



Mental Health Royal Commission Establishment
 Department of Premier and Cabinet
 1 Treasury Place
 Melbourne VIC 3002

5 July 2019

Dear Commissioner

Royal Commission into Victoria's Mental Health system

Thank you for the opportunity to provide input into the Royal Commission into Victoria's mental health system. Every year, one in five Victorians will experience some sort of mental illness and Lion supports the Commission's goal that every Victorian have 'the opportunity to experience their best mental health, remain well, and live a full life'.

As a major brewer, it is important that we acknowledge the potential harm associated with the misuse of alcohol. However, we would like to share with the Royal Commission the findings of recent research on the role of "local" pubs and clubs in promoting social connectedness.

Lion's mental health policies

Lion employs over 1,100 people in Victoria across our brewing and dairy operations, and in our corporate and sales capacities. Our employee policies acknowledge that institutions and organisations have an important role in providing for the mental health of their workforce. These include:

- A comprehensive Personal Support Program that staff can access to support them in dealing with challenges in both their work and personal life, including mental health issues;
- Personal leave for people dealing with mental health issues;
- Flexible working arrangements to allow people to work in a way that minimises work stress;
- Strong support, including corporate communications, of initiatives such as R U OK?, and Uplifting Australia; and
- Regular, inclusive social events, to support our goal of providing a sociable environment. This includes paid leave for staff who wish to volunteer through our 'Lionhearts' community partnership program.

Lion will continue to foster a positive and supportive environment for our people and, in parallel, we also seek to ensure that our operations have a positive effect on society, including in the field of mental health.

As part of this work we have recently conducted research around the roles of pubs and clubs in addressing loneliness and social isolation, providing Australian context to similar research conducted in the United Kingdom.

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We stress that this research focusses on the roles of licensed premises, not of alcohol, in establishing these connections. There are many examples of other venues and social groups that may likely play equivalent roles, such as community groups and sporting clubs. It is appropriate that the Royal Commission evaluate the role of community hubs and interpersonal contact more broadly in promoting positive mental health outcomes, and we hope this research is able to add to that discussion.

However, we believe that the decline of many of these alternatives, particularly in regional Victoria, gives cause for serious consideration of the role of licensed venues in the social fabric of their communities and the mental well-being of their patrons.

Loneliness and social isolation

Social isolation and loneliness are important issues. More and more, loneliness is recognised as a social problem with wide-ranging consequences for social cohesion and population health.

A recent survey by *The Economist* found that 22% of adults in the UK and 23% in the United States 'always or often feel lonely, or lack companionship, or else feel left out or isolated'.

In January 2018, UK Prime Minister Theresa May appointed Britain's first Minister for Loneliness, and Australia, the UK, and Denmark have all launched campaigns combatting social isolation.

It is not just an issue for Government and medical practitioners. Non-Government organisations, the private sector, and the general community all have a role to play in building a more connected society.

The Australian context

Loneliness has become a major health and social issue in Australian society.

There is strong evidence to suggest that not only is human interaction important to us – but it is a biological imperative, one that has become critical to human survival. Because humans have evolved in a way that preferences human interaction, over time it has become critical to our mental and physical wellbeing.

Study: Where everyone knows your name

Where everyone knows your name: The social and psychological value of having a "local" in Australia was commissioned by Lion after a similar study was conducted in the United Kingdom in 2016 by Professor Robin Dunbar, Emeritus Professor of Evolutionary Psychology at the University of Oxford.

With the assistance of Professor Dunbar, Dr Peter Jonason, PhD, of Western Sydney University, established that across a range of metrics,



having a venue that a person considered to be their “local” was associated with improved psycho-social outcomes.

The key findings of the research included:

1. People who have a local are more trusting and satisfied with life;
2. They also have broader friendship networks, and identify more closely with their community;
3. Most people who have a local say they use it for socialising and drinking with other people (rather than alone);
4. Women and men appear to socialise in their locals in different ways, with men more likely to engage in intimate conversations and women more likely to converse in larger groups;
5. Those who lived in rural areas, who were light/moderate drinkers, and had a local, had greater general mental health and less anxiety than those without a local.

Method

In 2016, Professor Robin Dunbar from the University of Oxford, examined the role of small pubs in England, and found evidence of a significant role in social cohesion: people who had a ‘local’ had larger friendship networks, and felt more satisfied with their lives and more connected to their local community.

Where everyone knows your name sought to add further evidence for this role in the Australian context, using a larger sample size of patrons from a wider variety of venues.

Professor Jonason and his research assistants conducted two studies to test this hypothesis. The first was an online survey of over 1,200 Australians. The researchers asked a series of questions to establish demographic patterns and whether respondents had a ‘local’. They then compared respondents across various psychological measures.

The second study was an observational study of conversational dynamics in 162 different pubs and licensed clubs across Australia. Researchers observed gender mix, conversation group size, conversation length and other indicators, before establishing whether participants were ‘locals’ or casual visitors.

We trust that this research helps the Commission to have a broader understanding of social isolation and loneliness in Australian society, and the role of community hubs, including licensed venues, as well as personal interaction in addressing these issues.

Thank you again for the opportunity to contribute to this important discussion.



Yours faithfully

Sam Barr
Government Relations Manager
Lion Beer Australia

Attached: Jonason, P (2018) *Where everyone knows your name: the social and psychological value of having a local in Australia* Lion, Sydney.



WHERE EVERYONE KNOWS YOUR NAME:

The social and psychological value of having a “local” in Australia



Peter K. Jonason, Ph.D.
Western Sydney University

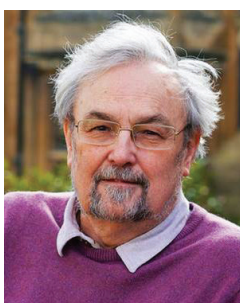
In consultation with
Professor Robin Dunbar Ph.D.,
Oxford University

With the assistance of
Caitlin Antoon
Mitchell Cunningham



Peter K. Jonason, Ph.D.

Dr Peter Jonason is a social-personality psychologist who draws upon psychology, economics, biology, primatology, anthropology, and ethology to understand human nature. He undertook a Bachelor of Arts in Political Science and Communication Sciences, followed by a Masters in Communication Services at the University of Connecticut, before heading to New Mexico State University where he obtained his PhD in Psychology. In 2014, Peter was awarded the Ig Nobel Prize for Psychology, for research showing people who stay up late at night are more likely to display anti-social personality traits. Peter has previously taught at the University of West Florida and the University of South Alabama and is currently a senior lecturer at the Western Sydney University, specialising in Evolutionary Psychology, Statistics, and Research Methods.



Robin Dunbar Ph.D.

Dr Robin Dunbar is an anthropologist and evolutionary psychologist who describes his research as being concerned with trying to understand behavioural, cognitive and neuroendocrinological mechanisms that underpin social bonding in primates and humans. He has been published in over 500 journal articles, issues, books and reports, and heads the Social and Evolutionary Neuroscience Research Group in the Department of Experimental Psychology at the University of Oxford.

KEY FINDINGS



1. People who have a local are more trusting and satisfied with life;
2. They also have broader friendship and support networks, and identify more closely with their community;
3. Most people who have a local say they use it for socialising and drinking with other people. Only six percent of people said they drank there alone;
4. Beer is the most commonly consumed beverage for those who have a local;
5. Women and men appear to socialise in their locals in different ways, with men more likely to engage in intimate conversations and women more likely to converse in larger groups;
6. Those who lived in rural areas, who were light/moderate drinkers, and had a local, had greater general mental health and less anxiety than those without a local.

EXECUTIVE SUMMARY

A recent article in *The Economist* suggests that being lonely is a serious problem.¹ Not only does loneliness have psychological costs, it may lead people to dying sooner as well. Being social and interacting with others is a fundamental feature of human life (Wilson, 2007).

So important is this feature of human life, various researchers have spent years studying the motivational nature of social connectedness. For example, social psychologists suggest that interpersonal interdependence is fundamental to human survival (Baumeister & Leary, 1995); positive psychologists suggest that relatedness is an important factor in our lives (Deci & Ryan, 2000; Sheldon, 2004); motivational psychologists suggest people's motivational structure can be defined by needs for communion (Bakan, 1966; Hogan, 1982) and affiliation (McClelland, 1985; Smith, 1992); and evolutionary psychologists suggest social connectedness might be an evolutionarily adaptive problem that shaped the design of human psychology (Jonason & Zeigler-Hill, 2018; Neel, Kenrick, White, & Neuberg, 2016). The consensus appears to be that social connectedness (or lack thereof) is important in people's lives because it relates to important psychological outcomes like anxiety (Baumeister & Tice, 1990), depression, jealousy, loneliness, and self-esteem (Leary, 1990), and may cause chronic diseases like obesity and type 2 diabetes (Williams et al., 2009), but has also been important for human evolution because of the benefits provided by group-living (i.e., 'there is safety in numbers'). Evolutionarily speaking, individuals who had psychological systems that made them feel bonded to and in need of social inclusion will have benefited more from group living than those who did not, leading them to survive more and produce more babies. Humans have adapted to a particularly strong social niche (Aunger & Curtis, 2013; Bernard, Mills, Swenson, & Walsh, 2005; Buss & Greiling, 1999; Hogan, 1996; MacDonald, 1995, 2012; McAdams & Pals, 2006; McDougall, 1908; Nichols, Sheldon, & Sheldon, 2008; Sheldon, 2004). This selection pressure may have led humans to be characteristically dependent upon social interaction and inclusion as we see today.



¹ <https://www.economist.com/international/2018/09/01/loneliness-is-a-serious-public-health-problem>

We see evidence of this everywhere in modern society. The most modern incarnation of this is people's obsession with social media (Andreassen et al., 2017; Griffiths, Kuss, & Demetrovics, 2014). People spend over two hours a day—by one estimate—on sites like Instagram®, Twitter®, and Facebook® (Kircaburun, Jonason, & Griffiths, 2018). The sites give people the cues of social inclusion just enough to satiate their needs and trigger dopamine systems, but because they are faking the cues needed (those from human evolutionary history; genuine interaction with conspecifics), people are left wanting more, dissatisfied, empty, and even less happy after the fact.

However, this is nothing new. The television—a much older technology—plays the same trick on our brains. By giving us what is called 'parasocial interaction' (Giles, 2000), it can reduce loneliness. For example, people who report being alone more and have dispositional loneliness were more likely to turn on the TV for company and to talk to themselves (Jonason, Izzo, & Lindsay, 2008). Both talking to oneself and turning the TV on for company or background noise provide the sounds of the human voice which partially satisfy this need for social interaction. TV and other modern technologies provide people with some cues to social interaction (e.g., hearing people's voice), thereby mildly addressing the needs people have for social interaction (Rubin, Perse, & Powell, 1985). Recall how many people in Generation X would spend hours on the telephone (often attached to the wall with a cord) with friends when they were teenagers; arguably to increase their sense of social inclusion by gossiping (Dunbar, 1996). However, these technological solutions often create serious problems as well, including cyberbullying (Kircaburun, Jonason, & Griffiths, 2018), increased narcissism, lowered self-esteem (Andreassen, Pallesen, Griffiths, 2017), and boomerang effects in the form of creating or a worsening of the very conditions they were thought to ameliorate (e.g., diminished sense of social inclusion; Farahani, Aghmohamadi, Kazemi, Bakhtiarvand, & Ansari, 2011).

These technological solutions all act to augment the diminishing amount of in-person social interactions people are getting in modern times and that humans are wired to need (Giles, 2002; Rubin et al., 1985). For centuries, people did not have the option to turn to their phones or TV and yet, they were successful in life and not walking around with clinical depression. Indeed, over evolutionary time, engaging in socialisation was central to social functions (Dunbar, 1996; Neel et al., 2016). Before the advent of these technologies, societies created rituals

and locations that allowed them to feel connected to others. Religion plays this role for many people. Whether or not one believes in the supernatural, engaging with others at places of worship serves as a social interaction that leads to better health outcomes (e.g., Miller & Thoresen, 2003). Other mechanisms to increase one's sense of social inclusion exist beyond religion; one that is quite common in Australian societies is drinking at bars or pubs.

A central feature of Australian life is the 'local' (Pettigrew, 2002). A local is a bar or club where one can buy alcohol, especially beer, and interact with others. Research on what people think a local is suggests it is a place close to where one lives or works (thus the nomenclature), a place where there are people one knows including staff (thus the title of our project), is a central meeting place, a convenient location, and has good, quality beer (Dunbar, 2016).

Since nearly the beginning of Australian colonisation by Europeans (circa, 1790), 'going down to the pub' has been a common way to relieve stress, build a community, and meet friends in an unstructured and egalitarian location. Alcohol plays a major role in Australian culture, with beer being an essential element (Pettigrew, 2002). At such locations one can engage in communal eating and singing (among other things) that foster social interaction and, therefore, health (Dunbar, 2017; Pearce, Launay, Machin, & Dunbar, 2016). It is likely that this tendency to patronise locals has been culturally appropriated from the British and Irish. To this day, the tradition of 'going to the local for a pint' thrives in the United Kingdom and Ireland. Patronage of these locations in the UK is correlated with a greater sense of connectedness with one's community, interpersonal trust, and satisfaction with life (Dunbar, 2016). Unlike the aforementioned technological substitutes, locals provide the genuine cues needed to appease the psychological systems geared to gaining a sense of social approval and connectedness. They involve *bona fide* face-to-face interactions with people who share cultural values, economic circumstances, and other binding elements. These interactions are extremely important for people to live healthy, successful lives (Leary, 1990; Williams, 2007).

Locals also provide the potential for one feature all the technological substitutes lack²; physical contact. Modern adults, especially middle-aged men (Moore, 2018), are impoverished from touch. Touch is fundamentally important for the psychological development of mammals, including monkeys and people (Bowlby, 1988). A lack of touch influences neurological development in children (Kolb, 2018) and is associated with physical and psychological sickness and relationship dysfunctions in adults (Smith & Victor, 2018). The ability to hug, shake hands, and put an arm around a friend are essential ingredients for coping with stress. That typically brief physical contact causes a dopamine response in people's bodies which acts as an analgesic (Field, 2002). Locals are likely a place where people can seek out social support, via physical contact and intimate interactions, when they have nowhere and no one else to turn to; lending a helping hand in a way.

We contend that locals are an underappreciated-yet-fundamental part of Australian culture that serve community and personal needs efficiently. They are locations that provide entertainment, food, drinks, and social interaction for reasonable prices all under one roof. Locals are 'old school' solutions that better solve people's fundamental, and even desperate, need for social contact and to feel like they are part of a group than modern technologies designed to create a greater sense of community and to help one meet new people (e.g., dating applications). Despite legitimate concerns about alcohol overconsumption (Bouchery et al., 2011; Easdon et al., 2005; Taylor et al., 2005), we will argue here that locals—on the whole—improve psychological health and are associated with a greater sense of community.



CASE STUDY

Friends under the flight path

Perched on the edge of the tarmac at one of the larger regional airports in Australia, Tamworth Aero Club fills a number of roles in the lives of its patrons: a community hall for local farmers to come together and talk wheat yields and rainfall; an airport lounge for travellers to rest their legs at the end of a long trip; a staff canteen for the pilots and mechanics at the airport; and a valuable link to the local community for the young defence force cadets who come to Tamworth to learn to fly from across Australia and the broader region.

The club was founded in 1930 by returned servicemen, and the current premises date back to 1956 when the airport was relocated to its current site.

The club is run by a volunteer committee drawn from its 200 members, who also provide the elbow grease at the monthly working bees. Manager Paul Rolfe says that this inclusive and hands-on attitude is what keeps people coming back.

"My youngest son worked with me at the club for a while and he put it back to that American show called Cheers - where everyone knows your name. When you walk in you can always find someone to have a yarn with."



² Although this may be changing with the advent of "personal" robots.

PRESENT STUDIES

There is little doubt that social interaction has tremendous importance in people's lives. Our contention is that having a local facilitates social interaction which then will facilitate psychological health. To test this, we conducted two studies from across Australia.

In Study 1, we sampled 1232 people from NSW (35%), VIC (25%), QLD (20%), WA (9%), SA (7%) and TAS (2%) to participate in an online study that assessed their psychological and physical health, their social connectedness, and their personality. The majority of participants were of White/European ancestry (78%) and a plurality were employed full-time (39%), and wine-drinkers (33%). The gender ratio was nearly perfectly split at 50:50 (an essential element given the imbalance in male-to-female patrons and workers; Pettigrew, 2002), and the average age of the participants was 46 years old but ranged from 18-88. Importantly, the sample characteristics were representatively weighted to reflect age and gender in the population of Australia.

