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Satisfied residents in different types of local areas: Measuring what's most important.

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1. Introduction

Satisfaction with our residential environment contributes to Quality of life (QOL) (Campbell, Converse, Rodgers, & Marans, 1976; Marans & Rodgers, 1975; McCrea, Stimson, & Western, 2005; Sirgy & Cornwell, 2002), along with satisfaction in other life domains (e.g., employment, health, relationships, friends, and income). Not surprisingly then, an important objective in urban planning is enhancing urban QOL, as is the case with the region examined in this study: South East Queensland (SEQ), Australia (Office of Urban Management, 2005),.

Urban QOL can be measured both objectively and subjectively. Subjective measures are important because urban QOL is ultimately a subjective phenomenon according to bottom-up models (e.g., Marans, 2003; McCrea, Shyy, & Stimson, 2006; Sirgy & Cornwell, 2001). Subjective urban QOL researchers most commonly measure subjective satisfaction with different urban attributes, and while this is important, it is not sufficient to know that residents are satisfied with different attributes.

Residents also have subjective preferences, choosing to live in different local areas for different reasons. For example, the migration of households to inner areas of metropolitan regions has been tied to residential preferences for higher end consumption opportunities (e.g., Lees, 2000; Ley, 1996). Conversely, other households may migrate to outer suburban and urban fringes for reasons relating to nature, space, schools, housing and stress reduction (e.g., Smith & Phillips, 2001; Sullivan, 1994; van den Berg, Hartig, & Staats, 2007; Vogt & Marans, 2004). Clearly, different residential attributes are important to residents in choosing where they live, and local planning authorities can benefit from knowing what is subjectively important to local residents in efforts to enhance their local subjective urban QOL.

1.1.1. Some limitations with satisfaction measures

Previous research shows that while satisfaction with urban QOL varies between residents, the differences are often small (Marans & Rodgers, 1975; McCrea, et al., 2005; Mitrany, 2005;

Stimson, McCrea, & Western, 2011). Most residents are satisfied because they choose areas satisfying them on attributes important to them, within the constraints they face (McCrea, 2007). Further, residents may employ psychological adjustment strategies to become satisfied with where they live (Amerigo & Aragones, 1997). As such, satisfaction measures show limited variation between local areas.

This also means satisfaction measures show little spatial patterning in contrast to objective residential attributes which show clear spatial patterning (McCrea, 2007). Consequently, weak relationships are often found between objective measures of residential attributes and satisfaction with those attributes. (see Campbell, et al., 1976; Marans & Rodgers, 1975; McCrea, 2007; McCrea, et al., 2006). This limits the usefulness of satisfaction measures as a tool in urban planning aimed at enhancing subject urban QOL.

1.1.2. Opportunities for measuring what is most important

Since an important aim in urban planning is to enhance subjective urban QOL, we need to consider what is subjectively important for residents in choosing their suburb in which to live. Measuring what is important for local residents can assist with focusing resources on enhancing subjective urban QOL in local areas. And in the case of areas undergoing rapid change (e.g., urban consolidation), it can assist in identifying important attributes that need to be maintained or even enhanced as part of that change. By understanding important local urban attributes; more effective planning solutions can be found for enhancing subjective urban QOL in different local areas.

Importance measures[1] show spatial patterning across a region, in contrast to satisfaction measures. In the SEQ region, Chhetri et al. (2011) found spatial patterns in the subjective importance of various urban attributes in choosing where to live (i.e., access, amenity and social interaction). Objective measures of the urban environment are also spatially patterned and have been clustered into four main types of urban environment in SEQ (McCrea, 2011). Thus,

[1] Importance measures and residential preferences are closely related. However, preferences are the discrete ordered choices between alternatives while importance measures indicate the importance of different attributes in choosing between alternatives.

importance measures may be useful in characterizing different local areas. The aims of this paper are to show how subjective importance measures can characterize different types of objective urban environments; to compare this with satisfaction measures; and to discuss implications for measuring and enhancing subjective urban QOL.

