Responsive Environments: an outline of a method for determining context sensitive planning interventions to enhance health and wellbeing

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Abstract

Much thinking in planning for health and wellbeing is guided by a focus on the fair distribution of ‘goods’, such as proximity to accessible green space or the provision of facilities like outdoor gym equipment, cycleways and playgrounds. Less attention is focused on the aspirations which people seek these ‘goods’ to help realise. Hence, this paper presents and discusses an exploratory approach aimed at helping planning support user desires. It does so by advancing a method informed through the integration of the ‘Capability Approach’ and ‘Affordances Theory’. The paper first identifies and summarises deficiencies in the prevailing approach to planning for health and wellbeing. The primary elements of the Capability Approach and Affordances Theory are then outlined and discussed as correctives to these deficiencies. How these inform the development of a method for planning more responsive environments is outlined and a description of this method is provided. The advantages of this method are subsequently illustrated through a review of its application to three exploratory case studies. The paper closes with some summary conclusions on the benefit of this approach in the context of the critique provided at the beginning of the paper, with specific reference to how it may complement rather than challenge the prevailing approach to planning for health and wellbeing.

Introduction

Recent years have witnessed a concerted desire by planning practitioners to address issues of health and wellbeing (Barton, 2017; Barton et al., 2015; Corburn, 2013; Coutts, 2016; Gardsjord et al., 2014; Pearce, 2013; Rydin et al.; Thompson et al., 2010). This has included efforts to quantifiably assess the supply of environmental ‘goods’, such as proximity to green space or the availability of sports facilities, as a means for gauging improvements in the delivery of health and wellbeing enhancing environments (Beyer et al., 2014; Ngom et al., 2016; Ord et al., 2013; Thompson et al., 2014; van den Berg et al., 2015; van den Berg et al., 2010). Much thinking in this field is underpinned by efforts to give institutional expression to a Rawlsian-informed position on the equitable distribution of these ‘goods’, so that the impartial supply of interventions, and even positive bias in the geography of interventions that favour socially deprived neighbourhoods, have often eclipsed attention to the use desires of those who are deemed to benefit from such efforts (Cole et al., 2017). Therefore, while quantifiable measures of access are useful, this approach often fails to account for the health benefits afforded to different users by different types of green space distributions and configurations (Hartig et al., 2014, Bowler et al., 2010, Velarde et al., 2007, Jorgensen and Gobster, 2010).
Hence, although well intentioned, this approach often foregrounds ‘means’ (e.g. proximity to green space) over ‘ends’ (e.g. the varying aspirations of green space users) in the planning of interventions for health and wellbeing, thus risking that the contextual contingencies of user aspirations are overlooked (Edwards et al., 2014; Sugiyama et al., 2010; Kaczynski et al., 2009). Put differently, such a deontological approach grounded in the arguments of a Rawlsian-informed perspective on ‘justice as fairness’ is generally concerned with the distribution of ‘good things’ as a measure of an equitable distribution of opportunity, rather than in the actual role these good things may serve in providing people with the opportunity to realise their aspirations. Consequently, there is often a focus on ensuring equity in ‘what’ is introduced ‘where’, with less attention allocated to a detailed consideration on ‘why’ an intervention is introduced relative to the spatial aspirations of the users at ‘whom’ it is targeted (Lennon et al., 2017). In part, this may be attributed to problems in translating an abstract and institutionally focused political philosophy of justice into specific and applied planning and design practices (Campbell, 2006). Nevertheless, the ultimate consequence of this difficulty may result in the formulation of initiatives aimed at enhancing health and wellbeing that have little effect resultant from their lack of responsiveness to the use desires of the communities they are supposed to serve (Anguelovski et al., 2018). Therefore, what is required is a framework that respects and responds to contextual issues in the determination of what health and wellbeing interventions best serve the specific needs and desires of a community. One way to achieve this is by mobilising the application-focused philosophy of Amartya Sen in devising a method for determining user needs and desires.

Although often acknowledging his debt to the philosophy of Rawls’ (Sen, 1992; 2004), Sen has been critical of the Rawlsian focus on ‘means’ (‘goods’) at the expense of ‘ends’, as he believes that such an approach ‘seems to take little note of the diversity of human beings’ (Sen, 1980: 215), and in particular, the variety of different ‘ends’ (aspirations) that people may hold. Indeed, in seeking to account for such diversity, Sen inverts the abstract and top-down philosophy of Rawls through proposing an alternative trajectory of bottom-up applied thinking that directly responds to the variety of human desires and capacities. Hence, whereas,

Rawls’s underlying question is “what would make human beings equal regardless of their residual diversity”; Sen’s underlying question is “what would make human beings more equal in consideration of their inherent diversity.” (Basta, 2015: 10)

It is in this context that Sen advances a ‘capability approach’ (CA) that focuses on the ‘ends’ people may hold in terms of their desired ‘beings and doings’ (Robeyns, 2005) expressed in general terms, such as ‘being part of a community’, ‘being able to easily access a nearby pleasant environment’ or ‘being able to walk alone in a secluded green space’. Importantly, Sen does not view the CA as overturning the work of Rawls. Rather, he contends that the CA ‘can be seen as a natural extension of Rawls’s concern with primary goods, shifting attention
from goods to what goods do to human beings’ (Sen, 1980: 219). As such, the CA offers scope to address issues concerning the contextual responsiveness of planning interventions arising when the abstractions of Rawlsian theory ‘walk into the world’ (Basta, 2015: 8). Accordingly, this paper presents and discusses a CA-informed method for determining responsive planning interventions to enhance the health and wellbeing supporting qualities of residential environments. The next section thereby outlines the CA. A brief overview of affordances theory is then provided, and an explanation is supplied as to how these can be integrated in formulating a coherent conceptual framework. The CA-informed method is then detailed. Following this, the method is applied to three exploratory case studies as a means to illustrate its advantages. The paper closes with some summary conclusions on the benefit of this approach.