In Study 2, 162 (64% male) Australians were unobtrusively observed at bars and clubs in NSW (15%), VIC (22%), QLD (15%), WA (12%), TAS (22%), and SA (14%). We hired 12 research assistants to go into rural and metro pubs and use a mobile-phone application to record aspects of the conversational dynamics, features of the group, and demographic information.

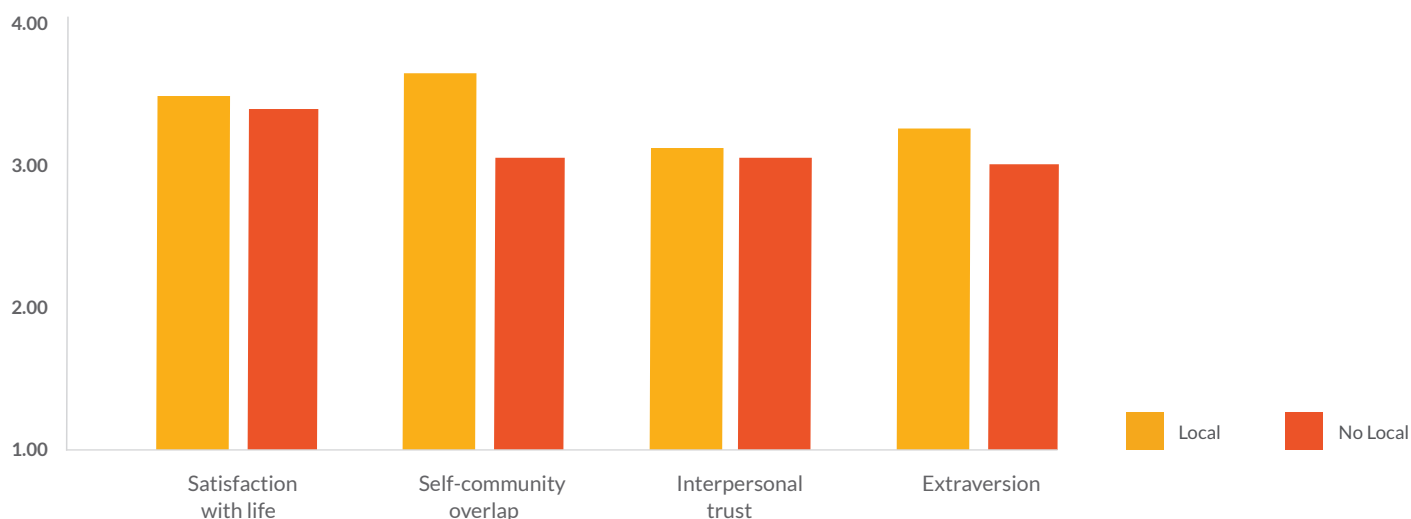
HAVING A LOCAL

A recent article in *The Atlantic* details how friendships fight depression because having others to interact with allows happiness—something of a contagious state—to infect those around to improve the general happiness of groups of friends.³ To test this claim, we measured psychological health in three ways. First, we assessed individual differences in satisfaction with life (Diener et al., 1995) and pessimism (Beck et al., 1974). Second, we captured individual differences in resilience (Smith et al., 2008). Third, we captured dispositional anxiety in form of neuroticism (Donnellan, Oswald, Baird, & Lucas, 2006). We also captured general psychological health (Donath, 2001) and we measured social connectedness by inquiring about the number of Facebook friends the person has, how many people they can call upon in times of trouble, self-community overlap (see Appendix A; Aaron, Aron, Smollan, 1992), and interpersonal trust (Robinson, Shaver, & Wrightsman, 1991).



³ <https://www.theatlantic.com/health/archive/2015/08/how-friendship-fights-depression/401807/>

Differences by having a local or not



Overall, we found that those with locals consumed more alcohol (≈ 7 drinks per week) than those who did not, but they had greater life satisfaction, and were not less psychologically healthy overall than those without a local. As seen above, the strongest effect for having a local was in reference to alcohol consumption; an effect largely created by the fact that those who did not have a local were more likely to be non-drinkers as well. This is unsurprising given that a central function of locals is the role they serve in providing access to alcohol (Pettigrew, 2002). While relatively weaker, the remaining effects still affirm the point that having a local is associated with (1) more life satisfaction, (2) greater overlap with one's community, and (3) more interpersonal trust.

Locals play a pivotal role in Australian society. Here we have shown that their connectedness is in-line with that, but also their psychological health. Importantly, there were no differences in health overall, suggesting that despite the heightened consumption of alcohol, there was minimal health effects and that despite the lack of health effects, locals can still have psychological and community effects. Psychological and community effects should not be treated as less 'real' than general health effects. Social support networks have already been shown to link to superior health outcomes.



In addition, we examined the role of personality traits. Modern personality science has adopted more rigorous methods over the last 75 years and generally decided that (1) continua are better than categories and (2) there are five personality traits that describe the personality of people all over the world and across various age groups (Donnellan et al., 2006). The traits describe behavioural regularities in people’s lives, much of which have social consequences.

For example, extraversion (partly) describes a person’s tendency to desire and engage in social interactions and to be gregarious whereas, neuroticism (partly) describes a person’s tendency to avoid stressful situations and to have anxiety. Indeed, extraversion has already been shown to facilitate social network size (Roberts, Wilson, Fedurek, & Dunbar, 2008) and those who desire more social approval tend to drink more alcohol (Caudill & Kong, 2001). Relevant to our discussion here, these traits are related to psychological and physical health outcomes. In relation to the question at hand, those who were more extraverted—those more likely to seek out social interaction—were more likely to have locals than those who did not.

These basic effects warranted more exploration in terms of gender differences, living location (i.e., regional or metro areas), and how they interacted with drinking rates. For example, for those without a local and who were moderate drinkers had more resilience than both light drinkers and heavy drinkers who also had a local. In this case, it does not seem that the advantage for moderate drinking is in those who did not have a local. Resilience is a trait that describes an individual’s ability to deal with adversity. We interpret this effect to mean that people who are resilient might not need the social interaction of locals all that much and this effect might be heightened in people who are moderate drinkers. That is, resilient people might be psychologically healthy enough to not need to rely on either social interaction nor to abuse alcohol. Alternatively, having a local was associated with more psychological health for those who were also light drinkers and in rural areas. This suggests an advantage for having a local for those who do not abuse alcohol but also highlights the importance of locals in rural areas. Rural areas may have the least access to modern medicine and may live a particularly hard life relative to proverbial city-folk. In rural areas, locals may be doing some of the work in keeping people healthy so long as they drink alcohol casually.

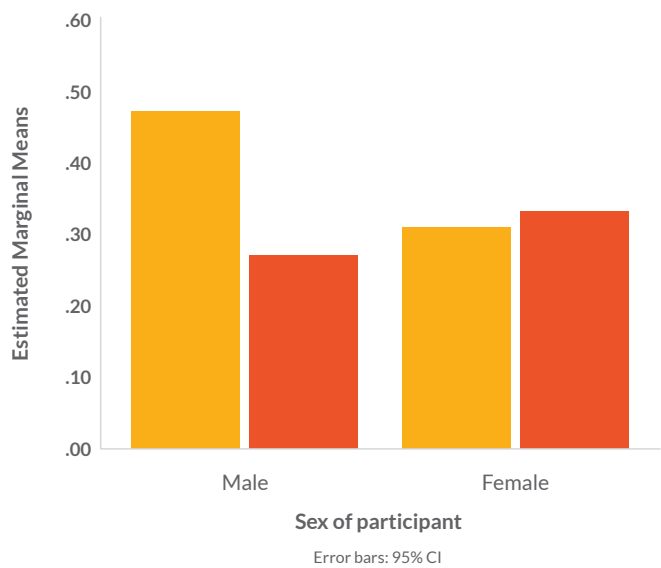
Big 5 Trait	Example Behaviour for LOW Scorers	Example Behaviour for HIGH Scorers
Openness	Prefers not to be exposed to alternative moral systems; narrow interests; inartistic; not analytical; down-to-earth	Enjoys seeing people with new types of haircuts and body piercing; curious; imaginative; untraditional
Conscientiousness	Prefers spur-of-the-moment action to planning; unreliable; hedonistic; careless; lax	Never late for a date; organised; hardworking; neat; persevering; punctual; self-disciplined
Extraversion	Preferring a quiet evening reading to a loud party; sober; aloof; unenthusiastic	Being the life of the party; active; optimistic; fun-loving; affectionate
Agreeableness	Quickly and confidently asserts own rights; irritable; manipulative; uncooperative; rude	Agrees with others about political opinions; good-natured; forgiving; gullible; helpful; forgiving
Neuroticism	Not getting irritated by small annoyances; calm; unemotional; hardy; secure; self-satisfied	Constantly worrying about little things; insecure; hypochondriac; feeling inadequate

CONVERSATIONAL DYNAMICS

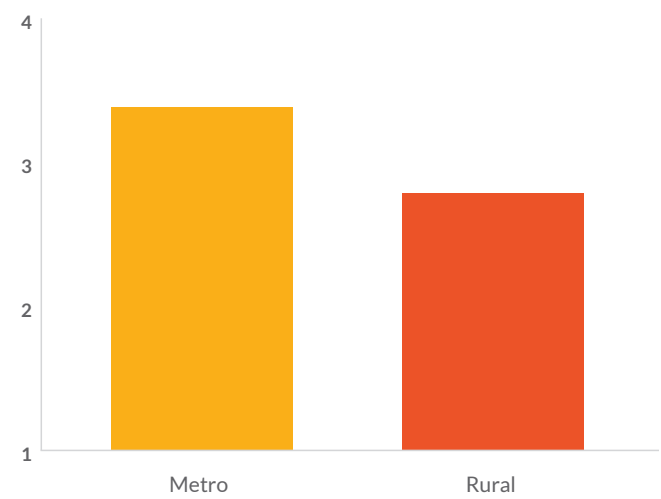
In Study 2 we took a different approach to our question about the social interaction value of locals. Instead of examining self-reports, we focused on behavioural assessments of what people do at their local. We are concerned primarily with the interplay between participant’s gender, being in a local or not, and the relative intimacy of the conversation. We envision that one-on-one conversations are inherently distinct from conversations in even groups of three. Indeed, research found that the “conversations of dyads were more intimate than those of triads” (Taylor, de Soto, & Lieb, 1979, p. 1196). Having a local proved important again in terms of understanding the interpersonal interactions of people at bars. When we examined interactions at bars and pubs around Australia, we found that there were no gender differences in engaging in intimate as compared to less intimate conversations among those people who claimed to not be a local where they were. Instead, those men, but not women, who were in their local, engaged in more intimate conversations (yellow bars) than less intimate ones (orange bars). This suggests that locals may play a special role for men, allowing them to engage in intimate conversation.

These conversations are likely essential to maintaining their psychological health and sense of connectedness to the community. Intimate conversations vis-à-vis the size of the groups (Taylor, de Soto, & Lieb, 1979) observed were more likely in rural as opposed to metro locations. And it appears that women may not be using their bar experiences as much for intimate interactions as men because group size increases in women compared to men who are in their locals.

Intimate v less intimate conversations in the genders who were at their local



Group Size by Location





CASE STUDY

A very global local

When Charlie Rayner first started operating the Inveresk Tavern in Launceston, the kitchen sat idle on Sundays. Bothered by this, he began to investigate ways to open the resource up for the benefit of the local community. The plan was refined through a contact at the Migrant Resource Centre of Northern Tasmania, and for twelve weeks the kitchen was given over to a variety of cultural groups who brought in volunteers to serve up their traditional food and raise funds for their communities.

“It was based on the fact that people could build acceptance through familiarity,” Charlie says.

“The volunteers could use the offering of food as the opening to communication and improve familiarity, and as people became exposed to different cultures they could become more comfortable with them.”

According to Charlie, his regular patrons have taken to the program with gusto, and lasting friendships had been made across cultural boundaries.

“Many of the cultural groups bring a lot of people with the idea being that anyone who is there as a customer can develop relationships with them.”

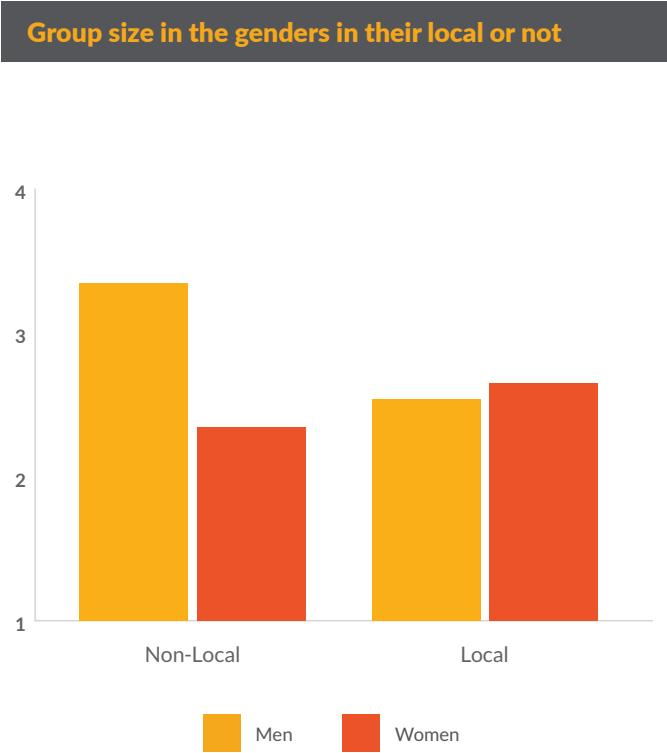
“Everyone’s been very complimentary, very open to the idea and very accepting.”



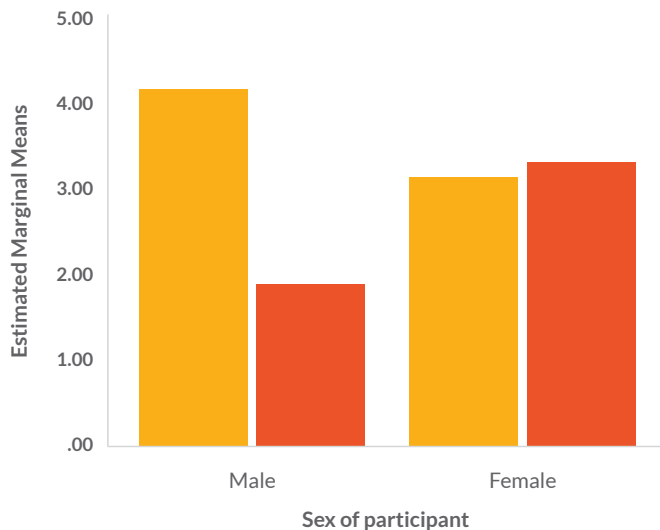
Interestingly, women had slightly larger groups than men did, which is consistent with gender differences in sociability (Buhrke & Fuqua, 1987). This effect was actually only present in those women who were at their local.

This suggests that women may use locals to socialise with larger groups of friends than men do. Women may be going to their locals for a special occasion more than men whereas men may go regularly to their locals and, thus do so, in smaller groups, leading to this difference. In fact, it was men not at their local in metro bars (yellow), compared to rural bars (orange) who engaged in more talking events relative to non-talking events, but it was women who were at their local in metro areas who engaged in more talking events. This suggests women may be using their time at bars and chose locals for different reasons than men do. So while they might spend lots of time talking, this may be simply part of 'girls-night-out'. In contrast, men at non-local metro bars may be there for less intimate conversations, but instead, be there for work functions, after work, or to even to meet potential partners.

