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Smith, Robert; Conley, Gillian; Smith, Anne M.J.; McElwee, Gerard

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Assessing the impact of ‘Farming with Dyslexia’ on Local Rural Economies: A viewpoint discussion.

| Robert Smith, Professor of Enterprise and Innovation, University of the West of Scotland and Associate Professor at the Crichton Institute, Dumfries Campus, Dudgeon House, Dumfries, DG1 4ZN. Rob.Smith@uws.ac.uk |  |
| Gillian Conley, Additional Support & Core Skills Lecturer, SRUC, Barony Campus, Parkgate Dumfries, DG1 3NE, Gillian.Conley@sruc.ac.uk |  |
| Anne M. J. Smith, Senior Lecturer, Entrepreneurship and Innovation, Glasgow School for Business and Society, Glasgow Caledonian University, Cowcaddens Road, Glasgow, G4 OBA. Anne.Smith@gcu.ac.uk |  |
| Gerard McElwee, Professor of Entrepreneurship Huddersfield Business School, University of Huddersfield, Queensgate, Huddersfield, HD1 3DH. G.McElwee@Huddersfield.ac.uk |  |

Introducing the research context

Dyslexia is not an issue which has featured much in debates in the local economy. For example, there is only one article in this journal in which the subject has been raised tangentially (see Williams, 2009). From a Policy and Practitioner perspective, dyslexia is a real, but often hidden, issue among the farming community (Conley, Smith, Smith & McElwee, 2015). It is also a very topical issue. This viewpoint article discusses the contemporary issue of ‘Farming with Dyslexia’ from a perspective which will be of interest to policy analysts, researchers, and practitioners. The purpose of this discussion is to make this study of dyslexia accessible to those working in the broad field of local economic and social change. We discuss the issue from the perspective of local economic development and regeneration, as well as considering issues of economic empowerment within the context of wider social, political and economic change. We present a diversity of perspectives whilst discussing the shifting landscape of

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1 Crichton Institute is a collaboration of the Crichton campus academic partners (the Universities of Glasgow and the West of Scotland, the Open University in Scotland, Scotland’s Rural Agricultural College, Dumfries and Galloway College) and wider strategic partners including: the Crichton Carbon Centre, The Crichton Foundation, The Crichton Trust, the Crichton Development Company, Dumfries and Galloway Council, NHS Dumfries and Galloway, Scottish Borders Council, the Scottish Funding Council and Scottish Enterprise (South). Its objective is to capitalise on the combined knowledge and expertise of its partners to better exploit the synergies between research, business engagement and Knowledge Exchange in order to support the economic, social and cultural aspirations and regeneration of the South of Scotland and to have a transformational influence. Its work has national and international applicability.
economic development in the farming community. This is necessary to justify why dyslexia is such a particular issue for farmers and rural entrepreneurs. Farmers in particular, are in many cases, an economically and socially isolated group in local economies and because of the hereditary nature of dyslexia and the traditional succession routes into farming the condition of dyslexia self-perpetuates across the generations becoming embedded in the industry psyche and skill sets as an often unspoken facet of everyday farming and business life. This is exacerbated by the increasing bureaucratisation of official farming support services and the computer age. These have combined to put pressure on farmers who are now becoming more adept at articulating the effects of the phenomenon on their daily farming routines and ultimately their often economically fragile fortunes.

This viewpoint reports on an ongoing research project into the influence and effects of dyslexia on the entrepreneurial propensity of farmers. A propensity is described as an inclination or natural tendency to behave in a particular way. An entrepreneurial propensity, is then, an inclination to behave entrepreneurially. Entrepreneurship, in an economic and regional development context, plays an integral part in the generation and regeneration of local economies. The research discussed here is tentative in nature but nevertheless, offers some fresh insights into this under-researched topic from a practitioner perspective. There is a growing appreciation of learning difficulties such as dyslexia in business per se (Morris 2002; Logan 2001, 2009; Smith 2008). Entrepreneurial propensity is affected by learning difficulties or conditions such as dyslexia, dyspraxia, ADHD, ADD, OCD and conditions on the Autistic spectrum such as Asperger’s Syndrome. This can have positive and negative effects upon those who have the condition depending upon contexts and other factors including economics.

