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How rural coworking hubs can facilitate well-being through the satisfaction of key psychological needs

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Abstract: Once considered an urban phenomenon, rural enterprise hubs (REH) and rural coworking spaces (RCWS) are now increasing in popularity to support entrepreneurial rural communities. Whilst previous research examined economic and community benefits, a focus on well-being benefits has been overlooked. Framed by self-determination theory (Ryan & Deci, 2011), this empirical research investigates whether rural coworking is reported to enhance user's well-being by fulfilling key psychological needs for autonomy, competence, and relatedness. By applying a well-being focus, we found that potential key drivers of rural coworking uptake and durability could be elucidated, in terms of these three needs. In addition, we identified another category of well-being that was fulfilled through engagement with RCWS and REH – namely 'communion with nature'. We suggest that considerations of well-being are important to understand how rural coworking can attract and sustain local workers and suggest a future research agenda to further conceptualise wellbeing effects.

Keywords: Rural Coworking Spaces, Rural Enterprise Hubs, Well-being, Self-Determination, Rural Development

Introduction

Over the past decade, the practice of coworking has grown from its beginnings in trendy metropolitan cities, into a global phenomenon (Gandini, 2015). A coworking space is defined as:

“A shared workspace that might also in some cases offer a set of relating facilities and amenities to its users, e.g. machineries, trainings, incubation or acceleration programmes for start-ups, etc. Such spaces have dominated the most recent investigations on the changing dynamics of labour and workspaces, with a great focus on the activation of knowledge spillovers” (Fiorentino, 2019: 1768)

These spaces are often open-plan, where freelancers, entrepreneurs and remote workers can 'hot-desk', gaining (temporary) access to networks, knowledge and support (Gandini, 2015). Coworking spaces can be tailored for office-based businesses (Leclercq-Vandelannoitte and

Isaac, 2016), or for creative businesses – often called ‘Maker Spaces’ (Van Holm, 2015). Once considered a strictly urban occurrence (Merkel, 2015), rural enterprise hubs (REH) and rural coworking spaces (RCWS) are now increasing in popularity to support entrepreneurial rural communities (Cowie et al., 2013; Fuzi, 2015; Merrell, 2019; Avdikos and Merkel, 2020).

Coworking spaces have been shown to help create a sense of community (Taylor et al., 2016; Spinuzzi, 2012), freedom (Reichenberger, 2018) and identity (Dale and Burrell, 2010), particularly for isolated owners of micro-businesses and sole traders, typical of the rural economy (Phillipson et al., 2011). However, a focus on well-being more broadly has been overlooked in the current literature (Russell and Grant, 2020). Well-being is a psychological construct relating to the experience of positive and pleasant emotions, and a sense of living a happy, meaningful and purposeful life (Diener, 1984; Ryan and Deci, 2001; Waterman, 1993). Well-being is a complex and multi-dimensional phenomenon, but is generally considered to be optimised when people have the resources available to fulfil key psychological needs and valued goals across different areas of life, which contribute to a person’s flourishing, self-esteem and acceptance (Deci and Ryan, 2008; Hobfoll et al., 2018; Ryff and Keyes, 1995). A key theory of well-being is self-determination theory (Ryan and Deci, 2000), which suggests that when people’s primary psychological needs for autonomy, competence and relatedness are fulfilled, people will experience greater well-being. People are active in galvanising their resources to pursue psychological need satisfaction, and will regulate when certain needs are being neglected, and whether action is needed to rectify this (Ryan and Deci, 2000). By utilising SDT, potential well-being drivers of rural coworking uptake and durability can be explicated. As such, in this empirical study, our research question is “*Does rural coworking enhance people’s well-being by fulfilling key psychological needs for autonomy, competence and relatedness?*”

By focusing on rural coworking, in particular, we consider the characteristics of rural economies, which have disproportionate levels of micro-businesses who are geographically dispersed (Keeble et al., 1992), isolated (Shucksmith, 2004), and frequently home-based businesses (HBB) (Newbery and Bosworth, 2010). Within such communities the well-being drivers for co-locating in shared spaces may be especially pronounced.

To address our research question, this mixed method empirical research makes use of data obtained through qualitative interviews with tenants and managers of REH in the North-East of England and reinforced with a survey of RCWS users and other entrepreneurs in Wales. These two areas of the United Kingdom have significant rural spaces, with low population densities and developmental issues following the collapse of the coal mining industry in the 1980-90s. They are however, both front-runners in the provision of RCWS and REH.

In this paper, we make two contributions to the literature. First, by focusing on RCWS and REH, this is the first paper to examine drivers for accessing and sustaining coworking within rural communities that goes beyond a consideration of economic or knowledge-sharing motivations (Capdevila, 2013). Second, by examining psychological need fulfilment as the possible drivers and/or outcomes for workers who adopt rural coworking, we examine well-being as a potentially important factor in attracting and sustaining engagement with coworking spaces in rural communities. This has repercussions both for hub owners and managers, in considering the resources that they can provide (and market) to their users, but also to communities, in considering how well-being concerns are an important driver in motivating people's choices to engage with their local, rural economies.

This paper begins with a literature review of (rural) coworking spaces and self-determination theory (SDT). Second, the methodology is presented, including more

information on the two case studies involved in the research. Third, main findings are presented, following the autonomy, competence, and relatedness psychological needs framework. Lastly, a discussion of the findings and concluding remarks ends the paper.

The rise of rural coworking

In recent years, coworking spaces (and other related physical infrastructures, such as enterprise hubs (Merrell, 2019), maker spaces (Sheridan et al., 2014) and fab labs (Walter-Herrmann and Büching, 2014)) have been steadily increasing in popularity (Gandini, 2015).