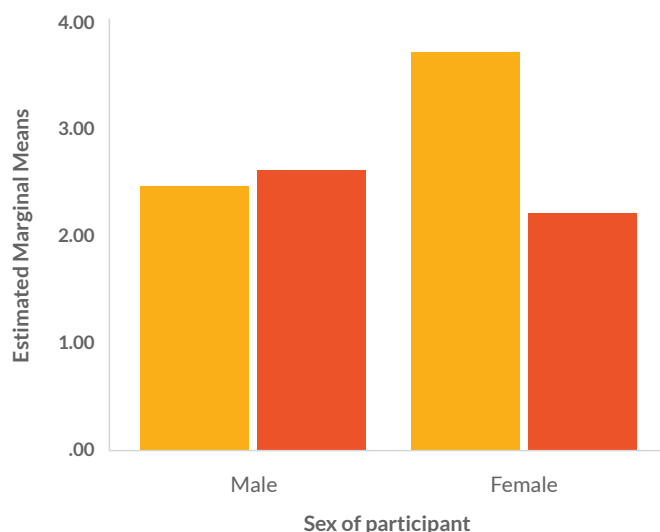
Indeed, all male groups were more common when people were at their local (n = 48) as opposed to not at their local (n = 17) with no differences in all female groups (n = 7 for each), and mixed gender groups (local n = 36; not local n = 42). Unsurprisingly, women were more likely to be in female-only groups, men more in male-only groups, and the genders were equally likely to be in mixed gender groups, but there were no differences in the gender composition of the groups between metro/rural bars.



Ratio of talking to non-talking events in those not in their local



Ratio of talking to non-talking events in those in their local



CASE STUDY

When your local goes viral

During the 2010 floods the Armatree locals well and truly put their tiny town on the map. Local farmers donned gumboots and improvised surf rescue equipment to produce a “Baywatch Armatree” video that quickly went viral and secured national media attention.

Since then the town has been a regular favourite on the country social media circuit with a steady stream of imaginative content featuring familiar faces from the front bar.

Situated 35km north of Gilgandra in the NSW Central West, there’s not a lot to the village besides the hotel and publican Ash Walker reckons it’s the source of a lot of inspiration for the town’s creativity during hard times.

“I think it’s always good to remain positive, and when people are down and out you always try to do something to spark them back up. It keeps us on the map and keeps their mental health on the map.”

Ash says that the pub is the heart of the community, and he and wife Libby have worked hard to keep it beating during the decade they’ve run it.

“For our regulars it’s where they come have a chat, or to do business - it’s a community meeting point. Every small community needs a good local pub.”



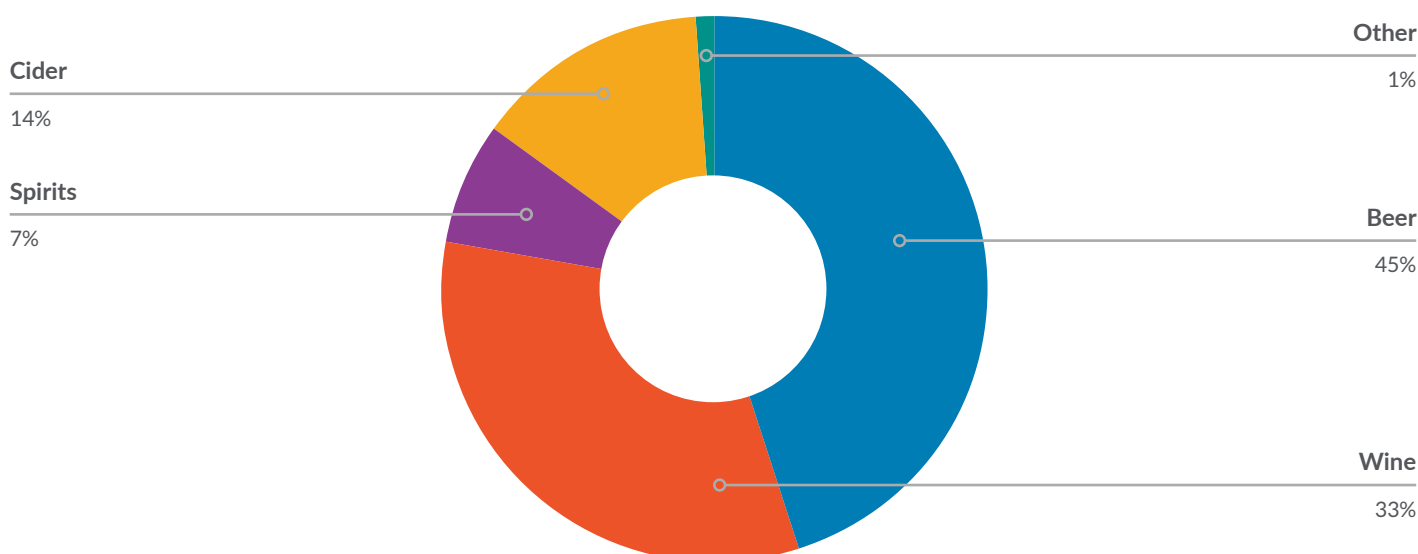
DRINKING

Given a concern that effects associated with having a local could be confounded by higher levels of alcohol consumption, we wanted to understand the role of consumption directly. There is considerable research on the role of alcohol consumption on (primarily) physical and psychological health. The conventional view of alcohol consumption is that it is only hedonic in nature, that is people consume it because they enjoy it (Dunbar et al., 2017). A great deal of research has been conducted into the negative (Easdon et al., 2005; Taylor et al., 2005, Bouchery et al., 2011) and positive (Baum-Baicker, 1985; Rimm, Klatsky, Grobbee, & Stampfer, 1996, Nova, Bacchan, Veses, Zapatera, & Marcos, 2012) effects of consumption. The consensus is that heavy drinking is problematic; debate still remains about the role of moderate drinking (Britton, Marmot, & Shipley, 2008). Unfortunately, most of this research has focused on the physiological effects of consumption and not the psychological effects (Agarwal, 2002; Ferreira & Weems, 2008). The limited amount of research on the psychological effects of consumption tends to rely on small samples (Yanish & Battle, 1985), college-students, and or database studies (Greenfield, Rehm, & Rogers, 2002). For example, in a sample of American college students, there was an inverted-U function suggesting that moderate drinkers were the least depressed (O'Donnell, Wawrdle, Dantzer, & Steptoe, 2006) although longitudinal analyses call this effect into question (Haynes et al., 2005). Nevertheless, the consensus is that across multiple methods and samples, drinking alcohol has positive effects including improved subjective health, mood enhancement, stress reduction, sociability, social integration, and mental health (Peele & Brodsky, 2000).

Our Study 1 sample was asked about predominant kind of alcohol they consumed. While wine was most commonly cited, it was closely followed by beer. The high rate of beer consumption is likely a marker of the role that beer plays in Australian culture (Criqui & Ringei, 1994; Pettigrew, 2002) and the growing consumption of wine seen over time in Australia is also an established phenomenon (Criqui & Ringei, 1994).

To understand the role of consumption in determining health, community connectedness, and personality, we asked people about their drinking behaviour. We used a clinically-based measure of consumption called the AUDIT (that we slightly modified for our purposes here) and classified people in two ways. First, we classified people based on whether they drank or not. Those who drank were less pessimistic, more resilient, had greater life satisfaction, were generally more connected to their community, and were more extraverted than those who did not drink. Importantly, there was no difference in general psychological health or neuroticism. This suggests an interesting and positive role of drinking in people's lives.

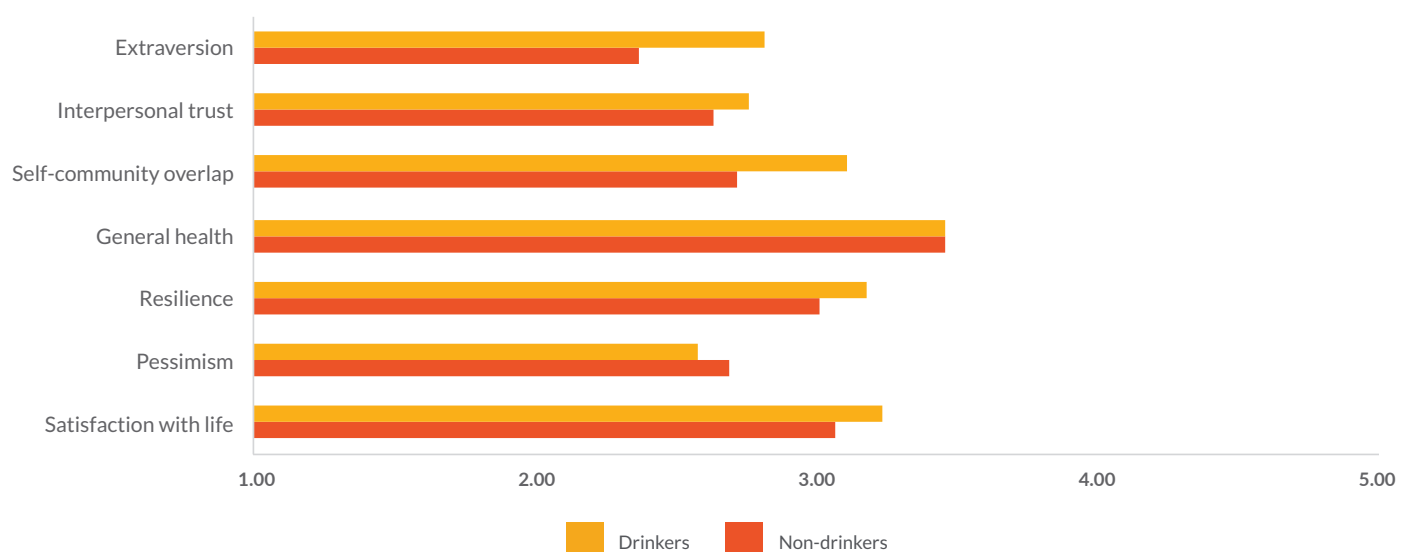
Preferred beverage of people with a local



But not all drinking is equal. As Abraham Lincoln once said, it has long been recognised that the problems with alcohol relate not to the use of a bad thing, but the abuse of a good thing. This means that alcohol consumption in and of itself is not the problem, but the amount of alcohol consumed is what may be the problem. Therefore, we also classified people as non-drinkers, light drinkers, moderate drinkers, and heavy drinkers by grouping the drinkers into thirds. This is an important consideration because instead of trying to diagnose people or set standards for the “proper” amount of drinking (Courtney & Polich, 2009; O’Keefe, Bybee, & Lavic, 2007), we create statistical groupings based on the amount people consume without any *a priori* judgment or ‘medical’ standards. This allows us to test for the purported U-shaped and J-shaped functions that are associated with alcohol consumption in terms of health (Britton, Marmot, & Shipley, 2008; Gaziano et al., 1999; O’Keefe, Bybee, & Lavic, 2007) without diagnosing participants as potentially problematic drinkers (i.e., avoiding implicit judgment on their consumption). These effects suggest that the downsides of drinking are minimised at moderate consumption. For example, above we show how moderate rates of drinking were associated with more life satisfaction—the U-shaped function—and how moderate rates of drinking were also associated with less pessimism—the J-shaped function. The only effect we found for general health was that heavy drinkers were less healthy in general than non-drinkers.



Comparing drinkers to non-drinkers





CASE STUDY

A golden tradition at Burleigh-Mowbray

The Gold Coast is synonymous with surf lifesaving, and for nearly 100 years Burleigh-Mowbray Surf Life Saving Club has been keeping swimmers safe on their patch of beachfront. Today, more than 1,000 volunteer members are backed financially by 8,500 supporter members, most of whom also patronise the bar and restaurant at the club.

Manager Nick Owens says that the club tends to inspire loyalty in its patrons.

“There’s some who’ve been drinking in the Sports Bar for twenty-five or thirty years” he says.

“A lot of them have been boaties, they’ve been surf lifesavers – ninety per cent of them seem to have some connection with the surf club. The licensed club gives them a place to keep up those social connections long

after they’ve hung up their boards. Every month they have various traditions and reunions; we’re always putting on a wooden keg on to celebrate something.”

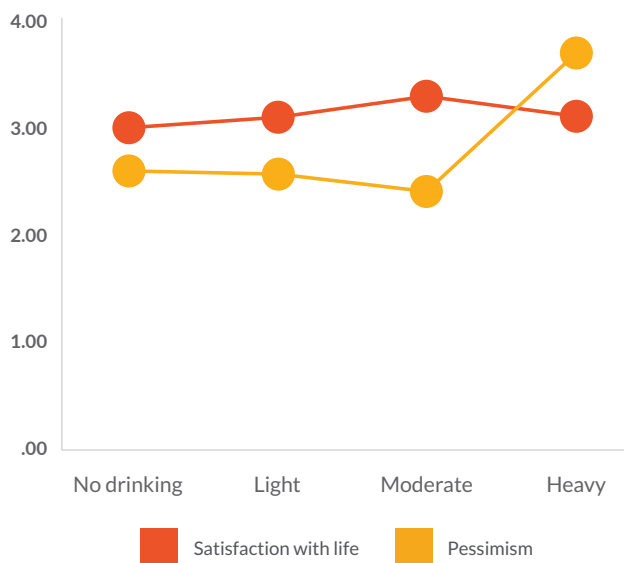
Club member of 35 years Ross Dixon agrees.

“I go for a blizzardly-cold XXXX down at the surf club every afternoon. I’ve met a lot of lovely people down there, and I’ve enjoyed their company for life.”



In contrast, when we examined the role of community connectedness as a function of drinking rates we found much simpler linear functions. We found that the more someone drinks, the more interpersonal trust they have and the more self-community overlap they reported. The latter effect was especially pronounced in the heavy drinkers.

Psychological health by drinking rates



Connectedness by drinking rates



CASE STUDY

When the locals run the pub

The people of Ceduna had become so attached to their local hotel that when it was put up for sale in 1949, locals passed the hat around and bought it for the community.

Almost seventy years later, the investment is still paying off for Ceduna. Over the last decade the hotel has put well over a million dollars back into community.

“In a nutshell, we just make money and give it back to the community,” manager Trevor Grenfell says.

“We sponsor anything and everything in this town – playgrounds, sponsoring the various festivals in the area. We’re like a big brother. Everyone comes to us and they get looked after.”

Trevor said that for the people of Ceduna the value of the pub extended far beyond the community revenue stream.

“For our locals, this pub has been half their life. It’s where they grew up, where they met their friends, where they chat, where they argue too I guess.”



CASE STUDY

New life for a beloved local

On a remote stretch of Tasmania's north-west coast farmers and forestry workers rub shoulders over a cold one at the Rocky Cape Tavern. It's a pub that been on the brink of closure on more than one occasion, but it seems to have a knack for survival. Most recently it was rescued by Julie Sharman, a local real estate agent who loved the venue.

Over the course of a year she has recruited a band of like-minded community members to help restore the tavern, and says that their investment of time and effort demonstrated the critical role the pub plays in keeping the community together.

"This is the community hub. Everyone comes together as one here; there's nothing else really in this district."

"All the local volunteers came out to help with the renovations – everyone's done something."

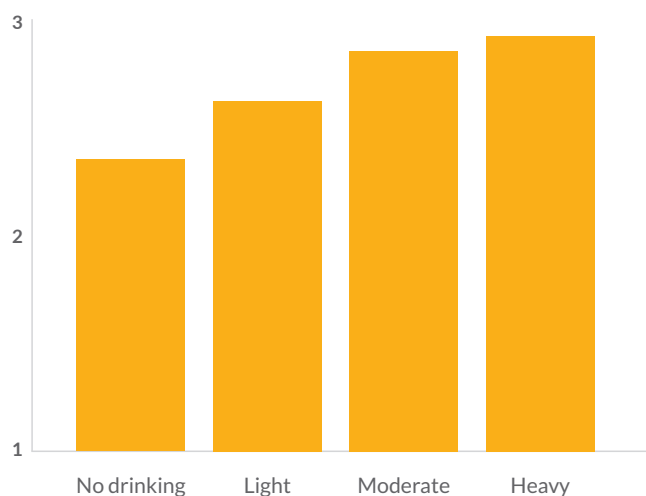
Julie takes the responsibility of such a prominent social role very seriously.

"We're not just here for the business – we put the time in with people."

"It's a friendly place now. They all feel welcome and everyone knows each other's name."