Total income in farming has declined steadily over recent decades requiring a more entrepreneurial approach and an increase in diversification strategies to encourage sustainability whilst countering declining incomes (Phelan & Sharpley, 2012). This entails developing entrepreneurial skills and competencies including business and management skills. Increasingly, farming is seen as a business and the farmer as an entrepreneur (McElwee, 2006, 2008; McElwee & Annibal, 2010; Somerville et al, 2015). Indeed, McElwee (2006 & 2008), argue that farmers often have no option but to become more entrepreneurial in both their core and diversified business interests. Indeed, skills development and resilience factors are a major theme in developing financially robust local economies (see McElwee, 2006/Glover, 2012).

Glover highlights the role of education and learning in entrepreneurial innovation. The entrepreneurial farmer must develop and enhance his or her technological competencies but in particular, three specific sets of enterprise skills (McElwee, 2006). These can be enhanced by learning (units on courses such as business and entrepreneurship) and by procuring consultancy services. Nevertheless, many farmers find it difficult to find time to develop individual learning portfolios and the strategies for their business. Time is one factor but ‘access’ to learning is a complex issue. Accessibility strategies detailed in Education (Disability Strategies and Pupils’ Educational Records) (Scotland) Act 2002 explains what is currently available, but complications become evident, on two levels. Firstly for, the older generation of farmer who has not had access to appropriate and supported education and secondly, rural remoteness is both an access and technological challenge. Broadband and overall IT connectivity can mean that the geographically fragmented community of dyslexia farmers is indeed an enclosed

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3 These enterprise skills are networking, strategic awareness and opportunity recognition. Paradoxically, from a practical perspective these skills are the qualities least associated with those business skills which are traditionally taught on agricultural management courses (see Smith, 2010). Developing the enterprise and entrepreneurial skills of new entrants onto farm businesses is a priority to which SRUC is committed.
grouping yet geographically dispersed. However, the link between learning and entrepreneurial propensity is an important facet of doing business and is influenced by one’s upbringing, socialisation and exposure to business practices but business ‘nouse’ must be owned and enacted by the individual.\textsuperscript{4} It is linked to “farmers’ mentality” (Smith & Duncan, 2014) and as an occupational modus operandi has divergent meanings and skillsets. Having said this, there has been little research into how farmers learn the business practices which lead to success. This is an issue of importance: Dyslexia Scotland report that one in five rural residents may be prone to this hereditary condition, which usually manifests itself in reading, spelling and arithmetic problems. Dyslexia is a spectrum learning difficulty recognised under the Disability Scotland Act, 2010.

From a practical and policy perspective the common, generic signs associated with dyslexia are visible. For example, most of the signs relate to reading, writing and numeracy skills and are characterised by slowness, repetition and a sense of confusion. There is obvious difficulty in remembering instructions and confusing or forgetting telephone numbers. Avoidance techniques are palpable and the dyslexic may appear forgetful or disorganised.\textsuperscript{5} The condition has advantages and disadvantages. For example, people with dyslexia are often highly intelligent and articulate and despite having difficulty in learning to read or interpret words, letters and other symbols, they generally possess excellent long term recall. Poor short-term memory may be compensated by creative thinking and an ability to think in images. Some may excel at problem-solving but become frustrated with long forms or sequential processes and ‘think outside the box’ (Conley et al, 2015). Dyslexics often confuse left and right. It is often

\textsuperscript{4} Nouse is a blend of ability, capability and sensibility.
\textsuperscript{5} Anyone who suspects they may be dyslexic and wishes help and assistance can find out more at the following websites – www.dyslexiaaction.org.uk / www.dyslexiascotland.org.uk / www.walesdyslexia.org.uk
difficult to detect because those with dyslexia often hide difficulties from co-workers, friends and family and seek employment in jobs that will allow difficulties to remain hidden. Some dyslexic people, may thrive in careers such as farming where visual-spatial, hands-on skills of primary importance. The dyslexic farmer may choose not to report it through fear of the consequences or perhaps a misplaced sense of shame, with a perception that there is a stigma attached to the condition. Dyslexia is an issue which relates to the whole of the UK and other farming communities across the developed world, making it highly important to a range of people, including; practitioners, policy makers and public officials.

