

A relational lens to understand housing affordability in the 21st Century

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ABSTRACT

Housing affordability in the 21st-century requires a new way of understanding the concept. The concept is currently framed around household spending on housing costs. In the 21st century, households' aspirations and housing outcomes of local residential environments are increasingly influenced by external labour and capital drivers at a range of scales (regional, national, global). Under such context, this paper suggests the concept of housing affordability should be advanced to understood with a relational view of the world. The relational view, underpinned by Giddens's Theory of Structuration, has the scope to capture how households' housing costs, linked to aspirations and housing outcomes across scales, making this more relevant to the 21st century. Empirical evidence to demonstrate this has been drawn from a large-scale housing development project in the West Midlands of England. Increasing understanding of the concept helps formulate policies and planning practices for improving mechanisms to deliver better housing outcomes in an affordable and sustainable manner.

1. Introduction

Although housing affordability is not a new subject, today, it has aggravated crises in cities (Kallergis et al., 2018). Achieving housing affordability is a central aim of the housing problem in any country (Poon & Garratt, 2012). The Chief Executive Officer of National Housing Federation of England in 2017 stated that, last decade alone, over 225 housing initiatives and 500 housing-related announcements to increase the housing supply and access have been announced (Perera, 2019). Despite these efforts, Housing White Paper, Department of Communities and Local Government of 2017 found that the housing market of England has 'broken', implying that housing affordability is a complex issue. It needs to be reading beyond the limits of average housing prices and average income level equilibriums. Therefore, this paper is concerned with advancing the neo-classical definitions of affordability towards a relational view of housing consumption-understanding how households structure their living arrangements to afford a house. The paper is not concerned with the least affordable housing, but how households with choices decide different trade-off aspects of housing costs, arrive at housing decisions and the outcomes. Therefore, we define housing affordability as the ability of households to rent or purchase housing within their income levels (Bangura & Lee, 2021, Stone, 2006a, b, pp. 38–60) to achieve their life aspirations.

The mainstream definition of housing affordability (i.e., around housing cost and household income), developed based on the post-war Keynesian model of the welfare state, may no longer be sufficient to the conditions of the 21st century housing market. Under the welfare state, governments had a significant role in the production and distribution of houses (Hulchanski, 1995). Strategies to achieve

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housing affordability were primarily aimed at expanding production and providing subsidies to people to encourage house purchase (Healey, 1992). After the 1975 IMF crisis, intensified privatisation and globalisation provided a different housing and household context than that of the period during which the vanguard of the welfare state was forged. Globalisation and the concomitant financialisation of housing, the dominance of large corporations, floating finance and flexible capital and labour market drivers, over the last half of the 20th century, have limited the control of national governments in regulating the global economic effects on the local housing markets (Healey, 2006; Rogers & Koh, 2017). The rise and expansion of neo-liberalism through the twin mechanisms of privatisation and financialisation (Quiggin, 1999) have decoupled the local labour markets from local housing markets (Styhre, 2021). This dissociation has fundamentally altered the organising principles and the spatial organisation of cities, disrupting the local level work-home relationships of housing and households and altering household behaviour (Clapham, 2005; Healey, 2006; Styhre, 2021). The change above has led to the pursuit of ‘greater freedom of housing choice in the market’ (Whitehead, 1993, p. 3) whilst increasing consumerism oriented or ‘postmodern’ lifestyles (Clapham, 2010; Jessop, 2003). The interaction between these aspects alters the established patterns (normative structures) of housing consumption and labour market activity and challenges the abilities of the planning authorities to develop a well-administered response at the local level. The new geography for housing and households thus suggests that the concept of housing affordability requires a more nuanced approach that advances the antiquated understanding of the concept; particularly in terms of etymology of affordability and its foundations in post-war Welfare state where the state played a significant role in production and distribution of housing in line with health care and education. The aim of this paper is, therefore, to demonstrate that from the spatial planning point of view, the relational view of the world can better explain housing affordability in a way more relevant to the housing and household context in the 21st century.

The answers to social problems (such as housing affordability in this instance) are dependent on how well it is defined and the questions are framed (Caplan & Nelson, 1973). A relational view, underpinned by Giddens' Theory of Structuration (Giddens, 1984), understands the world context in relation to relationships among agents (motivations, actions and power), structural outcomes and the dynamics of time-space. Applying this approach to understand housing affordability enables us to capture not only household expenditure on housing but also their motives, aspirations and values that explain such actions and housing outcomes over time. Empirical evidence to this discussion is drawn from a large-scale housing development project in the West Midlands of England - a case study representative of the realities of households' decisions and trade-offs in seeking ‘affordable’ housing outcomes. This paper therefore provides a significant contribution to developing the understanding of the housing affordability concept by elucidating the complex household actions that structure ‘(un)affordable’ housing outcomes. It could benefit both academics and practitioners to better tackle the housing affordability issue, highlighting the effects and the causation of the notion.

The paper sets out the background to the current housing context and why the existing approaches to defining housing affordability are insufficient. Subsequently, the paper demonstrates the value of a ‘relational’ lens to understand affordability grounded on Giddens' Theory of Structuration to understand affordability and how it can be applied in framing the concept of housing affordability. These aspects are empirically explored using a case study of a new settlement - Dickens Heath New Settlement (DHNS) - in the West Midlands of England. Finally, findings are discussed to understand the housing affordability in relevance to the 21st century and policy implications that generate out of this new way of reading the concept are provided.