Extraversion by drinking rates

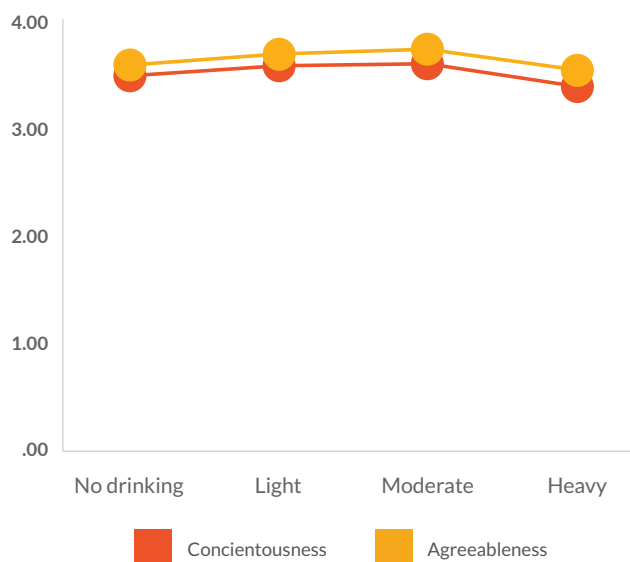


However, this effect was clearly a function of extraversion rates. As seen below, as people drank more, they also were more extraverted. This suggests that drinking is particularly the past-time of people who desire social contact, interaction, and approval.

In contrast, the advantage of moderate drinking is consistent with two different personality traits. Moderate drinkers are especially conscientious and agreeable. This means they are responsible, diligent, hardworking, and easy to get along with.

These effects are especially pronounced in relation to heavy drinkers. Heavy drinkers may be differently motivated to drink for hedonistic goals that are associated with undesirable personality traits and as noted above, had adverse health effects in terms of general health. In contrast, the non-drinkers were also lower on these traits than moderate drinkers, suggesting that non-drinkers suffer from relatively more impulsivity (lower conscientiousness) and were less nice (less agreeable) people to be around. Together it seems that the ability to say 'yes' until it is time to say 'no' might be especially positive in people's lives and have implications for one's social interactions and health.

Personality by drinking rates



SUMMARY AND CONCLUSIONS

Society has had a love-hate relationship with alcohol for centuries. Prohibition in the U.S., six o'clock swill laws in Sydney, and complete bans in predominantly Muslim countries all have been attempts to police people's drinking behaviour because of the various social ills linked to overconsumption.

However, this is a rather one-sided view of alcohol, treats consumption in isolation, and takes an alarmist view in that it commits the either/or fallacy such that any amount of consumption, no matter the context, is bad.

There is a long and honoured tradition in Australia (Pettigrew, 2002) and the United Kingdom (Dunbar, 2016) for going down to the 'local' bar for a drink to socialise and relax with friends. Arguably the motivation for most patrons of locals is not to abuse alcohol, but instead, to seek out social support.

In two studies, we attempted to understand the role of locals in people's psychological health, connectedness to the community, their behavioural patterns in the form of personality traits, and their conversational dynamics. Study 1 was a large, online sample that examined self-reports of drinking behaviour, having a local/not, and living in the city or in more rural regions and how they influenced psychological and general health, connection to friends, family, and community, and the Big Five personality traits. In contrast, in Study 2, we unobtrusively observed the ways in which people in bars around Australia interacted with one another and compared men and women in their interact patterns. We found several advantages for having a local. For instance, in Study 1 we found that those with a local had more life satisfaction and more social connections, both of which are instrumental in psychological health. In Study 1 we also found that having a local and not abusing alcohol had a positive effect on psychological health and anxiety for people who lived in rural areas. In Study 2 we found that locals were used mostly for socialising but also that men who were at their local bar in rural areas had more intimate interactions than group-oriented ones. These findings are consistent with (1) similar work out of the UK but have more psychometric robustness and (2) validate our contention that locals—especially when paired with light-to-moderate drinking—may be associated with increased social and personal health. We also revealed some auxiliary findings that replicated the inverted-U and J-shaped functions of drinking on psychological health. In Study 1 we found that there was an advantage for moderate drinking in terms of satisfaction with life and pessimism. For instance, when comparing rates of (self-reported) pessimism, moderate drinkers had especially low rates of pessimism in relation to heavy drinkers but also less than light and non-drinkers. This suggests to us that the problem might not be consumption per se but, instead, more a matter of knowing when to say 'yes' and when to say 'no'.

As valuable as these contributions might be to policy or research, they are limited in some aspects. First, in both studies we are dealing with people living in Australia, a relatively affluent society. This was especially pronounced in Study 1 given the pre-requisite that people had internet access to engage with the study instrument. We attempted to introduce some degree of economic heterogeneity by sampling metro and rural regions of Australia, but our samples, remain, nevertheless convenience (albeit representative by gender and age) in nature. While our focus was on the role of locals and alcohol consumption in Australia, there is reason to believe that such a sample might be different than members from non-Western societies with less affluence (Henrich, Heine, & Norenzayan, 2010).

Second, we cannot establish causation for the effects reported here; we have merely cross-sectional data. Experimental studies would be quite difficult because the relationships built up at locals are created over many years. Randomly assigning people to locals would be particularly challenging. It might call for taking a group of people who have a local, and for one month sending them to that local and recording several indexes and then sending them for another month to somewhere else and reassessing the same indexes.

Third, we have issues of power to consider. Statistical power is concerned with whether one's test is sufficiently sensitive enough to detect an effect that actually exists. Using the average effect size over the last 100 years in social-personality psychology ($r \approx .20$; Richard, Bond, & Stokes-Zoota, 2003), our second sample is sufficiently powered ($N^* = 146$) but may still be on the weaker side if one considered problems with estimation error in the field that suggests a sample size of 250 might be

more appropriate (Schönbrodt & Perugini, 2013). Study 1 was more than sufficiently powered and may even be overpowered, confusing effects that are statistical noise with *bona fide* relationships.

In conclusion, we have shown that locals are not just an important feature of Australian life because of their cultural histories, but they appear to also serve mental health benefits to men and women around the country. Any policies that affect locals—especially rural ones—should carefully consider the role of these venues in supporting the mental health needs of the community. A more nuanced analysis of drinking in Australia is warranted, one that includes the context under which that drinking occurs and the amount consumed. Policies regarding alcohol should be tempered with a realization that moderate drinking when coupled with social connectedness may be beneficial for all parties.

CASE STUDY

A local favourite in the heart of the city

You don't need to be in the country or the suburbs to find a local. Some of the best loved watering holes in Australia can be found in the commercial hubs of our major cities, where workers congregate to unwind after a day in the office or on the worksite.

At Perth's Grosvenor Hotel, the pub with the second-oldest continuous trading licence in Western Australia and the only beer garden in the CBD, you can always find a wide-cross section of the working community.

"It goes from supreme court justices to hi-vis workers who are creating the city of Perth again" says manager Tom O'Donohue.

"We're the only venue with a beer garden in the CBD so it's a very popular choice for people wanting to escape the office block."

While many use the Grosvenor to catch up with old friends, Tom says that new connections are made every day that turn into lasting relationships. And it's not just the patrons who benefit:

"A good friend of mine I first met 16 years ago when he moved into an office across the road. We went to Europe together and he introduced me to a childhood friend. That childhood friend is now my wife."



STUDY 1

In Study 1, we solicited responses to an online study on the social effect of having a local in relation to psychological health, community connectedness, and personality in a large, multiregional sample of Australians. In this study, we analyse the relationships between having a local and these variables overall and as they differ by gender, by living location, and consumption patterns. We also try to better describe people who have locals in a bid to better describe the role of bars in these people's lives.

METHOD

Participants and procedure

Participants were 1,232 Australian community members (50% women) paid AU\$4 through ResearchNow market research firm, contracted on behalf of Lion. The average participant was 45.79 years old ($SD = 16.71$; $Range = 18-88$). Participants provided their postal codes, allowing us to determine that 35% were from NSW, 25% were from VIC, 2% were from TAS, 7% were from SA, 9% were from WA, and 20% were from QLD. In terms of "ethnic heritage", 78% were White/European, 15% were Asian, 2% were Middle-Eastern, 3% identified as "other, and less than 1% were Torres Strait Islanders/Aboriginal, Pacific Island/Maori, Hispanic/Latino, and Black/African. In terms of employment status, 39% were employed full-time, 20% were employed part-time, 8% were unemployed, 7% were not looking for work, 22% were retired, and 4% were students. Predominantly, our sample were wine-drinkers (33%), but also drank beer (30%), cider (6%), spirits (16%), and "other" (1%); with 14% claiming to not drink at all. Participants indicated whether they were religious (32%). We asked whether they had a "local" (45%), and for those who did they used them for socialising (32%), playing pokies (12%), drinking alone (6%), drinking with other people (27%), and eating (24%). Participants were informed of the nature of the study, completed a series of standardised, quantitative, self-report measures, and were thanked and debriefed upon completion of the study.

Measures

We measured individual differences in happiness with the Satisfaction with Life Scale (Diener et al., 1995). The scale is composed to five items where participants indicated their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with items like "in most ways my life is close to my ideal" and "the conditions of my life are excellent". Items were averaged to create an index of happiness (Cronbach's $\alpha = .89$; $M = 3.20$, $SD = 0.87$).

We measured individual differences in resilience with the Brief Resilience Scale (Smith et al., 2008). The scale is composed to five items where participants indicated their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with items like "I tend to bounce back quickly after hard times" and "I have a hard time making it through stressful events". Items were averaged to create an index of resilience ($\alpha = .87$; $M = 3.15$, $SD = 0.78$).

We measured individual differences in pessimism with the Hopelessness Scale (Beck et al., 1974). The scale is composed of five items where participants indicated their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with items like "I might as well give up because I can't make things better for myself" and "I can't imagine what my life would be like in 10 years". Items were averaged to create an index of pessimism ($\alpha = .94$; $M = 2.59$, $SD = 0.66$).

We measured social connectedness in five ways because it was a central variable of interest. We asked participants how many Facebook friends (if they had it) they had ($M = 297.84$, $SD = 503.38$). We asked participants (Dunbar & Spoors, 1995) how many people (including family members and friends) they felt comfortable turning to for emotional, social or financial support in times of great personal crisis ($M = 6.55$, SD

= 11.12). We asked participants how many people they live with ($M = 1.95$, $SD = 1.54$). We presented people with seven pictures (see Appendix A) that had circles representing “self” and “community” that differed in their amount of overlap and asked participants which reflected how well connected to their community they felt ($M = 3.06$, $SD = 1.63$). Finally, we measured interpersonal trust with the Rotter’s Interpersonal Trust Scale (Robinson, Shaver, & Wrightsman, 1991) by asking participants their agreement (1 = *strongly disagree*; 5 = *strongly agree*) with 25 questions (e.g., “hypocrisy is on the increase in our society”; “one is better off being cautious when dealing with strangers until they have provided evidence that they are trustworthy”). Items were averaged to create an index of interpersonal trust ($\alpha = .81$; $M = 2.73$, $SD = 0.38$).

To measure participant’s average alcohol consumption, we used the AUDIT-C (Bradley et al., 2007). We asked participants how often they had a drink containing alcohol (0 = *never*, 1 = *monthly or less*, 2 = *2-4 times per month*, 3 = *2-3 times per week*, 4 = *4+ times per week*), how many drinks contain alcohol they had on a typical day when drinking (0 = *1-2 drinks*, 1 = *3-4 drinks*, 2 = *5-6 drinks*, 3 = *7-9 drinks*, 4 = *10+ drinks*), and how often they had six or more drinks on one occasion (0 = *never*, 1 = *monthly or less*, 2 = *2-4 times per month*, 3 = *2-3 times per week*, 4 = *4+ times per week*). Items were averaged to create an index of individual differences in drinking behaviour ($\alpha = .63$; $M = 4.12$, $SD = 2.36$).⁴

We measured general health of participants using the General Health Questionnaire in Australia (Donath, 2001). Participants reported whether they had recently experienced 12 items like “been able to concentrate on what you’re doing” and “lost much sleep over worry”. Items were averaged to create an index of general health ($\alpha = .90$; $M = 3.45$, $SD = 0.78$).

And last, to assess the role of personality in general, we included a measure of the Big Five personality traits (Donnellan, Oswald, Baird, & Lucas, 2006). These five traits are considered a broad taxonomy of the basic units of personality around the world. Participants reported their agreement with four items measuring *extraversion* ($\alpha = .80$; $M = 2.75$, $SD = .84$), *neuroticism* ($\alpha = .73$; $M = 2.82$, $SD = 0.78$), *conscientiousness* ($\alpha = .67$; $M = 3.57$, $SD = 0.70$), *agreeableness* ($\alpha = .79$; $M = 3.68$, $SD = 0.72$), and *openness* ($\alpha = .74$; $M = 3.42$, $SD = 0.75$). Items were averaged to create indexes of each trait.

CASE STUDY

The pub under the bridge

As you head north from the Gabba, Main St kinks slightly before you reach the Story Bridge. Many motorists might not realise it, but this bend in the road is testament to the love that Brisbanites have for the Story Bridge Hotel.

When the bridge was built in 1940, the road by rights should have travelled directly over the top of the hotel (then known as the Kangaroo Point Hotel).

“They said ‘you can’t knock the pub down!’” says Richard Deery, owner of the Story Bridge.

And so the heritage building, built in 1886 in the Queenslander style from bricks kilned in Scotland and brought to Australia as ballast on convict ships, survived, while the road leading to the bridge was rerouted accordingly.

Richard’s family have owned the pub since 1967, and he loves the cyclical and familiar nature of the business.

“We always love to call it the village local. We’ve been here for over 50 years and we’ve seen people who used to come here in their youth now bringing their children back. Because we’ve been so long it gives them something to hang on to.”



⁴ Does not include non-drinkers in the mean. Inclusion of non-drinkers drags down the mean consumption rates significantly.

RESULTS

Individual differences in psychological health

We began by assessing individual differences in satisfaction with life. We tested a 2 (local or not) \times 2 (gender) \times 2 (city or rural) \times 3 (low, medium, high drinkers). We found no main effects for any of our variables, but when we looked closer there was a weak effect for those who had a local (compared to those who did not) were more satisfied with their lives, drank more alcohol, had greater community connectedness no matter how it was measured, and were more extraverted (Table 1). We found a two-way interaction between gender and drinking rates ($F(2, 1035) = 5.45, p = .004, \eta^2 = .01$). *Post hoc* tests showed (Figure 1) that, among men, moderate drinkers had a significantly higher satisfaction with life than heavy drinkers ($p < .05$). On the other hand, among women, no differences in satisfaction with life were found among the drinking groups. We also found a three-way interaction between gender, local, and region ($F(1, 1035) = 6.72, p = .01, \eta^2 = .01$). *Post hoc* analyses showed (Figure 2) that, among men, there was no interaction between local and region ($F(1, 545) = 0.08, p = 0.78, \eta^2 < .01$). However, among women, a significant interaction between local and region was found ($F(1, 506) = 10.42, p = .001, \eta^2 = .01$), suggesting that the difference in satisfaction with life between women with and without a local significantly varied depending on whether they resided in metro or rural areas. Specifically, women with locals in rural areas showed less satisfaction with life than women without locals in rural areas (approaching significance only, $p = .083$), while women with locals in metro areas showed no significant difference in satisfaction with life than women without locals in metro areas.

Next, we applied the same analysis to individual differences in resilience. We found a main effect for participant's gender ($F(1, 1035) = 5.20, p = .02, \eta^2 = .01$), such that men reported more resilience than women did (Table 2). We found a two-way interaction between local and drinking rates ($F(2, 1035) = 6.80, p = .001, \eta^2 = .01$). *Post hoc* analyses showed that there was no relationship between drinking rates and resilience among participants with a local ($p > .05$), however, for those without a local, moderate drinkers reported higher levels of resilience than both light drinkers and heavy drinkers (p 's $< .05$).

Now we examined individual differences in pessimism. There was a main effect gender ($F(1, 1035) = 6.16, p = .01, \eta^2 = .01$) such that men reported more pessimism than women did (Table 2) and there was a main effect for drinking rates ($F(1, 1035) = 7.28, p = .001, \eta^2 = .02$) such that moderate drinkers were less pessimistic than light drinkers (Table 5). And there was a four-way interaction found between gender, local, region, and drinking rates ($F(2, 1035) = 3.89, p = .02, \eta^2 = .01$). *Post hoc* analyses showed that, among women, there was no three-way interaction between local, region, and drinking rates but there was one for men ($F(2, 537) = 4.00, p = .02, \eta^2 = .02$). Disentangling this three-way interaction further, results showed that among men residing in metro areas, there was no significant two-way interaction between local and drinking rates but there was one for men residing in rural areas ($F(2, 168) = 3.62, p = .03, \eta^2 = .04$), suggesting that among men residing in rural areas who were moderate drinkers only, those with a local showed a greater level of pessimism than those without a local ($p < .01$; see Figure 12).

