



**Review: Planning for Happy Neighborhoods**

Journal:	<i>Journal of the American Planning Association</i>
Manuscript ID	RJPA-2015-0167.R2
Manuscript Type:	Original Article
Keywords:	neighborhood, happiness, subjective well being, life satisfaction, built environment

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**Review: Planning for Happy Neighborhoods**

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1  
2  
3 Abstract  
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8 *Problem:* Planning for healthy communities is of increasing interest in the profession.  
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10 Although much is known about how planners can affect physical health through  
11 neighborhood design, less is known about how planners can affect mental health and well  
12 being in neighborhoods.  
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20 *Research Strategy:* Drawing lessons from a cross-disciplinary set of studies, this review  
21 reveals how the neighborhood built environment may affect one aspect of residents' well  
22 being—happiness.  
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29 *Findings:* Providing residents access to open, natural, and green space may directly  
30 increase their happiness. Incorporating design features that allow for social interaction  
31 and safety also may promote residents' happiness.  
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39 *Takeaway for Practice:* Planners have the capacity to contribute to greater opportunities  
40 for happiness in neighborhoods. Strategies include 1) integrating happiness-related  
41 indicators into health impact assessments and 2) employing a new, participatory  
42 neighborhood planning process, the Sustainability through Happiness Framework.  
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50 *Keywords:* neighborhood, happiness, subjective well being, life satisfaction, built  
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## Introduction

Planning for health is of growing concern in the planning profession, as seen in the dozens of conference sessions, articles, and special issues of journals that have addressed this topic since the early 2000s (e.g., American Planning Association, 2015a; Frank, 2000; Boarnet, 2006; Doyle, Kelly-Schwartz, Schlossberg, & Stockard, 2006; McAndrews & Marcus, 2014; Corburn, Curl, Arredondo, & Malagon, 2015). Planners, however, have focused overwhelmingly on their role in advancing physical health. This leaves a gap in our understanding of the role that planners can play in increasing mental and emotional health and spiritual well being.

This review article helps to fill this gap by revealing how planners can shape happiness, an aspect of well being, on the neighborhood level. Diverse measures for happiness exist, including positive or negative emotions about immediate life experiences, overall life satisfaction, and one's sense of purpose, fulfillment, and self-realization. We use a holistic definition of happiness that captures its complexity in this article—how positively people feel about their lives.

First, we summarize lessons learned from a cross-disciplinary set of studies about the drivers of happiness. Then, we identify three neighborhood built environment characteristics that seem most directly related to residents' happiness: 1) access to open, natural, and green space, and 2) design features that allow for a) social interaction and b) personal security. Next, we show how planners can increase opportunities for neighborhood happiness by adapting health impact assessments and adopting a new participatory neighborhood planning process, the Sustainability through Happiness

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3 Framework. A health impact assessment is a tool that planners can use to assess a  
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5 proposed plan, policy, or project action and recommend decisions that would lead to  
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7 greater overall health and more equitable health outcomes. We recommend that planners  
8  
9 should integrate criteria addressing access to open, natural, and green space and design  
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11 features that allow for social interaction and safety into health impact assessments to  
12  
13 evaluate potential impacts on neighborhood happiness. Planners can use the  
14  
15 Sustainability through Happiness Framework to complement the use of health impact  
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17 assessments, since the Framework allows planners to proactively and collaboratively plan  
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19 with neighborhood residents for greater opportunities for neighborhood happiness.  
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21 Planning scholars also have a role to play in helping to identify effective planning  
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23 interventions. Future research directions include better understanding how much  
24  
25 neighborhoods shape residents' happiness and the complex ways that built environment  
26  
27 factors like the diversity of housing types, housing conditions, transportation  
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29 infrastructure, and polluting land uses affect happiness.  
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### 39 What Drives Happiness?