The original rationale for co-location was economic – that small business owners could not afford their own premises and/or specialist equipment, and sharing these facilities lowered overheads (Martin and Sunley, 2003; Porter, 1998). It quickly became apparent that co-location had other benefits beyond financial, including: the increased flow of knowledge exchange between users/tenants (Cooke, 2001), increased networking opportunities (Keeble et al., 1999; Šebestová et al., 2017) and the sharing of human capital (Henry and Pinch, 2000). All of these pointed to the importance of ‘being there’ (Gertler, 2003) in an environment which created a ‘buzz’ (Storper and Venables, 2004). Well-connected and accessible urban environments thus became the principle locale of coworking spaces (Moriset, 2013), with modernised knowledge-based cities attracting creative and innovative entrepreneurs (Glaeser, 2011; Florida, 2005). Indeed, the rise of coworking began in the high-tech districts of San Francisco and rapidly spread to other leading global cities, adopting terminology found in the sector to create a “open source” philosophy of working (Lange, 2011), with an emphasis on networking and collaboration (Spinuzzi, 2012; Šebestová et al., 2017). Research into (urban) coworking spaces has highlighted the additional importance of community-building and the increase of social capital (Spinuzzi, 2012; Taylor et al., 2016) between users of the space, implying that reasons for entering a coworking environment go

beyond a strictly economic rationale. The discussion is now moving to consider the transferability and different drivers of coworking in more rural areas.

It was recognised that HBB often required the *temporary* use of office facilities, to host meetings, use specialist equipment and make use of ‘head down’ space (Mason, 2010). Another group that requires temporary access to such facilities are the “digital nomads” (Müller, 2016), who are often self-employed individuals requiring only a computer and internet access to operate their business. This collective growth in flexible modes of working can be associated with the spread of coworking to rural areas (Avdikos and Merkel, 2020). Recently due to the COVID-19 pandemic, the desire to relocate to rural areas from larger cities has been witnessed across the Global North, with 48% of adults surveyed in the USA wanting to relocate, for example (Roper, 2021).

Rural areas have unique geographic, social and institutional characteristics (Korsgaard et al., 2015) that could produce distinctive coworking structures. Rural businesses are sparsely distributed, with greater distances to market (North and Smallbone, 2000). Due to this, they have smaller social and professional networks (Laschewski et al., 2002), but with the two more likely to overlap (Mønsted, 1995). This suggests that rural workers may experience higher levels of social isolation (Fegan and Bowes, 2009) and exclusion (Shucksmith, 2004). Rural areas also see disproportionate levels of micro-businesses and sole traders (Phillipson et al., 2006; Lee and Cowling, 2015), who often operate the business alone. On top of this, many of these are HBB who increasingly rely on ICT to overcome remoteness and isolation (Kapasi and Galloway, 2016; Newbery and Bosworth, 2010; Mason, 2010), have lower digital skill levels (Welser et al., 2019), lower access to ‘on-the-job’ learning (Phillipson et al., 2019) and fewer opportunities in new emerging sectors – all of which have led to a “brain drain” (Carr and Kefalas, 2009) of young people leaving rural areas to pursue careers in cities.

All is not bad in rural areas though. Rural environments are often rich in natural capital - “green spaces” (Bell et al., 2014) associated with forests and parks, and “blue spaces” (Kelly, 2021) associated with oceans and rivers - often referred to as “therapeutic landscapes” (Finlay et al., 2015). These landscapes offer the opportunity for outdoor recreation, which has proven highly beneficial for health and well-being (Key, 2011). Despite having smaller social networks, rural communities are often closely-knit, with rural residents reporting a high sense of belonging (Cohen, 1982), emphasised through social events and festivals (Duffy and Waitt, 2011). Rural communities have been viewed as beneficial places to grow up (Glendinning et al., 2003) and live (Scott et al., 2018), with remoter areas sometimes scoring higher than accessible ones on such indices (Gilbert et al., 2016). Considering the above research, it seems to be viable therefore, to consider the role of well-being in people’s commitment to engage in RCWS and REH. We discuss this in the section below.

Self-determination theory and its relevance to rural coworking

According to SDT (Ryan and Deci, 2000), when people engage in activities and environments that allow them to meet psychological needs for autonomy, competence and relatedness, they will be more likely to achieve well-being, vitality and self-esteem. Psychological needs are drivers of people’s activities and seen to be “necessary nutrients for healthy functioning” (Deci and Ryan, 2000: 228).

The key psychological needs of people can be categorised into three groupings, discussed here regarding work. First, autonomy - defined as “regulation by the self” (Ryan and Deci, 2006: 1557) – is a vital well-being component for businesses and organisations (Brock, 2003). It involves individuals having volitional control over the organization of their behaviours and experiences, to be concordant with one’s values and sense of self (Deci and

Ryan, 2000). This provides a freedom to act without burdensome levels of regulation or supervision. High levels of autonomy can be a driver in establishing a business (especially when leaving a company with low levels of autonomy) (Van Gelderen and Jansen, 2006; Carter et al., 2003) and a characteristic of entrepreneurial behaviour (Gelderen, 2016).

Second, competence involves having a positive impact on one's environment and attaining valued outcomes within it (Deci and Ryan, 2000). Essentially, competence at work involves being able to achieve work goals and develop knowledge and skills in relation to this. This provides a sense of self-worth and capability.

Third, relatedness is a desire to be connected with others, to show care towards other people and to feel cared for in return (Deci and Ryan, 2000). It relates to the human need for affiliation and to achieve a sense of belonging. People can achieve a sense of belonging in business communities. For example, 'likeminded' work cultures have proven critical to the success of innovative 'hotspots' such as Silicon Valley (Saxenian, 1994).