Now we turned to general psychological health. We found a main effect found for drinking rates ($F(2, 1035) = 10.45, p < .001, \eta^2 = .02$), suggesting heavy drinkers were less healthy than light and moderate drinkers (Table 5). We found a two-way interaction between gender and drinking rates ($F(2, 1035) = 3.98, p = .02, \eta^2 = .01$). *Post hoc* analyses showed (Figure 3) that, among men only, heavy drinkers reported significantly lower levels of general psychological health than light drinkers and moderate drinkers (p 's $< .05$). However, among women, no

significant differences between local and drinking rates ($F(2, 1035) = 5.95, p = .003, \eta p^2 = .01$). *Post hoc* analyses showed (Figure 4) that, among those with a local, heavy drinkers reported significantly lower levels of general psychological health than both light and moderate drinkers (p 's $< .05$). On the other hand, among those without a local, moderate drinkers reported significantly higher levels of general psychological health than both light drinkers and heavy drinkers (p 's $< .05$). And last, we found a three-way interaction (Figure 5) of local, region, and drinking rates ($F(2, 1035) = 4.34, p = .01, \eta p^2 = .01$). *Post hoc* analyses showed that, among those residing in metro areas, there was no interaction between local and drinking rates, however, for those residing in rural areas, an interaction was found between local and drinking rates ($F(2, 343) = 6.41, p = .002, \eta p^2 = .04$), suggesting that the difference in general psychological health between those with or without a local depended on their drinking rate. Specifically, among rural participants who were light drinkers, those with a local showed significantly greater general psychological health than those without a local ($p < .05$). However, among rural participants who were moderate drinkers, those with a local showed significantly poorer levels of general psychological health than those without a local ($p < .05$). In addition, for those in rural areas and without a local, moderate drinkers showed greater health than light and heavy drinkers (p 's $< .05$).

Individual differences in social connectedness

Next, we turned to our four indicators of connectedness. Those residing in metro areas (Table 3) reported more Facebook friends than those residing in rural areas ($F(1, 777) = 4.49, p = .04, \eta p^2 = .01$), those residing in metro had a larger support network than those residing in rural areas ($F(1, 1035) = 4.24, p = .04, \eta p^2 < .01$), those who had a local (Table 2) had a greater sense of connectedness to their community than those without one ($F(1, 1035) = 48.27, p < .001, \eta p^2 = .05$), those with a local had more interpersonal trust than those who did not ($F(1, 1035) = 8.49, p = .004, \eta p^2 = .01$), and those in a rural area had less interpersonal trust than those who were in the city ($F(1, 1035) = 11.94, p = .001, \eta p^2 = .01$). We also found a two-way interaction between gender and drinking rates ($F(2, 1035) = 3.41, p = .03, \eta p^2 = .01$), such that among women only, light drinkers had lower levels of interpersonal trust than both moderate and heavy drinkers (p 's $< .05$).

Personality

We found no effects for openness. When it came to extraversion we found main effects for gender ($F(1, 1035) = 4.55, p = .03, \eta p^2 < .01$), suggesting women were more extraverted than men (Table 2), a main effect for local ($F(1, 1035) = 23.00, p < .001, \eta p^2 = .02$), suggesting those with a local were more extraverted than those without (Table 1), and a main effect for drinking rates ($F(2, 1035) = 3.65, p = .03, \eta p^2 = .01$), suggesting that light drinkers had significantly lower levels of extraversion than both moderate and heavy drinkers (Table 5). We also found a two-way interaction between gender and drinking rates ($F(2, 1035) = 7.30, p = .001, \eta p^2 = .01$). *Post hoc* analyses showed (Figure 7) that, among women, heavy drinkers had higher levels of extraversion than both light and moderate drinkers, and moderate drinkers had higher levels of extraversion than light drinkers (p 's $< .05$). On the other hand, among men, no differences in extraversion were found among the drinking groups.

In terms of conscientiousness we found a main effect for drinking rates ($F(2, 1035) = 3.46, p = .03, \eta p^2 = .01$), such that high drinkers had lower levels of conscientiousness than both light and moderate drinkers (Table 5). There was also a three-way interaction between gender, region, and drinking rates ($F(2, 1035) = 6.38, p = .002, \eta p^2 = .01$), such that, among men, there was no interaction between region and drinking rates but there was on for women ($F(2, 504) = 5.78, p < .01, \eta p^2 = .02$). This interaction (Figure 8), suggested the difference in conscientiousness between women in rural and metro areas depended on how much alcohol they consumed. Specifically, among heavy drinkers only, women from rural areas showed significantly higher levels of conscientiousness than those from metro areas ($p < .01$). In addition, among those from metro areas only, women who were moderate drinkers showed higher levels of conscientiousness than women who were heavy drinkers ($p < .01$).



When accounting for individual differences in neuroticism, we found a main effect for drinking rates ($F(2, 1035) = 3.70, p = .025, \eta p^2 = .01$), suggesting that moderate drinkers had lower levels of neuroticism than heavy drinkers (Table 5). We also found a two-way interaction between local and drinking rates ($F(2, 1035) = 5.05, p = .007, \eta p^2 = .01$). *Post hoc* analyses showed (Figure 9) that, among moderate drinkers only, those with a local had higher levels of neuroticism than those without a local (approaching significance only, $p = .065$). And we found one potentially spurious (i.e., *post hoc* analyses showed no constituent two-way interactions) three-way interaction of gender, local, and drinking rates ($F(2, 1035) = 3.75, p = .02, \eta p^2 = .01$), but we did find a three-way interaction of local, region, and drinking rates ($F(2, 1035) = 4.79, p = .009, \eta p^2 = .01$). *Post hoc* analyses showed (Figure 10), among those in metro areas, there was no interaction between local and drinking rates, however, among those in rural areas there was ($F(2, 343) = 6.46, p = .002, \eta p^2 = .04$), suggesting the difference in neuroticism between those with and without a local varied significantly depending on their drinking group. Specifically, among rural participants who were light drinkers, those with a local showed lower levels of neuroticism than those without a local ($p < .05$). However, among rural participants who were moderate drinkers, those with a local showed significantly higher levels of neuroticism than those without a local ($p < .01$). In addition, for those in rural areas and with a local, light drinkers had lower levels of neuroticism than moderate and heavy drinkers (p 's $< .05$). On the other hand, for those in rural areas and without a local, moderate drinkers showed lower levels of neuroticism than both light and heavy drinkers (p 's $< .05$).

In terms of individual differences in agreeableness, we found main effects for gender ($F(1, 1035) = 43.18, p < .001, \eta p^2 = .04$) such that women were more agreeable than men (Table 2) and a main effect for region ($F(1, 1035) = 4.06, p = .04, \eta p^2 < .04$), such that those residing in metro areas were more agreeable than those living in rural areas (Table 3). We also found a two-way interaction between local and region ($F(1, 1035) = 5.10, p = .02, \eta p^2 < .01$). *Post hoc* analyses showed (Figure 11) that, for only those without a local, those residing in metro areas were more agreeable than those residing in rural areas (approaching significance only, $p = .084$).

Drinking Patterns

Generally speaking (Table 4), those who drank compared to those who did not drink, had more life satisfaction, were less pessimistic, and were more resilient. The same people had more Facebook friends, a larger support network, self-community overlap, and interpersonal trust. And, they were more extraverted as well. But there is meaningful variance in how much people drink so we examined non-drinkers, light drinkers, moderate drinkers, and heavy drinkers next (Table 5). We found (*Post hoc* comparisons, $p < .05$) that non-drinkers had less satisfaction with life than those who drank at moderate rates, non-drinkers, light drinkers, and heavy drinkers had more pessimism than moderate drinkers, non-drinkers had less resilience than moderate drinkers, and moderate drinkers had more general health than heavy drinkers. In terms of social connectedness, non-drinkers had fewer Facebook friends than heavy drinkers, light drinkers and moderate drinkers had more self-community overlap than non-drinkers and heavy drinkers had more overlap than light drinkers. Non-drinkers had less interpersonal trust than moderate or heavy drinkers. In terms of personality traits as behavioural syndromes, non-drinkers were less extraverted than light, moderate, heavy drinkers, light drinkers were less extraverted than moderate or heavy drinkers. Light drinkers were more conscientious than heavy drinkers and moderate drinkers were more conscientious than heavy drinkers. And last, moderate drinkers were more agreeable than heavy drinkers.

When we examined the kinds of alcohol consumed by people overall and based on their gender, living location, and drinking rates (excluding non-drinkers of course), we found a number of differences (Table 6). While most people drank beer or wine, men drank more beer than women, women drank more wine, spirits, and cider than men did, people in the city drank more wine than those in rural areas but those in rural areas drank more cider than those in the city; those with a local drank more beer but less wine and cider than those without a local, and those who drank at high rates, drank more beer and mixed drinks than those at low rates and those who drank at high rates drank more wine than those at medium or low rates of consumption.

STUDY 2

While Study 1 provides support for our contention that local bars have an influence on people's health, connectedness, and personality, it was based solely on self-report data. Self-report data in isolation is problematic because people can "fake good" or "fake bad". Therefore, in Study 2, we assess conversational features of participants in bars using an observational method and compare those features based on who has a local or not. Again, we further test for the moderative powers of participant's gender and region.

Participants and procedure

Data was gathered from 162 focal individuals (64% male) in Australia who were observed over two weekends in August 2018 at 42 randomly selected bars. In terms of coverage of the Australian country, they were locations from NSW (15%), VIC (22%), QLD (15%), WA (12%), TAS (22%), and SA (14%). A list of 777 locations in major cities and rural areas in Australia was assembled and each bar/pub was assigned a number. Then, using an online random number generator, we selected three locations and two back-ups. These bars were classified by their location as rural (47%) or metro (53%).

Twelve research assistants (RAs) from around Australia were trained in the use of an iPhone-based observational application called Animal Behaviour Pro®. The application allows for an unobtrusive study to be conducted *en vivo*. In this case, the RAs went to predetermined locations (with permission from management) for four hours on each evening (all samples were conducted on Fridays, Saturdays, or Sundays). They were instructed to randomly select a conversational group and focal individuals. They would pick the person closest to the door and then count two to the left to randomise the choice of focal individuals observed. The RAs spent 20 minutes observing the focal individual. First, the RAs denoted in the application, the size of the group ($M = 3.08$, $SD = 1.41$) and the gender composition of the group (41% all male; 9% all female; 50% mixed). Then RAs recorded a variety of behaviours throughout the remaining time that reflected whether focal individuals were talking or not, whether the conversation ended, and whether they were talking to 1-5+ people (i.e., count data on events for DVs); further recoded to be a comparison to be conversations with one other person (i.e., intimate) and comparisons with groups (i.e., non-intimate; Taylor, de Soto, & Lieb, 1979). Every time there was a change in behaviour, the RAs denoted that in the application. For example, a hypothetical session might run like this: at the outset and after randomly selecting a focal individual, that focal individual might be talking to three people (recorded), but four minutes in they stop talking (recorded), and then after another minute they return to the conversation but now there are three people in the conversation (recorded), and then after the remaining 15 minutes elapsed, the RA approached the person, identified her/himself as "doing a research project for Lion Beer about conversational dynamics in bars and pubs and that I [the RA] have just been observing you for the last 20 minutes as you interacted with this group" (flexibility was permitted in this for the individual RAs). The focal individual was then asked if they were willing to be part of the study. If they said "yes" (i.e., consent), the RA asked them their age (12% 18-24, 27% 25-34, 19% 35-44, 30% 45-54, 8% 55+), gender (64% male), and if they considered themselves to be a local in that venue (61% yes). Upon completion, participants were thanked for their time. The next focal individual was selected from a randomly selected conversational group that had not been previously studied.

Results

We had 122 people (75% of the participants) who had engaged in conversations with one person, accounting for 47% of the total conversations people engaged in and we had 109 people (67% of the participants) who engaged in group conversation which accounted for 44% of the conversations (we excluded non-talking events) with 63 people engaging in both kinds of conversations. Given the limited sample size, we could not run tests with the full mixed model ANOVA composed of gender \times bar location \times local or not \times one-on-one v group conversations (i.e., ratios of events to total number of events for people who engaged in both), with a within-subjects factor on the latter. Therefore, we rotated through a variety of threeway models keeping the latter factor in all cases. When we tested the interaction of gender, local, and conversations, we found a threeway interaction ($F(1, 62) = 4.10, p < .05, \eta p^2 = .06$), suggesting (Figure 13) that men in their local were recorded engaging in more intimate conversations than less intimate ones ($p < .05$). No other effects were detected when examining differences in conversational events.

When we looked at the size of the group people were interacting in, we tested an ANOVA composed of local \times rural/metro \times gender and found a main effect for rural/metro ($F(1, 144) = 9.48, p < .01, \eta p^2 = .06$) and a weak interaction for local \times gender ($F(1, 144) = 3.68, p < .06, \eta p^2 = .03$). The main effect suggested people were in larger groups in the metro bars compared to rural bars and the interaction (Figure 14) suggests that women (compared to men) who had a local as a metro bar had larger groups. When we examined the ratio of talking events to non-talking events, we found a weak threeway interaction (Figure 15) composed of local \times rural/metro \times gender ($F(1, 101) = 3.72, p < .06, \eta p^2 = .04$) suggesting it was men not at their local in metro bars, compared to rural bars who engaged in more talking events relative to non-talking events, but it was women who were at their local in metro areas who engaged in more talking events.



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FIGURES, TABLES & APPENDICES

Figure 1: Interaction of gender and drinking rates on satisfaction with life



Figure 2: Interaction between gender, local, and region predict satisfaction with life scores