1.2. Literature review

1.2.1. Satisfaction measures

In much existing quantitative research on subjective urban QOL, satisfaction with an urban domain (e.g., neighborhood satisfaction) is predicted from subjective evaluations of particular attributes of that domain (e.g., satisfaction with traffic noise, neighborly relations etc.). See Sirgy and Cornwell (2002) for a wide ranging review of this type of research. Other subjective urban QOL research focuses on identifying the residential attributes which contribute to subjective urban QOL. For example, see the comprehensive program of research by Bonaiuto and colleagues (Bonaiuto, Aiello, Perugini, Bonnes, & Ercolani, 1999; Bonaiuto, Fornara, & Bonnes, 2003, 2006; Fornara, Bonaiuto, & Bonnes, 2010) identifying 11 distinct scales of perceived residential environmental quality (PREQ), including 19 sub-scales (Table 1).

Table 1. Scales and sub-scales of the Perceived Residential Environment Quality (PREQ)

Scales	Sub-scales
Visual-perceptual space: Architectural and town-planning spaces	Building density
	Building aesthetics
	Building volume
Practiced space: Organization of accessibility and roads	Internal practicability

	External connections
Green areas	Green areas
People and social relations	Security and tolerance Discretion and civility Sociability and cordiality
Welfare services	School services Social-care services
Recreational services	Sport services Socio-cultural activities
Commercial services	Commercial services
Transport services	Transport services
Pace of life	Relaxing vs. Distressing Stimulating vs. Boring
Environmental health	Environmental health
Upkeep and care	Upkeep and care

Source: adapted from Bonaiuto et al. (2006, Table 2)

Identifying important residential attributes and predicting satisfaction with urban living provides guidance for enhancing subjective urban QOL. However, it also averages across different types of urban environments, ignoring differences in what residents find important when choosing to live in different places. For example, Yang (2008) found that residents in Portland had higher neighborhood satisfaction in higher density and more mixed land uses than residents in Charlotte. Portland fosters higher density and more mixed land uses via urban infill, redevelopment and

transit-oriented development while Charlotte fosters low-density suburban development. Thus, Portland and Charlotte are very different places and so attract residents with different preferences.

1.2.2. Residential preferences

There is also a body of literature on residential preferences and how they vary with different resident and household characteristics. This body of work starts with Rossi's seminal work on 'Why Families Move' (Rossi, 1955). For example, families with children are likely to prefer neighborhoods with green space and recreational opportunities in choosing where to live (Kim, Horner, & Marans, 2005). Others residents may prefer outer suburban or rural residential living for the restorative effects of natural environments (van den Berg, et al., 2007). Others may prefer lifestyles associated with gentrified inner city living (Lees, 2000; Ley, 1996). While different residents prefer different places to live, residents with similar life course and housing careers tend to choose similar areas in which to live (Clark, Deurloo, & Dieleman, 2006; Clark & Huang, 2003).

Residents tend to be more satisfied with their own suburbs than with other suburbs (Permentier, Van Ham, & Bolt, 2008). So to maintain and enhance subjective urban QOL in local areas, attention should be paid to attributes that residents found important in choosing to live there. However, much research on importance measures has been focused on their role in the residential choice decision making process.[2]

1.2.3. Importance measures

There has also been some consideration of importance measures in the subjective urban QOL literature. It has focused on using subjective importance measures to weight satisfaction measures when predicting subjective urban QOL. However, this project has had limited success (e.g., Andrews & Withey, 1976; Campbell, et al., 1976; Cummins, McCabe, Romeo, & Gullone, 1994; Mastekaasa, 1984; e.g., Russell, Hubley, Palepu, & Zumbo, 2006). Weighted satisfaction judgments rarely predict overall subjective urban QOL any better than unweighted satisfaction

[2] For detailed explications of the residential relocation process and reviews of this literature, see Brown and Moore (1970), Desbarats (1983) and Golledge and Stimson (1997).

judgments. Trauer and Mackinnon (2001) suggest that this is because satisfaction measures already incorporate a notion of subjective importance. More specifically, they suggest that a very favorable or unfavorable evaluation of an attribute implicitly implies it is subjectively important.

