-technology, development options. This runs counter to the expectation of development agencies globally that skilled workers made redundant will serve as a human resource pool to be marketed for firms internal, and external, to the region. The paper argues that while individual workers have very little direct influence on regional prospects, the aggregate impact can be substantial. In so doing, it highlights the need for collective vision that embraces actors at all levels in order to bring about positive change.

1.1. Agency as the purposeful work of powerful actors

As De Propris and Bailey (2021) have argued, foundational approaches to EEG (Martin & Simmie, 2008; Martin & Sunley, 2006) have emphasised that 'economic activities evolve along pre-determined time and space coordinates' (De Propris & Bailey, 2021, p. 55). From this perspective, the further evolution of a region is most likely to take place through a transition to related industries that use technologies and knowledge already present in that locality, which must be amenable to new applications and further advancement. Put more simply, the history of economic and social development in a region – including the nature and structure of firms in that locality, workforce capacity and institutional architecture – largely determines the probability of further economic development, as well as its nature and composition. This perspective rightly emphasises the important role of prior structural conditions, but also implies some places are unable to explore new development pathways. This may be a consequence of the limitations embedded in their industrial structure to date – for example, regions dominated by declining industries – and because of 'lock in' (Newey & Coenen, 2021) due to 'systemic resistance of the incumbent stakeholders to consider technological change in order to preserve the mature technology' (De Propris & Bailey, 2021, p. 1622). All this 'prevents the local system from exploring any possible avenues for technological change from which it is effectively decoupling itself'. However, path dependence makes select future development avenues more probable than others (Grillitsch & Trippl, 2018) but does not determine outcomes (Martin & Sunley, 2006). Therefore, there is a need to examine how the engagement of actors influences the unfolding of events (Hassink et al., 2019).

The scholarship on agency in regional industrial change and path development does not seek to displace key theories such as EEG and institutional theory, but rather sets out to integrate with, or evolve them, to address the absence of knowledge about 'micro-level' processes in path development (Grillitsch & Sotarauta, 2020, p. 705).

Sotarauta et al. (2022) argued that enquiry into agency 'balances' structures-oriented research by examining the relationship between structures and agency. Grillitsch and Sotarauta's (2020) work on the trinity of change agency extended theory-building from a singular focus on evolutionary frameworks to better shed light on uneven or unexpected regional development outcomes that cannot be explained by structural conditions or probabilities alone. Importantly, agency is not to be approached as purely voluntaristic: actors' volition cannot be seen as the determinant or predominant factor in regional development. As Weller and Beer (2022) argue, regional development studies have paid 'insufficient attention to the limitations on agency arising from organisational positioning and the 'top-down' assertion of state power' (p. 1); institutional arrangements shape the actors' room to manoeuvre (Hutchinson & Eversole, 2022).

The still-emergent body of work on change agency has focused on the ability of some regions to grow or reposition their economies despite adverse circumstances and an apparent prior industrial legacy more likely to impede further development (Beer et al., 2021; Blažek & Květoň, 2023; Grillitsch & Sotarauta, 2020; Sotarauta et al., 2022). This literature argues regional and extra-regional actors have the capacity to shape regional development outcomes to varying degrees. In different capacities, they work to craft the trajectory of those places. Outcomes are not determined by prior conditions; instead, there are 'opportunity spaces' in which an appropriate combination of technological and social innovation, leadership and community mobilisation may bring about positive change. Grillitsch et al. (2022, p. 9) argued that:

> similar (industry) configurations may lead to different outcomes (multifinality). From a critical realist perspective, this is not *per se* problematic because causal powers … do not produce an outcome in a deterministic nor probabilistic manner but that exercising such powers by local actors makes that outcome possible.

They also argued more succinctly that, 'Agency affects both the direction and speed of economic change in regions' (Grillitsch et al., 2022, p. 2).

From this perspective, understanding the nature of agency – in conjunction with structures – is central to shaping the future development of a region or city. It may also provide a point of intervention for governments or other organisations seeking to ensure a stronger regional economy. It provides additional insight on what happens beyond policy domains. Agency is acknowledged as being multidimensional, with Hassink et al. (2019) identifying the agency that sits within individual firms, as well as the agency that is shared across open systems and is commonly found in regions or cities. Relatedly, Huggins and Thompson (2022) argued some form of collective agency is essential for the creation of new regional pathways, and this calls for open networks that promote diverse interests while accepting competing perspectives and visions for the future.

Other scholars have identified alternative forms of agency, with Bækkelund (2021) exploring the role of reproductive agency in maintaining regions, while Blažek and Květoň (2023) considered organisational agency to better describe the actions of firms, as they may both take actions within their enterprise that benefit regional well-being, while also working with others to bring about positive change. For them:

> organisational level agency can be defined as an activity of a given actor aiming primarily at maintenance, improvement, modernisation, transformation or scaling up/rescaling of operations inside the organisation. System-level agency can be defined as activities aimed at maintenance or enhancement of economic and social environment beyond the organisational boundaries of a given actor.
>
> (Blažek & Květoň, 2023, p. 1486)