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43 Happiness, as a field of inquiry, spans disciplines as diverse as philosophy,  
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45 psychology, sociology, and economics; yet, it is relatively unexplored by planners (e.g.  
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47 Morris, 2011). Governments worldwide recently have called for attention to happiness in  
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49 social policymaking (e.g., Thin, 2012; Diener, 2000; Kelly, 2012; Large, 2010). As a  
50  
51 result there are many efforts to collect data on happiness within nations and across the  
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53 globe (Dolan, Peasgood, & White, 2008). These activities have led to an explosion in  
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3 knowledge on the drivers of happiness. We now know a great deal about the aspects of  
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5 people's identity, life circumstances and social relationships that lead them to be more or  
6  
7 less happy. We also have a growing understanding of how the characteristics of nations,  
8  
9 states, regions, and cities may affect happiness.  
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### 12 13 14 15 *Measuring Happiness* 16

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20 Happiness, or how positively people feel about their lives, is a multifaceted  
21  
22 concept with various options for measurement. Happiness is comprised of two  
23  
24 components. The first component, known as hedonic happiness, consists of positive or  
25  
26 negative emotions stemming from immediate experiences and overall life satisfaction  
27  
28 (Ryan & Deci, 2001; Diener, 2000). The second component is a more enduring sense of  
29  
30 purpose, fulfillment, and self-realization, known as eudaimonic happiness, which is not  
31  
32 necessarily influenced by recent experience (Ryan & Deci, 2001; Diener, 2000).  
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36  
37 Happiness research most commonly reports on life satisfaction and other hedonic  
38  
39 measures. Life satisfaction is captured as a global measure (overall life satisfaction) or as  
40  
41 a local measure pertaining to specific realms of life (e.g. family, friends, health, work,  
42  
43 etc.). Typically, happiness researchers measure life satisfaction through a series of  
44  
45 questions employing a 7 or 10 point Likert scale. An example statement might be "In  
46  
47 most ways, my life is close to ideal," where responding with a 1 means the respondent  
48  
49 "strongly disagrees" with the statement and a 7 or 10 means the respondent "strongly  
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51 agrees." Some studies directly ask about respondents' happiness or subjective well being.  
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54 Other studies account for overarching states like general well being, which includes  
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3 conditions other than happiness, such as physical and emotional health, access to basic  
4 needs, and quality of life. Research on the outcomes of using different measures of  
5  
6 perceived happiness finds that these measures are largely consistent (Diener, Suh, Lucas,  
7  
8 & Smith, 1999).  
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13 What unites the diverse measures of happiness is that these conditions are  
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15 *perceived* by individuals rather than *observed* in individuals. Debate, however, is heated  
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17 in the happiness literature on the value of accounting for perceived happiness and the  
18  
19 potential for using more objective measures, such as employing wearable technologies to  
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21 collect data on biostatistical indicators (e.g., skin reactivity, brain activity, surface skin  
22  
23 temperature, and stress measures). Research that objectively measures happiness is  
24  
25 limited to date.  
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28  
29 In this article, we use the term “happiness” to describe the findings of research  
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31 that can include various measures of mainly perceived happiness, life satisfaction, or  
32  
33 subjective well being.  
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### 36 37 38 *Individual Drivers* 39

40  
41 Much of our happiness is driven by traits that we are born with or acquire over  
42  
43 time. Studies of differences in happiness among twins with diverse life outcomes have  
44  
45 found that an estimated 33% to 52% of variation in happiness is explained by genetics  
46  
47 (De Neve, Christakis, Fowler, & Frey, 2012; Lykken & Tellegen, 1996; Nes, Røysamb,  
48  
49 Tambs, Harris, & Reichborn-Kjennerud, 2006). Some people are born with a higher  
50  
51 baseline level of happiness than others (Sheldon & Lyubomirsky, 2006). However,  
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53 changing life circumstances, like earnings, employment, and marital status, also can lead  
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3 a person with a particular baseline level of happiness to be more or less happy over time  
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6 (Lucas & Diener, 2008; Jokela, Bleidorn, Lamb, Gosling, & Rentfrow, 2015).  
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There is considerable consensus on the individual characteristics that lead to happiness across studies. Dolan et al. (2008)'s review of the findings of large sample size studies of happiness from mainly the economics literature highlights where consensus is tightest. Being Latino, physically or psychologically healthy, married, and trusting of others and society is strongly associated with being happier. Being a senior or young adult, female, religious, and earning more is also associated with being happier, but these relationships are weaker, meaning that the effects of these characteristics on happiness are smaller or there are diminishing returns. For instance, people who earn more are happier up to point, after which income does not strongly affect happiness. However, feeling that you are earning relatively more income than others is strongly associated with greater happiness. Conversely, being unemployed is strongly associated with less happiness. Being disabled is associated with being less happy, but this effect may become smaller over time by adapting to the disability. People who have higher ambitions and take care of others also tend to be less happy.