**The Capability Approach**

The extensive publications and presentations by Sen (2001; 2005; 2009; 2013) and others closely associated with the CA (Nussbaum, 2000; Oosterlaken, 2015) may mislead one to assume that it wholly concerns poverty alleviation, development and human rights issues in the global south. However, there is conceptually or normatively no grounds to restrict the scope of the approach to such topics or these locations. Indeed, recent research has demonstrated the applicability of the CA to planning and design issues better aligned with experiences in more affluent countries (Basta, 2015; Wolff and De-Shalit, 2007). In this context, it is important to note that the CA presents a broad and flexible framework rooted in an attempt to acknowledge and respond to human diversity, rather than a precise political or moral theory of emancipation or justice (Hick and Burchardt, 2016; Qizilbash, 2012; Sen, 2002). Likewise, it is important to note that the CA is not intended as an ‘explanatory’ framework, as it does not seek to identify the determinants of a phenomenon. Instead, the CA furnishes a conceptual framework to guide evaluative and normative analyses, wherein the consideration of relative values (e.g. better or worse) are used to inform prescriptive stances on what ought to be done and why (Robeyns, 2017). Specifically, ‘The capability approach evaluates policies according to their impact on peoples’ capabilities. It asks whether people are being healthy, and whether the means or resources necessary for this capability are present’ (Robeyns, 2005: 95). From this examination, policies can be devised or revised to enhance the capability people have to be healthy. Hence, in the context of planning, ‘thinking of capabilities in places means shifting from thinking in terms of city development to thinking in terms of human development’ (Basta, 2015: 19). To realise this, the CA framework has a number of key conceptual elements. To the fore of these are ‘functionings’ and ‘capabilities’.

As contended by Sen, ‘The primary feature of well-being can be seen in terms of how a person “functions”, taking the term in a broad sense.’ (Sen, 1985: 197). For him,
‘A functioning is an achievement of a person: what he or she manages to do or be. It reflects, as it were, a part of the ‘state’ of that person. It has to be distinguished from the commodities which are used to achieve those functionings... It has to be distinguished also from the happiness generated by the functioning... A functioning is thus different from (1) having goods (and the corresponding characteristics), to which it is posterior, and (2) having utility (in the form of happiness resulting from that functioning), to which it is, in an important way, prior. (Sen, 1999: 7)

Therefore, living in proximity to a green space is not a ‘functioning’, as it is not something that a person manages to do or be: it is simply the measure of a geographical relationship. In this case, a focus on ‘functionings’ would instead seek to evaluate the level of achievement (functioning) of a desired activity or state of being facilitated by living in proximity to a particular green space. Here we see the inversion placed by Sen on the Rawlsian focus on means-ends relationships in the distribution of ‘goods’. For Sen, a focus on measuring the distribution of ‘goods’ risks generating a ‘means-ends’ policy focus (e.g. ensuring equity in proximity to green space) that masks the real benefits (‘ends’/’functionings’) that people seek from those ‘goods’ (e.g. birdwatching, jogging, picnicking). Sen thereby reasons that greater weight should be laid in policy formulation on identifying the contextually sensitive ‘functionings’ (‘ends’) people seek from ‘goods’. On this basis, policy design should be orientated towards helping people realise these aspirations. In essence, he proposes reversing the direction of how policy is conceived from a ‘means-ends’ emphasis to an ‘ends-means’ trajectory (see Figure 1).

![Figure 1](image)

**Figure 1**
Diagrammatic of representation of the relationship between the trajectory of intervention identification (y-axis) and evaluative foci (x-axis)
Whereas functionings are the ‘beings and doings’ of a person (Robeyns, 2017: 91), Sen conceives somebody’s ‘capability’ as ‘the various combination of functionings that a person can achieve. Capability is thus a set of combinations of functionings, reflecting the person’s freedom to lead one type of life or another’ (Sen, 1992: 40). Thus, while a person’s functionings and capabilities are closely related, they are viewed as conceptually distinct within the CA framework so as to assist in the development of coherent approaches to policy formulation. In this context, Sen explains that,

*A functioning is an achievement, whereas a capability is the ability to achieve. Functionings are, in a sense, more directly related to living conditions, since they are different aspects of living conditions. Capabilities, in contrast, are notions of freedom, in the positive sense: what real opportunities you have regarding the life you may lead.* (Sen, 1987: 36)

Accordingly, the relationship between functionings and capabilities is one of that between outcomes and opportunities. As noted by Nussbaum, ‘Functionings are beings and doings that are outgrowths or realizations of capabilities’ (2011: 25). This conceptual framework allows Sen to delineate between, evaluate and prescribe policy aimed at what he terms ‘well-being achievements’ and ‘well-being freedoms’ (Sen, 1993). Specifically,

*A person’s position in a social arrangement can be judged in two different perspectives, viz. (1) the actual achievement, and (2) the freedom to achieve. Achievement is concerned with what we manage to accomplish, and freedom with the real opportunity that we have to accomplish what we value.* (Sen, 1992: 31)

Hence, when formulating policy and endeavouring to evaluate its success, a Senian approach would involve: (a) establishing what particular functionings are being targeted; and (b) how this set of functionings work in enhancing the opportunities to realise that which is valued by the cohort at whom the policy is addressed.

As such, policy design requires an appreciation of the characteristics and aspirations of those for whom the policy seeks to serve. Sen thereby proposes the concept of ‘conversion factors’ as a way to contextually conceive how people and communities may respond differently to the availability of ‘goods’. Such conversion factors are what enable people to ‘convert’ means (goods) to ‘ends’, thus profiling their capabilities. In this way, the conceptual apparatus of conversion factors enables Sen to push beyond a focus on the ‘goods’ available to a person, towards a more nuanced understanding of ‘what’ these goods may do for people and ‘how’ they are facilitated or hindered in doing so. Therefore, in the context of planning for health and wellbeing, the focus of a CA analysis is not, for example simply on proximity, exposure or access to green space, but expands to lay emphasis on the relationship between the person and the particularities of that space as mediated by a series of interacting conversion factors in facilitating or hindering the realisation of desires (or even stimulating the emergence of
new desires). Three such conversion factors are proposed by Sen (Sen, 1992). First: ‘personal conversion factors’ influence how a person can convert a good into a ‘functioning’. For example, physical ability/disability, or a sense of vulnerability due to age or gender may influence a person’s perceived capability to convert the good of green space proximity into green space use. Second: ‘social conversion factors’ refer to how social forces such as societal perceptions, public policies and discriminating practices may have real effects on wellbeing by, for example, helping or hindering the capability of people to convert the good of green space proximity into a diversity of desirable green space uses, such as park management strategies aimed at curtailing anti-social behaviour that involve closing green spaces to the public at dusk. Third: ‘environmental conversion factors’ describe physical influences on a person’s capability, such as the lack of certain park attributes needed to facilitate desired activities, for example, a cycleway, secluded garden area, or playing pitch.