2. The existing approaches to understand housing affordability and gaps

The existing approaches to explain housing affordability stem from neoclassical economics and are also explained with policy analysis and geographical approaches. Mainstream classical economics underpinned by (housing) demand and supply equilibrium principles assert that housing affordability is a matter of housing costs and household income (Bangura & Lee, 2021, 2019; Chen et al., 2010; Gan & Hill, 2009; Stone, 2006a, b, pp. 38–60; Kutty, 2005; Bramley, 1990). Those approaches primarily inform the housing welfare policies aimed at low-income households (e.g. housing benefits) and facilitate the integration of housing policies and subsidy arrangements with labour market policies (i.e., flexibility and portability) (Hulchanski, 1995). These approaches depend on ratios between a household's monthly income, housing costs and non-housing costs to determine the level of housing affordability in a locality or for a selected cohort of households, based on normative assumptions of costs and behaviour. For this purpose, the widely established affordability ‘norm’ was that housing cost should be no more than a certain benchmarked percentage of the household's housing income (e.g., 30%–40%; see for example (Lerman & Reeder, 1987), or non-housing costs of households should be sufficiently met after the household incurs the housing costs (Stone, 2006a,b, pp. 38–60; Kutty, 2005). Underpinned by this classical economic understanding, the policy analysis often positions and emphasises housing affordability as a problem of not supplying sufficient housing to bring down housing costs so that (lower income) communities can afford it. If not, the government should provide sufficient housing benefits (subsidies) for communities to enhance their purchasing power to access housing (e.g., see, DCLG, 2017; Beer et al., 2007; Barker, 2004). The geographical approaches (concerns for the spatial distribution of housing), influenced by planning initiatives such as ‘liveable cities’, ‘sustainable communities’ etc. attempt to broaden the neoclassical understanding by combining it with an approach established under hedonic pricing models for housing, i.e., “goods are valued for their utility-bearing attributes or characteristics” (Rosen, 1974, p. 1). In a formative way, it claims that housing affordability is a function not limited to acquiring the house but also involves several other factors affecting household decisions; transportation costs, neighbourhood quality, energy efficiency, quality and density housing and the like. (e.g., see Mulliner et al., 2016; Haas et al., 2013).

Studies have attempted to enhance the conventional housing affordability measurements by incorporating variables more related to the dynamics of 21st century markets. For instance, Bangura & Lee, 2019; Meen, 2013; Chen et al., 2010 depict how equity rollovers of households improve the entry-level housing affordability over time in the context of Sydney and Shanghai. Similarly, Bangura & Lee, 2021 highlight the sub-marketwise disparities of housing supply, residential population housing investors, and median rent impacting

the housing affordability in Sydney, and Haas et al. (2013), incorporate the influence of location on the housing cost through transportation costs. Nonetheless, the limitation in these studies is that they yet explain housing affordability using selected variables and normative assumptions, and only through structural lenses. For instance, the respective quantitative models would assume that all households in the selected cohort would have similar home-work commuting relationships (normative assumption); thus, would offset (structural outcome) the higher housing costs (selected variable) with lower transport costs (selected variable). The dynamic connection these structural outcomes have with the 21st-century secular aspirations of the household agency is yet to be gauged.

3. Inserting relational view into housing affordability

The relational view of the world (*social constructionist paradigm*; Jacobs & Manzi, 2000), primarily underpinned by different sensitising concepts of Anthony Giddens's (1984) theory of Structuration (Fig. 1), understands the world context through relationships. According to Giddens, social structures (i.e. rules and resources) are formed by the actions of human beings (purposive agents) that carry motives. In other words, structures are formed when particular human actions continue repeating over time. Thus, human actions carry power per se. In this endeavour, agency and structure are not two independently given sets of phenomena but present a duality (duality of structure); structural properties of social systems are both the medium of agency and the outcome of the practices they recursively organise (Giddens, 1979, 1984). *Systems* are formed if structures are reproduced into the pattern of social relations (Giddens, 1979, 1984). Borrowing Hagerstrand's (1976) idea of time-space, Giddens (1984) claims that such structures are not static but change over time. The driving motives of agents' actions are also called "values", "frames of references" or "meanings" (See, for example, Healey, 2003)- the potential for wants, which, for the most part, supply the overall plan or programme of an action (Giddens, 1984, p. 6). Executing agent's actions employ both discursive and practical knowledge; the intellectual virtues and associated beliefs that such knowledge is actual (Cassam, 2009). The practical knowledge is mainly driven by 'ontological security'; the confidence or trust that the natural and social worlds, as they appear, are to be including the basic existential parameters of self and social identity (Giddens, 1984, p. 375).

[Re]examining social issues being defined (constructed) is one of the critical contributions of the relational view (Jacobs & Manzi, 2000). At the same line, this study aims to integrate relational lenses to conceptualise housing affordability relevant to the 21st century, in the stance that the concept has to be gauged through complex housing choices of households. For this, the housing studies which have employed this relational idea to broaden the concept of housing (structural aspects) and household choices (agency aspects) are of particular use. Hasse (2018), Kemeny (1992), Saunders and Williams (1988) have employed this view to advance the meaning of 'home' or 'residence', and the ontological security attached to homeownership. Departing from normative housing studies, they acknowledged that 'residence' is *beyond the four walls* of a house - housing is not an independent unit but connects with different spatial (neighbourhoods and regions) and social scales (household and communities). The discourse on *webs of socio-spatial relations* in human geography, planning and new regionalism also captures the relational lenses to argue that making places (such as housing neighbourhoods) is linked to different social processes. (For instance, see Jessop et al., 2008; Hess, 2004). These works categorise such socio-spatial relations of individuals into three folds: territorial embeddedness (anchoring individuals as insiders and outsiders to a