Importantly, the literature acknowledges the role of prior institutional and economic conditions in shaping the exercise of agency, and therefore future regional pathways. For example, Huggins and Thompson (2022) argued culture, or 'regional behaviours' was an important determinant of further development, while Newey and Coenen (2021) examined the potential negative impact of political imperatives. Hutchinson and Eversole (2022) noted prior history shapes the expectations of actors around their capacity to determine future outcomes, while Gong et al. (2022) demonstrated the need to account for the institutions within a region when seeking to understand the landscape within which agency operates. Baumgartinger-Seiringer et al. (2022) and Suitner et al. (2022) discussed the importance of maintaining a focus on structural conditions in explanations of agency, with the latter acknowledging the significance of pre-existing conditions in determining the nature and level of resources available to actors seeking to give expression to their agency. It is also worth reflecting on the observation of Hutchinson and Eversole (2022) that even where there are constraints, 'locals act to create change' (p. 7). However, Baumgartinger-Seiringer et al. (2021) argue that for broader change to be effected, constraining structures must ultimately be discarded. This occurs during the 'consolidation' phase of path transformation, because the process of transformation – particularly radical transformation – goes through three stages characterised by the participation of actors. In the emergent stage of disruption, or 'initiation' phase, ambiguous expectations and visions lead to a few early actors at the firm and system level, while others simply observe. During the 'acceleration' phase, system level agency becomes crucial as joint vision is needed to establish new structures that serve a new agenda and an escalation of transformation activities and actors. Finally, 'consolidation' sees more actors abandon pre-transformation activities and structures. Notably, their paper emphasises the role of vision in in shaping the future, even as actors are influenced by the past. Actors are 'strategic entities' (p. 164) whose goal is to modify regional assets through purposeful action, and that action is driven by their visions and expectations – 'the generative power of the future' (p. 163). Unsurprisingly, then, contested visions can be a barrier to change. Uncontested vision, on the other hand, can create 'collective efficacy' (McDonald et al., 2013). Institutions and governments rely on networks to effect change and bring about their objectives. However, collective efficacy involves not just articulation of shared vision but a mechanism for its realisation as individuals embrace change and are empowered to embrace it. Within this agency framework, place leadership represents a distinctive form of change-making as it explicitly references a focus on individual localities and the common interests of residents and businesses in that community. In many ways the strong focus of place leadership literature is on the nexus of creating, communicating and then implementing collective vision as place leaders 'need to act at that intersection of different intentions, interest and aims, identifying and using a range of influence tactics for varying situations' (Sotarauta & Beer 2021, p. 4). As recent debates around spatially blind versus place-based policies have emphasised, facilitating change at the local or regional scale calls for a focus on the target locality in order to achieve the best possible outcomes (Barca et al., 2012). Place-based policy has critical dimensions, including collective agency, a sharing of leadership responsibilities, the drawing of resources from across many elements of the local economy, a focus on delivering transformational change (Bass, 1991) and a concern for the long-term well-being of that community and its members (Beer et al., 2023).

It is important to draw attention to the fact that, in the context of regional development, the change agency literature overwhelmingly posits that agency is a quality that sits with those who choose to act and have the power to exert an influence at the regional scale. As Grillitsch et al. (2022, p. 6) stated, 'agency is best understood as distributed between a set of intentional actors and a strategic driver for change'. This definition reflects commonly selected units of analysis and implies a high degree of intentionality; that actors are relatively powerful and overtly aware of their influence; and that they are deliberate in their behaviours and decision-making – taking purposeful steps to bring about change.

The remainder of this paper explores these issues within the context of the closure of the Australian automotive industry and its impact on the workforce. The following section provides a background on that closure, before moving on to consider the methods used in this research and the outcomes of qualitative interviews. These findings are then discussed from the perspective of our understanding of agency.

2. CLOSURE OF THE AUSTRALIAN PASSENGER VEHICLE INDUSTRY

The announcements in 2013 that signalled the closure of the Australian car industry raised significant concerns about the impact shutdown would have on the communities that hosted vehicle production over the previous

seven decades (National Economics, 2014; Newman & McDougall, 2009; Productivity Commission, 2014; Ranasinghe et al., 2014). There is a small, but significant, international literature on how communities are affected by large-scale closures, and this literature has emphasised both the complexity of impacts, as well as the influence of context in shaping outcomes (Bailey et al., 2014; Chapain & Murie, 2008). The impacts of the automotive closures in Australia were concentrated in outer urban areas where Original Equipment Manufacturers (OEMs) and their supply chains were clustered, some of which were areas of long-standing social and economic disadvantage.

The end of the Australian passenger vehicle industry was also a watershed moment in the nation's economic history as it represented the closure of a hallmark industry that had long been held up as a symbol of national industrial strength. The causes and processes behind the closure of the industry have been examined in some considerable detail and recent work has begun to produce an increasingly authoritative account of the consequences for affected workers (Irving et al., 2022).

For the purposes of this paper, we note three key dimensions of change management shaped the way responses to the automotive industry found expression at the local scale. First, the three OEMs – Toyota, Ford and General Motors Holden (GMH) – made a commitment to establish processes for the management of the shutdown (Department of Employment, Skills and Family Business (DESFB), 2019) that assisted workers in the long term. However, each developed their own measures, reflective of the competitive nature of the industry but resulting in little commonality. While there was some involvement from trade unions in these transition services, they were 'worker-centric' only insofar as they were tailored to the perceived needs of workers transitioning to new jobs (DESFB).

Second, central governments – the state and federal tiers – held the resources and powers needed to respond at a more visionary level, and workers were not involved in that process. Two states were significantly impacted (Victoria and South Australia) and each developed distinctive programmes. Importantly, both tiers of central government had acquired experience in managing plant closures over the past two decades, including automotive closures. In Victoria a comprehensive response was implemented, which included action by local government and business organisations (Beer et al., 2021). South Australia's suite of programmes was of a lesser scale given the smaller number of workers affected, but was equally significant.

Third, for the regions affected, the departure of the car manufacturing sector appeared to lock in processes of inertia both at the system and firm levels. The affected regions were forced to confront a 'critical juncture' (Sotarauta & Grillitsch, 2022) with the potential for either regrowth or stagnation. Over A$2.5 billion of structural adjustment funding poured into the affected regions from the closure announcements until well after the closures themselves, several years later (Department of Industry, Innovation and Science (DIIS), 2020). In addition to the training

and employment services to reskill automotive employees for jobs in other industries and help them secure new positions, structural adjustment programmes (SAPs) included diversification and innovation funding for supply chain businesses, and job creation strategies targeted at sectors, regions major infrastructure and start-up initiatives. The dispersed nature of these initiatives across federal and state governments, as well as different geographical regions, led to a chaos of competing visions with only partial take-up.

Some other nations place greater priority on the strategic repositioning of both the local economy and the workforce when major plants close. For example, Finland has well developed policies and procedures for managing abrupt structural change which it defines as 'a situation where an employer or sector of regional or national significance makes redundant a large number of employees at once because of bankruptcy or extensive adjustment measures' (Ministry of Economic Affairs and Employment (MEAE) Finland, 2021). The process of transition is managed by the Ministry of Economic Affairs and Employment which first assesses the size and potential impact of a major plant closure and then coordinates a response that is overseen locally by both the public and private sectors. The ministry, in collaboration with local government and other stakeholders, seeks to implement employment, economic and regional development measures that are specific to that set of circumstances in order to prevent a recession regionally (Weller et al., 2021). Actions are intended to deliver new employment for those made redundant, but also provide a pathway toward opportunities in the region. The national government supports local business growth, and also focuses on well-being, education and welfare. However, in small localities, these efforts commonly result in crisis management and damage mitigation rather than the establishment of a new path.