Ryan & Deci (2000: 74) state that "a psychological need is an energizing state that, if satisfied, conduces toward health and well-being." As outlined in the previous section, rural settings may have a depleting or limiting impact on workers' ability to satisfy these needs. For example, rural businesses face multiple barriers to competently operate their businesses, including a lack of workspace, access to skills (and 'on-the-job' training) and employees (Phillipson et al., 2011). Many rural business owners and freelancers report that they are socially isolated (Abreu et al., 2019; Oughton and Wheelock, 2003), with few opportunities to physically connect with other workers, and share social experiences (Kapasi and Galloway, 2016). The potential lack of infrastructure and resources available within rural communities could potentially undermine the autonomy that rural workers need, in order to feel in control of their work and working environments (Deci and Ryan, 2000).

Taken together, this suggests that rural contexts may not yield benefits for satisfying key psychological needs; however, offering RCWS and REH appears to address some of these needs. By providing the correct mix of occupational requirements and situational resources (Billett, 2009) to achieve goals, feel valued, be in control, and connect with other people, rural coworking could address the autonomy, relatedness and competence needs of rural workers. In this study, we therefore investigated the extent to which REH and RCWS offer facilitative environments for satisfying the three key psychological needs of SDT. We considered this from both a well-being driver and well-being outcome perspective. In other words, we considered, (i) the extent to which perceptions about rural coworking might *drive* people to engage to support previously unsatisfied psychological needs, and (ii) the extent to which people report that REH and RCWS produced well-being *outcomes* through the satisfaction of their well-being needs.

Methodology

In order to address our research question: ‘*Does rural coworking enhance people’s well-being by fulfilling key psychological needs for autonomy, competence and relatedness?*’, we used a mixed methods multiple case-study approach (Yin, 2013). We used survey and interview data with members of REH and RCWS in Wales and the North-East of England. Some 8 REH and 3 RCWS were involved in the research. We gathered responses from 48 semi-structured interviews (with users and managers of the 8 North East hubs) and 89 surveys (with users of Welsh RCWS) between 2013-2017. Additionally, 53 surveys were conducted with Welsh entrepreneurs and freelancers who did not use coworking spaces on a regular basis.

Spaces differed in terms of ownership, location, and size. Some were located within “functional urban areas” (FUA), others with access to FUA, whilst others still were

considered “remote rural” (Organisation for Economic Co-operation and Development, 2018). Compared to highly urbanised cities, RCWS and REH tend to be smaller operations. However, unlike urban areas where private sector spaces dominate, these infrastructures are more likely to be community-run or established (and managed) through the public sector. Some of the spaces housed office-based service providers, whilst others had an arts & crafts/creative industries focus. Table 1 provides more context on each of the spaces.

[Table 1 about here]

Interview data. For qualitative data analysis, all interviews were transcribed in full and coded within Nvivo, using a thematic-analysis approach. Table 2 illustrates the coding framework that was created, following the three needs in SDT. A narrative approach was used for tenant interviews, with participants asked about their situation before entering the REH, their decisions to join the REH and the benefits they have experienced since joining.

[Table 2 around here]

Survey data. Users of spaces were asked what they missed from their previous work environments, their reasons for their coworking choices, the importance of environmental/enabling factors in the space and their perceived changes in performance (amongst other questions). Surveys with those entrepreneurs who did not use coworking on a regular basis explored the reasons for choosing their work location and any potential downsides of operating there. Survey results are mainly descriptive, however, quantitative analysis is used in this paper to reinforce and triangulate the results of the qualitative analysis. In particular, when comparing two cases for differences and similarities, Chi-square tests and One-way ANOVAs were conducted in SPSS.

Rural Locales

The two locales of Wales and the North-East of England are well positioned for theory building, both within rural development and the coworking literature. The two areas share many similarities within the context of the United Kingdom, and experience developmental challenges comparable to other rural areas throughout the global north (Shucksmith and Brown, 2016). Both areas have highly remote rural areas, made up of small dispersed communities with different developmental contexts (Beel et al., 2020; Atterton and Affleck, 2010). Large swathes of land lie within National Parks (which are appealing for tourism) with restricted development or are used in primary production (upland farming and timber production).

Findings

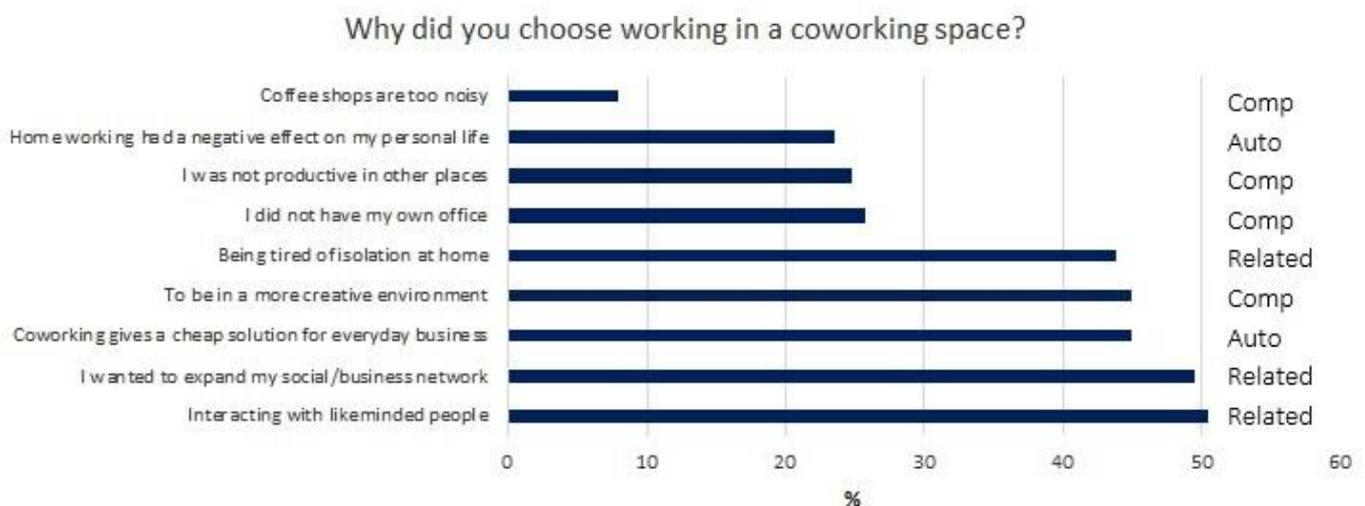
Participants reported several well-being drivers for joining and remaining in particular spaces. These related to the key psychological needs of autonomy, competence, and relatedness. The themes and supporting qualitative data are summarised in Table 3. Quantitative analysis will be provided throughout the findings section, to triangulate the results.