#### *Social Drivers*

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Social relationships exert a strong positive force on happiness (Diener & Seligman, 2002; Dolan et al., 2008; Holder & Coleman, 2009, Fowler & Christakis, 2008; Baumeister & Leary, 1995; Myers, 2000; Layard, 2005). Considering the tendency of very happy people to have deep and fulfilling social relationships, Diener and

1  
2  
3 Seligman (2002) propose “good social relationships are, like food and thermoregulation,  
4 universally important to human mood” (p. 83). Social engagement connects us with  
5  
6 others and prevents us from being isolated, which may help to bolster happiness over the  
7  
8 lifecycle (Hawton, Green, Dickens, & Richards, 2011). Social capital may arise from our  
9  
10 relationships when we trust and reciprocate with one another and share information and  
11  
12 social norms (Coleman, 1988). Social capital enables us to rely on our relationships to  
13  
14 obtain knowledge and resources and get things done (Coleman, 1988; De Souza Briggs,  
15  
16 1997). Greater trust of others, in turn, is associated with greater happiness (Layard,  
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18 2005).  
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### 27 *Geographic Drivers*

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29 There is a growing understanding of the role that national, state, regional, and city  
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31 geographies may play in happiness. Most of the scholarship on happiness at these scales  
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33 addresses how aggregate demographic and socioeconomic conditions within a geographic  
34  
35 unit affects its aggregate happiness. Largely overlooked are how geographic conditions  
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37 may affect *individual* happiness, and the potential role that the built environment may  
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39 play in aggregate happiness. Nations are most commonly studied, although there is  
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41 increasing interest in exploring variation in happiness among states, regions, and cities  
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43 within nations.  
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49 Debate on contributing factors is more heated in the body of literature on the  
50  
51 geographic drivers of happiness. An enduring conversation concerns the role that relative  
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53 versus absolute conditions play in a nation’s happiness. For instance, research shows that  
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55 nations that have higher incomes have higher happiness (Diener & Suh, 1997; Easterlin,  
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3 1995; Diener, Oishi, & Lucas, 2003). However, it is unclear whether countries with the  
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5 highest incomes always have the happiest people, or whether people who are relatively  
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7 high earners within poorer countries might also have high happiness (Deaton, 2008;  
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9 Stevenson & Wolfers, 2008; Easterlin, 1974, Easterlin, 1995). There also is growing  
10  
11 awareness that nations with greater income inequality may have lower levels of  
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13 happiness, though this claim is similarly debated (Wilkinson & Pickett, 2009;  
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15 Goldthorpe, 2010; Dolan et al., 2008).  
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20 This body of literature also highlights a range of factors that may affect happiness  
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22 after income is controlled for. Nations with a more individualistic culture tend to be  
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24 happier, potentially because their citizens have greater choices and freedom of self-  
25  
26 expression (Diener et al., 2003; Rentfrow, Mellander, & Florida, 2009). Happier  
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28 countries also seem to have stronger track records of human rights and greater social  
29  
30 equality (Rentfrow et al. 2009). Places with higher educational attainment have happier  
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32 people (Rentfrow et al., 2009; Lawless & Lucas, 2010; Florida, Mellander, & Rentfrow,  
33  
34 2013). States with a higher proportion of creative class workers—occupations like  
35  
36 computer science, architecture, and law that involve problem-solving and extensive  
37  
38 education—have residents who exhibit healthier behaviors but not necessarily greater  
39  
40 happiness (Rentfrow et al., 2009). People living in states with better climates are not  
41  
42 necessarily happier than those living in states with poorer climates (Schkade &  
43  
44 Kahneman, 1998). Cities with higher levels of income inequality may have lower  
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46 happiness (Glaeser, Resseger, & Tobio, 2009), but other studies show more mixed results  
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48 about the impact of income inequality at the state level on happiness (Dolan et al., 2008).  
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50 There is debate about the association between aggregate happiness and the inclusiveness  
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3 of a geographic unit, as approximated by the percent of cohabitating gays, artists, and  
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5 immigrants. Rentfrow et al. (2009) found no effect for gays and artists but a positive  
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7 effect of immigrants on happiness at the state level; Lawless and Lucas (2010) found a  
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9 weak or negative effect of gays, artists, and immigrants on happiness at the regional  
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11 level.  
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14  
15 There is also research that links housing values, population density, and commute  
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17 time with happiness. States with higher median housing values have greater happiness,  
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19 controlling for income (Rentfrow et al., 2009). One theory is that higher housing values  
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21 are associated with higher quality community amenities that make people happier, such  
22  
23 as top-rated schools, parks and open spaces, and shopping opportunities (Florida &  
24  
25 Mellander, 2010). Lower population density living also generally is associated with  
26  
27 greater happiness at various geographies ranging from national to city scale (Lawless &  
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29 Crider, Willits, & Kanagy, 1991 for a review), although other research finds modest or no effects from population density on  
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31 happiness (Florida et al., 2013; Crider et al., 1991). Research also shows that living in a  
32  
33 city or larger city adversely affects or does not affect happiness (e.g., Dolan et al. 2008;  
34  
35 Morris, 2011). One theory is that less dense places, rural areas, and small towns may  
36  
37 have greater social engagement and cohesion among neighbors, leading to greater  
38  
39 happiness (Crider et al., 1991). Another theory is that these places may be less  
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41 competitive, and their residents may have lower ambitions and more achievable goals,  
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43 which is a recipe for greater happiness (Clemente & Sauer, 1976). Studies addressing the  
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45 metropolitan level drivers of happiness also have examined commute time. Some studies  
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3 have found that long commute times detract from happiness (Stutzer & Frey, 2008;  
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5 Morris, 2011); others have found weak or no associations between commute time and  
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7 happiness (Florida et al., 2013; Lawless & Lucas, 2010).  
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### 10 11 12 An Underexplored Link: Neighborhood Built Environment and Happiness 13