Acknowledging these conversion factors in the formulation of policy and design interventions means an appreciation that it is not adequate to simply ensure the provision of ‘goods’, such as outdoor gym equipment in public parks. Instead, it requires that planners attend to issues of desire and circumstance. Hence, it necessitates a move beyond a ‘thin’ theory of general consensus as a basis for planning activities that may be contextually detached (Stein and Harper, 2005), and towards a more responsive ‘thick’ conception of how to advance health and wellbeing that is sensitive to the contexts of individuals and communities. The advantage of the CA is that it supplies the conceptual tools needed to formulate interventions that in their context sensitivity respond to the complex needs of real people in actual situations. Nevertheless, Sen has been vague with respect to how the set of functionings and related capabilities to be advanced in policy are to be selected, beyond recommending in general terms that some form of democratic process should be involved. Indeed, to a large extent it has been left to the secondary literature to work through ideas on how to select and sequence what functionings and capabilities are targeted for whom and in which ways (Crocker and Robeyns, 2009). While some progress has been made in developing macro-level social choice procedures in the context of mobilising the CA in developing nations (Chakraborty, 1996), there remains a deficit of applied research into the potential of a CA approach to assist planning for health and wellbeing in affluent western settings (Basta and Moroni, 2013). It is in this context that ‘affordance theory’ supplies a means to conceptually relate the specific attributes of an existing environment and/or a planning intervention with conversion factors, and subsequently with the functionings and the capabilities that are facilitated.

**Affordances Theory**

Prevailing approaches in planning typically conceive the ‘perceiver’ as an ‘observer’ rather than active participant in the configuration of themselves and the environment in which they are positioned. It is from this perspective that much environmental preference-based research implicitly presumes that supplying increased exposure (Berto, 2005; James et al.,
Gibson’s (1979) ‘ecological approach’ to perception offers a potential corrective to this deficiency. Although having gained some currency with those researching children’s use of space (Heft, 1988; Jongeneel et al., 2015; Prieske et al., 2015), and how adolescents interact with green space (Clark and Uzzell, 2006; Townshend and Roberts, 2013), work inspired by Gibson’s research is limited regarding adult perceptions of green outdoor environments (Nordh and Østby, 2013), and is comparably unexplored in the context of planning for health and wellbeing. Central to Gibson’s approach is the idea that perception is an embodied, socially positioned and dynamic experience. From this locus, organisms perceive a world of potentialities identified relative to their social, psychological and biophysical capabilities. Such user-specific potentialities are the relative ‘affordances’ offered to somebody by something, such as a riverside path (‘walkability’), outdoor gym equipment (‘usability’) or community garden (‘communability’ with others). In applying the language of the CA, it is possible to conceive this world of potentialities as being profiled by the interactivity of ‘conversion factors’ as they mould a person- or group-centred sense of capabilities. Hence, in keeping with the CA, it is important to acknowledge the diversity of personal, social and environmental conversion factors that advance or hinder the realisation of needs and desires held by a diversity of people in relating to their world (Douglas et al., 2017; Withagen et al., 2017). Thus, to plan for health and wellbeing without contextual sensitivity of how a diversity of people relate to their experiences of place, risks curtailing the potential health and wellbeing benefits of such interventions (Bell et al., 2014). Hence, through integrating the conceptually attentive attribute-orientation of affordances theory with the sensitivity to diversity advanced in the conceptual structure of the CA, it is possible to construct an analytical framework that responds to contextual variances in peoples’ needs and desires that align attributes with aspirations in expanding the range of affordances that people enjoy with respect to their local environment (e.g. jogging, resting, birdwatching, meeting friends). In doing so, such an approach thereby enhances the ‘wellbeing freedoms’ people have with respect to use of their locality. Key to this is a recalibration of how interventions are formulated and targeted so as to respond to the particularities of those personal, social and environmental conversion factors evidenced within communities and the environments in which they are located. In essence, this involves retuning planning for health and wellbeing, so that it becomes an endeavour to address conversion factors in order to create ‘bridging-points’ that connect intervention attributes with affordances in responding to desired functionings and increasing the capabilities people have to both explore and enjoy the health and wellbeing opportunities offered by their environment (refer to Figure 2). For example, in the provision of a bowls area contiguous to a children’s playspace in response to a desire for:
(a) intergenerational socialisation within a safe space (personal and social conversion factors focused on wellbeing); and the provision of facilities for physical activity across the life-course (environmental conversion factors focused on physiological health).

Hence, what follows is the outline of a means to determine where and how to create these ‘bridging-points’. This approach is inspired by research that seeks to explore the connection between attributes and affordances (Aradi et al., 2016; Davids et al., 2016; Hadavi et al., 2015; Hartig et al., 2011; Nordh and Østby, 2013; Nordh et al., 2009; Withagen et al., 2012; Zipoli Caiani, 2014). Specifically, it draws upon the large and growing body of research employing photographs as a means to investigate peoples’ preferences (Almeida et al., 2016; Barroso et al., 2012; Hartig and Staats, 2006; van der Jagt et al., 2014). While this work varies in the type of environment examined, from waterscapes (Bulut and Yilmaz, 2009) and forest environments (Gundersen and Frivold, 2008), to private gardens (Harris et al., 2018) and urban recreational environments (Polat and Akay, 2015), research in this area generally seeks to quantify preferences as a means to inform decision-makers (Hadavi et al., 2015). However, by integrating an affordances perspective with the CA, the method described below moves beyond conventional studies that associate physical attributes with perceived affordances at a specific space and time towards an image-prompted qualitative understanding of ‘why’

Figure 2
Diagrammatic representation of the relationship between the Conceptual and Applied dimensions of the integrated CA-AT Framework
certain potential interventions are preferred. In doing so, it endeavours to complement rather than replace the work of others. It seeks to achieve this by furnishing a conceptual advancement that provides a means for planning to identify interventions that are responsive to the particular needs, aspirations and characteristics of people as elicited via an image-stimulated ‘self-reflective narrative’ of their ‘broader’ relationship with a particular place.

Determining Desires: outline of a method

The community engagement method developed to elicit and study peoples’ perceptions of the interventions seen as necessary to enhance the health and wellbeing opportunities of their environments focuses on the local spaces people use or seek to use on a regular basis. As such, this method seeks to connect people with places, and thereby furnish context sensitivity in the information garnered. Following the compilation of a photos-set, the consultation method is sequentially deployed in a two-step process, namely (1) sorting and (2) spatialisation. The entire process takes place at a ‘station’, comprising: two chairs, one for the participant and one for the researcher; and two tables, one for the ‘sorting’ exercise and one for the ‘spatialisation’ exercise. Photos are taken following the completion of each of the exercises to visually record the choices made by participants. An audio recording device is used to facilitate later review of the narratives given by participants and can be left recording for the duration of the process. The purpose of the consultation method is explained to the participant before they commence the exercises. While there are advantages around group-based exercises, such as their potential for consensus-building or as social learning (Lennon et al., 2016), this method is focused on individual respondents. This is to enable the research to capture individual experiences and map the contours of individual agency in terms of conversion factors, thereby helping planners and designers identify multiple pathways to enhancing wellbeing through green space design that emphasises sensitivity to the multidimensionality of context.