[Table 3 anywhere in Findings section]

Before delving into these themes, it is worth considering the well-being of tenants/users *prior* to entering the space, as this highlights the extent to which workers were galvanised to join RCWS and REH in order to satisfy potentially unmet needs (Deci and Ryan, 2000; Ryan and Deci, 2000). From the interview data, most of the interviewees expressed their increased well-being through the lens of leaving the home environment, often comparing the two situations. They were driven to satisfy needs relating to competence (avoiding distractions and appearing more professional for example) and relatedness (overcoming isolation). Some users worked for larger companies and were unhappy with this

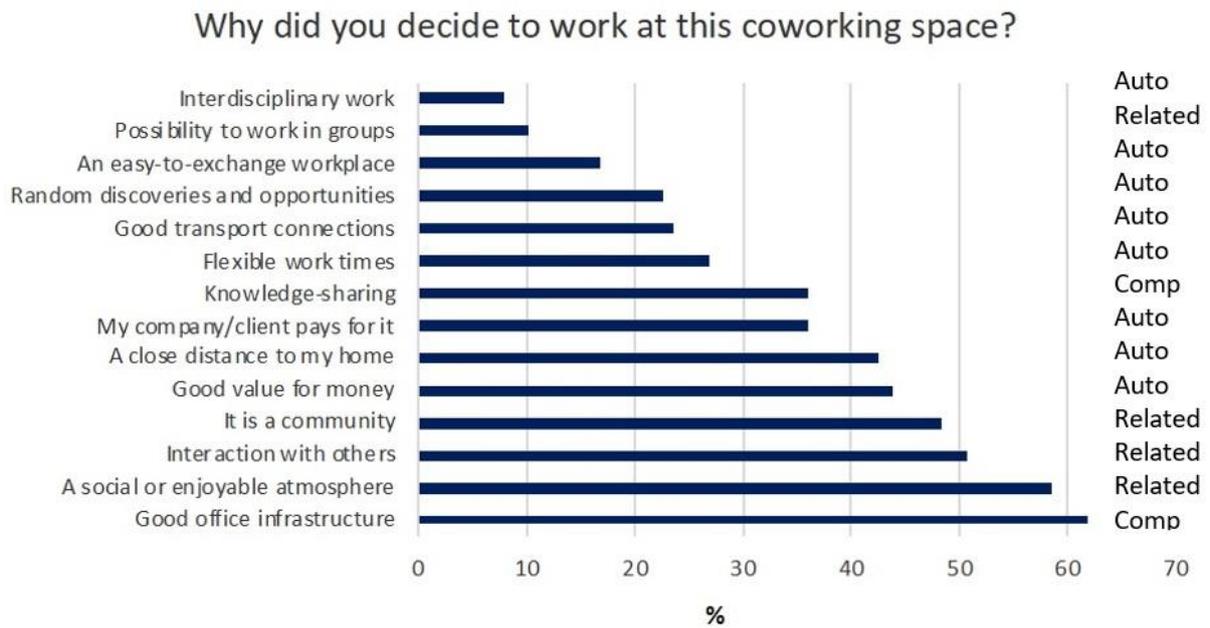
arrangement. Here, they appear to have been driven to join RCWS and REH to satisfy needs for autonomy. For example, for some, their personal circumstances and lifestyles required flexible working conditions and need for more freedom. From the survey data, autonomy, relatedness and competence were also apparent drivers, with participants stating how ‘interacting with likeminded people’ (51%), and ‘expanding social and/or business network[s]’ (49%) were the two most important motivating factors in their decision to cowork. In Figures 1 and 2 below, we include a tag on the right-hand-side, indicating whether the response refers to the needs of competency (comp), autonomy (auto) or relatedness (related). It is worth noting that the majority of the most popular responses in each Figure are concerned with relatedness – something we will explore later in the analysis.

Figure 1: Decisions to begin coworking, coded by psychological need



Having established that the three psychological needs appear to drive people towards joining RCWS and REH (above), we then examined to what extent need-fulfilment was reported to be an outcome of people’s tenancy/membership. We examine this in relation to each need in turn below.

Figure 2: Decisions to pick a particular space, coded by psychological need



Autonomy

For interview participants, the spaces increased their sense of autonomy and revolved around three main themes: convenience, flexibility, and work/life balance. In each case, as per SDT, workers reported that the spaces allowed them to exercise more control over their lives, their work or their environments, providing more freedom and integration (Deci and Ryan, 2000).