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17 We draw on the findings from existing research in this section to show how the  
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19 neighborhood built environment may shape residents' happiness. We don't well  
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21 understand what makes some neighborhoods have happier residents than others, and how  
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23 neighborhood conditions affect residents' happiness. This is problematic, because  
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25 neighborhoods are a primary setting where life is carried out. The neighborhood built  
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27 environment also is a central realm of planning, where planners can enact change. The  
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29 built environment includes all elements of a neighborhood that are manmade and  
30  
31 influenced by local zoning, building codes, and land use regulations: buildings,  
32  
33 infrastructure systems, open and green spaces, and the interactions among these elements.  
34  
35 The built environment is distinct from the natural environment, a realm also addressed by  
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37 planners, which includes topography, climate, and water supply (Northridge, Sclar, &  
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39 Biswas, 2003).  
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### 48 *Design Features that Promote Social Engagement and Personal Security* 49

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53 The physical characteristics of a neighborhood, including its housing design and  
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55 density, street connectivity, land use mix, and the availability of public spaces, may lead  
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3 to more or less opportunities for social engagement among neighbors (Talen, 1999;  
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5 Duany, Plater-Zyberk, & Speck, 2010; Putnam, 2000; Leyden, 2003; Lund, 2003;  
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8 Williamson, 2002; Glaeser & Gottlieb, 2006; Brueckner & Largey, 2008; Freeman, 2001;  
9  
10 Mason, 2010). One theory is that places with more traditional neighborhood design  
11  
12 features—such as grid-lined streets, anterior garages, moderate housing density, and front  
13  
14 porches—have greater social engagement among neighbors. Studies testing this theory  
15  
16 find on some level that a more compact neighborhood urban form may lead to a higher  
17  
18 level of interaction among neighbors (Leyden, 2003; Lund, 2003; Mason, 2010). Strong  
19  
20 links exist between social engagement and happiness, as previously discussed. (Diener &  
21  
22 Seligman, 2002; Dolan et al., 2008; Layard, 2005). Thus, places with more traditional  
23  
24 neighborhood design may also have greater happiness, although researchers have yet to  
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26 establish this link.  
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31  
32 Interestingly, research that attempts to approximate a more compact urban form  
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34 by measuring the effect of geographic location (e.g. central city) or population or housing  
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36 density on social engagement tends to find no, mixed, or contradictory effects on social  
37  
38 engagement (Williamson, 2002; Glaeser & Gottlieb, 2006; Freeman, 2001; Brueckner &  
39  
40 Largey, 2008). Further, Morris (2011) found a negative relationship between population  
41  
42 density and happiness through analyzing national data from the Gallup-Healthways Well-  
43  
44 Being Index survey, suggesting that high levels of population density may be associated  
45  
46 with lower levels of happiness.  
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51 Two additional observations are warranted. First, more socially engaged residents  
52  
53 may be able to better combat threats like crime and recover from disasters (Sampson,  
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55 Raudenbush, & Earls, 1997; Seidman, 2013). Overcoming threats and crises may  
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3 reinforce residents' social ties and sense of agency and increase their happiness. Second,  
