Responding to change in a growing Melbourne: Community acceptance, wellbeing, and resilience

Rod McCrea[a*], Greg Foliente[b], Rosemary Leonard[c, d] and Andrea Walton[a]

[a] Adaptive Social and Economic Systems, CSIRO Land and Water, PO Box 2583, Brisbane, QLD, 4001 Australia

[b] Liveable, Sustainable and Resilient Cities, CSIRO Land and Water,

[c] Adaptive Social and Economic Systems, CSIRO Land and Water, Private Bag 5, Wembley, WA, 6913, Australia

[d] School of Social Sciences & Psychology, Western Sydney University, Locked Bag 1797, Penrith NSW 2751

Email addresses: rod.mccrea@csiro.au, greg.foliente@csiro.au, rosemary.leonard@csiro.au, andrea.walton@csiro.au

*Corresponding author: Rod McCrea

Abstract: In the context of urban population growth, urban consolidation and intensification is a common policy response and challenge across all capital cities in Australia. The urban residents' views and perceived impacts of different types of intensification will critically shape the nature of what will be accepted and eventually implemented in local suburbs. However, little is known about general attitudes toward urban growth across metropolitan regions. This paper reports on data from a recent Survey of Community Wellbeing and Responding to Change conducted in six Local Government Areas (LGAs) in inner, middle, outer, and urban fringe areas of Melbourne. It examines levels of community acceptance of urban growth in these LGAs, including some alternative explanations which help explain some of the variation in community acceptance of developments related to urban growth. Most important for predicting community acceptance of urban growth were perceptions of a community's resilience (adaptation) and the associated processes around planning and navigating urban change; and whether changes to suburbs were perceived as varied, mixed and interesting. These alternative explanations provide a point of focus for stakeholders aiming to implement policies around urban consolidation and intensification while maintaining or enhancing community wellbeing. Potential implications of results to policy and further research are identified.

Introduction

The projected population growth in Australian capital cities – and how to accommodate and service it – is one of the nation's biggest challenges. In Melbourne, urban and infrastructure planning implications of having 7 to 8 million people by 2050 have received much attention. The *Plan Melbourne* report (State Government of Victoria, 2014) states its guiding principles as: protecting the suburbs; developing in defined areas near services and infrastructure; creating a clearer and simpler planning system with improved decision making; rebalancing growth between Melbourne and regional Victoria; and identifying an investment and infrastructure pipeline. However, some of the underlying policy priorities in *Plan Melbourne* have been challenged and it is now under review. Recently, as one of the Rockefeller Foundation's "100 Resilient Cities", Melbourne is reviewing its current and future stresses and its ability to manage them (City of Melbourne 2015). However, regardless of the final strategy, there needs to be a level of community acceptance to proposed developments associated with urban growth and/or intensification.

Planning in metropolitan cities is a contested space. At the local level, there are various "Save the Suburbs" and similar movements contesting urban development, and local media provide prominent coverage of planning and development issues. Areas of concern are usually the effects of development on community wellbeing, property values, or the environment (Schively (2007). Those outside an affected suburb might politicize the resistance as NIMBYism (or not in my backyard) (Carey, 2012; Deer, 2007; Lake, 1993). However, there have been calls for more nuanced understandings of community acceptance or rejection of local development proposals (Devine-Wright & Howes, 2010; Lake, 1993; Wolsink, 2000, 2006). First, reasons for accepting or rejecting such developments may be subtle and not necessarily selfish reasons often attributed to NIMBYism. In fact, reasons given by residents often relate to public good sentiments (Wolsink, 2000). Second, there is variation in community acceptance of urban growth. In a recent survey of Sydney residents, Ruming (2014) found mixed support for higher housing densities and limited resident understanding of metropolitan planning principles and processes. Such variation needs to be explained.

Actual reasons for people's acceptance (or not) of urban growth and intensification are not well understood. Specific areas of concern and opportunities are unclear. What can be done to address these issues, while at the same time addressing population growth, is also unclear. This paper aims to gain insights into residents' attitudes and feelings towards urban growth, development and infrastructure in six diverse Local Government Areas (LGAs) in the Greater Melbourne area. More specifically, it aims to explain some of the variation in community acceptance of urban growth by relating it to impacts on community wellbeing and how well their community is responding to potential changes associated with urban growth. It also examines the influence of urban form and structure on acceptance.