Understanding the projects beginnings

This research began with a practitioner-based perspective – what do farmers themselves understand by Dyslexia at SRUC Barony Campus, Dumfries (in an internal SRUC Document in 2011). Conley worked as an Additional Support & Core Skills Lecturer, in supporting agricultural students and farmers she realised that many of them either reported having dyslexia, or displayed classic signs of the condition. Over time, Conley realised that the proportion of students/farmers she engaged with who exhibit patterns of dyslexic behaviour, was higher than the national average. In particular she began to understand that the condition can affect their ability to concentrate on lengthy reports, interpret information or complete numeric calculations. On conducting preliminary research and analysing the data Gillian found approximately 25% of agriculture students at SRUC receive support with their education, as they are dyslexic or have dyslexic tendencies.

6 See the book “Day to Day Dyslexia in the Classroom” by Pollock, Waller and Pollit (1979) for further details how dyslexia manifests itself in learning settings and how to spot symptoms.
From a farming perspective it may be useful to consider how reducing the stigma and poor understanding of dyslexia may be useful, primarily so that it can be diagnosed and support given for it, as early as possible in a person’s education and career. Challenging the problems associated with dyslexia, by earlier diagnosis is important so that the significant problems of communication, regulation and form-filling within the agriculture industry can be understood and managed. Currently students, farmers and farm workers who are diagnosed with dyslexia or who suspect they have the condition are often unable to locate sufficient information to help them progress easily in their careers. Gillian highlighted this to colleagues within SRUC and her colleague, Jo Aitken, presented this data to the National Farmers Union Scotland (NFUS).

Simultaneously, the NFUS were in conversation with a group of Scottish farmers including Dumfries farmer Sandy McCreath and a crofter, Sandy Murray from the Highlands who were trying to highlight the affects dyslexia had on their farming practice. This led to the NFUS providing support and encouragement to all parties involved in the discussion. A ‘Farming with Dyslexia’ working group was formed. They worked in conjunction with Dyslexia Scotland. The purpose of the campaign was to:-

- Better support farmers and crofters with dyslexia and ensure they received suitable support to make the day-to-day running of their businesses easier and more efficient.

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7 Both individuals are NFUS Dyslexia Champions and led the publicity campaign. They have been consulted in this research.

8 The group included representatives from NFUS, the Scottish Government’s Rural Payments Inspection Directorate, Forestry Commission Scotland, Dyslexia Scotland and Scotland’s Rural College (SRUC) along with farming and crofting members of NFU Scotland who have dyslexia. See the website at http://www.dyslexiascotland.org.uk/news/
- Change policy and practice in respect of form filling and communicating with farming organizations and officialdom.
- Raise awareness and practical solutions to make life easier, particularly where it comes to paperwork and official communications.

Dyslexia can remain undiagnosed, causing problems for those trying to run a modern farming business with its need for regular communications, compliance with a range of regulations and form filling. The key objectives are to:-

- Raise awareness of dyslexia, to reduce the stigma and promote the abilities of dyslexic individuals which are of great benefit to the agricultural industry.
- Engage with the Scottish Government and other stakeholders to ensure measures to recognise dyslexia among the farming community are appropriate.
- Ensure systems of communication with regulatory bodies are more accessible for dyslexic farmers and crofters with a choice of delivery options.

The group now actively works with the Scottish Government, Dyslexia Scotland and SRUC.

The NFU campaign based on the design of a new logo and posters helped raise awareness, to farmers and other workers in the rural sector, as did a media campaign to raise awareness, provide extensive publicity and understanding whilst reducing the stigma of being dyslexic.

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9 A dedicated telephone number was set up (07775804717) for members to receive more information or assistance. For more information visit http://tiny.cc/hiibx
The posters encouraged dyslexic farmers and farm workers to come forward to share their experiences of dyslexia and to contribute ideas. One of the farmers, as noted earlier, was Sandy McCreath. It is significant that his reason for highlighting the plight of dyslexic farmers was to change the attitude of officials, whilst also gaining assistance or alternative formats to complete financial farm documents. Sandy suffers from severe dyslexia and was inspired to act to make vital forms and paperwork as easy as possible to understand and fill in. Sandy talked of an age (30 years ago) when farming paperwork was pretty rudimentary and secondary to farming. He now considers paperwork as being essential and mistakes are far more likely to be picked up on and penalised. This is an issue which may be of relevance to entrepreneurs/business owners generally