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5 researchers have not adequately studied whether or not a person's happiness depends on  
6  
7 social engagement with neighbors. Neighborhood residents may be happy and socially  
8  
9 engaged, just not with each other.  
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12  
13 A neighborhood's physical characteristics also affects its "eyes on the street,"  
14  
15 disorder and decay, and criminal opportunities (Wilson & Kelling, 1982; Skogan, 1990;  
16  
17 Cohen & Felson, 1979), which in turn shape residents' sense of personal security, stress,  
18  
19 and experience of crime—and thus ultimately happiness. For instance, residents living in  
20  
21 neighborhoods with buildings that have more street frontage and windows facing the  
22  
23 street may be more aware of what is happening in the neighborhood and able to contest  
24  
25 threats to personal security (Wilson & Kelling, 1982). In turn, neighborhoods with fewer  
26  
27 problems like vacant or deteriorating buildings and unlit spaces hidden from public view,  
28  
29 may have fewer places where people can engage in elicited behaviors, deterring criminal  
30  
31 activity (Skogan, 1990; Cohen & Felson, 1979).  
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36  
37 Research has established a link between residents' perceived personal security  
38  
39 and their level of happiness. Its results are conclusive—people who live in places they  
40  
41 perceive as threatening their personal security tend to be less happy (Dolan et al., 2008;  
42  
43 Lelkes, 2006; Morris, 2011; Cutrona, Russell, Brown, Clark, & Hessling, 2005).  
44  
45 Research analyzing the correlates of happiness among about 30,000 people from 21  
46  
47 countries using data from the European Social Survey found that those who lived in  
48  
49 unsafe areas had a 7% lower chance of being very happy (Lelkes, 2006). A study of 720  
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51 African American mothers living in small to mid-sized U.S. cities found that those who  
52  
53 lived in more disadvantaged neighborhoods with greater social disorder, as measured by  
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3 dilapidation, delinquency, and substance abuse, were unhappier, particularly after  
4  
5 undergoing a negative life event (Cutrona et al., 2005). Morris's national study (2011)  
6  
7 found that respondents' sense of personal security walking alone where they lived at  
8  
9 night was the geographic factor that contributed the most to their happiness.  
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### 12 13 14 15 *Access to Open, Natural, and Green Space*

16  
17  
18 Humans became isolated from the natural world relatively late in evolutionary  
19  
20 history. Yet, our engrained biological instincts may draw us to the outdoors (Nisbet,  
21  
22 Zelenski, & Murphy, 2011). E.O. Wilson used the term "biophilia" to characterize the  
23  
24 psychological benefits that people get from engaging with the natural environment and  
25  
26 living things (Wilson, 1984; Kellert & Wilson, 1983). A rich body of research has since  
27  
28 confirmed links between access to open, natural, and green environments and happiness  
29  
30 (Akers, Barton, Cossey, Gainsford, Griffin, & Micklewright, 2012; Kaplan, 2001; Wells  
31  
32 & Laquatra, 2010; Campbell & Wiesen, 2010). Access to these spaces can occur at  
33  
34 different scales—from a window over looking a grassy lawn or forest to living near a  
35  
36 regional park. Windows offer a brief respite from other activities with little effort  
37  
38 (Kaplan, 2001). Parks, community gardens, botanical gardens, building exteriors, and  
39  
40 rights-of-way are examples of "restorative" open spaces that may make people feel  
41  
42 happier (Campbell & Wiesen, 2010). Access to active, green environments may be  
43  
44 especially important to seniors' happiness (Wells & Laquatra, 2010; Loukaitou-Sideris,  
45  
46 Levy-Storms, Chen, & Brozen, 2016). Research shows that seniors who use or live near  
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48 parks report better physical and mental health, including happiness; however, parks must  
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3 offer appropriate facilities and programming to attract seniors (Loukaitou-Sideris et al.,  
4  
5  
6 2016).