A comprehensive approach to managing structural change is absent in Australia, where 'workfare' philosophies (Marston & McDonald, 2008; Weller et al., 2021) have resulted in programmes with limited, tightly defined objectives. Australia has a relatively parsimonious social security system, and workers made redundant are directed to find re-employment as quickly as possible. Redeployment assistance does not prioritise or necessarily enable the acquisition of the fundamental, higher order, skills that would facilitate a transition to well-paid, secure, employment. In addition, the system of redundancy payments embedded in the nation's industrial relations system encourages older workers to exit the workforce permanently (Wooden, 1998). The division of responsibilities across the national and state tiers of government and the application of a 'workfare' ethos had perverse outcomes following the automotive closures: first, workers had low expectations of good outcomes post closure because they were aware of the poor outcomes associated with previous shutdowns. Second, and relatedly, workers prioritised securing employment over re-skilling for future, high-quality employment (Dinmore & Beer, 2022).

Our qualitative analysis of worker interviews shows how the decisions of individuals both responded to this policy context, while at the same time following preferences that often ran counter to policymakers' assumptions about retrenched workers, such as their mobility or desire to reskill into new industries. For example, aged care was widely promoted through the transition programmes as a sector with high employment opportunities and training was available. However, the uptake was low among retrenched workers for a variety of reasons and the aged care sector continues to suffer significant staff shortages. Nor were the training packages on offer sufficient to facilitate wholesale career changes especially at higher skill levels, being mainly focused on short courses and microcredentials (DESFB). Australia currently faces a well-documented labour skills shortage, with businesses in all sectors unable to find staff. Frequently applicants lack the relevant experience or qualifications (ABS, 2022). While this shortage was partly driven by post-COVID economic growth, alongside barriers to labour mobility caused by the pandemic (Australian Chamber of Commerce and Industry (ACCI), 2022), the shortfall of specialised workers in healthcare, technology and trades is the result of long standing 'structural' conditions (Australian Financial Review (AFR), 2022).

The automotive closures were a lost opportunity to address the decline in labour force for growing industries. The acquisition of new, technology-focused skills is a core dimension of contemporary accounts of successful transitions to higher value, globally connected, regional economies (Sotarauta et al., 2022; Blažek & Květoň, 2021). However, the policy settings for labour market adjustment in Australia's former auto regions did not support such a far-reaching transformation: by 2021, manufacturing in these regions had declined by one third, while job growth was dominated by employment in community services and health, retail, education and training, public administration and safety, as well as construction (ABS, 2021). This transition away from globally engaged industries towards domestically focused jobs parallels labour market outcomes in the wake of Mitsubishi's closure of its car-making activities in Australia in the early 2000s. At the same time, while the total volume of employment in these regions rose because of population growth, they did not benefit from growing demand for staff with high levels of education and training. The National Skills Commission (2022) reported the greatest labour market demand – and wages growth – was evident amongst those with a bachelor's degree or higher qualification, or a traditional trade occupation. Neither pathway featured in the post auto-industry pathways of workers.

3. METHODS

More than a decade ago, Pike (2007, p. 1143) observed regional studies was at a 'vibrant conjuncture' marked by increasingly multidisciplinary and cross-disciplinary perspectives. This vibrancy, he argued, was a consequence of the range of techniques deployed, including quantitative, qualitative and mixed methods. Diverse approaches and disparate epistemologies have been central to conceptual development, with some approaches focused on the measurement of impacts, while others have sought to understand underlying processes. There has also been a focus on the generation of testable ideas to avoid 'fuzzy concepts' poorly supported by evidence (Markusen, 2003). Increasingly, researchers have advocated for the application of a realist epistemology to the analysis of regions and their dynamics, with Gong and Hassink (2020, p. 477) arguing critical realism is 'an appropriate philosophy for economic geography – a context sensitive sub-discipline … [because] it is a philosophy that focuses on causal mechanisms'. Questions of 'how' and 'why' change occurs sit at the core of scholarship on agency (Grillitsch et al., 2022).

Qualitative data and their analysis are a key feature of research into all dimensions of agency (Grillitsch et al., 2022; Sotarauta et al., 2022) and this research draws upon in-depth qualitative interviews to examine the reasons underpinning the decision sets of affected workers. In total 25 interviews were undertaken in 2021 with a subset of ex-automotive industry workers from South Australia and Victoria who had previously participated in a large-scale survey (Irving et al., 2022). Interviewees were selected to capture both the broad range of outcomes experienced by those made redundant, while also paying attention to groups within the workforce who might otherwise be overlooked. This included, for example, women, older workers and those born overseas. Amongst its members were those who held management positions in the auto industry, as well as qualified tradespeople, engineers, production line workers and administrative workers. Interviewees were drawn from both OEMs and supply chain companies. The diversity of this sample is crucial as it suggests broad-scale implications can be inferred from the similarities in their experiences.

Interview participants were asked about their engagement with training and transition programmes in the labour market since the closures. This included job preferences and factors that may have influenced their decision-making. After recording and transcribing, interviews were coded and analysed for emergent themes in NVivo. Interviewees quoted have been de-identified and are numbered in the text to enable differentiation.

3.1. Workers as decision-makers
In a context of critical shortages in higher order skills, both within regions affected by the closures and Australia more broadly, it is important to consider the aggregate impact of worker decisions about retraining. This section considers the qualitative responses of workers, which provided insight into the factors shaping worker choices. They revealed a tension between structure and agency, with workers able to articulate straightforward decisions as well as more complex processes of dilemma solving, in which they describe the imperative to balance personal preferences and needs with events outside their control. Above all, they offer no sense that workers were

participating in a *collective* vision for the future of their regions or communities post-closure; rather, their choices were informed by individual or household need or preference and their own assumptions about what kinds of opportunities the labour market would hold.

As well as training, some workers were offered career counsellors and information sessions about openings in other industries, such as construction, defence and aged care. There were several reasons given by interviewees, often in combination, for not using these offerings: they did not find the options attractive; they thought they had sufficient skills to secure another job; the opportunity cost was too high; they were disengaged; or there was insufficient guidance to inform a decision about what to do.