Photo-Set Compilation

Drawing on information from a residential survey of 532 respondents of mixed genders, ages and ethnic backgrounds, spread across two rural towns, two suburban environments and a dense urban area with differing socio-economic characteristics, a series of desired generic interventions for enhancing the health and wellbeing potential of local environments was determined. These varied from suggestions such as the installation of outdoor gym equipment and the supply of more pedestrian crossings to the provision of more natural outdoor play-spaces and calls for the improved maintenance of green spaces. Such suggestions formed the basis for the compilation of a series of photos illustrating those desired interventions that were most frequently recorded in the survey. This selection was then supplemented with photos illustrating the attributes indicated in the academic literature as most salient in determining the perception and use of spaces from a health and wellbeing perspective (Reference removed for peer-review). Informed by information garnered from
the survey, photos responsive to issues of vulnerability (personal conversion factors), such as artificial lighting, spaces populated with youths and secluded woodlands were included. To avoid possible effects of familiarity on the information elicited from participants, photos were sourced from the internet (Hadavi et al., 2015). A large selection of images was initially assembled. This was progressively reduced to twenty photos over two rounds of team discussions. It was deemed necessary to do this so as to avoid duplication and prevent participant confusion where it was possible to identify multiple potential interventions on an image (e.g. playing pitches and cycleways). The decision to reduce the photo-set to 20 images was based on a desire to balance an adequate array of characteristics and attributes with a desire not to overwhelm participants (Bullock, 2006), as well as to facilitate efficiency in the sorting exercise (see below).

**Sorting**

This exercise involves three tasks which are completed in sequence by a participant seated at a table. The first task involves the participant reviewing the entire photo-set, all 20 images of which are randomly arranged and fully visible. The participant is informed that each of the photos represents a particular characteristic or facility that one might expect or hope to find in a pleasant environment. The participant is then asked to select 15 photos that represent the characteristics or facilities that in their opinion would entice them to use the spaces in which they can be found. Hence, the participant has to remove 5 photos that represent those attributes they find least enticing (or potentially those they consider duplicated in other photos). Once the 15 photos have been selected, the exercise moves onto the second task. Here, the researcher asks the participant to imagine that they are thinking about how to improve the areas in and around their locality from a health and wellbeing perspective. In doing so, they are requested to create three options for improving these areas from the 15 photos they have selected in the first task. These options are referred to as Options A, B and C. Participants are informed that Option A should contain those characteristics or facilities that they find most attractive from a health and wellbeing perspective; with the photos they like second best to be placed in Option B; and the photos they like least in Option C. Following completion of this process, the third task commences. In this instance, the researcher asks the participant to rank the photos in each column from top to bottom with respect to the characteristics or facilities shown in the photos that would entice them most to a use a local space. Thus, the sequentially ordered three tasks of this sorting exercise are designed to progressively require the participant to: (1) narrow the range of characteristics and facilities that would entice them to use a local space, and: (2) rank these in order of priority. This sorting process thereby helps distil perceptions on those specific attributes of their locality that are considered most important to a particular user.

However, to fully understand the relationships between existing and potential attributes, conversion factors and the present or possible affordances presented by current or conceivable planning interventions, it is important that the participant be asked to explain:
(a) what each of the photos means to them; (b) the reasons for not selecting the 5 photos in the first task; (c) the reasons for placing the remaining 15 photos in each of the option columns, and; (d) the reasons for the order in which they have ranked the photos within each of the columns. In essence, this section of the sorting exercise acts as semi-structured interview based around the photos which have been arranged by the participant. Particular attention is allocated to eliciting from the participant information regarding ‘what’ are the specific attributes shown in the photos that they like most, and ‘why’ this is the case. Thus, connections are specified between attributes and affordances with respect to desired functionings. Probing into the reasons for arranging the photos into each of the options is conducted so as to appreciate how the participant perceives the interactivity between the different attributes, affordances and functionings identified. The participant is also questioned on the reasons for not selecting the 5 photos in the first task, so as to appreciate ‘what’ is considered less desirable, or if something is considered undesirable, and ‘why’. It is important that attention is given to elicit and appreciate the ‘voice’ of perspectives (personal conversion factors) that may be unconsciously overlooked in answers consequent on social norms (social conversion factors), wherein issues such as the influence of gender, race and age on spatial use and enjoyment may be elided in the answers provided due to expectations on how space ‘should’ be perceived by a ‘normal’ person (Greed, 1994). Thus, careful probing of issues surrounding vulnerability and alternative perspectives on the use desires of green spaces is an important dimension of the questioning process. Either throughout this interview process or in a subsequent review of the audio recording, the researcher notes the perceived associations mentioned by the participant between ‘what’ is shown in the photo under discussion (attributes), the reasons ‘why’ they are valued (desired functionings), ‘how’ the attributes facilitate the desired doings or beings (affordances), and any personal, social and/or physical issues (conversion factors) they believe currently do, or would potentially help or hinder realising the functionings interpreted from the photo. This provides the basis for an understanding of where planning interventions can be made in response to how people use or would like to use their local environment. Once this interview process is completed for all the photos, the process moves to the spatialisation exercise.

**Spatialisation**

This exercise involves linking the ‘abstract’ to the ‘applied’ as participants are directed towards an A1 sized aerial photo of their locality. The researcher assists in orientating the participant’s reading of the photo by noting their current location relative to a number of local landmarks, such as supermarkets, churches and parks that are labelled on the aerial photo. This exercise consists of two tasks. The first task involves shifting the attention of the participant from the generic to the specific. Accordingly, from the 15 photos selected and arranged into options in the sorting exercise (see above), the participant is asked to select 3 photos that represent the health and wellbeing characteristics or facilities that they think would entice them to more frequently use the areas shown on the aerial photo if introduced to the locality, or enhanced in the case of where they are already present. The participant is
then requested to indicate on the aerial photo where they think the facilities or characteristics represented in the 3 selected photos would make the greatest impact in improving the appeal of the area shown as a place to spend time for leisure or recreation\textsuperscript{iv}. This process thereby, (1) requires the participant to further distil their views on what attributes are most favoured, and (2) specify the locations where in the locality they believe the interventions that best provide opportunities for the realization of the attribute-associated functionings should be situated. In this sense, the spatialisation of such valued affordances supplies guidance to planners seeking knowledge on how best to target interventions for a tailored response to the aspirations of those using or wishing to enhance their use of local spaces. Once the participant has placed the 3 selected photos on the aerial photo, the researcher questions the participant on ‘what’ are the attributes they value in these photos in the context of ‘what’ are the desired doings or beings (functionings) these photos represent, ‘how’ the attributes identified in the photos ‘afford’ these functionings, and ‘why’ these are valued. The reasons ‘why’ the participant recommends introducing the specified attributes at particular positions in the locality are probed, with particular attention allocated to determining what personal, social or physical issues (conversion factors) the participant believes would help or hinder the impact of such interventions.