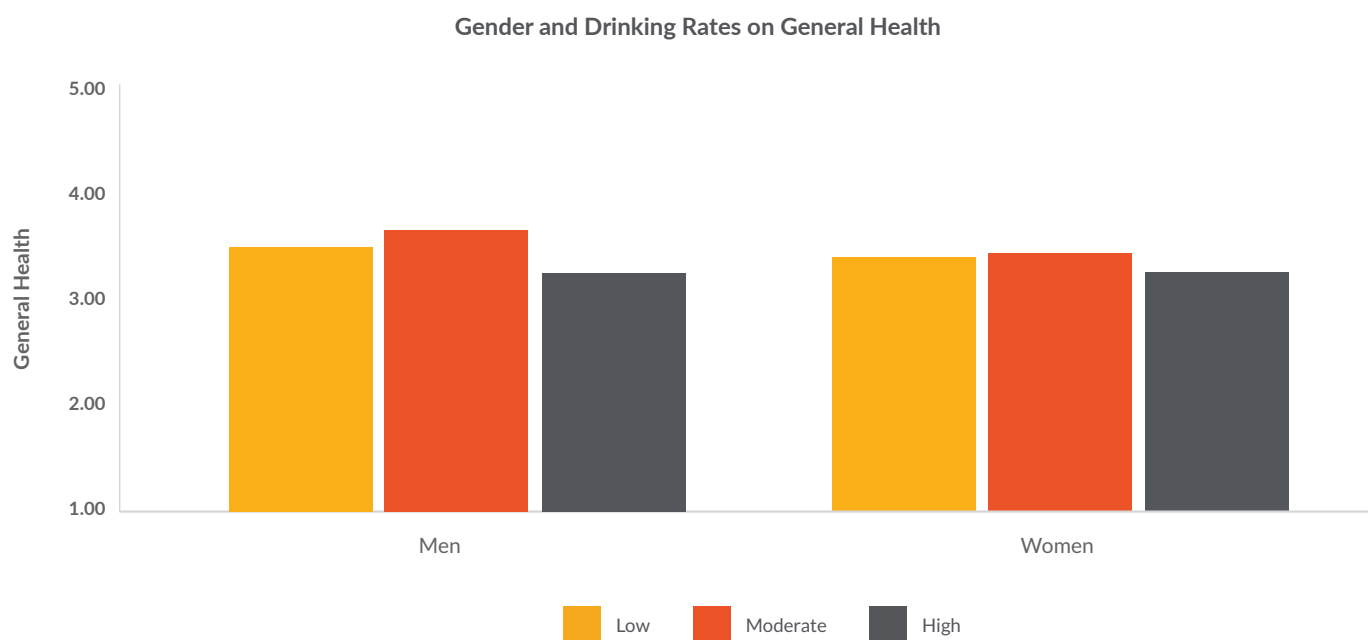
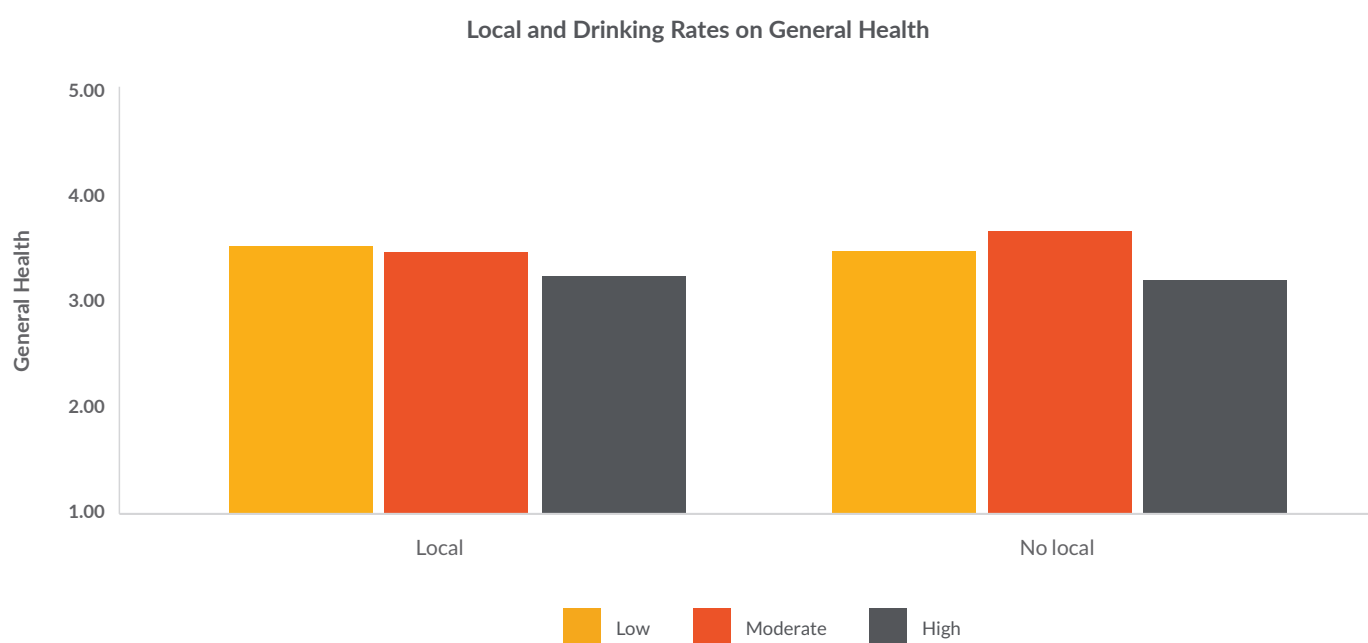
Figure 3: Interaction of gender and drinking rates on general psychological health**Figure 4: Interaction of local and drinking rates on general psychological health**

Figure 5: Interaction of region, local, and drinking rates on general health



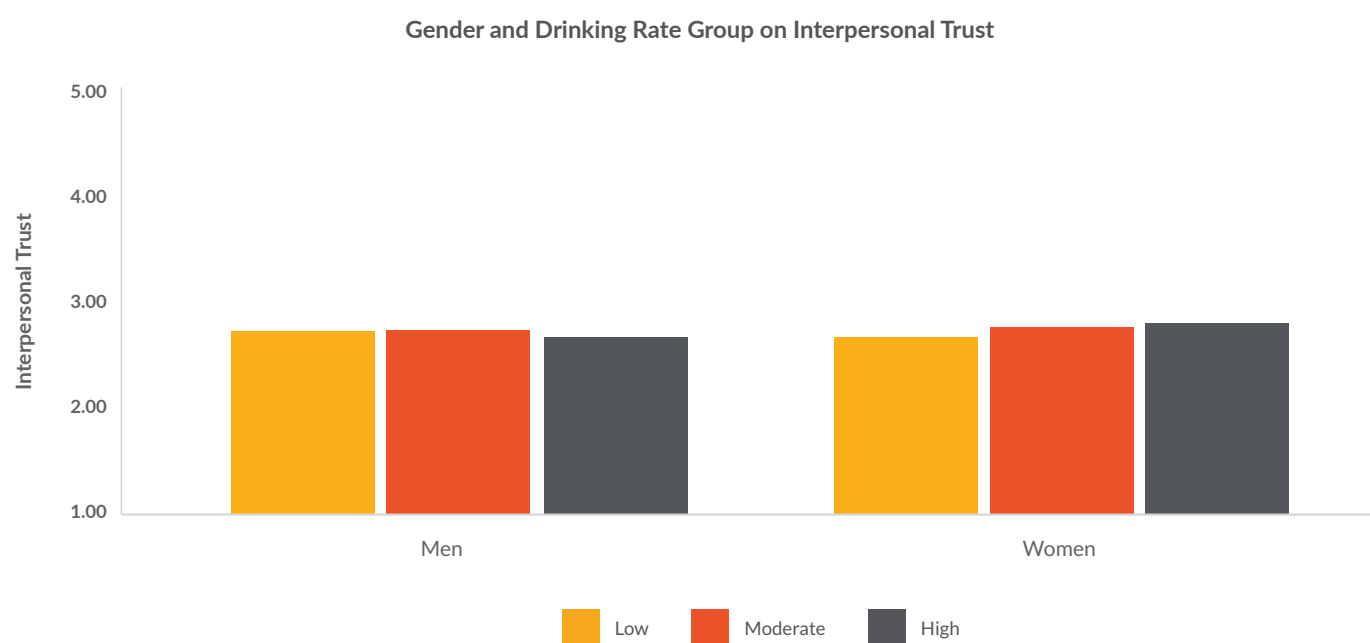
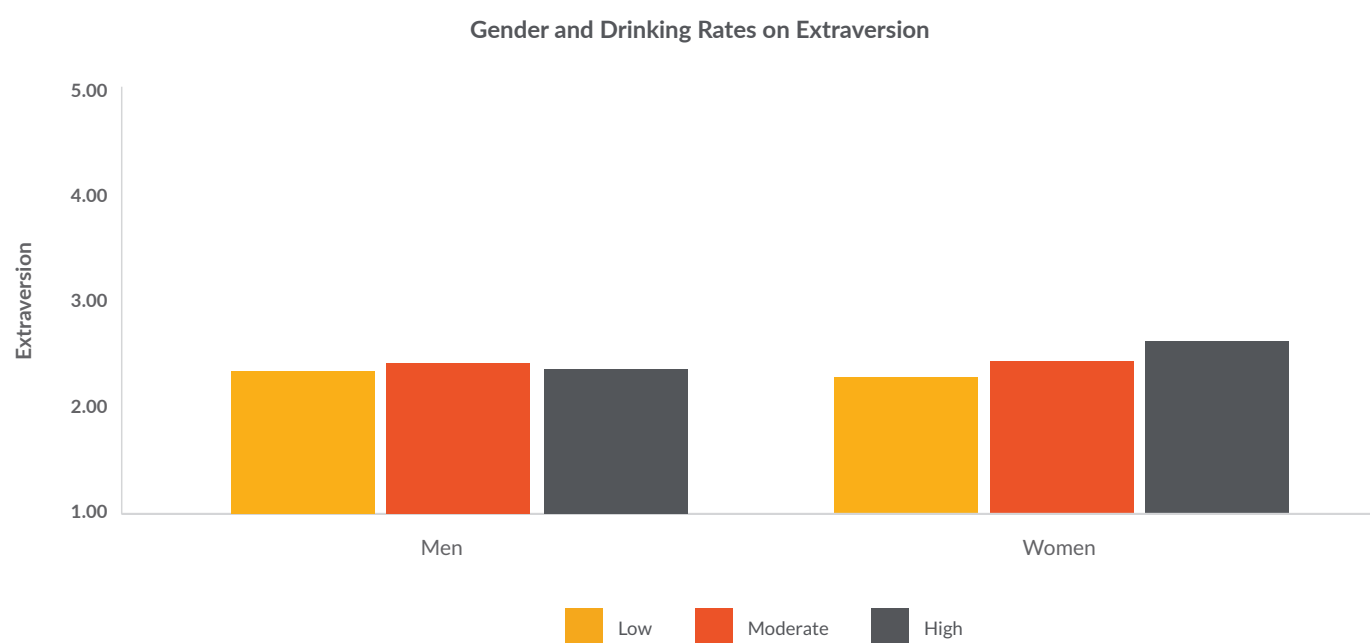
Figure 6: Interaction of gender and drinking rates on interpersonal trust**Figure 7: Interaction of gender and drinking rates on extraversion**

Figure 8: Interaction of region, drinking rates, and gender on conscientiousness

Figure 9: Interaction between local and drinking rates on neuroticism

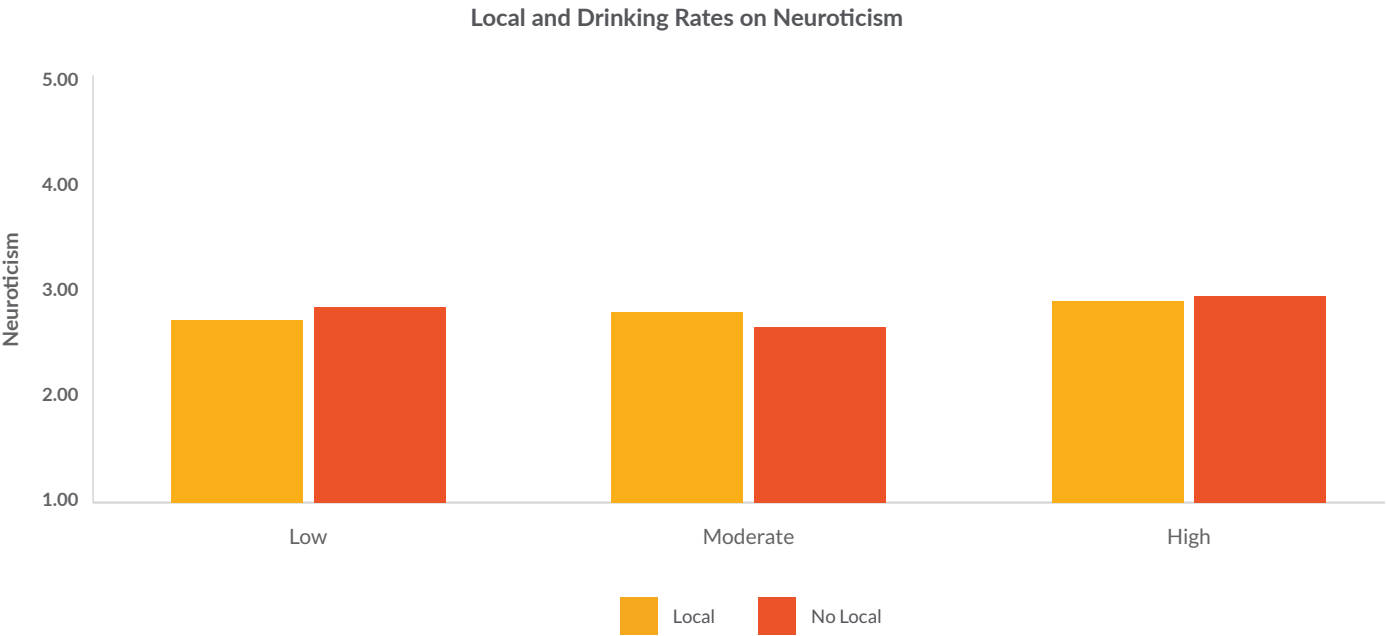


Figure 10: Interaction of local, drinking rates, and region on neuroticism

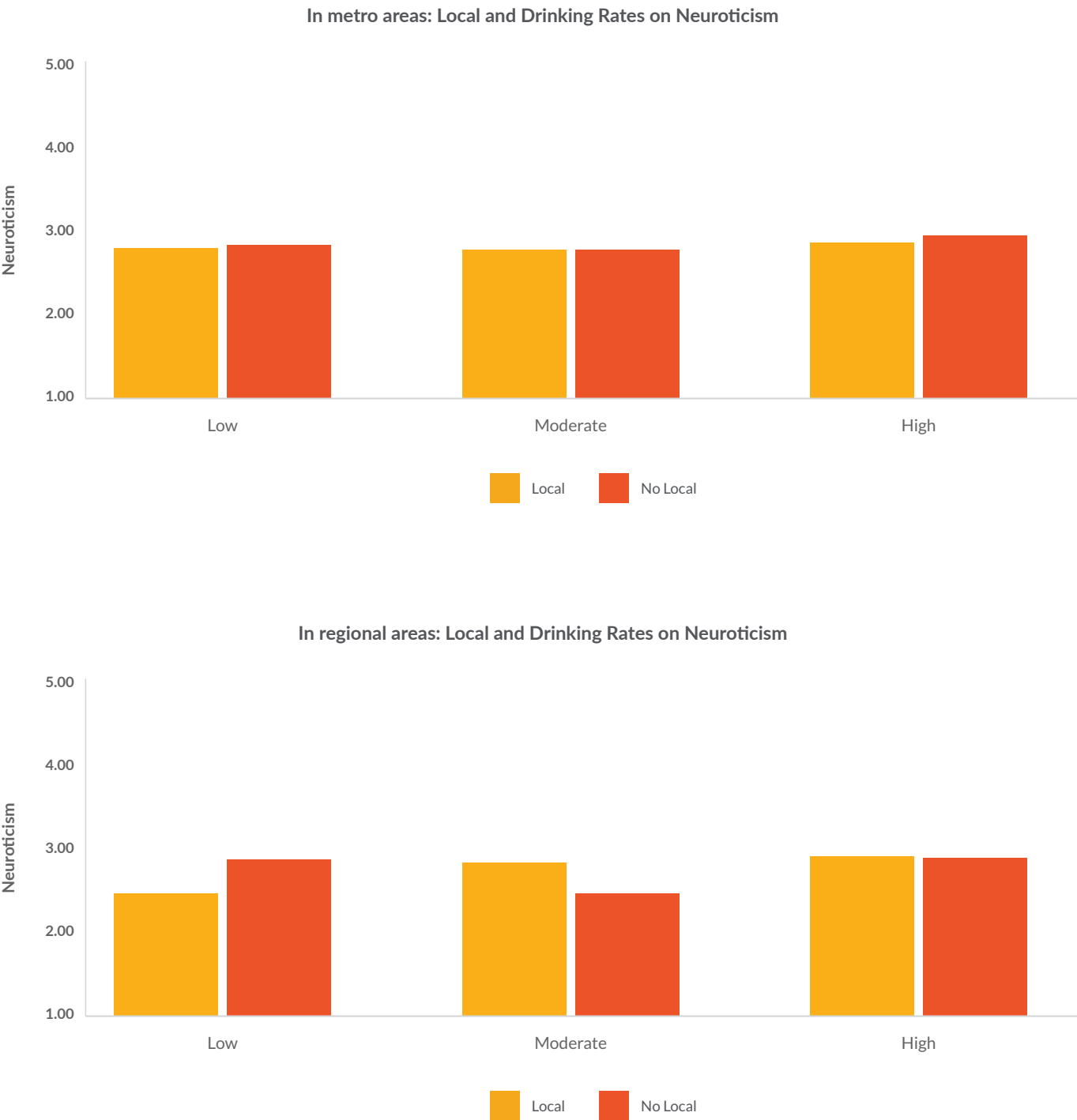


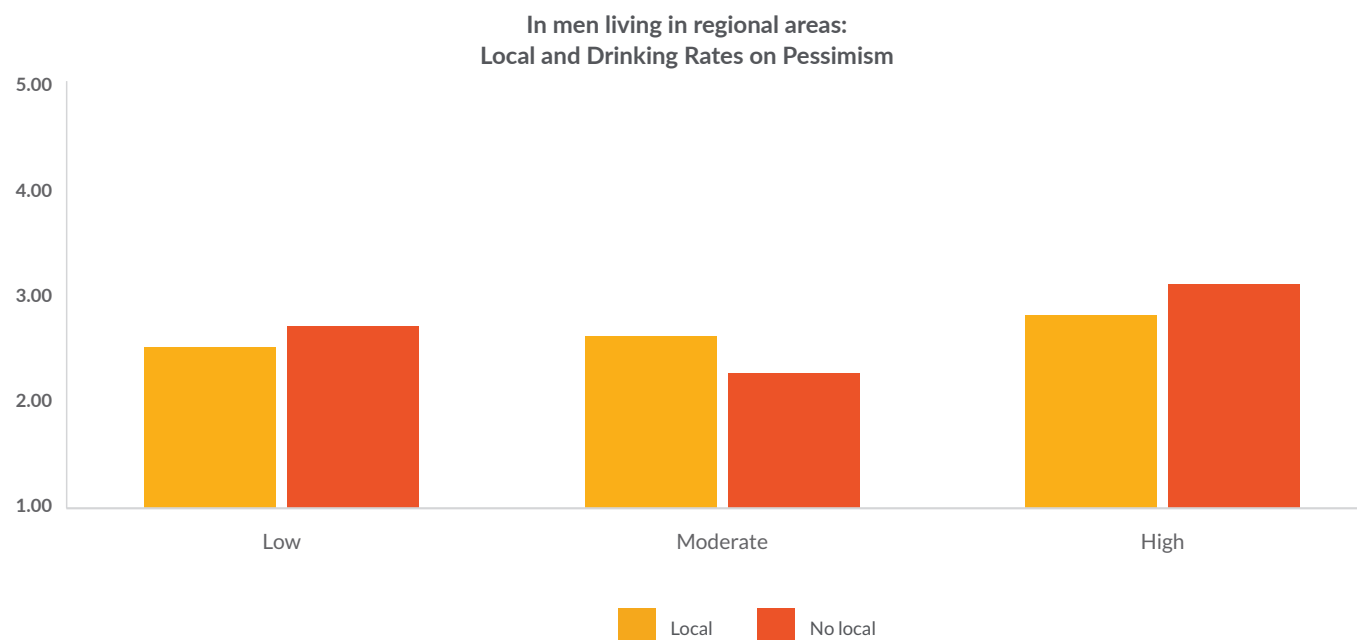
Figure 11: Interaction of local and region on agreeableness**Figure 12: Interaction of Local and AUDIT on pessimism in regional men only**