7  
8 What about access to open, natural, and green spaces makes people happy is  
9  
10 debatable. Humans may have an affinity for nature, as mentioned above. Part of this  
11  
12 effect may connect to simply viewing the color green. Green contributes to feelings of  
13  
14 serenity (Akers et al., 2012). Green environments also symbolize fertility and food  
15  
16 availability, which historically have been critical to our survival (Akers et al., 2012).  
17  
18 Another theory is that open, natural, and green spaces may bolster happiness by  
19  
20 cultivating wonder and prompting exploration, since these spaces are complex and  
21  
22 malleable. Finally, these spaces may contribute to happiness by improving other aspects  
23  
24 of physical and mental health if they allow for activities like gardening and exercise  
25  
26 (Ferrer-i-Carbonell & Gowdy, 2007).  
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34 *Debatable Effects: Housing Diversity and Conditions, Transportation Infrastructure, and*  
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36 *Polluting Land Uses*  
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41 Existing research offers lessons on links between other neighborhood built  
42  
43 environment features and happiness, but the results are less conclusive. These elements  
44  
45 include a) housing diversity, b) housing conditions, c) transportation infrastructure, and  
46  
47 d) polluting land uses.  
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50 The diversity of housing types and tenures within a neighborhood may affect its  
51  
52 transiency and, in turn, its residents' social engagement and happiness. Neighborhoods  
53  
54 that have a broader range of housing types and tenures may have more opportunities for  
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3 residents to age in place, that is, stay in the neighborhood over the lifecycle. Places where  
4  
5 people age in place have low levels of residential transition and potentially greater social  
6  
7 engagement, cohesion, and happiness. The opportunity to age in place may be  
8  
9 particularly critical to seniors' happiness, as they rely more strongly on their existing  
10  
11 social networks and integrate their homes into their sense of self (Kochera, Straight, &  
12  
13 Guterbock, 2005; Harrell, Lynott, Guzman, & Lampkin, 2014; Carstensen, 2006;  
14  
15 Csikszentmihalyi & Rochberg-Halton, 1981).  
16  
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19  
20 However, neighborhoods with diverse housing types and tenures also may have  
21  
22 greater residential transition and less social engagement and cohesion. Homeowners stay  
23  
24 in place for longer than renters. About two-thirds of renters moved from 2005 to 2010  
25  
26 compared with less than one-quarter of homeowners (Ihrke & Faber, 2012). Residents  
27  
28 living in a neighborhood with more transient renters may be less socially engaged than  
29  
30 those living in a neighborhood with less transient homeowners (Putnam, 2000; Rohe &  
31  
32 Lindblad, 2013). Further, a neighborhood's mix of housing types, tenures, and costs  
33  
34 shapes its demographic and socioeconomic conditions. These conditions, in turn, may  
35  
36 influence residents' social connections and happiness. Older, wealthier, and more  
37  
38 educated people socialize more than younger, poorer, and less educated people (Putnam,  
39  
40 2000). Communities of concentrated poverty or affluence may be more socially  
41  
42 fragmented than middle class or socioeconomically diverse communities (Wilson, 1987;  
43  
44 Oliver, 1999). How the diversity of housing types and tenures within a community  
45  
46 impacts residents' happiness is still an open question.  
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52  
53 Relatively few studies assess the potential effects of housing conditions on  
54  
55 happiness. This is curious, given that the roots of planning stem in part from efforts to  
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3 ease overcrowding and improve housing conditions in slums (Sloane, 2006). Existing  
4  
5 research suggests that relative, as opposed to absolute, housing conditions may be most  
6  
7 associated with happiness. People who live in housing that is relatively better than where  
8  
9 they lived previously or in line with their aspired housing conditions may be happier  
10  
11 (Campbell & Converse, 1972; Campbell et al., 1976). In turn, having more desirable  
12  
13 housing conditions typically indicates living in a neighborhood with more desirable  
14  
15 community conditions, which actually may more directly influence residents' happiness  
16  
17 (Florida et al., 2013).  