Participants reported their own ideas about what the future would hold were often in conflict with the options presented to them:

> They put stuff forward, you know, they said do you want to do a manager's job again or a supervisor? I said no. Team leader job role? No. Then they said, how about looking after old people, and I said definitely not. Because I just basically said, look, don't even worry about me. I was confident that I would find a job.
>
> (12)

> The reskilling, it didn't really help me actually, basically in any of those jobs, seminars what they did, it didn't attract me any of the skills. They were encouraging people to do more in the construction industry … most of the things they were using (as examples were) construction and disability support. I wasn't interested in that sort of skilling.
>
> (7)

> In our group at work, everybody had their own vision of what they wanted to do.
>
> (13)

For some participants, the barrier was that they *lacked* a vision of what they wanted to do. They reported they needed personalised advice from service providers, and fewer generalised suggestions:

> I didn't know what I wanted to do. … What I would say yes to more is I'd needed more guidance. Maybe. And I'd been in one place all my life. Real world's different when you work in the same place since you're 15.
>
> (26)

> I'm spewing I didn't do something along the carers' role. I was a bit uneducated.
>
> (23)

> They didn't tell us exactly. 'Oh, you can do whatever.' But what is 'whatever'? I don't know whatever it is, but explain it to me please. But they didn't … they go, oh what would you like to do? I really had no idea, I just want a job.
>
> (28)

> Well, I found that [the courses] were good. But like I sort of, I made the wrong decision. I chose to do that beauty course, and I probably shouldn't have gone down that avenue.
>
> (19)

3.1.1. 'I just never got around to it'

There were many reasons for disengagement with training programmes. Some participants did not perceive upgrading their skills would improve their value in the labour market:

> I normally would do a course or try to better myself. But … I didn't do anything like that, because I thought that I had enough skills to get me through.
>
> (2)

> I think a lot more people stayed with what they knew, and just tried to consider jobs in other companies. [My company name] was a big ticket. … So I just stayed within the industry at that stage and just looked at other work.
>
> (27)

> To do programs, you had to do courses and things like that, but you weren't guaranteed a job at the end of it. So I refused to do all that and just found myself a job. There's plenty of jobs out there if people want them.
>
> (15)

One supervisor described the attitudinal barriers he observed among workers in his team:

> If it was in company time, and they were going to see someone and talk to them, they'd participate a bit. But if they had to go off and do something themselves in their own time, they wouldn't do it … there was there was all this help for them, but they wouldn't engage in it. … For example, in the end, I had 20 guys on site, probably at least 75% of them just didn't really want to participate in any of it. … A lot of them felt lost, and then didn't want to do anything to try and work their way around that. Then others thought, oh well, I'm going to get a redundancy, that money's – you know, I'm getting X amount of dollars. And they didn't think they needed to see past that.
>
> (6)

We may not normally characterise this kind of disengagement as *decisive*, in the sense that it constitutes an active choice. However, the experiences of retrenched workers show how passive decision-making (e.g., a failure to act on reskilling opportunities) contributes nonetheless to aggregate consequences, since the outcomes of both choices were similar:

> [The career advisor] sort of sent me away and gave me a bunch of pamphlets and website to go and check out where I could get training and what I could do and you know, it was all pretty easy and pretty self-explanatory. I just never really got around to doing it.
>
> (9)

And they said I could look into [a course provider] or something and get back in touch with them. But I just never got around to it.

(10)

I filled out the form and everything and was thinking about it and you know how they say let them know about what sort of courses or stuff you're interested in doing to improve your job prospects and stuff like that. I thought about a few … and then having issues with trying to work out what I might have wanted to do. And then with work, and because I work nights, and then I sleep during the day and just life in general, days just go so fast. And I just lose track of time. And then I just find I don't have time to do it. Next minute, oh, yeah, nah, it's all finished. So I just never got around to it.

(18)

Finally, it is important to acknowledge that the small number of workers who took on substantive study in order to reposition themselves in the labour market commonly found their expectations of future employment were not met, because of factors completely unrelated to the quality of their training or their willingness to try a new career. For example, one female interviewee commented:

I did a diploma as well as an Advanced Diploma in Interior Design. … And I was really hoping that that would lead to something else. But … when I started looking for work as an interior designer, [i]t was impossible to get a job without experience. And when you're just out of study, you can't have any experience. And if they wanted a graduate, the graduate would be like straight out of uni. So they would want like a 20 to 23 year old and the pay would be really minimal. … And because I've got a mortgage and I've got bills, it's just not possible.

(1)

In this instance, career stage and wage expectations made the transition to a new industry difficult. Critically, awareness of these challenges would have discouraged many other workers, reinforcing their reluctance to move to emerging industries and employment opportunities.

3.1.2. Impacts of the training courses
For those participants who did take up training, many said the courses had no impact on their decisions when seeking work, even when they spoke favourably of the training programmes; or that the training had not been instrumental in helping them to find work. Several interviewees reported dissatisfaction with the training programmes. Some had pursued retraining with a view to changing careers or industries but the courses were sometimes poor quality and did not deliver the promised qualification. At times, practical considerations presented barriers to training, even when the desire to train was present:

I got out and used money to do an aged care course but I got right up to the practical and I couldn't do that because I was still working.

(8)

They did have like, a small business course. But it was only at Altona [Toyota assembly plant] … it would have been too much. And I wouldn't have been a very good employee. … I was really loyal to Toyota while I was still there.

(1)

Some participants with higher level skills or management experience did not feel the training on offer was useful to them:

The government programs are pretty much structured *holus bolus* around employee hourly pay type areas. At the end of the day that's the bulk of the industry, probably. There wasn't any really tailored or structured, technical, or the managerial side of the industry.

(16)

They only gave a short course funded. Let's say like, if you want to go to like a nursing, or like automation. … A year course probably will help people more to find a job that they think can utilize the skill that they have to be suited to, to the change of industry.

(20)

4. TRADE-OFFS

Many participants described the factors at play in their decision-making about employment. These were often related to location, family, housing and assets, sometimes in combination. As the conversations below demonstrate, these other – non-labour market – factors were highly influential in shaping how ex-auto workers considered re-engagement with the world of work. Many workers gave priority to quality-of-life considerations over actions that would have afforded them greater security or income. For one respondent the security offered by outright home ownership was a priority, commenting that

I don't need to pay anyone for mortgage or anything. My house is paid off, I'm set for life mate. My partner, she's working. … Have I moved [house]? No, I'm not a mover. … Got three grandkids … that's all I need, mate, and two kids.