Other subjective QOL researchers have called for further investigation of weighting by subjective importance (see Hsieh, 2003, 2004; Russell, et al., 2006). This reflects an intuition that residents differ in which attributes they consider important for enhancing their subjective urban QOL. However, the residential relocation process thwarts this program of research because that process aligns what is important for residents with their residential satisfaction (McCrea, 2007). Nonetheless, importance measures can be employed in other ways in subjective urban QOL research.

Ge and Hokao (2006) examined different types of residential preference patterns in Japanese cities using importance measures. A cluster analysis on 11 dimensions of residential preference found three main patterns of residential preference. They described these as 1) the *pragmatist preference pattern* which included those who preferred urban to natural environments, enjoyed their work and considered convenience important in their residential preferences; 2) the *enjoyable-naturalist pattern* which included those who were less concerned with convenience, enjoyed residential environments with plenty of nature, and tended to spend leisure time outside rather than at home; and 3) the *community preference pattern* which included those who showed concern with personal and community relationships in their residential preferences. However, while this study identifies different preference patterns, it did not show whether these preferences types where spatially patterned which is important for urban planning purposes.

Another study by Chhetri et al. (2011) did show spatial patterning of residential preferences in SEQ along dimensions similar to those identified by Ge and Hokao's (2006) in Japan. Chhetri et al. (2011) used a representative sample of residents across SEQ to map three different factors important in residential location decisions (amenity, aesthetics and social interaction). In their analyses Chhetri et al. mapped each dimension at the local area or suburb level, classifying each

suburb as an amenity, aesthetic or social interaction suburb according to their highest factor score. While this adds to Ge and Hokao's work by showing spatial patterning of residential preferences at the suburb level, it did not show how these spatially patterned preferences were related to objective characterististics of the urban environment. This paper aims to see how residential preferences (operationalized using importance measures) characterizes different types of objective urban environment in SEQ.

1.2.4. The present study

This paper builds on the work of Ge and Hokao (2006), Chhetri et al. (2011) and McCrea (2007, 2011). The first two studies have established three main preference dimensions relating to amenity, aesthetics, and social interaction, which are spatially patterned. However, at this stage, it is not clear whether importance measures can characterize different types of objective urban environment. If there is no relationship between them, then importance measures may have limited use in urban planning.

McCrea (2011) used objective dimensions of the urban environment and cluster analysis to identify four different types of objective urban environments in SEQ. These four types were called 'affluent inner urban areas'; 'disadvantaged urban areas'; 'retired coastal areas'; and 'family outer suburban areas'. This present study examines how well importance and satisfaction measures relate to these four main types of objective urban environment in SEQ.

The main research questions are:

RQ1: How much does overall residential satisfaction vary between different types of urban environment?

RQ2: How much do preferences and satisfaction for access, nature and community vary across these different types of urban environment?

RQ3: How well are different types of urban environment characterized by measures of residential preference and satisfaction?

2. Methods

2.1. Sample

This study uses readily available data from the 2003 Quality of Life Survey in South East Queensland (SEQ), Australia.[3] Survey data was collected from 1,610 residents, who were aged 18 years and over and living in SEQ; and the survey questions covered various aspects of QOL including the importance and satisfaction with different attributes of urban living.

All 1,610 respondents answered a core set of questions. However to reduce interview time, a set of non-core questions was asked of approximately half the sample while another set of non-core questions was asked of the other half. Included in these non-core questions were questions relating to residential preferences; that is, questions on the importance of various attributes in choosing their neighborhood in which to live. This meant the sample size was approximately halved for analyses in this paper. After excluding residents in rural environments and a small percentage of missing responses (<5% on all variables), the sample size used in multivariate analyses was 675.