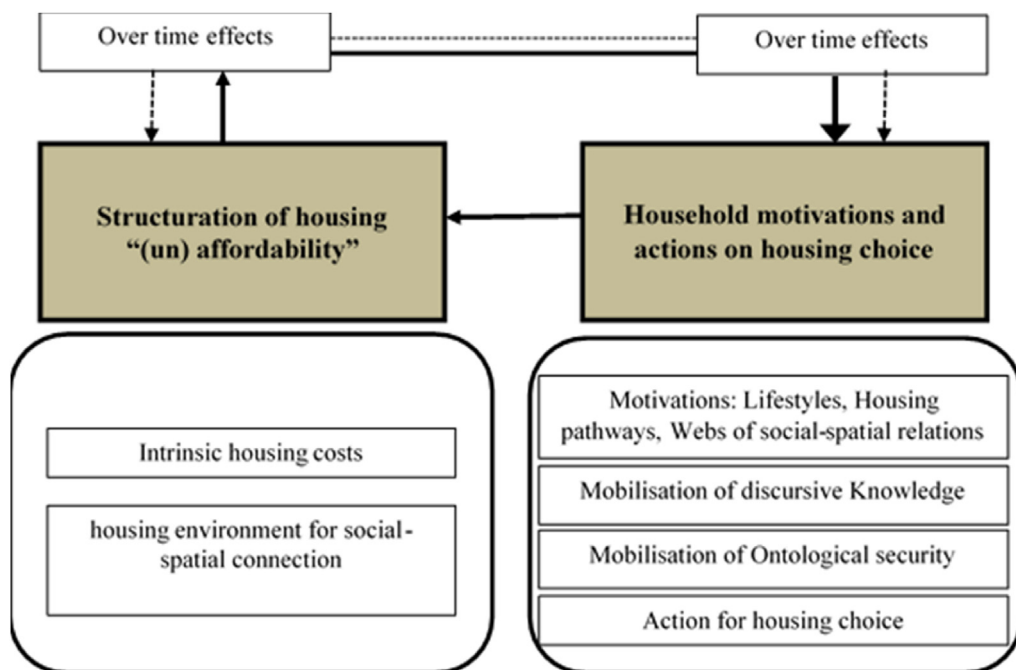


Fig. 1. Conceptual framework of the study (Source: Author construct).

particular geography), social embeddedness (Associations with friends and family and cultural belongingness) and network embeddedness (access to work, schools and so on).

Similarly, relational lenses were consolidated into a more nuanced analytical framework by Clapham (2010, 2005, 2002), widely known as *the housing pathway* approach, which captures households' postmodern lifestyles and movements and transitions of the household's life cycle affecting their housing choices. Besides, the relational lenses also demonstrate the potential to enhance the structural lifestyle analysis on a household's housing choices (see, for example, Jansen, 2014; \AA er \AA , 2006) into the dynamic analysis. Here lifestyle refers to “patterns of action that differentiate people ... what people do, and why they do it, and what doing it means to them or others” (Chaney, 1996, p. 12).

These concepts have indeed been concurred by empirical studies investigating on housing career pathways of young and elderly households (e.g. Beer & Faulkner, 2012; Robinson et al., 2007 Clapham, 2010 etc.), social policy on housing (e.g. Haworth & Manzi, 1999), homeownership (e.g. Gurney, 1999). However, to the best of the knowledge, this is the first study that explicitly employs the relational view to understand the housing affordability issue. As depicted in Fig. 1, the study contends that the households' housing choice actions under the market context reflect their endeavour for housing affordability (Whitehead, 1991; Stone, 2006, pp. 38–60). Lifestyles, housing pathways and webs of social-spatial relationships (agency motives) drive housing aspirations of households towards housing choices (agency action). Those contribute to structure intrinsic housing costs and housing environments (outcomes). For such motives and actions, households employ both discursive knowledge and ontological security they possess. When these housing choice actions, driven by households' motivations and knowledge, are structured and reproduced into patterning (systems), those formed '(un)affordable' housing outcomes. With the idea of time-space (Giddens, 1984; Hägerstrand, 1976), such structuration is not static but subject to change over time into a new form of '(un)affordable' housing outcomes. These develop the study proposition that housing affordability is a subjective and socially constructed concept.

4. Methods

Testing the conceptual framework (Fig. 1) requires an in-depth empirical inquiry into the housing choices of households. The study also required an identifiable housing outcome boundary to exhibit the structuration of these housing choice actions (as (un)affordable housing outcomes) and the temporal effects of both households' actions and housing outcome structures. These influenced us to follow a single case study approach with qualitative dominant mixed method research strategy (Johnson & Onwuegbuzie, 2004), allowing a deeper real-world analysis (Maher et al., 2018; Yin, 2014). A single case study (i.e., Dickens Heath New Settlement) is sufficient when the focus is on analytic generalizability rather than statistical generalizability (Yin, 2014). The case study involved the collection of primary data through semi-structured interviews with 280 residents in DHNS. The interview was done over 18 months between 2018 and 2019. The research participants were diverse in terms of their *housing experiences in DHNS, age, ethnicity, level of education, occupation and place of work*. The interviewees also represented pioneering households (i.e., those that had moved during the first phase of DHNS) and households that had moved afterward (i.e., after 2000). Interview allowed us to understand the residents' experiences on housing and life aspirations over time. The interviewees were asked a limited number of close-ended questions regarding their profile data, commuting data, describing the worthiness of the price they pay for DHNS housing and the like. The rest of the interview questions were open-ended, inquiring on different motives which drove residents to purchase a house at DHNS, how did they arrive at their purchasing decisions, how did they reflect on their housing choices and affordability of housing outcomes in which they live at and different times of living in DHNS. Following the thematic approach, data were analysed by coding them based on the theoretical themes (Bryman, 2015); motives, actions, structure, and time-space effects, presented in Fig. 1, with few sub-themes emerging within data itself. Data that needed quantification were analysed descriptively in a way that could be triangulated with qualitative data as needed.