In the second task, the participant is supplied with two sets of icons. The first set of icons shows a person walking. The researcher explains to the participant that this set of icons can represent a new or enhanced walkway, for example through the provision of linkages, streetlights or better surfaces. The second set of icons shows a person on a bike. Similarly, the researcher explains to the participant that this set of icons can represent a new or enhanced cycleway. The participant is then asked to place these icons on the aerial photo where they think interventions could be made that would represent the greatest impact in enticing the participant to engage more frequently in walking and cycling in the locality. The participant is invited to arrange the icons on the aerial photo so as to indicate suggested routes for the walkways and cycleways, or to simply use the icons to indicate the approximate position of existing walkways and cycleways to be enhanced (see Figure 3). The researcher then questions the participant with respect to how the different icons have been placed. Probing of answers is used to ensure full appreciation of ‘what’ enhancements are desirable ‘where’ and ‘why’, as well as ‘what’ types of new routes are seen as desirable ‘where’, and ‘why’ this is the case. Particular attention is given to probing issues of concern regarding personal, social and physical matters (conversion factors) perceived as helping or hindering active mobility in the locality.
As with the sorting exercise, the information from both tasks is carefully noted either during the process or from recordings subsequent to the exercises. Such information thereby supplies a basis for a more holistic understanding of ‘what’ types of interventions to target ‘where’ and ‘why’ in creating health and wellbeing enhancements in a local environment that respond to the particularities of those resident or visiting the area. The next section illustrates the benefit of deploying this method in garnering a nuanced appreciation of peoples’ aspirations for use of their local environments.

Contextual Sensitivity: applying the method

To explore the value of this method in acquiring contextually sensitive information for planning health and wellbeing enhancements, it was utilised in a range of different local environments, namely in a rural town, a suburban residential neighbourhood, and a dense town centre area. In total, 53 people participated in the process, comprising a mix of ages, genders, ethnicities and socio-economic backgrounds. Working through the sorting and spatialisation processes with each participant took approximately 30 minutes. This time was necessary to facilitate effective image-prompted probing of the personal, social and physical/environmental reasons (conversion factors) given by participants for favouring certain interventions. Each of the stations was manned by an academic researcher, with the project PI present to monitor the deployment of the method, respond to any issues arising and ensure consistency. The method was applied within Ireland across a rural, suburban and urban case study area, reflecting the national population proportionate distribution across
these three settlement types. The inclusion of a rural case study is important: while studies of rural quality of life in Ireland (e.g. Brereton et al., 2011) have demonstrated the importance of the rural environment (e.g. open space, scenic landscapes, tranquillity) in contributing to enhanced wellbeing and life satisfaction, one of the paradoxes of rural living is that while rural residents are surrounded by green space, this is often inaccessible agricultural land and provision of accessible green space can be very limited. In comparison to the UK, rights of access across the Irish countryside is much less developed, while the provision of green spaces is very limited in smaller settlements. Within an Irish context, the research was also undertaken at a timely junction. Following the bursting of the ‘Celtic Tiger’ house-building boom in 2008, development and construction activity collapsed (see e.g. O’Callaghan et al., 2014; Waldron and Redmond, 2015) and severe austerity limited local government actions that were not directly linked to boosting the economy. However, as the economy recovers, debates surrounding place-making have a high national profile, for example evident with the publication of a new National Planning Framework in 2018 and also within the popular national discourse surrounding new housing supply and residential development, which provides a key departure point for citizen engagement with the environment.

*Rural: Banagher*

Banagher is rural town of approximately 1,760 people located in County Offaly in Ireland’s midlands (Central Statistics Office, 2016a). The area surrounding the town is characterised by fertile agricultural lands and family farmsteads of cereals and dairy. The economy of the town is closely linked to its agricultural hinterland and a sizable cement factory immediately west of the town centre. Located at the northern extent of the town is the expansive River Shannon, an associated harbour area and a series of large seasonal wetlands. The town effectively comprises two main streets on which are situated a number of shops and a pub. These streets converge at a central square, which is largely occupied by car parking areas. The ‘activity hub’ of the town is a small mall occupied by a supermarket, take-away and three small shops. Given issues of footfall in the town consequent on its size, and the need for shelter to ensure participants were protected from inclement weather when working through the sorting and selection processes, it was decided to deploy the method in this small mall. This was undertaken between 1500 and 1900 on a Thursday in March so as to align with times when traffic could be expected within the mall’s single pedestrian retail arcade ‘. Three stations were erected and a researcher positioned at each.

Those participating in the process were generally positive about the town. All remarked on Banagher’s strong sense of community and the availability of opportunities for walking, jogging and communing with nature. However, deficits were identified. In particular, the sorting exercise elicited a common narrative regarding the underutilisation of existing green spaces, as participants were asked to explain the reasons why they did not select photos showing different types of parks. As succinctly explained by one participant, ‘there’s loads of green space as it is, either in the town or on the edge of town’ (Participant BB3). Hence,
concern centred not on the supply of green space, but rather on its use. In this sense, specific attention was given by participants in both the narrative explanation prompted by the sorting exercise and in the subsequent spatialisation exercise to the role of the River Shannon. As concisely summarised by one participant, ‘I think the Shannon is our biggest asset and we need to use it more’ (Participant BA6). In this context, during the spatialisation exercise, almost all participants sought to enhance the riverbank area in some way, including suggestions for the provision of sheltered outdoor seating, a café kiosk and outdoor gym equipment ‘by the river where we walk and do everything’ (Participant BA4). Issues surrounding the utilisation of the riverbank area were associated by most participants with concerns regarding the underdeveloped walking and cycling network facilitating access to numerous attractions in the area. Hence, the concerns expressed were not primarily about the availability of amenities to attract people to engage in outdoor activities. Instead, a recurring pattern of concern emerged regarding the ability to access existing amenities, (including a disused railway line informally used for recreational walking), and latterly the enhancement of these. As such, all participants focused on enhancing access to existing locally identified amenities during the spatialisation exercise. For example, during the spatialisation exercise, one participant explained why he proposed creating stronger walking links between the town centre and the River Shannon as follows:

That track down there, is down to what’s called Tower Callow. So this is one of the Shannon Callows [seasonal riparian wetlands]. So that’s wildflower meadows in summer; flooded in winter. Full of birds, full of wildflowers; incredibly important habitat in a European context. And there is a path for one kilometre down it already…so, what I’m talking about is [providing] access from the town…That’s what I’m talking about: linking into the outdoor space and the important wildlife and habitats (Participant BB3).