Residents were randomly selected using a geographically stratified random sample design from a sampling frame of private telephone numbers, including listed and unlisted numbers. The residents were interviewed using Computer Assisted Telephone Interviewing (CATI) and an overall response rate of 30 percent was achieved. The 2003 QOL in SEQ sample closely matched the 2001 Census of Population and Housing for SEQ on a range of socio-demographic characteristics (age, sex, marital status, country of birth, education, income, employment status, dwelling type, and mode of transport to work), though the residents surveyed were, on average, more likely to have a higher household income and education, more likely to be employed, and more likely to be living in a separate house.

[3] This dataset has been deposited at the Australian Social Sciences Data Archive (http://www.assda.edu.au)

2.2. Measures

2.2.1. Subjective satisfaction measures

Each of the satisfaction measures was constructed by taking the mean of items measured on 5-piont Likert scales. *Overall satisfaction* with urban QOL was measured as the mean of 4 items relating to satisfaction in different urban domains: satisfaction with housing, living in their neighborhood, living in their local council area, and living in the SEQ region. Even though the last item related to SEQ as a whole, this item was included because experiences of living in SEQ were also considered to be influenced by where one lives. *Access satisfaction* was measured as the mean of 10 items relating to satisfaction with access to various services and facilities, measured from 1 'very dissatisfied' to 5 'very satisfied'. The items were: access to a post office; bank, building society etc.; supermarket; hospital; general practitioner; parks or open space; sporting facilities; child care facility; primary school; and secondary school. *Nature satisfaction* was measured using a single item where residents were asked to rate the natural environment in SEQ using a 5-point scale where 1 was 'very poor', 2 'poor', 3 'neither good nor poor', 4 'good', and 5 'very good'. *Community satisfaction* was measured as the mean of four items. The first item asked residents to what extent they trusted their neighbors (who were not friends or family) to act in their best interests, where 1 was 'not at all', 2 'hardly at all', 3 'a little', 4 'to some extent' and 5 'to a great extent'. The other three items asked residents the extent to which they agreed with the following statements: people in this neighborhood are willing to help each other out, my neighbors are friendly people, and there is a strong sense of community in this neighborhood, where 1 was 'strongly disagree', 2 'disagree', 3 'neither agree nor disagree', 4 'agree', and 5 'strongly agree'.

2.2.2. Subjective importance measures

Importance measures associated with access, nature and community were also measured on 5-point Likert scales. The survey question asked residents how important various attributes were in their decision to move to their neighborhood using the following importance scale: 1 'not at all

important', 2 ‘not very important’, 3 ‘somewhat important’, 4 ‘important’ and 5 'very important'. *Access importance* was measured as the mean of three items: ‘convenience to places such as shopping and schools’; ‘close to public transport’; and ‘close to work’. *Nature importance* was the mean of two items ‘openness/spaciousness of area’ and ‘close to natural areas (bush, creeks, beaches, etc)’. *Community importance* was the mean of three items: ‘close to family and friends’; ‘good schools’; and ‘community size’.

2.2.3. Objective types of urban environment

McCrea (2011) fully describes these different types of urban environments and maps their spatial patterning. As a summary, *affluent inner urban areas* had close proximity to services and facilities; high population, dwelling, and road density; and relatively long distances to rural environments. In these areas, there were higher proportions of younger non-nuclear households and lower proportions of nuclear family households. These areas were also associated with higher socioeconomic status households, and they were mainly found in the inner suburbs of Brisbane and the Gold Coast. *Disadvantaged suburban areas* had average levels of objective access and objective density. However, they were characterized by lower socioeconomic status (fewer residents with postgraduate qualifications and fewer working as professionals or managers) and higher social disadvantage (more unemployment, public housing, and single parent households). These areas were spatially concentrated in a strip of suburbs south of Brisbane, as well as being scattered among outer suburbs and small rural towns. *Retired coastal areas* were found mainly along the coast, though also extending into some older Brisbane suburbs near the coast (i.e. some northern and eastern Brisbane suburbs). These areas were characterized by high proportions of older non-nuclear households and lower proportions of nuclear family households. *Family outer suburban areas* were characterized by high proportions of nuclear family households and low proportions of both younger and older non-nuclear households. These areas were mainly found in low density outer suburbs and rural-residential areas with lower access to services and facilities.