Relating community acceptance, wellbeing and resilience

Community acceptance of urban growth can be understood using theories of community wellbeing and resilience. Community wellbeing and resilience are terms often conflated in the literature; however McCrea, Walton, and Leonard (2014) suggest value in distinguishing each. In their model, community wellbeing is viewed as a *state* of satisfaction with various aspects of community life. In contrast, community resilience is viewed as *processes* which mobilize resources in response to change. Both wellbeing and resilience issues have emerged as significant in a review of public attitudes around urban planning issues (Schively, 2007). The review identified three main areas in which residents' perceptions play a role in community acceptance of proposed developments. The first area was the presence, nature and distribution of potential impacts which would affect the state of the community and therefore be reflected in measures of community wellbeing. The second was perceptions of trust in government, particularly where a development involves risk, which would reflect community resilience because trust is a reflection of good processes in past performances. The third area was perceptions of fair process in the siting and features of particular developments which again would be reflected in community resilience as it relates to processes.

Community acceptance, wellbeing, and changes to urban form and structure. Community wellbeing typically includes social, physical, environmental, economical, and political aspects of community life, and changes to urban form and structure can potentially affect these elements. We draw from both Optimal Centrality Theory and a framework for Density, Mix and Access (DMA) because of their potential to link changes in urban form to community wellbeing, resilience and acceptance of urban growth. This approach moves study of residents' acceptance of urban change beyond simple NIMBYism to more nuanced explanations of acceptance. Optimal Centrality Theory (Archibugi, 2001; Burnell & Galster, 1992; Cicerchia, 1999) relates urban centre size or population with access to services and facilities, and overloading of urban structure. The theory postulates that there is an optimum urban size or 'urban scale' which maximises trade-offs between the benefits of 'city effect' and costs of 'urban load'. City effect relates to accessing opportunities, services and facilities (e.g., employment opportunities, health services, entertainment facilities, and shopping

opportunities), while urban load relates to negative consequences of urban growth (e.g. congestion, overcrowding, cost of housing, and environmental degradation). This can also translate into general hypotheses about the community acceptance of urban growth in different types of suburbs. For example, further urban consolidation in the city centre may have lower acceptance because of existing urban overload while urban consolidation in less developed outer suburbs may have more acceptance because of low urban load and a desire for more amenities or city effect.

The continuous evolution of our cities, regardless of the underlying drivers of change, is most noticeably observed in changes to its urban form and structure. Many have investigated the range of measures and indicators of urban form (Berghauser Pont & Haupt, 2009; Bourdic, Salat, & Nowacki, 2012; Cervero & Kockelman, 1997; Jenks & Jones, 2010), but one that provides a simple but harmonising framework across geographic scales is the DMA concept proposed by Dovey and Woodcock (2014). A city, at any scale (from the neighbourhood to the metropolis), is viewed as an assembled intersection of Density, Mix and Access. Density reflects how much activity, population and built form can be concentrated into a given area. Mix not only involves the diversity of land uses, built form and services/amenities, and socio-demographic characteristics, but also the functional interplay, say between home, work and leisure, and also between production, exchange and consumption. Access reflects the ways and means by which the residents get around (car, bus, train, tram, cycling or walking) for different purposes, and how the speed and intensities of flow are enabled (or not). Thus, the DMA framework provides a simple but clear delineation of what specific changes in the urban environment a resident may find acceptable or not.

Community acceptance and resilience. In an urban context, community resilience may involve responding to issues around urban growth and intensification; for example, increasing traffic, commuting times, social inequality, and housing affordability (Kelly & Donegan 2015). The 100 Resilient Cities Program define urban resilience as "the capacity of individuals, communities, institutions, businesses, and systems within a city to survive, adapt and grow no matter what kinds of *chronic stressors* and acute shocks they may experience" (emphasis added) [1]. This definition extends the common view of resilience as an ability to 'bounce back' after a shock event such as a natural disaster (e.g., Carpenter et al., 2012; Cutter et al., 2008; Norris, Stevens, Pfefferbaum, Wyche, & Pfefferbaum, 2008), and aligns with the notions of responding to chronic stressors, whereby communities adapt and even transform to enhance future community wellbeing (Norris et al., 2008; Robinson & Berkes, 2011). Many chronic stressors associated with community wellbeing are related to rapid urban growth – and more explicitly to changes in density, mix and access – in metropolises like Greater Melbourne. Thus, an ability to respond to these changes should also be associated with community acceptance of urban growth.