Indeed, concerns regarding accessibility to amenities, rather than proximity or provision, emerged as a broader issue with respect to rural living during questioning surrounding the reasons for the prioritisation of particular photos and the specification of certain enhancements on the aerial photo. Here, concern was expressed by several participants regarding the car dependency of rural life. As conveyed by one interviewee,

I feel when I lived in really urban places, walkability is a lot easier because you’re able to walk places and you’re inclined to walk places. Like I was living in Birmingham a few years ago, and I was probably two or three miles from the city centre, and I walked so much; I walked everywhere. But here you have to use a car to get anywhere, to do anything. So, you tend to just use your car to go places…So, in one way a town is walkable, and in another way, because it’s a rural town, it’s not so much (Participant BB5).
Accordingly, the reflective narratives elicited by all participants during the sorting and spatialisation exercises, referenced and proposed solutions for the deficit of segregated walkways and roadside footpaths leading to amenities in the area that are seen to support health and wellbeing, such as the disused railway line. In some instances, this involved creating connections to form looped walks linking a series of natural and cultural heritage attractions. In others, it entailed extending the pavement to provide safe access to an already frequented destination (e.g. the town cemetery). Interestingly, no participants proposed cycleways within the town centre, as the road here was generally perceived to be too narrow to accommodate such an intervention. Instead, almost all participants sought to utilise cycleways as a means to connect the town to attractions in the broader rural hinterland, and to other towns in the region.

Therefore, what the deployment of this method in Banagher suggests is that interventions focused on ‘providing more’ facilitates would be misguided. This is consequent on local evaluations on the existence of these facilities, yet problems in accessing them. In essence, the narratives elicited through this method point to a broader issue of local mobility, rather than facilities provision. Consequently, standard planning interventions to enhance health and wellbeing, such as the installation of robust outdoor gym equipment, would likely have minimal impact in the absence of initiatives targeted at first improving access and active mobility in the area. In this context, the conversion factors required for the realisation of those functionings desired by the local community are primarily environmental, as personal conversion factors such as gender-related vulnerability, and social conversion factors such as management regimes, were rarely mentioned by participants. Hence, this research suggested that unlocking the potential affordances offered by amenities in the local area to improve the wellbeing freedom of residents to choose activities that reflect their interests involves a targeted series of interventions that affords greater access and circulation from the town to contiguous cultural and heritage amenities. Only once this is completed, should efforts at enhancing the provision of health and wellbeing facilities, such as outdoor gym equipment and outdoor sporting spaces, be undertaken.

Suburban: Ballybeg & Kilbarry
The contiguous suburban areas of Ballybeg and Kilbarry are situated south west of the centre of Waterford City and are closely associated in terms of landuse, history, social ties, demographics (age and ethnicity) and socio-economic characteristics. Approximately 3,997 people live in this suburban area (Central Statistics Office, 2016b). The residents of the area have a relatively low level of educational achievement when compared to other suburban areas in the city, and a high proportion of the local population are employed in occupations

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1 Where mention was made of vulnerability, this was confined to a small number of elderly participants who felt vulnerable in areas where young people may be present in groups.
classed within the lower socio-economic categories used by the Irish Central Statistics Office\(^2\). Ballybeg-Kilbarry is characterised by extensive areas of accessible green space provision, although the quality of such space is poor, with vandalism a recurrent problem in the area. Vehicular movement in the area is facilitated by a number of wide roads, almost all of which include a generously proportioned footpath. A small convenience store services the area. Adjacent to this is the façade of a pub that was destroyed in a fire in April 2011. A community centre café and fenced community garden located nearby currently serves as the ‘activity hub’ for the community. Consequent on issues of low footfall in the public realm, and the need for shelter to ensure participants were protected from intemperate conditions when progressing through the sorting and selection exercises, it was decided to deploy the consultation method in the community café. Advance notice of the presence of the consultation event was provided to residents by way of a leaflet drop. The consultation process was undertaken between 1000 and 1430 on a Thursday in November, prior to the busy Christmas shopping season when it would be less likely that residents would be spending time in the community café. Three stations were erected and a researcher positioned at each.

Those who participated in the consultation process expressed a strong attachment to the area but were nevertheless concerned regarding a number of issues they believed impeded the health and wellbeing potential of the environment. Of particular note were issues surrounding ‘gatherings’, both in the sense of problems associated with anti-social behaviour and in the lack of opportunities of places for the community to socially interact since the destruction of the local pub in 2011. As relayed by one interviewee when explaining the reasons for not favouring photos showing woodlands, park benches and children playing on a log; ‘Don’t get me wrong; I’d love it. But I’d be concerned about anti-social behaviour or gatherings’ (Participant KB2), with another explaining why a photo of roadside planting was not selected stating that ‘the problem with things we have around here is that we’re putting up things and they’re getting destroyed’ (Participant KA3). This issue was echoed by many participants, with one succinctly conveying the concern when reflecting on previous well-intentioned planning interventions,

\begin{quote}
Over the last ten or twenty years we’ve had lots of people coming out with lots of ideas for the community, and one of the council’s [Local Planning Authority] ideas several years ago would have been to plant a big wood nearby. In theory this sounded very good; in practice then, we didn’t feel it was the best thing from a community safety point of view. We didn’t feel that having an isolated, covered-in area in the community would be the safest for residents. (Participant KB4)
\end{quote}