Convenience. The spaces were seen to be convenient for users, especially compared to lengthy commutes to urban areas. Being able to quickly access the space allowed for more personal time outside of work and reduced the amount of time driving or on public transport:

“But if I go to [City], it’s taking me away from the family Monday to Friday and its three hours there and three hours back, and just sitting in hotels which is not much fun. It sounds glamorous, but it isn’t! After you’ve done a few its boring” (Damien, REH4)

43% of survey respondents also placed locational aspects as highly important in their decision to move into their space.

According to interview participants, the spaces were also seen as convenient when it came to utilities/services and other hidden costs of running a business:

“You didn’t need to employ staff to do a lot of things that you often have to employ staff about – answer the phone (we have a reception here), pay the electric bill, pay the water bill, chase around doing all that sort of thing; so there was a whole chunk of admin that was actually lifted off us” (Calum, REH3)

Interviewees expressed how avoiding the hassle of organising and paying broadband, telecoms, electricity, and office equipment freed them to spend more time on their business. This was mirrored in the survey as 62% suggested “good office infrastructure” was vital in their decision making, and 44% suggesting it was “good value for money”.

Flexibility. The spaces were well suited to those who needed flexibility, especially those with personal circumstances that required this (childcare or working two jobs, for example) or those who ran their business for lifestyle decisions. Interviewees suggested:

“So, I rather prefer to leave the house, go to work and then maybe even finish early. I’m not always in all of the 8 hours that this place is open – when I finish what I want to do today I can go home” (Calum, REH3)

Some of the spaces offered 24/7 access which was seen as beneficial. Flexible (“easy-in-easy-out”) contracts or spaces offered over shorter-terms eased user’s anxieties around expensive overheads, especially for those whose business was somewhat seasonal, had fluctuating income streams or were newly established. In the survey, 27% of Welsh respondents also stated flexibility as important.

Work-life balance. Prior to joining rural coworking hubs, some interviewees were struggling with an unhealthy work/life balance. Reasons for this were either due to working from home (hard to establish a strict working day and merging of the home/work environments), the extended pressures of operating a business alone (often performing administration tasks outside of working hours) or pressure from a previous employee

(management commitments etc.). The spaces helped to provide some “*discipline*” (Ethan, REH5) to “*separate home life from work life*” (Frank, REH6), allowing users to relax when not at work and enjoy their spare time. In the survey of non-users, this was the largest disadvantage of working from home (57%):

“The difficulty for me wasn’t getting started with working at home – it was stopping I found that I was working all the time and there was no divide really. I rapidly recognised that that was not a good situation to be in and I needed to have more of a contrast between work-space and home-space but also work-time and home-time” (Georgina, REH7)

Related to this, some of the interviewees established their businesses as life-style decisions – they wanted an income, but not with the related stress of upscaling and employing staff. For them, the spaces provided a place to operate from, but kept the company nimble.

Competence

Competence involves feeling one has the resources and capabilities to positively effect one’s work and environment, in order to attain valued goals (Deci and Ryan, 2000).

We identified three main themes under this need: removing distractions; exerting professionalism (both internally and when meeting clients); building networks, and knowledge exchange. All of these were reported to result in the businesses becoming more productive. Overall, survey respondents perceived an increase in productivity (scored 7.82 out of 10) and creativity (7.43 score) since utilising cowork spaces.

Removing distractions. For many users, their main drive to use the space was to avoid distractions associated with working from home. The spaces provided an environment where workers avoided distractions, with survey respondents suggesting they were more motivated (scoring 7.8 out of 10 as important). Here, an interviewee explains:

“Being away from home ... It’s worlds apart – it’s different ends of the spectrum ... I just seem to get 10 times more work done than I did at home.

And it was so easy to just go and chill out on the sofa for half-an-hour and next thing you've know you've fallen asleep for an hour" (Anthony, REH1)

Other reasons were often given for increases in productivity, many of which were individual to the business and not generalisable. Interestingly the quantitative analysis did not show this theme to be as important, with only 25% stating that their motivation for coworking was because they were “not productive in other places”. In fact, non-users of RCWS perceived working from home as a means of avoiding distractions, stating it was a “quieter environment” (54%) with “less distractions” (38%). This shows there is a mismatch in perceptions and reality reported, with businesses not operating in coworking spaces, viewing RCWS as a source of distraction.

Exerting professionalism. Some of the interviewees experienced “imposter syndrome” (Clance and Imes, 1978), whereby they lacked the confidence to see their own business as a professional venture. This was exemplified by operating in a home environment. Interviewees reported that moving into a dedicated workspace grew their confidence, increased their skills, and helped them chase opportunities they might have not pursued otherwise. This extended to meeting clients in the space – previously, many of the businesses felt unprofessional inviting clients to their home. Some users expressed how they had attained larger contracts by demonstrating they were “*serious*” (Gabriella) to clients, through working in a dedicated working environment:

“So the growth - when we got appointed on the [larger] contract, it was: “We can't have them coming to my house to interview us to see and do an audit on us” it's not the best place.” (Elliott, REH5)

Meeting rooms were highly important to survey respondents, with these facilities receiving a 7.42 (out of 10) score as highly important.