2.3. Analytical strategy

The aims of the analyses were: 1) to examine differences in overall satisfaction in different types of urban environment in SEQ; 2) to characterize these urban environments in terms of the importance and satisfaction with access, nature and community in each environment; and 3) to compare how well satisfaction and preference measures characterize these environments.

First, the means for the satisfaction and importance measures were calculated for each type of urban environment, along with F-tests showing whether the means differed significantly between environments. Next, correlations were calculated between the satisfaction and importance measures to show their relationships with each other. Since measures for access, nature and community were intercorrelated, multivariate analyses were needed to characterize urban environments in terms of these measures.

Lastly, discriminant analyses were undertaken to measure variation between groups while taking into account the intercorrelations between measures of access, nature, and community. Discriminant analysis identifies orthogonal or independent dimensions of predictor variables which distinguish between groups (Tabachnick & Fidell, 2007). Further, discriminant analysis can measure how much satisfaction and preference measures vary between different types of urban environment, taking into account their intercorrelations, as well as characterizing different urban environments in terms of these measures.

3. Results

3.1. Descriptive statistics

Table 2 shows that overall satisfaction did not vary significantly between urban environments (F = 1.99, $p > .05$), answering RQ1.

Similarly, satisfaction with access, nature and community varied little between different types of urban environments. In contrast, the importance of access and nature varied significantly (see F-test statistics in Table 2). Regarding RQ2, the importance measures seem to vary more than

satisfaction measures across urban environments. However, this is complicated by intercorrelations between the variables.

Table 2. Satisfaction and importance for access, nature and community by type of urban environment

	Satisfaction (mean)				Importance (mean)		
	Overall	Access	Nature	Community	Access	Nature	Community
Type of urban environment							
1. Affluent inner urban areas	4.2	4.0	3.9	3.5	3.7	3.3	2.8
2. Disadvantaged suburban areas	4.1	4.0	3.7	3.5	3.3	3.5	3.0
3. Retired coastal areas	4.2	4.1	4.0	3.6	3.3	3.8	3.0
4. Family outer suburban areas	4.2	3.9	4.0	3.7	2.9	4.0	3.0
ANOVA *F*-test	1.99	2.62	.93	1.19	22.92*	19.52*	1.70

* $p < .05$; N =675

Table 3. Correlations between importance and satisfaction measures

	Importance			Satisfaction		
	Access	Nature	Community	Access	Nature	Community
Importance						
Nature	0.05					
Community	0.37*	0.37*				
Satisfaction						
Access	0.25*	0.07*	0.18*			
Nature	0.08*	0.16*	0.06	0.17*		
Community	0.04	0.26*	0.30*	0.17*	0.15*	
Overall	0.04	0.21*	0.15*	0.32*	0.27*	0.48*

* p <.05; N =675

Table 3 shows correlations between importance and satisfaction measures. The importance of community significantly and positively correlated with the importance of access and nature; though surprisingly, the importance of access and nature did not significantly correlate with each other. This may be because strip developments along the coast of SEQ and the Brisbane River mean that natural environments are not necessarily far from other urban amenities. Except for the importance of access, all the variables significantly correlated with overall satisfaction, and the satisfaction measures all had significant correlations with each other;

Intercorrelations between these variables mean they may distinguish between urban environments in combination with other variables. Thus, discriminant analyses was undertaken next to see how measures of importance and satisfaction combine and vary across different urban environments.

3.2. Discriminant analyses

Linear discriminant analyses were undertaken, with Stata version 12 using the lda discrim command, to generate multivariate dimensions or functions which best distinguish between the four urban environments. These functions were then subject to a varimax rotation using the rotatemat command to enhance their interpretability.