4.1. Dickens Heath New Settlement

Dickens Heath New Settlement (DHNS), Solihull in the West Midlands of England (Fig. 2), is bounded by the Stratford-upon-Avon canal and ancient woodlands. The settlement was planned to deliver 'affordable' housing to then middle-class service sector households



Fig. 2. Aerial view of Dickens Heath new settlement (Source: Solihull Heritage and Local Studies, 2007).

that emerged with the region's economic restructuring from the 1970s–1980s. Over the years, the average housing prices of DHNS have generally fallen within the high-end, compared to West-Midland regional average (Her Majesty the Land Registry, 2019). Locally, it falls within the “moderately affordable” range (ibid). It is considered an exemplar new settlement on a greenfield site that is not adjacent but near the conurbation or existing urban development. Initially (in the early 1990s), the settlement was planned to house 850 households, which later (by 2019) grew into a settlement of nearly 2000 housing units. The DHNS master plan included housing mix with a greater choice; (i) 4 and 5 bedrooms detached, semi-detached and bungalow housing in low-density outer skirt zone (ii) 2, 3, and 4-bedroom semi-detached housing and town housing in medium-density zone and (iii) apartment housing in the central higher density zone. Shops, a doctor's surgery, library, village community hall, parks, and playgrounds, and the like were located in the centre of the development, providing access to them in a five to 10-min walk from homes. A primary school was set up in the north boundary of the settlement, and public transport was available by a local rail station and bus services to the main town center at Solihull.

DHNS, which represents the 21st-century housing outcome context, is an exemplary case to investigate the study propositions on housing choices and affordability. The plans for DHNS were interrupted by the 2008 financial crisis and development pressures after 2012. Delays in the developments were observed between 2008 and 2012, and the considerable hold up of DHNS plans to develop apartments, shops, offices, and infrastructure caused a considerable drop in house prices. Despite the early DHNS planning, which aimed at meeting local housing needs in the region, over time, the apartments were particularly attractive to the arms-length investment market, leading to a growth in the buy-to-let housing market with 35% of housing in the area (ONS, 2013). A significant proportion of those apartments were preferred by people coming to the area for short-term employment contracts (economic migrants). England's planning policies (National Planning Policy Framework, 2012; Planning Policy Guidance Notes 3, 2000) were more of a market response for development. Time-to-time increase in the number of houses, densities, and rate of growth of the settlement deviated from the growth policies drawn by the initial master plans designed for DHNS.

5. Empirical testing

5.1. Understanding housing affordability in a relational view

The empirical test here applies the relational view to understand how housing affordability of individual households is structured by their multiple motivations and housing choice actions, and how it is relevant to 21st century housing affordability in a collective manner. Accordingly, this section discusses how lifestyles, housing pathways, and webs of social-spatial relations influenced households' housing choice in DHNS, how affordability was structured within those housing choice actions, how this produced a settlement meant to be ‘affordable’ and how the production of ‘affordability’ was challenged over time.

5.2. Households' motives for housing choice

5.2.1. Lifestyle

Different lifestyle aspirations DHNS has been offering appear to be a primary driver for the residents to make their housing choice to be households liked DHNS. It offers ‘living in quality, aesthetic and rural place’; “we thought this [DHNS] was going to be a little village ... it is nice to have the canal and woodland, oak trees and squirrels in our vicinity” [Female. 60+,settled 1998]; “we thought it would be a nice place to bring up a family ... [Male.45-59,settled 2004]. Accordingly, their housing choices had been primarily for home-owned, larger gated houses with landscaped gardens located in the lower-density cul-de-sacs of DHNS. Houses were of symbolic expression of their social status.

Despite the rural setting, DHNS was also a serviced location with new and modern style housing, and attracted another set of households that held their lifestyle orientation towards ‘living with modern convenience and get hold of a good housing market’; “before moving here, we lived in a bit of an older house – more maintenance required on it. [DHNS] was a new estate, and we never lived in a new house ... we needed a smaller garden ... The design here is better ..., makes better use of the space than they did in our older bigger houses ... Here the [housing] market is also good” [Male.60+,settled 2006]. The households viewed housing as an investment. He did not mind purchasing three-story townhouses or apartments at a leasehold basis, showing little concern about the vernacular English housing type, as he was more concerned with location and cost.

The residents generally saw their lifestyle weighing towards ‘living with good and like-minded communities’, were motivated to assume that DHNS would offer safe, friendly, peace of mind neighbourhoods; “once we came here, we felt ... this is the place we wanted. Very quiet ... peaceful. Previously we have been living in Birmingham because we thought it would be convenient, oh my God!! ... So noisy even on Sundays” [Female.30-44,settled 2007]. The respondent being a European migrant, first possessed the convenience-oriented lifestyle choosing to live in Birmingham. Nevertheless, bounded by her ‘bad’ neighbourhood experiences, her prioritized lifestyle shifted to having ‘good and like-minded communities’ wanting to move to DHNS.