Building networks and knowledge exchange. Lastly, interviewees gained greater access to professional networks, through their fellow users. Many small business owners

struggle with administration tasks around finance, marketing, HR (etc.) and, upon entering the space, they often found these services available through other users:

“The other reason to move here is that there is IT support. Which I know runs as a separate company, but they are very good – like if we break things ... I just have to walk upstairs and go ‘can I have some help?’”
(Daisy, REH4)

Some collaborations were formed between users (although this was reportedly rare), and frequent knowledge exchange occurred, particularly at lunch time in communal spaces. All of these helped the users to become more competent at their job, either through hiring the necessary services, or learning from others in a similar situation to theirs. This was mirrored in survey results, with members stating the importance of “expanding social/professional networks” (49%) and “interacting with likeminded people” (51%) in their decision to entering coworking spaces, as well as the “knowledge sharing” (36%), “random discoveries and opportunities” (22%) and the “possibility to work in groups” (10%) as motivating factors for choosing their particular space.

Relatedness

Relatedness is the psychological need for belonging that involves feeling connected to and cared for by others (Deci and Ryan, 2000). A sense of belonging to a professional community was prominently reported amongst interviewees. The communities that have established and grown in rural spaces were reported to be made up of people in very similar situations (small business owners operating in rural settings) and comradery was built through these similarities. Those who were previously home-based workers, who had

suffered from social isolation, reported substantial increases in well-being through frequent interaction with their fellow users¹:

“It’s very, very lonely running a small business, particularly if you are virtually a one-man-band; it can be very lonely. One of the advantages of being here is the interaction with the other people/other tenants” (Darren, REH4)

These findings were also evident in the quantitative survey data. Three of the top four reasons for choosing the spaces were related to belonging to a particular community, with “a social or enjoyable environment” (58%), “interaction with others” (51%) and “it is a community” (48%), all strong findings. “Being tired of isolation at home” (44%) was directly referenced as a general reason for entering coworking spaces. A highly important enabling factor of the spaces was the “atmosphere” (8.42 out of 10), “community” (7.66) and “other members” (7.2). Additionally, the survey with homeworkers who did not often use coworking spaces, 54% stated “isolation, lacking of interaction” as a negative effect on well-being.

Through extended periods in the space, users build social networks and can become close friends:

“I think first and foremost I’ve made some nice friends out of it. I would say that was more important than the fact that my business has doubled, because you can be very successful but if you are lonely and you have no friends? What’s the point?” (Gina)

Social events held by the management were seen to be a successful way of initiating these social ties, although several examples were seen of these developing organically as users become embedded in the space. “Events” scored a relatively low mean score (5.63 out of 10) as an enabling factor in survey respondents. However, upon closer inspection, one RCWS provider performed highly on this factor due the operators’ approach to facilitating

¹ This also helped increase competence (through increased knowledge exchange and heightened sense of professionalism).

connections and enabling serendipity within the community, whilst the second performed poorly as it was a space where members were encouraged to take initiative for their own activities, with the operators not wanting to lead on this. This demonstrates two different management approaches – one that valued community and capacity-building (and organised events), whilst the other valued self-reliance and bottom-up activities.

Communion with nature

One additional theme emerged inductively from the interview analysis; the importance placed on operating in a non-urban environment, surrounded by nature. Some interviewees expressed a sense of belonging to the landscape. Others stated how being in tranquil surroundings helped them to concentrate better than in busy urban environments and helped them to relax during stressful times.

“Looking out the window across the fields and everything like that ... Quite often if I want to take a call I’ll go outside and walk around the trees and the countryside and (you know) you don’t normally get that. So that’s probably the main [reason for working here]” (Eli, REH5)

Additionally, some users from creative industries also stated they drew inspiration from these surroundings. Considering the literature on how access to green and blue spaces improves well-being (Bell et al., 2014; Kelly 2021), this is a particularly important emerging finding which future research could address more explicitly. This would hopefully uncover the extent to which rural locales fulfil a unique wellbeing need of communion with nature.

Discussion

This research demonstrates how RCWS and REH offer an opportunity for workers to satisfy key psychological needs for autonomy, relatedness and competence, thus supporting people as they undergo a significant change to their working lives, and as they strive for more meaning, purpose and fulfilment. This indicates the relevance of SDT as a theory for

explaining why people wish to join and remain in RCWS and indicates the importance of well-being as a consideration for the coworking community when seeking to understand what motivates people to feel satisfied in such places.

In addition, and beyond the parameters of SDT, we found that people report a greater connection to the rural locale and nature. This is an interesting finding, given that several theories suggest that human beings have an innate need to engage with biological life and the natural environment (Fromm, 1964; Kahn Jr, 1997; see Hartig et al., 2011 for a discussion). Engaging with nature is considered to have restorative effects on resources that are depleted through the stress of everyday life (Hartig et al., 2011), with studies showing that people who take time to be in nature during their working day, could reap important well-being benefits (Brown et al., 2014). We did not conceptualise ‘communion with nature’ as fitting easily into any one of the psychological need categories of SDT. It could relate to ‘relatedness’ if this need included a need to connect with nature, it could fit with ‘competence’ if the need for nature is primarily about a desire to enhance performance, or it could relate to autonomy, if the engagement with nature also involves wanting to feel in control of the natural world and one’s surroundings. However, none of these explanations quite fit. Whilst it is beyond the scope of this paper to consider the comprehensiveness of SDT, it is possible that our findings suggest that definitions of the psychological needs could be extended, to allow for the ‘communion with nature’ need to be incorporated.