Aims of the present study

Because relatively little research focuses on measuring community acceptance of urban growth more generally (e.g., Ruming, 2014), nor on explaining variations in community acceptance, this study aims to explain community acceptance of urban growth within the context of community wellbeing, resilience, and perceived changes in urban form and structure. We generate a number of related hypotheses. First we test optimal centrality theory in a broad way by testing whether residents in inner suburbs in Greater Melbourne are less accepting of urban growth than those in outer metropolitan suburbs (H1). Then we test the DMA framework assessing changes relating to density, mix, and access and their contribution to acceptance (H2). We also test the contribution of three aspects of wellbeing (personal safety, traffic and pollution, access to services and facilities) (H3); and community resilience on acceptance (H4). Specifically, these hypotheses are:

H1 Residents in inner metropolitan suburbs in the cities of Melbourne, Yarra and Boroondara will be less accepting of urban growth than residents in outer metropolitan suburbs in the cities of Greater Dandenong, Frankston, and Whittlesea (see Figure 1).

H2 Residents will be less accepting of urban growth which increases density in their suburb (H2a). Residents will be more accepting if urban growth promotes a more mixed, varied and interesting suburb (H2b). Residents will be less accepting of urban growth if it makes it harder to get around in their suburb (H2c)

H3 . Those with low satisfaction with services and facilities would be more accepting of urban growth (H3a), and those dissatisfied with congestion and pollution (H3b) and personal safety will be less accepting of urban growth (H3c).

[1] see http://www.100resilientcities.org

H4. Those perceiving their community as demonstrating resilience by responding well to urban growth will be more accepting of urban growth.

Method

Sample and survey

Survey data were collected from residents aged 18 and over in Greater Melbourne, which consists of 31 city councils or local government areas (LGAs). Six LGAs were selected to reflect different urban forms (i.e., DMA features) and levels of urban growth in Greater Melbourne: Melbourne (including the CBD for Greater Melbourne), Yarra, Boroondara, Whittlesea, Greater Dandenong and Frankston LGAs. Figure 1 and Table 1 show the location, size and relevant descriptive statistics of these six LGAs.