5.2.2. Housing pathways

Different dynamics within households' lifecycle (divorce, change in jobs, children schooling and the like.) also create dynamics within the household's wealth accumulation and housing aspirations, giving rise to a factor that influence the housing choice actions of households.

“I had to split with my partner ... I decided to leave, so I had to pay money for that ... Now I found myself back into the rented world” [Female.30-44,rented 2015]. Dissolution of the couple-household and the re-forming of two separate single households had

correspondingly split their household wealth. This household income setting, interwoven with the respondent's "quality-rural aesthetic character" lifestyle orientation, i.e. wanting to have a house with a garden in a DHNS cul-de-sac setting, directed her housing choice after the divorce to a rented house. This choice forgoes purchasing an apartment in the DHNS centre or elsewhere, where the housing is relatively cheaper.

Similarly, a scenario of job move as a life cycle event affecting housing choice was evident in the statement;

"My husband's work shifted to Birmingham ... myself and the kids were in Liverpool [home owned] ... So, I just gave up my full-time job there and decided to move here [DHNS] ... first I had to settle with a rented house [semi-detached house in medium density zone] ... and three years later we purchased this four bed-one [at outer skirt low-density cul-de-sac] ..." [Female.45-59,settled 2014].

The dynamics within households' life courses, such as job moves across the conurbation as a result of different capital and labour market drivers together with their life aspirations such as family re-union, wanting to live in village setting etc, had formed dynamics within household wealth (in this case, liquidating the Liverpool house and giving up a full-time job). These dynamics had led them settled in a rented house for three years before purchasing the wanted home-owned property in DHNS.

5.2.3. Webs of social-spatial relationships

Different embeddedness of households into different spaces influences the housing choice of households in terms of the housing location.

A significant proportion (75–80%) of residents who moved to DHNS at the early stages of the development were locals who moved from the nearby villages (Table 1). While having the opportunity to buy *new houses within proximity to Birmingham city*, DHNS also allowed them to maintain existing social and spatial networks and connections, and *"stay connected with English village setting, old clubs and pubs, supermarkets and shopping areas, friend and family networks"* [Male.45-59,settled 2004]. Their housing choice at DHNS enabled them to continue to be 'insiders' or 'pioneering residents' (territorial and social embeddedness) compared to the residents who moved from farther away.

The networks built into household's lives, such as the location of jobs, schools, and childcare (network embeddedness), also became key determinants influencing their housing choices:

"My son lives in DHNS ... he got his job in London ... sometimes he works from home ... Financially he crashed with the [2008] recession, buying an apartment here. His property value was lost ... He still settled in DHNS, because he has a seven-year-old daughter I am looking after" [Female.60+,Settled 2006].

The networks in which the respondent's son is built into are complex due to different capital and labor market conditions and technological drivers– commuting to London, sometimes working at home, living in Birmingham due to child care, and the present house falling into negative equity. His choice of a house in London (if needed to) is not only a function of London's housing prices and his income but also due to the fact that his house in DHNS is at negative equity (unfavourable condition to sell), and besides, staying in DHNS provides him child care help and kinship networks.

5.3. Households' actions on housing choice towards affordability

5.3.1. Trading-off

The complex and multiple household motives lead households to trading-off (housing choice via cognitively rank and compare) between those motives and their expenditure as housing costs. Therefore, a vital part of the interview was to ask households about the *basis on which they made housing choice decisions in DHNS and whether it was an affordable solution for them*. One of the definitive answers was as follows:

"My rent is around 55–60% of my wage; it is more than half of my wage. My house is very small; terrace, box room, and the main bedroom, tiny bathroom ... But, it is worth ... After coming to Dickens Heath from [a suburb of the urban conurbation 2–3 miles from Birmingham city center], I feel safe ... my car insurance reduced to a greater extent ... Here [DHNS] for the whole of winter it cost me about £200 for heating ... but there I paid around £700 ... So, paying an extra £200 for the rent [in DHNS] offsets that. Now I have to

Table 1
Geographical areas in which residents moved from and commuting to.

| Area moved from | Old Dickens Heath-Before 1997 | | 1997–2000 | | 2001–2008 | | After 2008 | | Total | |
|---|-------------------------------|-----|-----------|------|-----------|------|------------|------|-------|------|
| | | % | | % | | % | | % | | % |
| The local regions of West Midlands | 11 | 100 | 40 | 75.5 | 63 | 81.8 | 70 | 50.7 | 184 | 65.7 |
| Outside of West Midland region | 0 | 0 | 13 | 24.5 | 15 | 18.2 | 68 | 49.3 | 96 | 34.3 |
| Commuting to | | | | | | | | | | |
| Homeworking | | | | | | | | | 19 | 7 |
| Commuting to nearby Birmingham/Solihull regions | | | | | | | | | 27 | 9.4 |
| local regions of West Midlands | | | | | | | | | 122 | 43.6 |
| Outside of the West Midlands region, including London | | | | | | | | | 107 | 38.2 |
| Abroad/worldwide | | | | | | | | | 05 | 1.8 |

Source: fieldwork, 2018–2019

travel a bit longer to Birmingham, but that only cost me around £100 for both fuel and parking. Besides, I also can stay connected with my old friends in Cheswick Green ... I got the garden and nice surroundings ... can go cycling” [Female.30-44,rented 2016].