Figure 13: Interaction of gender, local, and intimacy on ratio of conversations engaged in

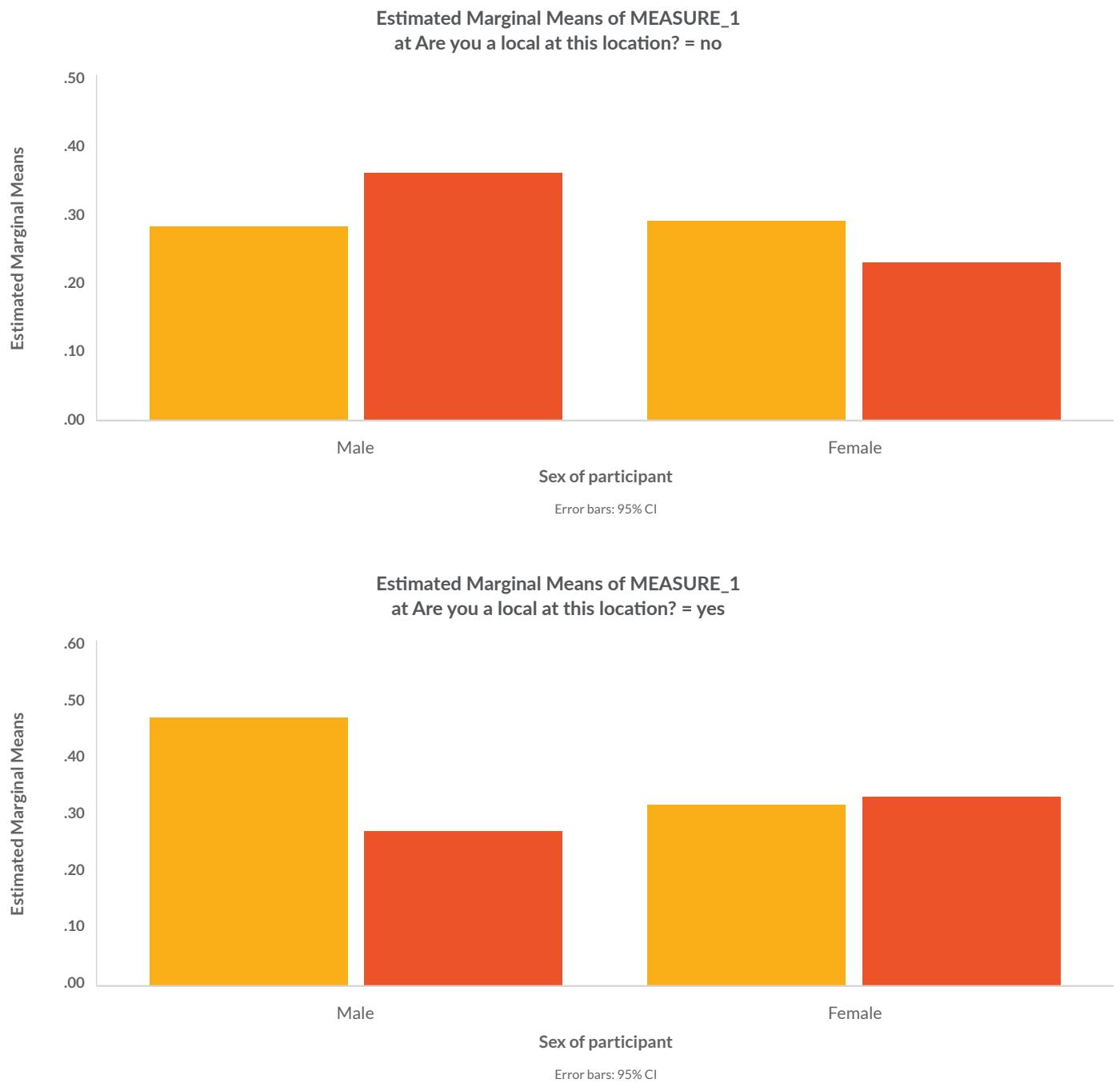


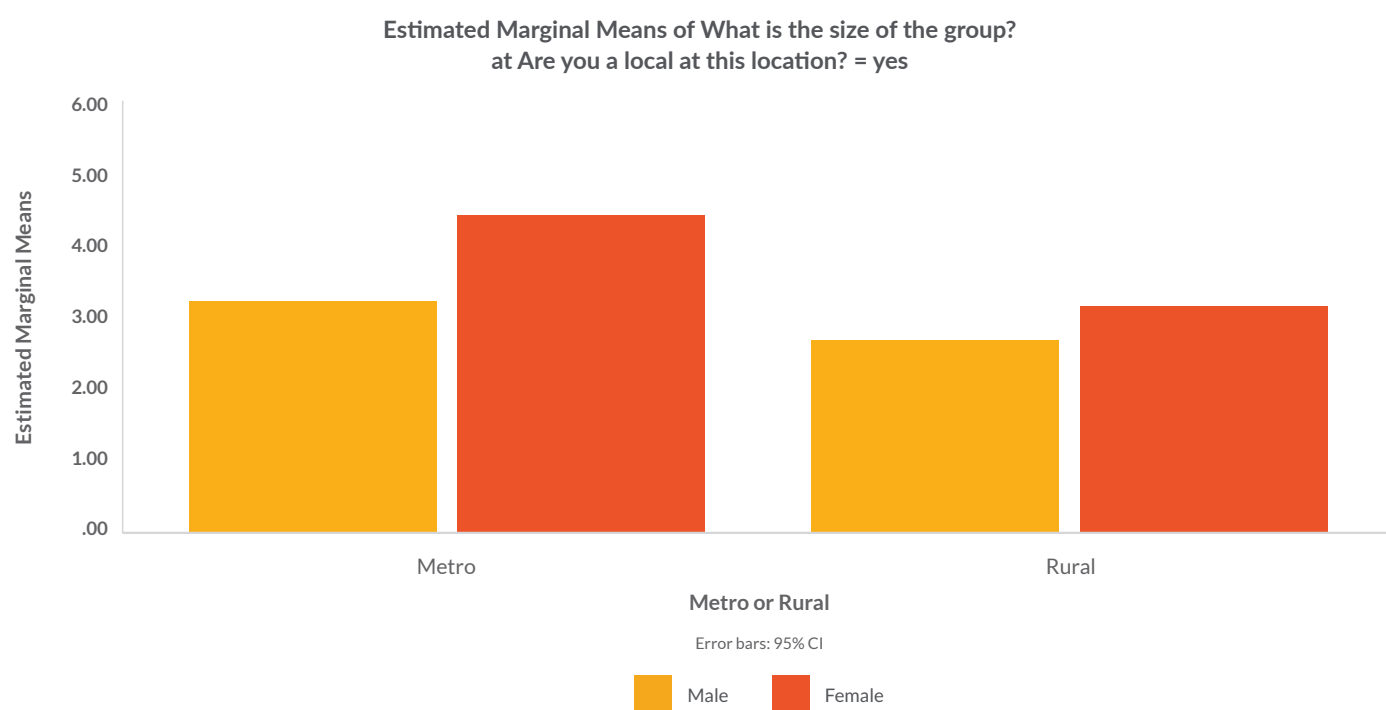
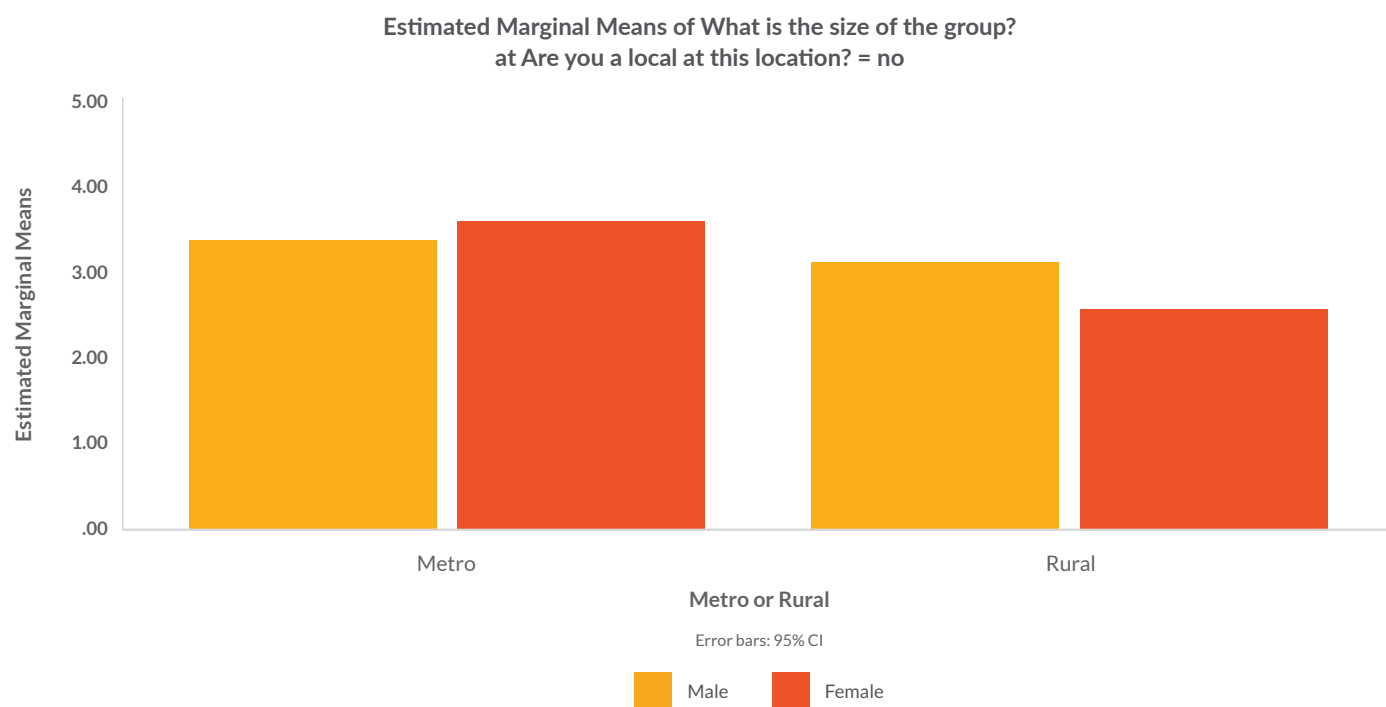
Figure 14: Group size as a function of whether target is at their local, their gender, and the location of the bar

Figure 15: Ratio of talking to not-talking events as a function of whether target is at their local, their gender, and the location of the bar

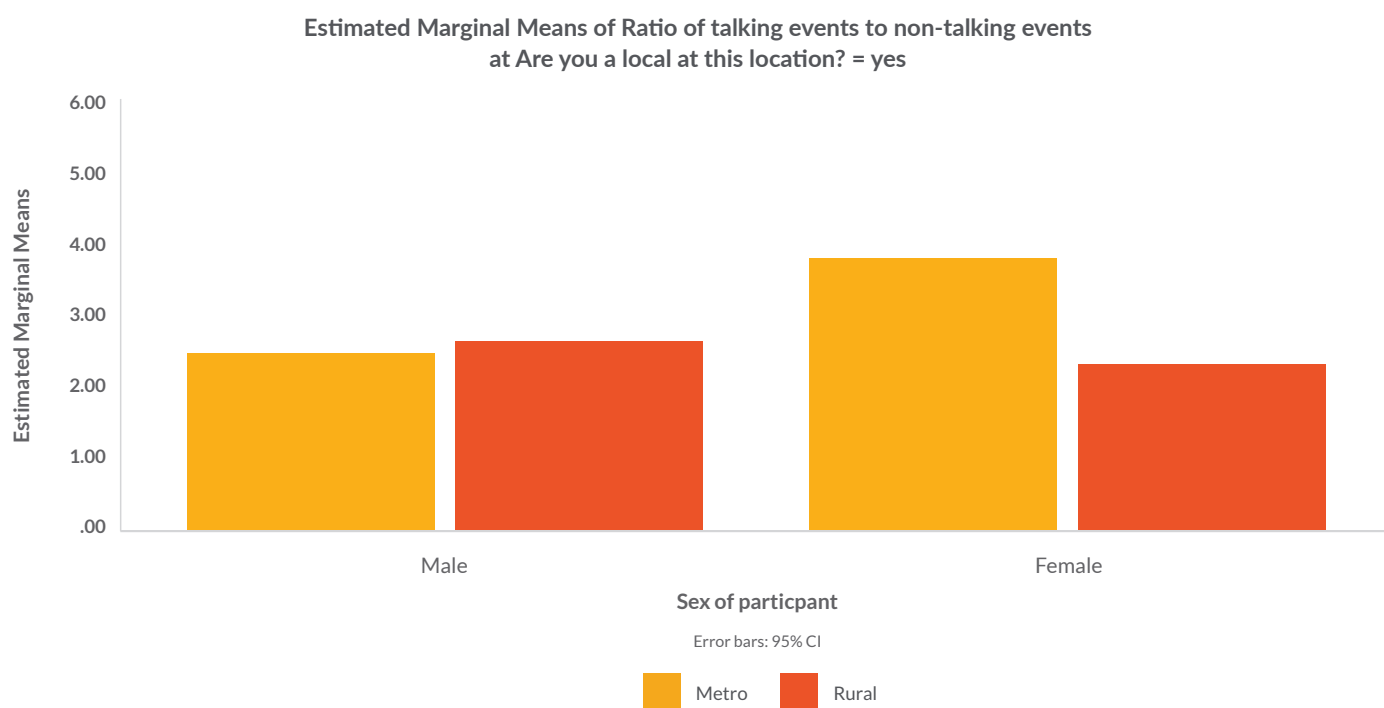
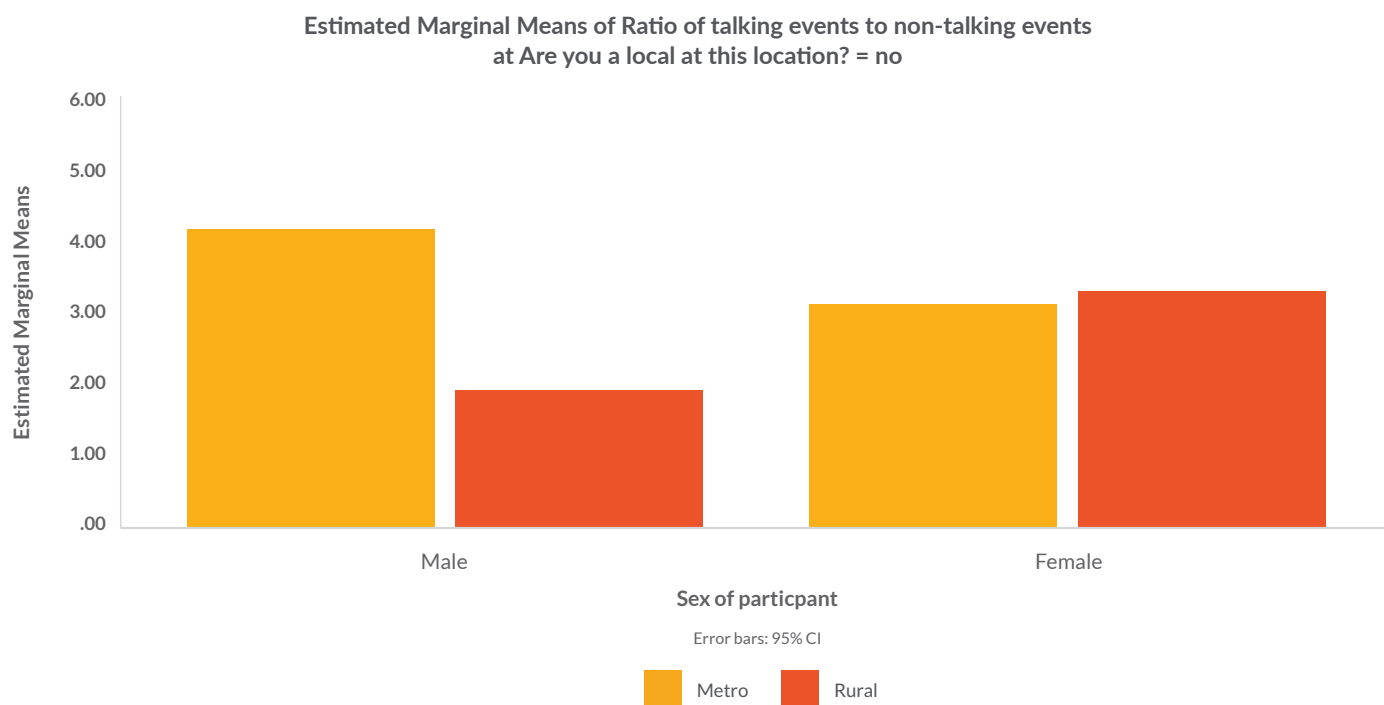