Sandy finds contemporary farming stressful. Sandy thinks the red tape surrounding the modern farm business is making it increasingly difficult for dyslexic farmers like him to operate. Dealing with various grants, subsidies and stewardship schemes becomes increasingly difficult for those with dyslexia. He despairs at the proliferation of government paperwork required of farmers. It is no longer so easy to hide a lack of reading and associated problems farmers have had for years. He has had to give up rearing cattle because of the hassle of completing extensive paperwork and cattle passports. Farmers, like Sandy often fail to claim for grants because it is difficult to complete each section of grant and funding paperwork. The fear of making mistakes and being penalised is at the heart of the problem. Personally Sandy found Scottish Government officials were 'unsympathetic' to his problem in relation to filling out the complex paperwork issued by the government's Rural Payments and Inspections Directorate. It was during March 2015 when we became involved in the ‘Farming with Dyslexia’ project from an academic and theoretical perspective.
Our research is underpinned by the following self-generated investigative questions arising from the practical experience of one of the authors Gillian Conley:-

- **RQ1** – *What is the incidence of dyslexia in the farming community in the UK?*

- **RQ2** – *What are the common symptoms / manifestations of dyslexia and how do these affect the everyday and longer term farming practices and strategies?*

- **RQ3** – *What coping mechanisms and skill sets do farmers with dyslexia develop to overcome the condition?*

- **RQ4** - *What affect does this have on the individual farmer, their entrepreneurial propensity, their family and on the farm business?*

- **RQ5** – *What lessons can we learn from the study to change / alleviate the problems?*

We now consider methodological issues which impinge on the study.

**Methodological Considerations**

The main methodology used in the study (Conley et al, 2015) is that of face-to-face qualitative interviews with farmers to elicit the subject specific information relating to how their condition influences their entrepreneurial propensity and ability to do business. To underpin the data collection we developed a questionnaire comprising of twenty two questions, weighted between aspects of dyslexia and business practices. We constructed the “dyslexia friendly”
questionnaire specifically to be accessible to persons with dyslexia.\textsuperscript{11} We augmented this with Documentary Research (Scott, 2014) from media and press sources as well as internet research.

From the interview data, we intended to construct case studies and stories (Yin, 2008) to capture the nuances and individuality of the respondents’ condition. Individual farmers may require different (generic) learning strategies and action plans to be put in place to support them. We adapted the methodology of Morris (2002) in using case stories - applying Morris’s categories of Pictorial, Orality, Behavioural and Cognitive. We augmented this strategy by collecting data from the internet and press using Documentary Research techniques (Scott, 2014) to support the material from our own research. We then reframed the narratives as learning stories to capture the context of the learning environment that appears to be enabling or constraining learning and they show progress over time (Hill, 2015, p.1). Learning stories (Lave, 1997) relate to aspects of learning in relation to the condition of dyslexia and are distinctly social being set in particular, situated communities of practice (Lave & Wenger, 1991).

**Assessing the implications of farming with dyslexia on local economies**

As previously stressed, the wider economic and social impact of farmers’ dyslexia is under researched and what little has been done, in general terms, reveals key areas of concern. The Scottish Rural Development Programme SRDP 2014-2020 (Scottish Government, 2013)

\[\text{\textsuperscript{11} It can be downloaded from the Crichton Institute and SRUC websites and we would encourage any reader of this briefing to participate in the study by completing and returning the document to Gillian Conley on Gillian.Conley@SRUC.ac.uk (Until December 31st 2015).}\]
undertook a framing exercise involving data and literature searches and produced key findings that included firstly, a lack of evidence from the equality groups relating to rurality and secondly lower than average access to skills and education in rural communities (Annex F Equalities Impact exercise).

Farming plays an important part in local economies and in the food supply chain. Farming is an industry which participants ‘learn by doing’ (Foster & Rosenzweig, 1995). Farming as a practice is a story of social, economic and emotional process (Smith, Temple & Edgar, 2009). It is specific recognised mentality (Smith & Duncan, 2014). This article is grounded in practice and practicalities of farming. It offers some general (albeit tentative) insights and contributions to theory. It engages with debates about current policy issues and provides a timely, up-to-date critique with suggestions to enhance policy effectiveness. We balance critique with proposals for change. We seek to disseminate innovative practice but policy makers must also play their part in ‘doing’ and making change.