Spending more than half of the wage (household income) on rent would be considered unaffordable in traditional (neo-classical) methods of measuring affordability (i.e. net income to housing costs); however, the conventional understanding is not necessarily that of household's experience and perception, as households tend to see the trade-off between cost, convenience and safety as worth it. Therefore, affordability was also related to other aspects of a residence. The rationalisation was that the relatively higher housing prices in DHNS, together with the transport cost, could be offsetting through less non-housing costs on heating, car insurance, and other non-quantifiable factors such as staying connected with old friends and nice surroundings.

5.3.2. Mobilising knowledge

The trading-off actions that rationalises “affordable” housing choices (decisions) concomitantly mobilise household's (discursive) stock of knowledge.

Such knowledge sometimes comes from mutual ways of knowing by households themselves and the experience sharing with family and friend networks:

“Over the years we were in Earlswood [closely village to DHNS], and I used to cycle here and saw all these properties, and we thought of looking for a property” [Male.44-59,Settled 2000];

“We decided to move here after we visited a friend's place in Dickens Heath ...” [Female.30-44,settled 2007].

In other instances, those have come from intellectual virtues acquired by seeing and referring to ‘technical’ or ‘formal’ documents and materials (formalised knowledge), master plans, local plans and promotional materials. However, these are not objective knowledge. The language presented in these documents state that “high-quality residential properties” and “vibrant and dynamic new Village Centre lifestyle,” influence the households to create (positive or negative) biases on their housing choice decision with that of knowing

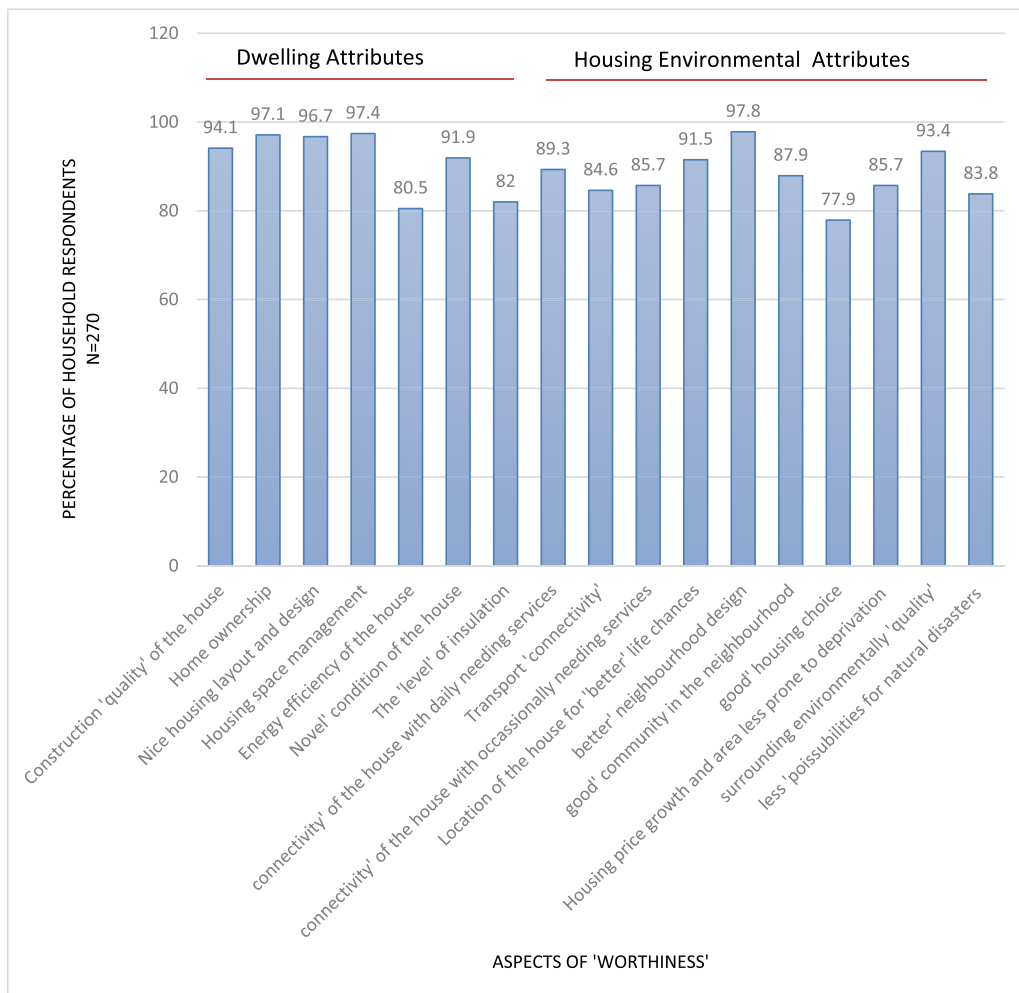


Fig. 3. Residents' structuring ‘affordable’ housing outcomes (Source: fieldwork, 2018–2019).

through mutual ways. Therefore, households' housing choice decisions are often made with subjective (*provisional*; Healey, 2006) knowledge they possess at times.