\(^2\) The entire population is classified into one of seven social class groups, ranked on the basis of occupation. The Occupation classifications used in the census are based on the UK Standard Occupational Classification (SOC), with modifications to reflect Irish labour market conditions.
Against this backdrop, all participants felt that providing greater opportunities for people within the area to socially interact in a safe communal setting was a key requirement to enhancing the health and wellbeing supporting qualities of the local environment. It is in this sense that images showing people gathering for passive leisure or active recreation emerged as a recurring pattern across participants’ arrangement of photos in Option A during the sorting exercise. As concisely relayed by one participant, ‘A lot of my ones in number A have people in them; social spaces’ (Participant KC1). This desire for the provision and arrangement of interventions that afford opportunities for socialisation was a salient theme throughout the consultation process. Hence, most participants explained the choice and ranking of photos in Option A as focused on ‘community-based activities…anything that gets people together outside’ (Participant KA3). The reasons ‘why’ this was deemed so important for the residents of the area was articulated by one participant when explaining that,

*All of the ones in [Option] A are about community and meeting together...there’s not really a lot of places around here that are open to the public, for people to go and congregate, and just meet up and have a chat and a laugh...where people can meet, otherwise the community is going to fall apart.* (Participant KB3)

Reflecting this, a clear trend was identifiable during the spatialisation exercise of participants selecting three photos that they felt would synergistically operate in responding to residents’ desires for greater community interaction if co-located. As rationalised by one participant when explaining their decisions, ‘I would like these centralised to consolidate [uses]’ (Participant KA3). A similar desire for the centralisation of interventions ‘so people can meet and gather’ (Participant KC3) and enjoy ‘intergenerational opportunities to mix’ (Participant KA2) was reflected in the positioning of walkway and cycleway icons on the aerial photo where participants sought to use such interventions as a means to ‘blur boundaries and help integrate communities’ (Participant KB4) by providing connectivity both within and beyond the area. Interestingly, and in contrast to the case of Banagher, broader issues of mobility did not appear as matters of significant concern, with the exception of a common desire for more pedestrian crossings in the areas surrounding the recommended co-located interventions for enhancing community socialisation.

Thus, what the deployment of this method in Ballybeg-Kilbarry suggests is that interventions focused solely on providing greater access to nearby green space would be misguided. Likewise, focusing on the supply of standard interventions, such as outdoor gym equipment or new walking tracks in the absence of contextual sensitivity to the desires of the community regarding ‘what’ should be located ‘where’ and ‘why’, would likely have little effect, and may even result in negative impacts as poorly planned interventions become sites of anti-social behaviour that further deters residents from actively engaging with their outdoor environment. Hence, what is required is attention to the geography of the relationship between the forms of interventions, their location and the sense of vulnerability to anti-social
activity felt by residents of the area. It is in this context that the conversion factors requiring attention for the realisation of the desired functioning - enhanced social interaction - expressed by participants are three-fold and closely related: personal (sense of vulnerability); social (issues of anti-social behaviour) and environmental (the co-location of desired amenities). Coordinating efforts with social services and local youth workers should therefore be undertaken to help inform the types of interventions that can address the constraining social conversion factors inhibiting use of public spaces. In conjunction with interventions targeting environmental conversion factors - such as the co-location of an often mentioned contiguous café, bowls and playground in an accessible area - these would help address personal conversion factors centred on a sense of vulnerability by supplying spaces of active socialisation and positive intergenerational contact that are ‘not out of the way’, but rather are ‘good for passive surveillance’ (Participant KCS).

**Urban: Tallaght Town Centre**

Tallaght Town Centre is located to the south west of Dublin city centre and is characterised by a dense residential environment of apartment blocks, offices buildings, a hospital, one of Ireland’s largest shopping malls, a theatre and a number of hotels. A significant volume of space in the area is allocated to multi-storey and surface car parking. The area is also well serviced by bus routes and a light rail transit system. Approximately 5,733 people live in Tallaght Town Centre, with a diversity of socio-demographic characteristics (age, ethnicity, social class) evident (Central Statistics Office, 2016b). There are a number of well-maintained parks located in proximity to the area. Similar to the consultations in Banagher and Ballbeg-Kilbarry described above, resulting from the need for shelter to ensure participants were protected from the weather, it was decided to deploy the consultation method in a community café situated in the middle of the Town Centre area. Advance notice of the presence of the consultation event was supplied to residents by way of a leaflet drop. The consultation process was undertaken between 1200 and 1930 on a Tuesday in November. Four stations were erected and a researcher positioned at each.

In general, participants enjoyed Tallaght Town Centre and the range of amenities it offered. However, there was particular concern expressed that the area does not currently afford many opportunities to comfortably relax, ‘especially in public spaces; if the kids are outdoors, you can’t watch them’ (Participant TB4). Hence, in the sorting exercise, a pattern emerged of participants ordering the photos to reflect a desire for public realm improvements that would enhance the attractiveness of the town centre area as a space to leisurely spend time. As articulated by one participant in explaining the reasoning behind the ranking of photos in Option A: ‘The first three cards [photos] are connected; it’s about being outside relaxing with friends and family’ (Participant TA3). In this context, many participants expressed a desire for a more pedestrian friendly public realm. This view was conveyed by one participant when clarifying the reason he had decided to not select a number of photos in the sorting exercise:
I’ve excluded a number of road-based photos because if you want to have a proper urban centre you need to have a pedestrian area and they [the photos] represent through traffic. Whereas I think we should be avoiding it as much as possible. (Participant TC2)

Hence, in suggesting where a select number of interventions could make greatest impact on enhancing health and wellbeing in the local environment, many participants justified their focus on ‘greening’ the car dominated public realm on the basis of ‘we do miss seating; so that’s the first thing’ (Participant TA5). Particularly favoured was a configuration of uses that combined an outdoor café and seating area for parents in proximity to a safe and visible children’s play space. As outlined by one participant with reference to the ordering of photos in Option A,

It’s [outdoor café & seating] probably needed to be under a shelter like this [referencing a photo]...so you can have your coffee while your kids are playing, if it’s not raining and you’re a little bit sheltered. (Participant TB1)

Thematically similar, but with a geographical focus on parks in the area, was a related desire to facilitate spaces for passive relaxation. Here, many participants expressed the view during the spatialisation exercise that a café kiosk with associated outdoor seating would address a deficit of outdoor relaxation opportunities and create an attractive destination that would draw people into such green spaces. As succinctly conveyed by one participant,

I think this [referencing photo of an outdoor café kiosk and seating] is the most important out of everything because its inclusive. Everybody can come here, and people will love places like this; to relax in the open air instead of going inside a mall. (Participant TA3)

Thus, a recurring pattern during the spatialisation exercise was a suggestion to co-locate and integrate an outdoor café with seating in creating spaces that simultaneously afford opportunities for parents to relax and children to play. As relayed by one participant when explaining the logic of the three photos chosen and placed on the aerial photo:

I think they could all be integrated. Some of them are already there, but I think if you’re going to have a cluster of coffee shops; make the area around it more accessible. Stuff that kids play with isn’t necessarily kids stuff...you could have an urban garden going around the shopping centre or going around the area and having little walking trails interspersed with it. (Participant TC2)

Also conveyed in this explanation is a perception held by the majority of participants, namely that simple looped walkways and cycleways connecting destinations like the hospital and shopping centre would suffice, as much of the desired walking and cycling infrastructure is already in place.
Therefore, what the deployment of this method in Tallaght Town Centre suggests is that interventions focused on the supply of goods, such new walking tracks or sports facilities, may have high financial costs but marginal impact, especially given the accessibility of the area by a variety of transport modes, as well as the availability of organised sporting clubs and indoor gymnasia within close proximity. Furthermore, it is noted that personal conversion factors such as gender or age-related vulnerability, and social conversion factors such as anti-social behaviour or public space management regimes, were not mentioned by participants. In this context, the conversion factors to be targeted in helping residents to realise their desired functionings are primarily environmental. Hence, this research indicates that enhancing the health and wellbeing quality of the local environment in response to the desired functionings of those participating in the consultation exercise, involves simple interventions that afford opportunities for relaxation while passively monitoring one’s children at play. While at first blush such interventions seem to only support sedentary activities among adult cohorts, their introduction would result in the creation of destinations that entice residents to walk outdoors and relax in spaces that afford opportunities for social engagement, thereby supporting physical health and socio-psychological wellbeing.

**Conclusion**

The literature generally endorses the view that green spaces, as part of the wider environmental context, promote health and wellbeing (Maas et al., 2006, WHO, 2016) and provide health services as part of a wider array of ecosystems services (Jackson et al., 2013, Lennon and Scott, 2014). These health services are understood to range from direct positive effects on mental and physical health to improved wellbeing resulting from physical activity and social engagement in green space (Sandifer et al., 2015). As a result, access to green space is increasingly framed as an environmental justice issue (Nesbitt et al., 2018; Walker 2012) focusing on the equitable distribution of green space. For example, in a major review of the Anglo-American literature, Wolch et al. (2014) outline that most studies reveal that the distribution of such space often disproportionally benefits predominantly white and more affluent communities. Moreover, green space interventions have been increasingly critiqued in relation to the potential for green space led gentrification through its impact of property values and thus displacement of lower income groups (Curran and Hamilton, 2012; Scott et al., 2016). While recognising the importance of access and equity, we seek to contribute further to these debates by complementing a concern with spatial distribution with greater attention given to the quality of green spaces provided. However, undermining the effective provision of green space for health and wellbeing are difficulties in formulating broadly applicable concepts on what constitutes ‘quality’. In other words, the existence of green space in a locality does not always equate with a health-promoting environment. For example, within an urban context, perceptions of vandalism, safety concerns and poor design may undermine the use of green space (Walker, 2012). As such, it is clear that the ‘quality’ of
greenspaces is at least as important as ‘quantity’ and ‘proximity’ in promoting physical activity.

This paper has sought to respond to this oft neglected position of ‘quality’ in planning for health and wellbeing by providing an outline introduction to the CA and Affordances Theory with a view to demonstrating how integrating these perspectives provides a conceptual advancement that pushes planning research beyond generic correlations between ‘what’ affordances are perceived by ‘whom’ at a particular space and time. Specifically, this paper has sought to supplying a means for planners to determine ‘what’ affordances are perceived by ‘whom’, ‘where’, ‘when’ and ‘why’. As demonstrated through a series of exploratory case studies, this is achieved via a photo-elicitation method that prompts an informative narrative as to ‘why’ certain interventions are favoured over others. The narrative of reasons provided in this process thus supplies the ‘thick description’ necessary to appreciate what affordances are sought, rather than the attribute-specific details of what affordances are provided by objects already in place. As such, it allows planners to plan in a responsive manner. At the core of this is attention to the ways in which conversion factors mediate between the attributes of an object or space and the affordances such an object or space are perceived to offer. Indeed, through attending to conversion factors, this paper argues that planning is better positioned to respond to issues of ‘why’ certain functionings are considered as more important by the users or potential users of particular spaces, and ‘how’ they can be met through interventions that expand the wellbeing freedoms of those users of the spaces that are planned.

This is undertaken as a corrective to problems associated with a ‘means’ focused approach to planning that is predominantly concerned with ensuring equitable access of opportunities through the allocation of access to ‘goods’. Specifically, the integrated CA-affordances approach presented above seeks to address how a focus on the supply of ‘means’ may inadvertently impede the impact of ‘goods’ allocation by failing to appreciate the ‘ends’ sought by those to whom the provision of such ‘goods’ is directed. Accordingly, the framework advanced in this paper seeks to complement rather than replace well-intentioned Rawlsian-inspired efforts at enhancing the health and wellbeing qualities of residential environments. In this sense, planning for health and wellbeing entails applying a Rawlsian-inspired focus on the equitable distribution of opportunity through the fair distribution of ‘goods’ at the scales of countries, counties and cities that is complemented by a Senian-inspired focus on augmenting ‘wellbeing freedom’ at the local level through a focus on facilitating the desired ‘ends’ to which the recipients of ‘goods’ seek to use them in realising.

Planning has long since moved from a general disregard for context and how people give meaning to space through both their shared use of it and affect for it. Advances in the theory and practice of community participation in decision-making from the strategic to the specific and across spatial scales of planning reflect this (Paine et al, 2018). This paper seeks to
complement and extend this body of literature and practice through the outline of a methodological approach for determining context sensitive planning interventions to enhance health and wellbeing. Hence, although an exploratory endeavour to formulate a way for the planning of responsive environments, the method outlined above provides a novel and effective means for planners to both determine and respond to the diversity and contextual particularities of real people as they relate to actual places.

References


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1 Sen dedicated one of his most famous works, *The Idea of Justice* (2009), ‘In Memory of John Rawls’.

2 A camera enabled smartphone with a recording app may be used.

3 Consent is sought, and some basic information logged regarding age, gender and whether the person lives locally or is a visitor. In the case of the latter, the frequency of visits to the area per week is recorded.

4 The 3 photos were placed on the aerial photo and the area proposed for the intervention indicated with some Blu Tack connecting each of the photos to the relevant position on the aerial photo.

5 Thursday afternoon and early evening is a popular grocery shopping time in rural Ireland as people prepare for the approaching weekend.