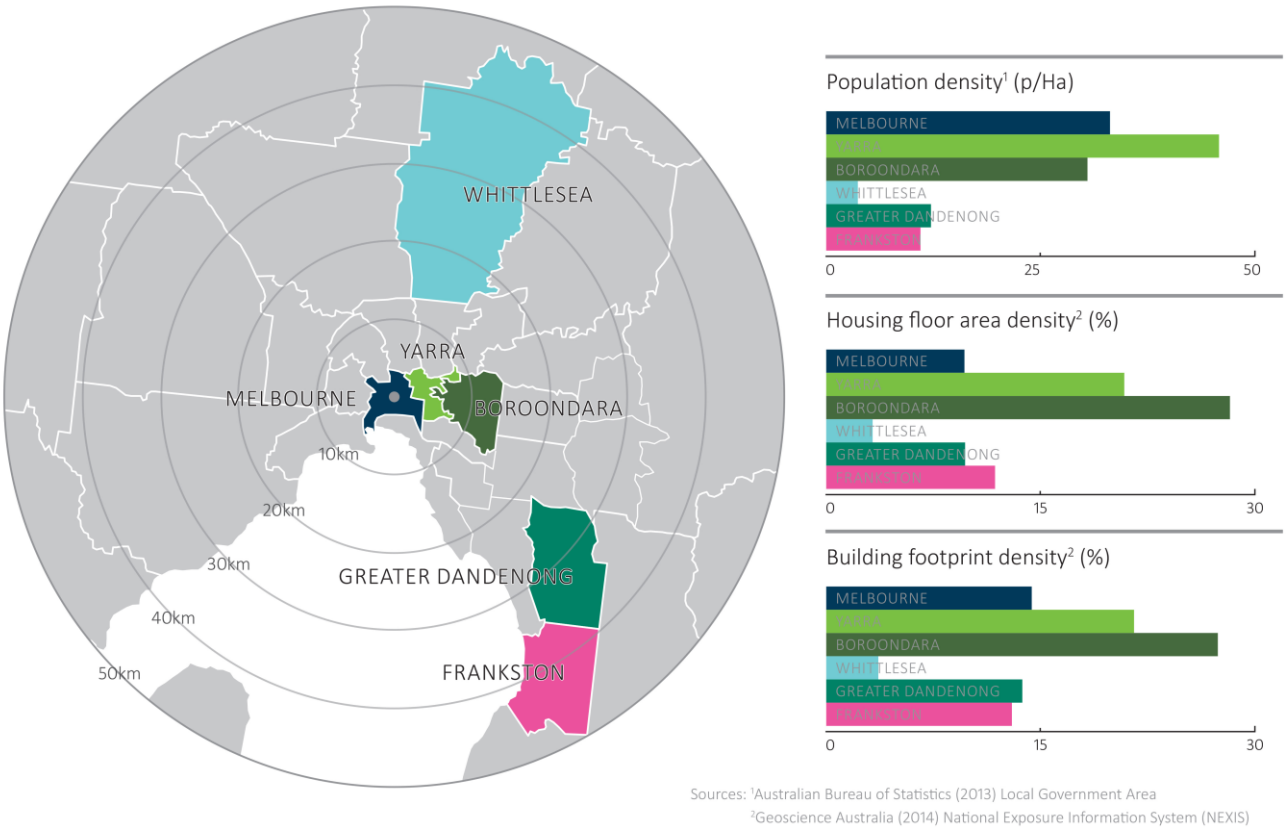

Figure 1. Greater Melbourne survey areas and densities

Table 1. Descriptive statistics for the six Local Government Areas surveyed

LGA	Area (Ha)	Population[1]		Residential building approvals[2], 2014-15	Other comments
		Residents in 2011	Projected change to 2031		
Melbourne	3,767	100,241	118%	9,025	City centre
Yarra	1,956	78,903	46%	1,416	Inner suburban
Boroondara	6,019	167,062	17%	1,859	Middle suburban
Whittlesea	48,972	160,800	99%	3,573	Urban fringe (with new developments)
Greater Dandenong	12,947	142,167	33%	1,360	Outer suburban (established)
Frankston	12,950	130,350	18%	486	Satellite city (established)

Sources: [1]http://www.dtpli.vic.gov.au/data-and-research/population/census-2011/victoria-in-future-2014/
[2]Australian Bureau of Statistics

For simplicity, we broadly refer to the first three as 'inner metropolitan suburbs' and the second three as 'outer metropolitan suburbs', noting that the Melbourne LGA is only one city within Greater Melbourne (see Figure 1). The population densities are higher in inner metropolitan suburbs than outer metropolitan suburbs, particularly Whittlesea which is a less established and more rapidly growing LGA on the urban fringe (see Table 1). Similarly, housing density (based on total residential floor area) and building footprint density (based on the sum of all building footprints – residential, commercial and industrial – for each LGA) are lower in Whittlesea than in the outer metropolitan suburbs of the two more established LGAs of Greater Dandenong and Frankston. The housing density is also 'low' in Melbourne LGA due to substantial commercial land use compared to housing land use and more people being accommodated in smaller residential areas; that is, much of that housing is in medium and high rise developments. Melbourne LGA is also the fastest growing LGA in terms of population projections and residential building approvals, followed by Whittlesea (Table 1).

Residents were selected randomly from these six LGAs and surveyed using computer assisted telephone interviewing (including landline and mobile numbers) or via an on-line survey. The survey asked questions about perceptions of different aspects of community wellbeing, community resilience, and attitudes towards urban growth in their suburb. It took approximately 30 minutes to complete and it was conducted in June and July 2015.