5.3.3. Ontological security

Apart from the discursive knowledge, which is also held provisionally, the element of “faith” or the “practical consciousness” of households also shaped the housing choice actions of households. For instance, the early DHNS adopters were satisfied that the settlement was “*envisaged as a rural area with a smaller number of (850) housing units*” [Female. 60+, settled 1999]; or “*a little village*” [Male, 44–59,settled 2000] which contributed to their ontological security at housing choice that DHNS would continue to maintain as a *greener* and *rural* atmosphere. Similarly, the ‘newness’ of DHNS housing obviated in the minds of many new residents. Consequently many DHNS home buyers didn't mind to scrutinised housing details with small prints such as energy efficiency credentials: “*we didn't much dig into Energy Performance Certificate [of the house] as this was a new house anyway*” [Female, 44–59,settled 2000]. The households' tacit knowledge contributes to the idea (*trust in predictable routines*) that their housing choice would meet their housing aspirations (motives); thus, it would be ‘affordable’ and meet their ontological needs.

5.4. Households' structuring of housing ‘affordability’ outcome

The 270 household's responses received to the closed-ended question: *how would you describe the worthiness of the price you paid to purchase/rent housing in DHNS?* were classified, of which the calculation of the percentage is depicted in Fig. 3. In light of the study's conceptual framework, this would mean how households would structure their housing affordability outcomes; the intrinsic housing costs. As shown in Fig. 3, the housing price household incurred intended to afford dwelling attributes such as ‘*quality construction*’ ‘*home ownership*’, ‘*nice design and layouts*’, ‘*energy efficiency*’, as well as housing environmental attributes, such as ‘*locational connectivity with jobs, transport, services*’, ‘*neighbourhood design and class*’, ‘*kin and friend networks*’, ‘*surrounding beauty and village setting*’ etc. However, again it is noteworthy that the meanings the households assigned for these attributes were subjective. For example, *locational ‘connectivity’ to services* can mean residents “*going to the nearby supermarket ... it is just 5 min around the corner*” [Female.60+,settled 2004] or “*we never go to the one here[in DHNS]..always go the one [supermarket] in Shirley [nearly 3 km]*” [Female. 60+,settled 1998]. Evidence, therefore, suggests that housing affordability asymmetry between households is caused not only by the asymmetry of wealth (resources) but also by the asymmetry (subjectivity) of households' agency.

5.5. Overtime effects on ‘housing affordability’ structures and household agency

This structuration of ‘housing affordability’ of a particular location (such as DHNS) is not constant but changes with the effects over time. DHNS has experienced such overtime effects on rescaling and reshaping consumption and production of the housing consequent to different external forces. At its initial stages (1997–2000) DHNS was primarily planned to meet local housing needs. However, after 2008 or thereabout, most new housings were occupied by residents from outside of the West Midlands Region (Table 1). Similarly, 38.2% of residents living in DHNS, were engaged in jobs outside the West Midlands region, including London, and nearly 7% in DHNS usually worked from home (Table 1). Despite early targets on homeownership, market drivers turned DHNS into a primary buy-to-let market, having a rental sector recorded 36.4% (ONS, 2013) of total housing. Market pressure led the greenbelt land, which was designated to be released and accommodate the local growth in a five-year window by 2023 and 2028, to be released early; i.e., in 2015–2016.

When households were asked to reflect on such overtime housing outcome effects of DHNS in the light of their on-going housing affordability, the answers were both positive and negative.

‘Because the house price in DHNS grew over the years, some answered; it was a good investment. Housing pathway narrations of some residents demonstrated that they have been upgrading their housing choices from rental apartment housing to homeownership in cul-de-sacs with various forms of wealth accumulation; (e.g. *earlier, we just rented an apartment in the centre ... later we moved to this four bed house ... My partner and I used our savings ... we got some help from parents ...*; Female.39,settled 2004), or even up to second housing (e.g *I moved into this townhouse first and later bought an apartment [in DHNS] from my pension*”; Male.60+,settled 2000).

On the contrary, some DHNS residents responded that the place was no longer ‘affordable’ to them. “*I love the house ... but!.. Now having this house is very expensive to me ... This is a five-bed detached house. My husband died Now I want [to purchase] a two-bed house and save some money for myself and travel. However, it is hard to find one in DHNS that fits my need and budget*”. [Female.60+,settled 2000]. Retirement, bereavement, the need to downsize without changing the location (i.e. DHNS) and wanting to shift wealth from housing to non-housing needs (consumption for daily needs and traveling) led to a problem of on-going affordability.

For certain persons, on-going affordability was problematic in case of a breakdown in their ontological security for DHNS over time.

‘We were not told about this ‘monster’ of the [new] housing development in the green [opposite their houses] we have invested our life savings in buying this property thinking it is going to be in a village [environment]’ [Male.45-59,settled 2001].

Therefore, over time, effects of housing outcome bring both positive and negative implications to the on-going affordability of residents depending on how they fit with their life aspirations of households over time. Escalation of housing and rent prices over time is not the sole reason that affects one's housing affordability.

6. Discussion

6.1. Understanding housing affordability

The 21st-century is an era of postmodern living, complex organisation of places, more choices and flexibility in the market, and dynamic changes to circumstances (Styhre, 2021; Rogers & Koh, 2017; Clapham, 2010; Healey, 2006). In this light, the paper argued that employing a relational view of the world can advance the current housing affordability understanding to better capture this 21st-century context. According to the relational lens, the social structures are formed through agents' motivations, and actions while both the agency and structure present a duality and are subjected to change over time-space (Giddens, 1984).