(12)

While for others, the dislocation and cost of intra- and inter-urban mobility was a barrier they were not willing to cross:

My focus now in my working career would be distance … the wife doesn't want to move because she loves her job. … We got grandkids, we don't want to move away from the grandkids.

(17)

I moved on to [company name], the opportunity of being closer on the other side, because [the first employer post redundancy] was on the other side of the city … a massive hike. So you're going to probably be talking about 45 min to an hour, and then also with me with my separation as well, for me to pick up the kids and that, it just wasn't working.

(2)

While the comments of a third interviewee captured the ambition of many who exited the automotive industry to maximise both lifestyle and income in a way that does not match labour market realities.

> I don't really want to move away. … I mean, if I had to move away, I'd rather go up north somewhere … warm and tropical. If I was to do something like that. It would have to be a good job, though.
>
> (8)

The insights offered by the interviews highlight the ways in which decisions have been taken within the context of complexity: they are the result of the interplay between wage expectations, the costs – in time and money – of travel, changing family circumstances, lifestyle aspirations and family commitments. In aggregate they reinforce the agency people exert though their lives as they seek to balance competing priorities and needs. Such complexity at the individual level does not appear in many accounts of change agency within regions.

5. DISCUSSION

The qualitative interviews shed light on the decisions and agency of retrenched workers in the post-closure labour market. The findings allow us to draw fresh insights into how the choices of those made redundant influence regional growth in the short, medium and longer term, while also offering a perspective on how structural conditions shape behaviour. The empirical analysis has shown how workers behaved in ways that ran counter to the expectations of policymakers overseeing structural transformation regionally. For example, the decision to close the automotive industry was based on assumptions that capital and labour would be 'perfectly mobile' (Barnes et al., 2016, p. 2019) and that workers would move to growth industries. However, the findings of the interviews mirror earlier research (Weller, 2009) that has shown workers – a fundamental component of a productive economy – are unlikely to move in search of work and instead prioritise finding employment close to home. Our interviews highlighted the resistance of many auto workers to reskilling for employment in sectors such as aged care, despite encouragement via transition programmes. Clearly, policy established without recognition of the agency of workers carries with it considerable risk.

Fundamentally, our understanding of agency has evolved very rapidly in the field of regional studies over the last five years (Sotarauta & Grillitsch, 2023). One of the most important contributions to that literature has been the work of Grillitsch & Sotarauta (2020), which has clearly established the significance both of opportunities available at any point in time and the ways in which they are differentiated by type of actor, while also highlighting the significance of leadership from the private sector, institutional sector or from place leadership. What is absent in the findings of this paper is a strong connection between the vision of institutional and private sector leaders and the decision-making and actions of the workforce. The evidence presented in this paper shows that both institutional structures and the ways in which government sought to implement change did not acknowledge the agency of individual workers and their decisions about training and future employment. 'Collective efficacy' was lacking not only at the level of communication but also that of implementation, which goes beyond the need to articulate a shared vision for change. Vision needs to be effectuated through actions that shape decisions, as retrenched workers negotiate the contemporary and future labour market.

In the environment of a comparable shock in the UK, Bailey and de Ruyter (2015) documented how the West Midlands Regional Development Agency, Advantage West Midlands (AWM) was able to develop and implement a vision for change that was more effective in terms of transitioning workers to employment opportunities, partly because of the cohesion of their vision and the subsequent willingness of workers to train and reposition themselves in the labour market. The policy response to the closure announcement was led by a regionally embedded taskforce, made up of a range of actors across government, industry, unions and skills-focused institutions, and already in place. In contrast, the Australian automotive closures were characterised by a more reactive and scattergun policy response, in which federal and state governments largely acted separately, and at times in conflict with each other or the OEMs. Union involvement was focused on securing the best exit packages for employees, reflecting its conventional positioning. Crucially, none of the key actors were embedded at the grassroots level. Much of the discussion around agency at the scale of regions and communities focuses importance on having appropriate institutional structures. This study reinforces prior findings like those of Bailey and de Ruyter (2015) that an appropriate institutional structure has to include a strong element of effective implementation, and that community acceptance is needed in order to realise collective vision. To a degree, therefore, this paper draws the attention of scholars to issues of implementation in a concrete sense and underscores the risks that may be associated with focusing on institutional processes in an abstract sense (Rodríguez-Pose, 2013). Several authors have argued place-based policies can only be successful if there is an institutional structure in place that enables collective local agency to emerge, drive change processes and shape outcomes (Barca et al., 2012). Whether this occurs may be dependent on the local economy, demography, national and local political dynamics and structures, as well as 'a shared sense of place' (Wellbrock et al., 2013, p. 420). In their analysis some governmental settings were seen to hamper the reform and repositioning of institutions, thereby retarding the roll out of transformational, place-based processes. McDonald et al. (2013) expressed similar reservations around the capacity to achieve local change through collective action around a shared vision, but concluded from their work in north-

west Tasmania that these measures were effective because of their capacity to build political capital within the region and more broadly. In their analysis, the implementation of place-based policies resulted in interactions between those based locally and those based outside the region, as well as between regional actors, that in turn created effective networks of influence which enabled the flow of further resources and decision-making opportunities. Moreover, they concluded that dense networks – that is, those comprised of many, relatively intense interactions – were most likely to be impactful. This in turn suggests that frequent, deeper, and sustained engagements are of greater value in the implementation of place-based policies. In part this arises through the development of shared norms, making possible greater levels of trust, reciprocity, and an openness to change and working to overcome what Eversole (2011) sees as 'a distinction between the way communities work and what communities know and the way government works and knows' (p. 61).