Policy makers have an integral part to play in changing the mental models of farming (Eckert & Bell, 2005). Our initial observations are tentative given the small size of the research sample to date. It is evident that dyslexia does influence the entrepreneurial propensity of some farmers and their ability to conduct business and operate at the same level of entrepreneurial farmers. Moreover, dyslexic farmers encounter everyday difficulties in their farming life which prevent them from conducting their business in the manner in which other farmers may take for granted. For example, these can lead to the adoption of inefficient working practices which impede the success and growth of the business, and to individual farmers avoiding particular types of farming or practices because of overly bureaucratic paperwork (Conley et al, 2015). These
unintended outcomes have financial costs on the farming industry. In some cases, the condition can lead to farmers with dyslexia being sanctioned, fined and potentially criminalised through no fault of their own. This may also be the case for a large number of the population including a large number of convicted criminals who have poor literacy rates associated with dyslexia (Kirk & Reid, 2001). A systematic review of such cases by the appropriate authorities would determine the scale of the issue. Making mistakes on a form should not lead to a criminal record when there is no other evidence of criminal intention.

We accept that there is a need to adopt the delivery of farming services to suit the preference of farmers for engaging in informal networking. Networks play an important part in changing farming practices and act as webs of influence in which farmers engage with learning about agricultural innovations (Oreszczyn, Lane & Carr, 2010). We detect a preference for farmers to frequent farmers markets and agricultural marts where they can do business orally with other farmers. We must therefore make it easier for all involved, (from government officials to farm workers), to acknowledge the condition and have it dealt with in an efficient manner. Therefore preventing some farmers adopting informal (potentially illicit and illegal) farming practices (selling direct to butchers and wholesalers), because this is easier than operating in an increasingly bureaucratic industry!

Figure 1 below presents a visualisation of the main issues discussed in this viewpoint:-
There are some serious implications for the economy arising out of the farming and dyslexia debate (see Smith, Conley, McElwee, and Smith, 2015). These are pedagogical, ideological, fiscal and practical in that an acceptance of the opportunities and threats of farming with dyslexia will influence how we train and educate the next generation of farmers. The challenges faced by entrepreneurial farmers with dyslexia are cross policy and require attention from equality policymakers, rural development policymakers and education policymakers. It will influence how we as a bureaucratic, society approach the situation from an institutional perspective – i.e. do we adopt a collective sympathetic approach or do we consider it to be a personal affliction which requires personalised solutions. At present it is generally accepted within the farming community that too much information is put out by government and
agencies, needs to be made simpler. Adopting a collective approach, we as a society would offer help and support with form-filling and design systems to be dyslexia friendly. This could entail putting out more information out in audio format, or online as much as possible, including video. This would necessitate government intervention and support at all levels. This is also a business opportunity for entrepreneurs to develop software that can help farmers with dyslexia. There are funding issues which may arise out of this development.

Conclusions

We acknowledge that our study has limitations and that we must conduct further, more rigorous and empirical studies. Nevertheless, we believe that our initial research may resonate with the experience of many farmers and agricultural students as well as many businesses operating in the food and other ancillary industries. We therefore encourage other scholars interested in the economics of local economies to conduct further research to see how widespread dyslexia is in the rural economy.

In the meantime, we will continue to interview as many respondents as we can, to develop the number of cases and stories upon which we will build our conceptual and theoretical models. A major limitation is that despite the growth of studies into dyslexia, it is still a contested condition. Some practitioners in the medical and educational fields believe that dyslexia is an overused term. Some believe that students abuse the condition to obtain extra learning support or equipment. Further studies may help dispel this belief. Additionally, other medical conditions can manifest themselves in a similar manner to those of dyslexia (e.g. visual and optical
conditions resulting in poor reading skills) and this can confuse proper diagnosis. Obviously testing a potentially high number of dyslexic farmers have financial implications for society. This would require government funding but would provide a range of positive outcomes. It would also be beneficial in that it is a hereditary condition. The money spent now and the lessons learned would be assimilated into future farming practices and routines and perhaps lead to increased productivity. Until the socio-economic impact of dyslexia is fully understood through entrepreneurial propensity then ignoring the issues is not a sensible option – we must act to change the architecture of entrepreneurial learning (Holcomb et al, 2009, Smith, 2013) in the farming industry.

References