One thousand and seventy-two residents completed the survey (409 over the phone and 663 via on-line). The sample over represented females (56.5%) and older residents (48.4% aged 55+), so the sample was weighted by age and sex to be representative of Greater Melbourne as at the 2011 population census (see Table 2). The weighted sample was 51.5% female and 31.0% aged 55+. Those working (versus not working) were 58.0% in the sample versus 64.8% in the weighted sample, and those with a bachelor degree or higher were 46.7% in the sample versus 48.4% in the weighted sample. The weighted sample was broadly representative of Greater Melbourne according to the 2011 population census (Australian Bureau of Statistics, 2011) (see the last column in Table 2), and all analyses were done using the weighted sample.

Table 2. Sample profile

	Sample %	Weighted sample %	2011 census %
Gender (female)	56.5	51.5	51.5%
Age (years)			
18-35	22.0	35.8	35.8
36-54	29.6	33.2	33.2
55+	48.4	31.0	31.0
Working (yes)	58.0	64.8	62.2
Education (degree or higher)	46.7	48.4	51.3

Measures

The measures used in this study included a measure of community acceptance of urban growth, perceived urban change, three dimensions of community wellbeing, and community resilience. The measures for perceived changes from urban change were single item measures reflecting different aspects of change. The other measures were multi-item measures, being simple means of the associated items. A measure had a missing value if a resident did not respond to any of the associated items. The number of missing values was relatively low for each measure, as shown by the total observations for each measure in Table 5, along with their means, standard deviations and correlations. All items were scored on 5-point scales and are described in Table 3 below.

Table 3. Description of measures

Variable	No of items	scale	Reliability [1]	Examples for scale items
Community acceptance	7	Agreement scale (1 = strongly disagree to 5 = strongly agree)	0.89	Pleased, optimistic, excited, sad, worried, and angry about urban growth in your local area
Perceived urban change				
Suburb denser	1	Agreement scale	n.a.	My suburb is becoming denser
suburb more varied	1	Agreement scale	n.a.	... becoming more varied, mixed and interesting
suburb more congested	1	Agreement scale	n.a.	... becoming harder to get around
Community wellbeing				
Services and facilities	11	Satisfaction scale (1 = very dissatisfied to 5 = very satisfied)	0.88	Schools, child care, sports and leisure facilities, cultural facilities, shopping for food and everyday items, other shopping. medical and health services
Traffic and pollution	4	Satisfaction scale	0.85	Amount of traffic, quality of the air, level of noise, overall quality of the general environment
Personal safety	4	Agreement scale	0.84	It is safe to walk alone outside at night; to leave the car on the side of the road at night; I feel safe living in this suburb
Community resilience	12	Agreement scale	0.95	Good planning, access to information, adequate resources, leadership, and whether local residents, government, business and private development companies can work together

Notes: [1] Reliability = Cronbach's alpha ; n.a. = not applicable to single item measures.

Analysis

1. Analysis of variance was used to test differences among the LGAs on measures of community acceptance, perceptions of change, community wellbeing dimensions (services and facilities, traffic and pollution, and personal safety), and community resilience.
2. Descriptive statistics and bivariate correlations are presented for community acceptance, perceptions of change, community wellbeing dimensions (services and facilities, traffic and pollution, and personal safety), and community resilience
3. Hierarchical multiple regression was used to predict community acceptance. In the first step of the hierarchical multiple regression, we predicted community acceptance from the six LGAs or cities as a broad test of Optimal Centrality Theory, given that the inner metropolitan LGA are denser than the outer metropolitan LGAs. Then in the second step, we added variables about perceived changes in urban structure (DMA), community wellbeing dimensions, and community resilience, all of which relate to residents perceptions of their particular suburbs, to see if this additional information can predict community acceptance over and above that predicted by the LGAs.

Results

Differences between Local Government Areas

According to optimal centrality theory, there should be more urban amenity and overload in inner metropolitan areas than outer metropolitan areas, which prompts greater community acceptance of urban growth in the outer areas. Table 4 shows differences between the six LGAs on measures of community acceptance, perceptions of change, community wellbeing dimensions and community resilience. The results show that outer LGAs in Greater Dandenong and Frankston significantly lower ratings for perceptions of urban densification and significantly more community acceptance of urban growth than the inner LGAs of Melbourne, Yarra and Boroondara; although Whittlesea was not significantly different to Melbourne or Yarra LGAs.