In addition, it is important to acknowledge at a conceptual level that the tendencies and preferences of workers had a communality that spoke to the cumulative impact of their individual actions. Although individual workers spoke about their choices as individuals and did not give evidence of an awareness of the collective importance of their actions, it is clear that there was such an impact, as reflected in nationally and regionally significant skills shortages. Moreover, much of what was said by respondents – their personal narratives of transition – reflected an agency that is achieved by declining opportunities that did not meet their expectations. To turn down an opportunity for retraining is impactful, as is the inability to make a decision that would reposition them in the labour market. Agency is always exerted in the context of structures; and the arrangements in place for workers affected by the industry closure gave scope only to decline opportunities or accept retraining that was, for many, unattractive or lacking impact. Few lower skilled workers from the auto industry upgraded their skills and qualifications in order to move into a job with better prospects. In many senses we can see in these interviews the workers failing to move past the 'constraining structure' (Baumgartinger-Seiringer et al., 2021) of their pre-existing skills and attitudes to work, or resisting the new, more precarious structures of the post-closure labour market, thereby delaying the consolidation phase of the transformation.

There are substantial implications for regional path creation. In the case of Australia's regions formerly dependent on the car industry, the overall impact may be further limited growth due to declining human capital at the regional scale. Importantly, we can only conclude that strategies for industrial transformation in Australia have insufficient ambition and need to refocus on addressing long-term economic opportunities and needs. In emphasising the 'radical nature' of path transformation, Baumgartinger-Seiringer et al. (2021) underscore the need for a response characterised by equally radical shifts and

innovations. A policy vision is needed that addresses the challenge of fundamental change, and it needs to acknowledge that programmes and conceptual frameworks that lose sight of individual agency lack the potential to truly transform.

6. CONCLUSIONS

This paper sought to better understand the agency of change in regions undergoing an economic transformation and has done so through a qualitative analysis of the priorities of workers as they seek new employment, and an examination of how workers perceive their position within the labour market. It has considered their ability to exert control over their labour market outcomes. There are two large-scale conclusions from this paper of significance to the broader literature. First, there is clear evidence that workers seek a sense of control – or agency – as they navigate the world of job search and reemployment. They choose jobs closer to home in order to enhance their lives, and through that preference fundamentally shaped the geographic distribution of skills in the labour force. The discussion of the qualitative data made clear that workers believed in their ability to determine their own employment future, even if that was only able to be expressed by rejecting job offers or reskilling opportunities. Second, it is evident from the analysis of how workers described their post-auto industry experience that they did not consider the cumulative impact of their decision-making, which in aggregate has made the path to a fundamental transformation of these economies more challenging. From the perspective of a positive regional transformation, former auto employees made suboptimal decisions, and did so because of the institutional context within which decisions were made. These workers became actors giving life to a form of agency, but did so without an intention of bringing about change – they were agents of transformation without a collective purpose or objective. This observation challenges current conceptualisations of agency within the literature and calls for a more nuanced understanding of the relationship between agency and those factors labelled as 'pre-existing' conditions in the established EEG literature.

The literature tends to ascribe causality to structural process because of the absence of insight into the microdecisions of individuals, households or other key populations. Qualitative analysis of in-depth interviews, however, begins to overcome this limitation and make possible new fields of theorisation and enquiry of enduring value to studies of regions and their growth.

Finally, it is worth reflecting on the broader epistemology and methodological positioning of agency-related research within the broad field of regional studies. With some notable exceptions (Bellandi et al., 2021; Blažek et al., 2020), much of the literature has focused on case studies of success – places where economic transformation has emerged, through what are now well-understood processes. Researchers, however, may learn more about the fundamental processes underpinning the transition of

economies and the forging of new industry pathways by focusing on those places that have not moved to a more positive trajectory. Their failure may, in some ways, be more enlightening than the success of other localities. Scholarship on the agency of change for regions is still emergent, and the future of this concept will be dependent on its ability to take a wider perspective on where agency is located, and how often disparate actors come together to shape economic futures.

6.1. Footnote – overview of the closures

The closure of the Australian automotive industry was seeded in the economic conditions of the 1980s. From the early 2000s, Australia, with its relatively small and geographically isolated market, became increasingly vulnerable as the industry consolidated its operations and production chains internationally (Irving et al., 2022).

In the year of Mitsubishi's closure, the new Rudd Labor government instigated a Review of Australia's Automotive Industry. Its final report, released in July 2008, then formed the blueprint for the federal government's A\$6.2billion *A New Car Plan for a Greener Future*, the aim of which was to create a more 'economically and environmentally sustainable' car industry by 2020. Despite this and several other major initiatives from 2011 under the Automotive Transformation Scheme, in May 2013, Ford was first of the local carmakers to announce its closure plans. The decision reflected a shift in policy in the Ford US head office, associated with post-Global Financial Crisis (GFC) 'reshoring', but also prolonged difficult trading conditions in Australia. In September 2013, the election of the Abbott Coalition government foreshadowed less generous government support for the sector. GMH announced in December 2013 that it would end automotive manufacturing in Australia. Toyota, the last of the three local manufacturers, announced in 2014 that it too would close down.

Ford announced in May 2013 that it would cease manufacturing in October 2016, closing its Geelong and Broadmeadows plants in Victoria. In December that year, Holden announced its intention to cease automotive manufacturing in Australia by the end of 2017, and Toyota announced the same in February 2014. Each of these successive announcements was answered with significant funding packages from federal and state governments.

The period after October 2017 resulted in a passenger motor vehicle industry that was effectively absent from Australia's industrial landscape. Several of the manufacturers maintained elements of the industry post-manufacturing closure, with both GMH and Ford retaining design and engineering development in Australia, which was announced as a long term commitment. At the same time, some parts of the supply chain were able to transition to a vision for global markets, including the production of parts such as carbon-fibre wheels. Over subsequent years some of the remaining elements suffered further closure with GMH announcing retirement of the Holden brand and Ford closing its Research and Development facility in Victoria in 2023.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

ETHICS STATEMENT

All participants in this study provided informed verbal consent before being interviewed. The study and questions were approved by the University of South Australia Research Ethics Committee (protocol number 203492), which is responsible for ensuring that university research complies with national research ethics guidelines as outlined in National Statement on Ethical Conduct in Human Research 2007 (Updated 2018) by The National Health and Medical Research Council, Australian Research Council and Universities Australia, Commonwealth of Australia, Canberra. https://www.nhmrc.gov.au/about-us/publications/national-statement-ethical-conduct-human-research-2007-updated-2018