By focusing our research on RCWS and REH, our findings also demonstrate which aspects of SDT are especially relevant, within particular geographies and communities. Rural areas can be considered socio-economically different to urban areas, with potentially different psychological and coworking needs. In particular, we found relatedness needs to be salient in rural spaces, potentially due to the higher degree of social exclusion and dispersion of social and professional networks traditionally found in such areas. Coworking spaces offer a

‘solution’ to this and are particularly appreciated by our participants. Further, the ability to satisfy competence needs in rural spaces was pitched, in many cases, in opposition to homeworking, but also to urban areas, e.g., people reported that competence needs were fulfilled in rural settings because the surroundings meant that distractions and busy-ness (typical in urban environments) were reduced. Further, and as stated above, the other feature that typifies need satisfaction in rural environments is access to rural and non-urban nature. Here, interviewees placed direct and indirect importance on their ability to access or remain in rural environments, and additionally, their ability to avoid urban environments, framed in terms of competence, relatedness, and autonomy.

This all points not only to the importance of continued development of rural coworking spaces (perhaps in policy through public support and/or community-driven), but also to the importance of design, functionality and management practices to accommodate the particular psychological needs of rural users. Coworking spaces are framed in economic geography as ‘microclusters’ (Capdevila, 2013), with creative microclusters appearing particularly salient to rural development (Merrell et al., This Issue; Siepel et al., 2020). We suggest that RCWS and REH are an antithesis that runs contrary to discourses in economic geography that states businesses and entrepreneurs seek urban environments with considerable “buzz” (Storper and Venables, 2004). Our rural participants saw these environments as busy, noisy, expensive, inconvenient and (of note in this research) negative to their well-being.

People need to mobilise resources in order to satisfy psychological needs and attain a sense of well-being (Hobfoll et al., 2018). Our findings suggest that there are several resources that a RCWS or REH can provide², to help workers in this endeavour. Participants

² This suggests rural coworking hubs may be important resource caravan passageways, according to resource theory (Hobfoll, 2011)

reported access to social support, professional networks, knowledge, group-working opportunities, professional settings, infrastructure and facilities, convenient locations, friendship, community, and nature, in rural coworking hubs. These resources were directly reported to be involved in building people's sense of autonomy, competence, and relatedness. We now encourage further research to identify the different resources that are offered in both rural and urban coworking spaces, that can distinctively or unitarily help promote well-being at work.

Conclusion

This paper has served to address a significant gap in the coworking literature around the well-being and psychological needs of users and how the spaces can help improve/contribute to these.

In light of the COVID-19 pandemic, which forced the vast majority of (office-based) businesses to work from home, the importance of considering well-being in working patterns has been emphasised, particularly for homeworkers. For many rural businesses, working from home is the only viable option, as local coworking spaces may be lacking. As we begin to resurface from the devastating effects of the pandemic, our findings suggest that RCWS and REH can play an important role in mediating the negative effects on well-being that working in isolated conditions can cause. We expect a new wave of rural coworking to occur that will embrace hybrid work patterns and habits. This may include considering new 'types' of user, for example, employees of larger companies who may choose to only commute to urban areas on important days, alongside a new wave of freelancers and digital nomads.

To attract and retain such workers, coworking communities now need to better understand how their spaces can offer not only improved economic, practical and knowledge-sharing benefits (as the first tranche of extant literature reports in this field), but also the

range of well-being benefits that can be facilitated. Further, these spaces also have the potential to address well-being more widely, e.g. in the surrounding community, by providing events and other public services lacking in marginalised rural areas. Rural coworking hubs can act as a platform or enabler of social innovation (Bock, 2016). “Out-of-hours” or “24/7” access can also help to support entrepreneurs and freelancers who fit their businesses around other life commitments or into their lifestyle.

We suggest now that a second tranche of research into cowork should consider (i) the unique and/or typical resources that RCWS can provide to help satisfy people’s psychological needs, (ii) whether the psychological needs identified by SDT can capture the range of well-being benefits and drivers reported by rural coworkers, as further research gets underway, and (iii) the extent to which the rural location can extend our understanding of psychological needs theory, by applying it in settings less often reported in the psychological literature. This in itself, could indicate that existing definitions and categories of needs may require development, to account for how well-being manifests in rural locales.

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Table 1: Further Context of each RCWS and REH

Identifier	Case Study Group	Data Collected	Ownership	OECD (2018) classification / Developmental context
REH1	North East England	6 interviews	Private	Rural Area in FUA / Affluent (micro), ex-industrial (macro) economies
REH2	North East England	5 interviews	Third Sector	Remote Rural / Limited labour market
REH3	North East England	6 interviews	Public / Social Enterprise	Rural Area with Access to FUA / Ex-industrial rural
REH4	North East England	7 interviews	Public	Rural Area in FUA / Commuter semi-affluent market town
REH5	North East England	6 interviews	Private	Rural Area in FUA / Commuter affluent village
REH6	North East England	6 interviews	Public	Rural Area in FUA / Commuter ex-industrial town
REH7	North East England	6 interviews	Private	Rural Area with Access to FUA / Affluent village
REH8	North East England	6 interviews	Third Sector	Remote Rural / Limited labour market

RCWS1	Wales	26 surveys	Private (Cooperative)	Rural Area in FUA
RCWS2	Wales	50 surveys	Private (Cooperative)	FUA
RCWS3	Wales	13 surveys	Private	FUA

Table 2: Qualitative Coding Framework and References

<u>Code</u>	<u>Files</u>	<u>References</u>	<u>A priori or Emerging</u>
Autonomy			A priori
Convenience	25	37	Emerging
Flexibility	12	20	Emerging
Work Life Balance	21	32	Emerging
Competence			A priori
Removing Distractions	22	41	Emerging
Exerting Professionalism	25	45	Emerging
Building Networks and Knowledge Exchange	20	29	A priori
Relatedness			A priori
Belonging	15	21	A priori