Table 4. Differences between Local Government Areas (means)

	Inner metropolitan LGA			Outer metropolitan LGA		
	Melbourne	Yarra	Boroondara	Greater Dandenong	Whittlesea	Frankston
Community acceptance*	3.04	3.07	2.87	3.29	3.06	3.24
Suburb denser*	4.08	4.21	4.17	3.67	3.98	3.69
Suburb more varied	3.50	3.42	3.41	3.49	3.52	3.42
Suburb more congested*	3.09	3.28	3.27	2.86	3.32	2.64
Services and facilities*	3.73	3.85	4.05	3.67	3.60	3.75
Traffic and pollution*	3.28	3.13	3.70	3.32	3.36	3.77
Personal safety*	3.97	3.90	4.21	3.24	3.61	3.61
Community resilience	3.15	3.06	3.09	3.06	3.07	3.12
(number of respondents)	(215)	(134)	(204)	(148)	(178)	(193)

Notes: * p-value <.05 indicating significant differences exist across LGAs; Each Local Government Area is a city within Greater Melbourne

In terms of urban overload, however, satisfaction with traffic and pollution did not show any geographic patterns between inner and outer LGAs, while unexpectedly personal safety was significantly higher in the inner metropolitan suburbs. For amenity the results show that satisfaction with services and facilities was only marginally lower in the outer metropolitan LGAs. Also perceptions that suburbs were becoming more varied, mixed and interesting with urban growth did not significantly vary between the inner and outer metropolitan LGAs. Thus, these findings provided only limited support for Optimal Centrality Theory around the notion of density but not for overload and amenity. Certainly a more nuanced test of Optimal Centrality Theory is needed than a division between inner and outer LGAs but other explanations of community acceptance of urban growth also need to be examined.

Predicting community acceptance of urban growth

In this sub-section we predict community acceptance of urban growth controlling for the six LGAs at the first step. First we examine relationships between the measures of community acceptance, change, wellbeing, and resilience (see Table 5). The mean for community acceptance is marginally above the neutral value of 3.0. However, there is significant variation in community acceptance to be explained (Std. Dev. = 0.83). This speaks against the NIMBY proposition that residents are generally not accepting of urban growth in their local area.

Table 5. Means, standard deviations and correlations for measures of community acceptance, wellbeing and resilience

		N	Mean	Std. Dev.	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	Community acceptance	1072	3.08	0.83							
(2)	Suburb denser	1041	3.98	1.00	-0.17						
(3)	Suburb more varied	1041	3.46	0.96	0.34	0.27					
(4)	Suburb more congested	1053	3.08	1.20	-0.24	0.34	0.11				
(5)	Services and facilities	1069	3.78	0.70	0.10	0.15	0.20	-0.08			
(6)	Traffic and pollution	1068	3.43	0.85	0.28	-0.06	0.19	-0.21	0.39		
(7)	Personal safety	1067	3.79	0.86	0.11	0.03	0.05	-0.06	0.34	0.41	
(8)	Community resilience	1030	3.10	0.82	0.48	-0.03	0.41	-0.04	0.36	0.39	0.16

Sample N = 1072; weighted sample used

Table 5 shows that the variables with the strongest relationship to community acceptance of urban growth were community resilience and perceptions of their suburb becoming more mixed and varied. Satisfaction with the levels of traffic and pollution and (a lack of) increased congestion were also moderate predictors. Other relationships of interest were the moderate correlations among the three wellbeing

measures. In respect to the Density, Mix and Access approach, Table 4 shows that the variables for Mix (suburb more varied) and Access (suburb more congested) were moderately correlated with Density. Further, perceptions of community resilience were well correlated with a range of other measures.

In the first step of the hierarchical multiple regression, the LGAs were entered as predictors of community acceptance to identify the amount of variance they accounted for. LGAs only explained 4.8% of the variance in community acceptance (see **Table 6**). Thus, there was only limited support for H1.