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REFERENCES

Australian Bureau of Statistics (ABS). (2021). *Census 2021*. ABS.
Australian Bureau of Statistics (ABS). (2022). *Business conditions and sentiments*. ABS.
Australian Chamber of Commerce and Industry (ACCI). (2022). *Overcoming Australia's labour & skills shortages: Through skills development, workforce participation and migration*.
Australian Financial Review (AFR). (2022). *Why we don't have enough workers to fill jobs (in four graphs)*. AFR.
Bækkelund, N. G. (2021). Change agency and reproductive agency in the course of industrial path evolution. *Regional Studies*, 55(4), 757–768. https://doi.org/10.1080/00343404.2021.1893291
Bailey, D., Bentley, G., de Ruyter, A., & Hall, S. (2014). Plant closures and taskforce responses: An analysis of the impact of and policy response to MG Rover in Birmingham. *Regional Studies, Regional Science*, 1(1), 60–78. https://doi.org/10.1080/21681376.2014.899477
Bailey, D., & de Ruyter, A. (2015). Plant closures, precariousness and policy responses: Revisiting MG Rover 10 years on. *Policy Studies*, 36(4), 363–383. https://doi.org/10.1080/01442872.2015.1073248
Barca, F., McCann, P., & Rodríguez-Pose, A. (2012). The case for regional development intervention: Place-based versus place-neutral approaches. *Journal of Regional Science*, 52(1), 134–152. https://doi.org/10.1111/j.1467-9787.2011.00756.x
Barnes, T., Roose, J., Heap, L., & Turner, B. (2016). Employment, spillovers and 'decent work': Challenging the productivity

commission's auto industry narrative. *The Economic and Labour Relations Review*, 27(2), 215–230. https://doi.org/10.1177/1035304616649303

Bass, B. (1991). From transactional to transformational leadership. *Organizational Dynamics*, 18(3), 19–31. https://doi.org/10.1016/0090-2616(90)90061-S

Baumgartinger-Seiringer, S., Miörner, J., & Trippl, M. (2021). Towards a stage model of regional industrial path transformation. *Industry and Innovation*, 28(2), 160–181. https://doi.org/10.1080/13662716.2020.1789452

Baumgartinger-Seiringer, S., Fuenfschilling, L., Mioner, J., & Trippl, M. (2022). Reconsidering regional structural conditions for industrial renewal. *Regional Studies*, 56(4), 579–591. https://doi.org/10.1080/00343404.2021.1984419

Beer, A., Barnes, T., & Horne, S. (2021). Place-based industrial strategy and economic trajectory. *Regional Studies Online*, 1–14.

Beer, A., Sotarauta, M., & Bailey, D. (2023). Leading change in communities experiencing economic transition: Place leadership, expectations, and industry closure. *Journal of Change Management*, 23(1), 32–52. https://doi.org/10.1080/14697017.2023.2164936

Bellandi, M., Plechero, M., & Santini, E. (2021). Forms of place leadership in local productive systems: From endogenous rerouting to deliberate resistance to change. *Regional Studies*, 55(7), 1327–1336. https://doi.org/10.1080/00343404.2021.1896696

Blažek, J., & Květoň, V. (2021). From coal-mining to data-mining. The role of leadership in the emergence of a regional innovation system in an old industrial region. In M. Sotarauta, & A. Beer (Eds.), *Handbook of city and regional leadership*. Edward Elgar.

Blažek, J., & Květoň, V. (2023). Towards an integrated framework of agency in regional development. *Regional Studies*, 57(8), 1482–1497. https://doi.org/10.1080/00343404.2022.2054976

Blažek, J., Květoň, V., Baumgartinger-Seiringer, S., & Trippl, M. (2020). The dark side of regional industrial path development: Towards a typology of trajectories of decline. *European Planning Studies*, 28(8), 1455–1473. https://doi.org/10.1080/09654313.2019.1685466

Chapain, C., & Murie, A. (2008). The impact of factory closure on local communities and economies: The case of the MG Rover Longbridge closure in Birmingham. *Policy Studies*, 29(3), 305–317. https://doi.org/10.1080/01442870802159962

De Propris, L., & Bailey, D. (2021). Pathways of regional transformation and industry 4.0. *Regional Studies*, 55(10), 1617–1629. https://doi.org/10.1080/00343404.2021.1960962

Department of Employment, Skills and Family Business (DESFB). (July 2019). *The transition of the Australian car manufacturing sector*.

Department of Industry, Innovation and Science (DIIS). (2020). *Australian automotive industry: Transition following the end of Australian motor vehicle production*.

Dinmore, H., & Beer, A. (2022). Career degradation in Australian cities: Globalisation, precarity and adversity. *Regional Studies, Regional Science*, 9(1), 371–385. https://doi.org/10.1080/21681376.2022.2078737

Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023. https://doi.org/10.1086/231294

Eversole, R. (2011). Community agency and community engagement: Re-theorising participation in governance. *Journal of Public Policy*, 31(1), 51–71. https://doi.org/10.1017/S0143814X10000206.

Gong, H., Binz, C., Hassink, R., & Trippl, M. (2022). Emerging industries: Institutions, legitimacy and system-level agency. *Regional Studies*, 56(4), 523–535. https://doi.org/10.1080/00343404.2022.2033199

Gong, H., & Hassink, R. (2020). Context sensitivity and economic–geographic (re)theorising. *Cambridge Journal of Regions, Economy and Society*, 13(3), 475–490. https://doi.org/10.1093/cjres/rsaa021

Grillitsch, M., & Sotarauta, M. (2020). Trinity of change agency, regional development paths and opportunity spaces. *Progress in Human Geography*, 44(4), 704–723. https://doi.org/10.1177/0309132519853870

Grillitsch, M., Sotarauta, M., Asheim, B., Fitjar, R. D., Haus-Reve, S., Kolehmainen, J., Kurikka, H., Lundquist, K.-J., Martynovich, M., Monteilhet, S., Nielsen, H., Nilsson, M., Rekers, J., Sopanen, S., & Stihl, L. (2022). Agency and economic change in regions: Using qualitative comparative analysis (QCA) to identify routes to New path development. *Regional Studies*, 57(8), 1453–1468. https://doi.org/10.1080/00343404.2022.2053095

Grillitsch, M., & Trippl, M. (2018). Innovation policies and New regional growth paths. In J. Niosi (Ed.), *Innovation systems, policy and management* (pp. 329–358). Cambridge University Press.