The importance measures reliably distinguished between different types of urban environments while the satisfaction measures marginally distinguished between them. The Wilk's Lambda[4] was 0.82 (p <.001) for preference measures and 0.97 (p = .05) for satisfaction measures. That is, 18 percent of the variation in importance measures (i.e., 1-.82 = .18) was associated with different types of urban environments compared to 3 per cent of the variation in satisfaction measures (i.e., 1-.97 = .03). Thus, satisfaction measures as a whole varied little across different types of objective urban environment compared to the importance measures (answering RQ2).

To answer RQ3, the discriminant functions were analyzed to see well different types of urban environment were characterized by satisfaction and importance measures. A discriminant analysis using four groupings (i.e. the urban environments) can produce a maximum of three independent dimensions or functions to explain differences between groups. For the satisfaction measures, only the first function was marginally significant (p = .05; see Table 4). This function explained 82% of the small variation in satisfaction measures across urban environments.

Discriminant functions can be interpreted by examining variables loading more than .30 on the functions, in the same way as factors are interpreted in factor analysis. This first satisfaction function was positively related to satisfaction with access and community satisfaction, though negative related to satisfaction with nature (see Table 5). Residents who were more satisfied with access and community tended to live in different types of areas to those more satisfied with nature. However, as mentioned, satisfaction measures only marginally distinguished between different urban environments.

[4] This equals the pooled ratio of error variance to the sum of effect variance plus error variance (Tabachnick and Fidell, 2007, p. 269)

Table 4. Variation in satisfaction and importance measures between urban environments explained by discriminant functions

	Variance proportion	Cumulative proportion	Prob>F
Satisfaction measures			
Function 1	0.82	.82	.05
Function 2	0.16	0.98	.54
Function 3	0.12	1.00	.61
Importance measures			
Function 1	0.93	0.93	<.001
Function 2	0.06	0.99	.03
Function 3	0.01	1.0000	.25

Table 5. Loadings of predictors onto Functions 1 and 2

	Function 1	Function 2
Satisfaction		
Access	.53	
Nature	-.40	
Community	74	
Importance		
Access	.75	-.63
Nature	-.41	-.67

Community	.50	.39

Only significant functions are shown.

The first function of the importance measures was also positively related to access and community and negatively related to nature (see Table 5). In the same way, residents for whom access and community were important tended to live in different urban environments to those who considered nature more important. This function was significant (p <.001; see Table 4), explaining .93 of the variation in importance measures across urban environments, and while similar in interpretation to the first satisfaction function, the importance measures varied much more between urban environments.

Unlike the satisfaction measures, the second importance function was also significant (p = .03), explaining an additional 6 per cent of the variation in importance measures across urban environments (see Table 4). Thus, residents considering community important tended to be located in different types of areas to those considering access and nature more important (see Table 5).

Each type of urban environment can be characterized by their mean scores on these functions (see Table 6 shows). Affluent inner urban areas were relatively high on the first importance function, relating to residents viewing access and community more important than nature. Conversely, residents in family outer suburban areas considered proximity to nature more important than access and community on average.

Table 6. Mean scores on functions for different urban environments

	Importance Function 1	Importance Function 2	Satisfaction Function 1
Affluent inner urban areas	0.59	-0.07	0.11

Disadvantaged suburban areas	0.08	0.20	0.06
Retired coastal areas	-0.09	-0.09	0.08
Family outer suburban areas	-0.61	-0.03	-0.24

Only significant functions are shown.

The second importance function explained some additional amount of variation in importance measures: compared to the other areas, residents in disadvantaged suburban areas tended to place more importance to community than on access and nature.

Neither the first or second functions characterized retired coastal communities very distinctively. The means for this type of environment were close to average on each function (i.e., nearer to zero). Thus, there was generally less of a 'trade-off' between access, community and nature for residents in retired coastal areas.