Table 6. Hierarchical multiple regression predicting community acceptance

	Step 1		Step 2	
	Beta	p-value	Beta	p-value
H1 - LGAs cf. Melbourne				
Yarra	-0.03	0.44	0.03	0.41
Boroondara	-0.11	0.02	-0.06	0.14
Greater Dandenong	0.11	<.01	0.06	0.07
Whittlesea	0.04	0.28	0.03	0.31
Frankston	0.13	<.01	0.07	0.06
H2 - Perceived changes				
Suburb denser			-0.16	<.01
Suburb more varied			0.26	<.01
Suburb more congested			-0.12	<.01
H3 - Community wellbeing				
Services and facilities			-0.09	<.01
Traffic and pollution			0.09	0.02
Personal safety			0.03	0.32
H4 - Community resilience			0.37	<.01
Overall R squared (%)	4.8		38.7	

N = 996; weighted sample used

In Step 2, perceived changes in urban structure, satisfaction with dimensions of community wellbeing, and community resilience were added to see whether these perceptions could explain more variation in community acceptance of urban growth. The hypotheses for (H2) were all confirmed. Residents that perceived their suburb was becoming denser (H2a) and more congested (H2c) were less accepting of urban growth. However, those who perceived that their suburb was becoming more varied, mixed and interesting were more accepting of urban growth, confirming (H2b). Interestingly, this last Beta coefficient (0.26) was higher than those for density (-0.16) and congestion (-0.12), which suggests that residents will be more accepting of urban consolidation and intensification if done well.

Hypotheses relating to community wellbeing were only partly supported. Only satisfaction with existing services and facilities and satisfaction with traffic and pollution were significant predictors of community acceptance. As expected, lower satisfaction with current services and facilities was significantly associated with more acceptance of urban growth (H3a), and those more satisfied with the traffic and pollution were willing to accept more urban growth (H3b). However, personal safety was not a significant predictor of community acceptance (H3c).

Perceptions of *community resilience* were a very strong predictor of community acceptance of urban growth even when the other variables were taken into account. As expected, higher perceived resilience was associated with higher community acceptance.

Overall, LGA in Step 1 only explained 4.8% of variation in community acceptance. By adding in perceived changes in DMA, community wellbeing dimensions, and community resilience, the model explained 38.7% of variation in community acceptance, or an additional 33.9%. The most important of the variables in

Step 2 were community resilience and perceptions of their suburb as becoming more varied, both being associated with higher community acceptance of urban growth independently of the other factors.

Discussion

Overall the results showed limited support for Optimal Centrality Theory but stronger support for the Density-Mix-Access approach and community resilience to explain acceptance. In terms of Optimal Centrality Theory, perceptions of densification, overload, and amenity were examined, but centrality was only examined in terms of inner versus outer LGAs. Thus the limited support is likely to reflect the gross nature of the measure and more nuanced measures are needed. The two most important factors contributing to community acceptance of urban growth were: 1) perceptions of their suburb becoming more varied, mixed and interesting; and 2) community resilience or resident perceptions about how well their community was responding to urban growth. These are discussed in more detail below.

Suburb mix. More mixed suburbs, in DMA terms, means a holistic mix of land uses, housing, built forms, services and amenities, employment, social demographics, as well as the functional and behavioural interplay between them. Perceptions of increasing mix were moderately correlated with more density (r = 0.27) though not highly correlated with congestion (r = 0.11). This suggests that increasing suburb mix can be achieved without necessarily increasing congestion and decreasing access, which is reminiscent of new urbanism and transit oriented design (TOD) principles that facilitate social interaction, walking, cycling, and accessibility over car travel (Cervero & Kockelman, 1997; Elsawahli, Ahmad, & Ali, 2014).

While both new urbanism and TOD principles are designed to promote less car dependence, both may not be equally good at promoting a more mixed and varied suburb. TOD developments are specifically designed to increase density, land use, housing and social mix around major public transport nodes (McCrea & Walters, 2012). While this can be consistent with new urbanism, which draws on planning principles from early 20th century before car dependency (Al-Hindi & Till, 2001), new urbanism or 'neo-traditionalism' has been criticised for producing a lack of diversity in physical form and social mix (Keyes, 2015; MacLeod, 2013). In fact, the communitarian ideals embedded in new urbanism can deliver quite homogenous urban forms delivering white Anglo values. The most famous example of this is Seaside, Florida which was designed on new urbanism principles and used as the movie set for The Truman Show[2].