Hassink, R., Isaksen, A., & Trippl, M. (2019). Towards a comprehensive understanding of new regional industrial path development. *Regional Studies*, 53(11), 1636–1645. https://doi.org/10.1080/00343404.2019.1566704

Huggins, R., & Thompson, P. (2022). Human agency, network dynamics and regional development: The behavioural principles of new path creation. *Regional Studies*, 57(8), 1469–1481. https://doi.org/10.1080/00343404.2022.2060958

Hutchinson, D., & Eversole, R. (2022). Local agency and development trajectories in a rural region. *Regional Studies*, 57(8), 1428–1439. https://doi.org/10.1080/00343404.2022.2108543

Irving, J., Beer, A., Weller, S., & Barnes, T. (2022). Plant closures in Australia's automotive industry: Continuity and change. *Regional Studies, Regional Science*, 9(1), 5–22. https://doi.org/10.1080/21681376.2021.2016071

MacKinnon, D., Dawley, S., Pike, A., & Cumbers, A. (2019). Rethinking path creation: A geographical political economy approach. *Economic Geography*, 95(2), 113–135. https://doi.org/10.1080/00130095.2018.1498294

Markusen, A. (2003). Fuzzy concepts, scanty evidence, policy distance: The case for rigour and policy relevance in critical regional studies. *Regional Studies*, 37(6–7), 701–717. https://doi.org/10.1080/0034340032000108796

Marston, G., & McDonald, C. (2008). Feeling motivated yet? Long-term unemployed people's perspectives on the implementation of workfare in Australia. *Australian Journal of Social Issues*, 43(2), 255–269. https://doi.org/10.1002/j.1839-4655.2008.tb00101.x

Martin, R., & Simmie, J. (2008). Path dependence and local innovation systems in city-regions. *Innovation*, 10(2–3), 183–196. https://doi.org/10.5172/impp.453.10.2-3.183

Martin, R., & Sunley, P. (2006). Path dependence and regional economic evolution. *Journal of Economic Geography*, 6(4), 395–437. https://doi.org/10.1093/jeg/lbl012

McDonald, C., Kirk-Brown, A., Frost, L., Van Dijk, P. & Rainnie, A. (2013). Partnerships and integrated responses to rural decline: The role of collective efficacy and political capital in Northwest Tasmania, Australia. *Journal of Rural Studies*, 32, 346–356. https://doi.org/10.1016/j.jrurstud.2013.08.003

Ministry of Economic Affairs and Employment (MEAE), Finland. (2021). *Abrupt structural change (ÄRM)*. https://tem.fi/en/abrupt-structural-change-arm

Morisson, A., & Mayer, H. (2021). An agent of change against all odds? The case of ledger in Vierzon, France. *Local Economy: The Journal of the Local Economy Policy Unit*, 36(5), 430–447. https://doi.org/10.1177/02690942211052014

National Economics. (2014). *Full motor vehicle closure: The impact on Australia and its regions*. WISeR.

National Skills Commission. (2022). *Skills priority list*. National Skills Commission.

Newey, L., & Coenen, L. (2021). Lock in, paradox and regional renewal. *Regional Studies*, 56(8), 1333–1346. https://doi.org/10.1080/00343404.2021.1976745

Newman, L., & McDougall, C. (2009). Australian children's accounts of the closure of a car factory. *Community, Work & Family*, *12*(2), 143–158. https://doi.org/10.1080/13668800902778934

Pike, A. (2007). Whither regional studies? *Regional Studies*, *41*(9), 1143–1148. https://doi.org/10.1080/00343400701675587

Productivity Commission. (2014). *Australia's automotive manufacturing industry*. Productivity Commission.

Ranasinghe, R., Hordacre, A., & Spoehr, J. (2014). *Impact of the auto industry closure*. WiSER.

Rodríguez-Pose, A. (2013). Do institutions matter for regional development? *Regional Studies*, *47*(7), 1034–1047. https://doi.org/10.1080/00343404.2012.748978

Sotarauta, M., & Beer, A. (2021). *Handbook of city and regional leadership*. Edward Elgar.

Sotarauta, M., & Grillitsch, M. (2022). Path tracing in the study of agency and structures: Methodological considerations. *Progress in Human Geography*, *47*(1), 85–102. https://doi.org/10.1177/03091325221145590

Sotarauta, M., & Grillitsch, M. (2023). Studying human agency in regional development. *Regional Studies*, *57*(8), 1409–1414. https://doi.org/10.1080/00343404.2023.2217224

Sotarauta, M., Kurikka, H., & Kolehmainen, J. (2022). Change agency and path development in peripheral regions. *European Planning Studies*, *31*(2), 348–371. https://doi.org/10.1080/09654313.2022.2054659

Suitner, J., Haitner, W., & Philipp, S. (2022). Social innovation for energy transition? An agency perspective on transformative change in non-core regions. *Regional Studies*, *57*(8), 1498–1510.

Wellbrock, W., Roep, D., Mahon, M., Kairyte, E., Nienaber, B., Domínguez García, M. D., Kriszan, M., & Farrell, M. (2013). Arranging public support to unfold collaborative modes of governance in rural areas. *Journal of Rural Studies*, *32*, 420–429. https://doi.org/10.1016/j.jrurstud.2013.10.002

Weller, S. (2009). Critical events and labour mobility: Relocations in the wake of the Ansett Airlines collapse. *Geographical Research*, *47*(3), 242–255. https://doi.org/10.1111/j.1745-5871.2009.00585.x

Weller, S. (2020). Dialectics of community and government. In A. Campbell, M. Duffy & B. Edmondson (Eds.), *Located research: Regional places, transitions and challenges*. Palgrave.

Weller, S., & Beer, A. (2022). State structures and the limits of agency: Governing the transformation from coal in Australia. *Regional Studies*, *57*(8), 1415–1427. https://doi.org/10.1080/00343404.2022.2047918

Weller, S., Beer, A., Snell, D., Porter, J., & Horne, S. (2021). Social and economic adjustment in the Upper Hunter (Consultancy Report prepared for Muswellbrook Shire Council, Mimeo April). UniSA Business.

Wooden, M. (1988). The impact of redundancy on subsequent labour market experience. *Journal of Industrial Relations*, *30*(1), 3–31. https://doi.org/10.1177/002218568803000101