These are simple characterizations based on a few aspects of urban living – access, nature and community – which were chosen to allow comparisons between importance and satisfaction measures from available data. Presumably, the characterization of these areas would be more complex and nuanced if more importance and satisfaction measures were included in the analyses. Nonetheless, they show how subjective urban QOL can be characterized for different types of areas using importance and satisfaction measures. However, the importance measures more clearly characterized these urban environments than satisfaction measures, answering RQ3.

4. Discussion

In summary, the results found that overall satisfaction with urban living varied little between residents living in different types of urban environments in South East Queensland (SEQ) (RQ1). Similarly, satisfaction measures relating to access, nature and community varied little between these

urban environments. In comparison, the importance of access, nature and community varied much more between these environments (RQ2). While different types of urban environments can be characterized by both satisfaction and importance measures; these characterizations were clearer and more distinctive using importance measures (RQ3).

Importance measures can guide local efforts by emphasizing the more important aspects of their local subjective urban QOL. For example, a new infrastructure project may focus on protecting the natural environment when undertaken the same project. What is most important to residents can guide planning when compromises need to be made.

In contrast, satisfaction measures provide less guidance with urban planning in local areas. Where residents in one local area are more satisfied with one aspect of urban living than another, it does not necessarily mean that this aspect needs less attention in their local planning. It may mean that this aspect is very important to them. Satisfaction measures and importance measures need to be used in combination.

If more focus was placed on importance measures in developing and implementing urban plans, different local areas would focus on particular aspects of the urban environment most important to local residents. This may attract residents with similar preferences in a self-reinforcing process, creating more distinctive suburbs in terms of subjective urban QOL, and making preference choices between suburbs clearer and easier for relocating residents. Suburbs would become more heterogeneous.

It may also be easier to maintain and enhance the subjective urban QOL of residents who have chosen to live in particular local areas, consistent with what is most important to them. This is especially important when local areas are changing or developing quickly – as with rapid population growth and urban consolidation in SEQ.

4.1. Limitations and future research

The SEQ region is not highly varied in terms of the built and social characteristics of local areas. Thus we might expect more variation in satisfaction and preferences in more heterogeneous

regions. However, satisfaction and importance measures for access, nature and community were able to distinguish between four types of urban environments in SEQ. Studies in more heterogeneous regions may be able to more easily distinguish between different types of local areas using satisfaction and importance measures.

Also, this study only examined satisfaction with and preferences for three broad aspects of subjective urban QOL relating to access, nature and community. This was due to limitations matching satisfaction and importance measures for comparison. While Ge and Hokao (2006) also identified similar broad preference dimensions, they noted a range of different measures that may be used to characterize different types of subjective urban QOL (which they refer to as residential lifestyles). These include different consumptions of time, space and money; different worldviews and philosophies of life; and different aesthetics.

Future research can include these and other measures to characterize subjective urban QOL in local areas. For example, items may be added to reflect different leisure activities. Some leisure activities may reflect 'high' culture (like visiting galleries, eating at restaurants, and going to live theatre) while others may reflect more 'everyday' culture (like eating take-away food, going to the beach or a park, and going to the movies) (see Mullins, 1995). Similarly, values may be added. While there are potentially many types of measures that may be used to characterize subjective urban QOL in local areas, they should also differ between different types of urban environments to demonstrate their useful for urban planning.

5. Summary and conclusion

Previous findings have shown that residents are generally satisfied with where they live.
However, two equally satisfied residents may prefer very different local areas in which to live. This suggests that subjective urban QOL may not be best characterized by satisfaction measures. Residential preferences are also an important aspect of subjective urban QOL.

Residential preferences, operationalised as importance measures, are useful for distinguishing between and characterizing subjective urban QOL in different types of urban

environments. As such, they offer guidance for urban planning which aims to maintain and enhance important aspects of subjective urban QOL that matter to local residents.

Extant research in subjective urban QOL has focused on satisfaction measures. However, a new focus on importance measures for characterizing subjective urban QOL in local areas is a potentially new and exciting research program, encompassing a range of cognitive, emotional and behavioral aspects of subjective urban QOL.

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