Table 1: Differences between those who have a local and those who do not in health, connectedness, and personality traits.

	Mean (SD)		<i>t</i>	<i>d</i>
	Local	No Local		
Health				
Satisfaction with life	3.29 (0.85)	3.17 (0.89)	2.23*	0.14
Pessimism	2.60 (0.65)	2.54 (0.69)	1.57	0.09
Resilience	3.16 (0.74)	3.19 (0.84)	-0.69	-0.04
General health	3.41 (0.74)	3.49 (0.84)	-1.74	-0.10
Alcohol consumption	4.79 (2.34)	3.37 (2.16)	10.21**	0.63
Connectedness				
N Facebook friends (<i>n</i> = 915)	356.15 (562.17)	254.56 (453.78)	2.76**	0.20
N people for support	7.77 (12.38)	5.62 (10.27)	3.05**	0.19
Self-community overlap	3.50 (1.65)	2.69 (1.51)	8.28**	0.51
Interpersonal trust	2.79 (0.37)	2.70 (0.38)	4.20**	0.24
Personality				
Extraversion	2.96 (0.80)	2.64 (0.84)	6.51**	0.39
Openness	3.41 (0.73)	3.47 (0.74)	-1.33	-0.08
Conscientiousness	3.54 (0.71)	3.61 (0.70)	-1.69	-0.10
Neuroticism	2.82 (0.74)	2.79 (0.83)	0.64	0.04
Agreeableness	3.69 (0.69)	3.70 (0.75)	-0.24	-0.01

Note. *d* is Cohen's *d* for effect size (<https://www.uccs.edu/lbecker/>)

* $p < .05$, ** $p < .01$

Table 2: Differences between men and women in health, connectedness, and personality traits

	Mean (SD)		<i>t</i>	<i>d</i>
	Men	Women		
Health				
Satisfaction with life	3.19 (0.88)	3.22 (0.86)	-0.77	-0.03
Pessimism	2.61 (0.67)	2.56 (0.66)	1.55	0.07
Resilience	3.24 (0.77)	3.06 (0.78)	3.99**	0.23
General health	3.50 (0.78)	3.39 (0.78)	2.45*	0.14
Alcohol consumption	4.59 (2.50)	3.61 (2.09)	6.89**	0.43
Connectedness				
N Facebook friends (<i>n</i> = 915)	265.97 (490.65)	324.53 (512.77)	-1.76	-0.12
N people for support	6.60 (12.65)	6.50 (9.56)	0.14	0.01
Self-community overlap	3.11 (1.67)	3.00 (1.59)	1.13	0.07
Interpersonal trust	2.73 (0.38)	2.73 (0.39)	0.28	<0.01
Personality				
Extraversion	2.73 (0.82)	2.76 (0.86)	-0.50	-0.04
Openness	3.39 (0.76)	3.45 (0.73)	-1.30	-0.08
Conscientiousness	3.57 (0.66)	3.57 (0.74)	0.10	<0.01
Neuroticism	2.70 (0.77)	2.94 (0.77)	-5.51**	-0.31
Agreeableness	3.54 (0.74)	3.82 (0.67)	-7.07**	-0.40

Note. *d* is Cohen's *d* for effect size (<https://www.uccs.edu/lbecker/>)

* $p < .05$, ** $p < .01$

Table 3: Differences between those who live in a regional of city location in health, connectedness, and personality traits

	Mean (SD)		<i>t</i>	<i>d</i>
	Regional	City		
Health				
Satisfaction with life	3.15 (0.89)	3.23 (0.86)	-1.50	-0.09
Pessimism	2.61 (0.69)	2.57 (0.65)	1.09	0.06
Resilience	3.17 (0.76)	3.14 (0.80)	0.73	0.04
General health	3.47 (0.80)	3.43 (0.77)	0.86	0.05
Alcohol consumption	4.22 (2.45)	4.07 (2.32)	0.97	0.06
Connectedness				
N Facebook friends (<i>n</i> = 915)	254.96 (441.13)	317.64 (528.82)	-1.75	-0.13
N people for support	6.17 (11.60)	6.73 (11.00)	-0.83	-0.05
Self-community overlap	2.95 (1.69)	3.11 (1.60)	-1.64	-0.10
Interpersonal trust	2.66 (0.39)	2.77 (0.37)	-4.49**	-0.29
Personality				
Extraversion	2.71 (0.84)	2.76 (0.84)	-0.92	-0.06
Openness	3.42 (0.77)	3.43 (0.73)	-0.20	-0.01
Conscientiousness	3.58 (0.71)	3.56 (0.70)	0.26	0.03
Neuroticism	2.78 (0.79)	2.83 (0.78)	-1.05	-0.06
Agreeableness	3.64 (0.76)	3.70 (0.70)	-1.45	-0.08

Note. *d* is Cohen's *d* for effect size (<https://www.uccs.edu/lbecker/>)

* $p < .05$, ** $p < .01$

Table 4: Differences between non-drinkers and drinkers in health, connectedness, and personality traits

	Mean (SD)		<i>t</i>	<i>d</i>
	Non-drinkers	Drinkers		
Health				
Satisfaction with life	3.06 (0.84)	3.23 (0.87)	-2.51*	-0.20
Pessimism	2.68 (0.64)	2.57 (0.67)	2.09*	0.17
Resilience	3.01 (0.72)	3.17 (0.79)	-2.47*	-0.21
General health	3.45 (0.74)	3.45 (0.79)	0.14	< 0.01
Connectedness				
N Facebook friends (<i>n</i> = 915)	203.62 (361.49)	311.25 (519.23)	-2.14*	-0.24
N people for support	5.32 (9.29)	6.75 (11.47)	-1.56	-0.14
Self-community overlap	2.71 (1.56)	3.11 (1.64)	-3.07**	-0.25
Interpersonal trust	2.63 (0.39)	2.75 (0.38)	-3.65**	-0.31
Personality				
Extraversion	2.36 (0.76)	2.81 (0.83)	-6.70**	-0.57
Openness	3.34 (0.81)	3.44 (0.73)	-1.58	-0.13
Conscientiousness	3.56 (0.68)	3.57 (0.71)	-0.15	-0.01
Neuroticism	2.87 (0.76)	2.81 (0.78)	0.88	0.08
Agreeableness	3.62 (0.74)	3.69 (0.72)	-1.24	-0.10

Note. *d* is Cohen's *d* for effect size (<https://www.uccs.edu/lbecker/>)

* $p < .05$, ** $p < .01$

Table 5: Differences between drinking patterns in health, connectedness, and personality traits

	Mean (SD)				F	ηp^2
	No drinking	Low	Medium	High		
Health						
Satisfaction with life	3.06 (0.84)	3.16 (0.85)	3.30 (0.82)	3.17 (0.98)	4.24**	.01
Pessimism	2.68 (0.64)	2.62 (0.67)	2.47 (0.61)	2.70 (0.75)	9.30**	.02
Resilience	3.01 (0.72)	3.16 (0.84)	3.23 (0.76)	3.08 (0.80)	4.23**	.01
General health	3.45 (0.74)	3.43 (0.79)	3.56 (0.75)	3.24 (0.83)	9.80**	.02
Connectedness						
N Facebook friends (n = 915)	203.62 (361.49)	281.67 (537.99)	287.87 (474.33)	388.59 (575.15)	3.64*	.01
N people for support	5.98 (11.05)	7.84 (16.44)	7.03 (9.36)	8.23 (12.33)	1.03	<.01
Self-community overlap	2.81 (1.61)	2.92 (1.66)	3.17 (1.60)	3.53 (1.71)	6.69**	.02
Interpersonal trust	2.63 (0.38)	2.73 (0.39)	2.78 (0.38)	2.78 (0.35)	5.73**	.02
Personality						
Extraversion	2.36 (0.76)	2.62 (0.82)	2.86 (0.80)	2.92 (0.89)	22.60**	.05
Openness	3.34 (0.81)	3.38 (0.72)	3.50 (0.72)	3.38 (0.77)	3.23*	.01
Conscientiousness	3.56 (0.68)	3.58 (0.69)	3.64 (0.68)	3.42 (0.75)	5.51**	.01
Neuroticism	2.87 (0.76)	2.81 (0.78)	2.76 (0.76)	2.91 (0.82)	2.31	.01
Agreeableness	3.62 (0.74)	3.70 (0.66)	3.75 (0.70)	3.56 (0.82)	4.52**	.01

* $p < .05$, ** $p < .01$

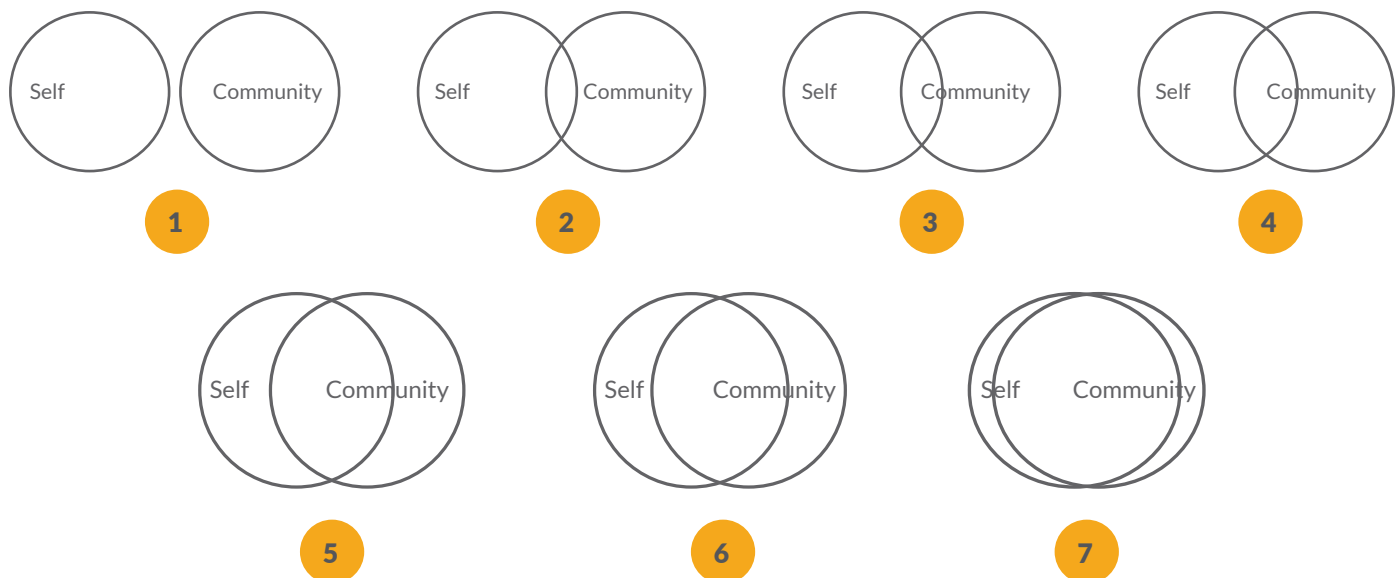
Table 6: Comparing consumption patterns by gender, region, whether participants have a “local”, and consumption rates

	Beer	Wine	Spirits	Cider	Other
Overall	35%	38%	7%	18%	1%
χ^2	568.23**				
Men	53% _a	27% _b	5% _c	14% _d	1%
Women	16% _a	49% _b	10% _c	23% _d	2%
χ^2	155.24**				
Φ	.38				
Regional	37%	34% _a	5%	22% _b	2%
City	35%	40% _a	8%	16% _b	1%
χ^2	10.25*				
Φ	.10				
Local	45% _a	33% _b	7%	14% _c	1%
No Local	25% _a	43% _b	7%	23% _c	2%
χ^2	49.59**				
Φ	.22				
Low	28% _a	40% _b	11% _c	19%	3%
Medium	36%	40% _b	7%	17%	1%
High	44% _a	32% _b	4% _c	20%	0%
χ^2	32.50**				
Φ	.18				

Note. Comparisons between subscripts within the comparisons differ ($p < .05$).

* $p < .05$, ** $p < .01$

Appendix A: Adapted version of Aaron, Aron, Smollan, (1992) to capture connectedness between the self and one's community.



ABSTRACT

A 2016 study, conducted in the United Kingdom, examined the social and psychological benefits of drinking in a local pub. The present study sought to expand on that research with increased scope and the use of measures for personality traits, psychological wellbeing and social connectedness. Data was collected by an online questionnaire of 1,232 people and an observational study of 162 people in conversations at licensed venues. We found that having a local was associated with more satisfaction with life, more social connectedness, more interpersonal trust, a greater sense of community integration, and extraversion. Men drinking at their local were more likely to engage in intimate conversations than other men and women. Those who lived in rural areas, who were light/moderate drinkers, and who had a local had greater general psychological health and less anxiety than those without a local. We also found that moderate rates of drinking were linked to

higher rates of life satisfaction and less pessimism; non-drinkers scored less on some psychological measures (e.g., resilience) and were less socially connected than those who consumed alcohol; among men moderate drinking was associated with more life satisfaction than heavy drinkers; women scored higher than men and moderate drinkers for pessimism; men who were heavy drinkers were the ones who suffered from the worst general psychological health, and moderate drinking was associated with more general psychological health than light drinking; women who were light drinkers had lower levels of interpersonal trust than both moderate and high drinkers with no effect in men; drinking in women was associated with more extraversion; and that women who lived in a metro area and drank moderately scored higher for conscientiousness than geographically similar women who were heavy drinkers.

NOTES



Handwriting practice lines consisting of 20 horizontal grey lines on a white background.