Overcoming Isolation	13	17	Emerging
Social Connection and Support Networks	25	45	A priori
Communion with Nature	16	31	Emerging
Negative effects to well-being	18	29	A priori
Prior to hub well-being			Emerging
Autonomy	19	26	Emerging
Belonging	4	6	Emerging
Competence	17	21	Emerging
Personal Circumstances	13	13	Emerging

Table 3: Wellbeing findings table

Code	Sub-code	Meaning related to coworking	Increase in wellbeing	Additional Supporting Quotes
Autonomy	Convenience	Administration tasks were lowered.	More time to focus on business	“What makes a hub successful for me is just having the amenities I need to be able to do my job. In my mind those amenities are the tools to communicate” (Ethan)
		Accessibility (close to home)/Shorter commute	Practical option to avoid long commutes to cities (or company offices)	“You didn’t need to employ staff to do a lot of things that you often have to employ staff about – answer the phone (we have a reception here), pay the electric bill, pay the water bill, chase around doing all that sort of thing; so there was a whole chunk of admin that was actually lifted off us” (Calum) “I didn’t think it was going to be a problem really but as time went on, I did find the commuting a bit ... it was 1-and-a-quarter hours each way to [city] so it was taking a lot of time out of the day” (Becky)
	Flexibility	Flexible contracts which do not tie people in. 24/7 Access	Lowered financial pressures Fits around other commitments	“They offer a rolling month-to-month – it just gives you that flexibility: being a small business knowing (touch wood) if something did go wrong – you’re not tied” (Fae) “One thing I appreciate is the 24/7 access because life doesn’t conform to ... -well the work in my life has never conformed with Monday to Friday, nine to five and my preferred working patterns don’t. So, the idea of being in the building late or going in on a Saturday afternoon is, for me, an absolute requirement. If there had been any limits on that, I’d have been thinking long and hard if I wanted to do that - because it would just be frustrating” (Harry)
Work- Life Balance	Psychologically separating work and life through physical space Varied personal reasons around lifestyle	More productive and focused, less time working unhealthy hours	“But I did want that sense of separation from home and work which works a lot better for me. I’ve been a lot more productive since I’ve been here, I’m sure” (Dianne)	
		Allows users to fit work around other commitments or circumstances	“But my quality of life is second-to-none here: I cycle to work every day because its only 3 miles away. ... I think because it’s relatively stress-free and it’s quite good at generating income, I think I could continue for a few years yet. Had I been still at the [old job] I would have been burned out by now- I’d have been early retired. I think I can pedal along for a few years yet” (Frank)	
Competency	Removing distractions /	A dedicate space to work and focus	More productive, less stressed by underperformance	“I think the biggest benefit is time to work – because I come here, and I just work because I’ve got no other distractions. I’ve been a lot more productive and because of that I’ve got a lot more work, so my earnings have

	Increase in productivity			gone up quite significantly since I moved here. ... I don't think I realised quite how un-productive I was at home until I came here" (Dianne) "Home, definitely it's the small children distractions. Its constant distractions. That was the main reason for not being at home anymore" (Eli)
	Exerting Professionalism	A perception (internally or to clients) that the business is more professional not working from home	More productive, less stressed by underperformance	"We ended up in a position where clients were like "Yeah yeah, can we come to you for a meeting?" and we were politely trying to persuade them that we'd go to them. Then you start adding up how much time we were spending going to clients; traffic, time, all the car costs involved ... So, that's the big difference from working from home for us I think; its more impressive, it looks more like a proper business I suppose, even though the end project is exactly the same – [you are] perceived to be more serious if you've got an office address" (Emmett) "For the business, obviously it's quite an impressive building so it impresses my clients as soon as they pull into the car park. Rather than seeing an old pre-fab building or anything like that" (Fred)
	Building networks and knowledge exchange	Being co-located increases professional networks and knowledge exchange	Business becomes more competent, learning through human interaction rather than online/in a book	"I can't tell you how much it's been good to go and talk to somebody like that who offers that support. And also, to talk to other businesses starting out as well; you realise you are not alone in this really difficult thing of starting a business up. So, we got that." (Evan) "So it was coming here and the vibe of the place and the fact that there are other artists, so I got the sense that creatively it would be better if I was somewhere like this because the networking opportunities would be quite interesting ... So, it was a much wider reaching network that I could ever imagine" (Gina)
Relatedness	Belonging to a community Access to social support networks	Entering a community of similar business owners Heightened access to social and support networks	Users feel less isolated and part of a community New relationships with people in similar situations	"I think in a rural community like this, people are friendly. And you notice a difference" (Fae) "So, it's quite a close community. Coming into here, there are a lot of like-minded businesses – it's got that nice feel that you don't necessarily get out of certain business centres" (Finlay) "I think if we hadn't been here, we would have been much more isolated" (Beth) "Well that was really helpful ... Because it was like minded women in a similar area and we networked and supported each other" (Hayley) "Emotional, yeah, very good. The people who run this business are themselves small business people and understand the vagaries of that, and were very supportive, yeah" (Adam)
Communion with Nature		Coworking space surrounded by nature	Access to nature raises wellbeing and health	"I think the location is pretty good: you're close to town but you're not in the middle of town and it's only a few minutes' walk. It's quiet; you haven't got the hustle and bustle of the traffic and the noise and stuff. It's just a

				<p>nice place to be – you can go outside and sit on the benches in the grass when the sun comes out and you still get your Wi-Fi” (Damien)</p> <p>“It’s much nicer than looking out at the pubs and clubs of [City] ... If I’ve got a long call I’ll take a walk into the village when I take my call, which is nice” (Alex)</p> <p>“But it’s still the case that one of the main pressures has been city-centre rates. And for our kind of business we don’t need to be in the city centre – we don’t even need to be in the city” (Dylan)</p>
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