However, the nostalgic underpinning of new urbanism should not be dismissed uncritically because it lies as the heart of belonging and place attachment (Jarvis & Bonnett, 2013). In a similar way, multiculturalism is at the heart of Greater Melbourne as a metropolis with a strong immigrant history. Thus, efforts to make suburbs more varied, mixed and interesting need to draw on this regional identity, which values diversity, and acknowledge "attachments to the past in refiguring new forms of urban co-existence" (Jarvis & Bonnett, 2013, p. 2349). Essentially, whether we use TOD, new urbanism, or other design principles in reconfiguring urban DMA, we need to build on existing mix and diversity. Too often, mix and diversity can be designed out of new developments by creating 'non-places' that could be anywhere in the world (Augé, 2008) and which can exclude low income residents by fostering gentrification (Day, 2003; Smith, 2002). Residents may not be against development per se but against what they see as inappropriate development.

Community resilience. Community resilience emerged as the most important predictor of community acceptance of urban growth suggesting that the processes surrounding urban growth are more important than the degree of growth. The items in the resilience scale, which included good planning, adequate leadership, access to information, community groups working together, and whether local residents, government, business and private development companies can work together are key factors for community acceptance of urban growth. However, on average residents only slightly agreed that their local communities were doing these well, so the question is how to adopt better processes, which build community resilience and hopefully lead to more acceptable forms of urban growth.

The community resilience measure included items relating to local efforts as well as items about planning and working with government and developers. In an urban context, community resilience may need engagement with institutions, such as planning authorities and processes involving multiple layers of governance at local, metropolitan and state levels, rather than relying solely on localized notions of community resilience (Walters, 2015). In this context, fair decision making processes and trust may engender community resilience, better community outcomes, and acceptance of urban intensification. However, this requires genuine community engagement by authorities and while there has been a shift in that direction, the potential of communities to influence outcomes can be limited (Head, 2007), and this may then undermine community acceptance of urban growth.

[2] see http://gizmodo.com/why-is-new-urbanism-so-gosh-darn-creepy-1564337026

Interestingly, community resilience was not high in the Bonoondara LGA, and the suburb of Camberwell had an active and successful campaign against transit oriented development around their local train station (Carey, 2012). Clearly the need for civil action suggests a breakdown in those aspects of resilience which require cooperation beyond the community such as accessing information, knowing key decision-makers, government and developers working with the community. Resistance seems different to resilience. Thus the types of community responses might vary depending on the external circumstances and the direction a community wishes to go, either resisting change or adapting to it.

Conclusions and Future Directions

The power of community resilience as a predictor of community acceptance of urban growth suggests that it is not so much the degree of growth that is important as the processes surrounding it, that is, the planning and engagement – the sense that this is our place and we are growing it together. The potential benefits of improved mix or diversity of place also contribute to community acceptance of urban intensification.

In the six Greater Melbourne LGAs studied, there is only limited support for Optimal Centrality Theory, but centrality was only examined in terms of inner versus outer LGAs. There is stronger support for the Density-Mix-Access concept. Residents that perceived their suburb as becoming denser and more congested were less accepting of urban growth and intensification. However, those who perceived that their suburb was becoming more varied, mixed and interesting were more accepting of urban growth. Further examination of the objective measures of a broad range of DMA indicators (e.g., see Bourdic et al., 2012), especially in and around the residential neighbourhood of the survey respondents, and relating them to the respondents' subjective perceptions can potentially allow a more rigorous test of the Optimal Centrality Theory and provide an enhanced understanding of the objective and specific factors that lead to community acceptance (or not).

Further research is needed to examine more closely the specific factors associated with urban development or redevelopment processes that contribute to improved community resilience. The study also needs to be extended to other Greater Melbourne LGAs, and other capital cities, to enhance the knowledge base needed to meet Australia's challenge of meeting the needs of a growing urban population while enhancing community wellbeing and resilience.

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