DHNS, as a case study, deduces geographical approaches to housing affordability (Haas et al., 2013; Mulliner et al., 2016) that household's expenditure on housing costs are intrinsic, aiming to achieve multiple dwelling configurations (e.g. 'quality' construction, 'good' design and layout), and housing environmental configurations (e.g. 'better' connectivity to jobs or education, different services). Applying relational view unveils that such a household's housing affordability is a structuration of subjective households' motivations (life aspirations) and actions. The paper demonstrated how life aspirations of DHNS home buyers and renters, such as lifestyles, housing pathways and social-spatial networks, were influencing their housing choices for DHNS. A household's action to afford a house was about employing their provisional knowledge (Healey, 2006) and ontological security about DHNS to trade-off between their life aspirations (motives) and the housing costs they incur to own or rent a house. Therefore, housing affordability is not only a function of household income and housing costs (Gan & Hill, 2009; Stone, 2006a, b, pp. 38–60; Kutty, 2005; Bramley, 1990; Lerman & Reeder, 1987) but also how housing is linked with complex life aspiration of households. The relational lenses also highlighted the time dynamics associated with these motives and structured housing outcome environments. DHNS case demonstrated this well, having influenced by various external forces, even though DHNS was planned to be affordable to local middle-class communities, over time, it was rescaled to afford by residents moved from outside local regions and arms-length investments. Depending on how well the changes to the housing outcome environments fit with the changes to households' life aspirations and wealth, the on-going housing affordability of households would have either a positive or negative impact. All in all, this way of portraying housing affordability per se considers the 21st-century complex and dynamic context for both households and housing in understanding the notion.

The current literature certainly recognises the link between some of these aspects of housing choice or housing affordability. For instance, the lifestyle and buyers social-spatial network influences housing choices (Jansen, 2014; Jessop et al., 2008; Hess, 2004 etc.), housing pathways influence housing choices and affordability (Beer & Faulkner, 2012; Clapham, 2010), and ontological security on home buying (Saunders & Williams, 1988) overtime changes household wealth influencing on-going housing affordability (Bangura & Lee, 2019; Chen et al., 2010; Meen, 2013). However, the relational view here facades the interwoven connection of all these household agency elements (their motives, actions, knowledge, ontological security and time dynamics) to the central issue of housing affordability.

This paper has several implications as to how housing affordability needs be understood. Because these agency elements are complex and subjective to households, and are time-bounded, housing affordability also becomes complex (Chen et al., 2010; Stone, 2006a and b, pp. 38–60) and subjective; notions based on which norms cannot be built. For instance, norms such as wealth accumulation in the housing ladder over a period of time would improve on-going housing affordability (Bangura & Lee, 2019; Meen, 2013; Chen et al., 2010 etc.), but it can be distorted by the changes in lifestyles and social-spatial relations of households with time, as it was shown in the study empirics. Moreover, both household agency and the structuration of housing outcomes being time bounded would mean that housing affordability cannot be achieved with definitive ends. Therefore, housing affordability cannot be tackled by separately understanding either structural demand and supply formations in the markets or the agency behavioural aspects as it happens now. It is essential that both aspects are understood together.

7. Conclusions

The DHNS case study has emphasised that the relational view, which explored the relationship between housing (structural aspect) with households' (agency aspect), can also explore the complex variables associated with the housing affordability concept in the 21st-century. It provides a theoretical affirmation that housing affordability is not only about intrinsic housing or rental prices or household income but also about two main aspects. It involves complex household motivations (lifestyles, housing pathways and networks of social-spatial relations). Moreover, it encompasses household actions in trading-off those housing motivations (aspirations) with the housing costs they incur by mobilising their provisional knowledge and ontological security on residential places at the time. Housing affordability being a function of household income and housing cost (Gan & Hill, 2009; Stone, 2006a, b, pp. 38–60; Kutty, 2005; Bramley, 1990; Lerman & Reeder, 1987) denotes only part of the problem. Agency factors reflect the reasoning behind the household income expenditure on renting or purchasing housing, bringing in the 21st-century influencers to the housing affordability equation. The structural perspective of housing affordability outcomes highlights what those agency factors affect collectively, which were already discussed under the geographical approaches to housing affordability (Haas et al., 2013; Mulliner et al., 2016). This study unveils how agency factors turn housing affordability into a subjective notion, moving housing from mere place-based qualities of production and consumption to a much greater geographical span that engages and shapes its nature. These condition pushes housing markets to be structured fragmentarily in terms of their capability to offer different household aspirations. Moreover, over-time effects via external forces on residential locations can rescale the places for whom those would be affordable. These dynamic effects influence the on-going housing affordability of households both positively and negatively, depending on how well such dynamics are on par with the dynamics of household aspirations. In the 21st-century, it is challenging to develop norms that explain the households' housing choices, and so is housing affordability, which is not a concept that planners can achieve with certainty.

The findings inform several implications for the planning and housing practices that aim to deliver housing affordability outcomes. Firstly, it highlights that housing affordability cannot be achieved simply by increasing the number of houses based on the rationale that the more the volume is increased, the more it will bring down housing or rental costs for households to afford. Price and volume are crucial, but in order to achieve housing affordability in the 21st-century market conditions, planning policies and initiatives are essential to identify and meet different dynamic life aspirations of communities over time. Those policies and initiatives need to be supported by communicative actions informing them about these various housing choice subjectivities and housing outcomes dynamics. Policies and initiatives need to work on an incremental basis to achieve housing affordability. These understandings are not to state that achieving housing affordability is elusive, but to inform that it is a process based on which one needs to continue working.

Declaration of competing interest

We declare that we have no conflicts of interest to disclose.

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