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22 A neighborhood is not only a place but also a point of access to jobs, recreation,  
23  
24 shopping, and other features of a broader city and region. Access is enabled by a  
25  
26 neighborhood's transportation system, which has infrastructure that allows for the safe  
27  
28 and convenient use of transit, biking, walking, and driving. Infrastructure includes  
29  
30 features like pedestrian paths, bike lanes, bus and rail stops, parking, and freeway on and  
31  
32 off ramps. Transportation is a derived need. People's happiness may diminish if  
33  
34 inadequate transportation or mobility interferes with their pursuit of their life goals (e.g.,  
35  
36 visiting frequently with family or friends) or leads them to use a less desired  
37  
38 transportation mode (Ettema, Gärling, Olsson, & Friman, 2010).  
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43 Researchers have begun to examine links between a neighborhood's  
44  
45 transportation infrastructure and residents' happiness, but their conclusions are  
46  
47 inconsistent (e.g., Morris, 2011; Leyden, Goldberg, & Michelbach, 2011; Brereton,  
48  
49 Clinch, and Ferreria, 2008). Morris (2011) found that living near subways was associated  
50  
51 with being happier. Relationships between happiness and proximity to bus or commuter  
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53 rail were murkier; there was no relationship between living near jobs or shopping and  
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3 happiness. Leyden et al. (2011) found that people who felt that subways, trains, or buses  
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5 were more convenient to use in their city tended to be happier. Brereton, Clinch, and  
6  
7 Ferreria (2008) found no relationship between living near public transit and happiness in  
8  
9 their survey of 1,500 Irish people. Yet, those who lived closer to major roads were less  
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11 happy.  
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14  
15 Indirect evidence on how neighborhood transportation infrastructure may affect  
16  
17 happiness comes from a related body of research addressing links between travel  
18  
19 behavior and happiness (e.g., Morris, 2015; Morris & Guerra, 2015; Delbosc, 2012; De  
20  
21 Vos, Schwanen, Van Acker, & Witlox, 2013; Olsson, Gärling, Ettema, Friman, & Fujii,  
22  
23 2013; Ellaway, Macintyre, Hiscock, & Kearns, 2003). Neighborhoods with infrastructure  
24  
25 or regulations that encourage walking or bicycling, such as sidewalks, ample street  
26  
27 crossings, bike lanes, and slower traffic speeds, may have happier residents, since people  
28  
29 who spend more time walking and bicycling tend to be happier (Morris & Guerra, 2015;  
30  
31 Morris, 2015; Olsson et al., 2013). However, neighborhoods with infrastructure allowing  
32  
33 for vehicle ownership, such parking, also may have happier residents, since people who  
34  
35 have access to vehicles and travel by car tend to be happier (Morris, 2011; Morris &  
36  
37 Guerra, 2015; Ellaway et al., 2003). Clearly further research is needed to better  
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39 understand the tradeoffs of including infrastructure for different travel models on the  
40  
41 happiness of neighborhood residents.  
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49 This review has mainly focused on built environment characteristics that may  
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51 *increase* happiness, such urban designs that may lead to social engagement and personal  
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53 security and amenities like open, natural, and green space, transit, and others. However,  
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55 built environment characteristics also *decrease* physical and mental health (e.g.,  
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3 Kawakami, Winkleby, Skog, Szulkin, & Sundquist, 2011), and potentially happiness,  
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5 although researchers are still making this link. For instance, one factor that may explain  
6  
7 the mixed results on the link between access to transit and happiness is that living near  
8  
9 transit may also mean living near more noise, which may reduce happiness (Diener,  
10  
11 2000; Van Praag & Baarsma, 2005).  
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14  
15 Some research shows that living in a polluted environment may diminish  
16  
17 happiness (e.g., Ferrer-i-Carbonell & Gowdy, 2007; Welsch, 2006; Levinson, 2012; Li,  
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19 Folmer, & Xue, 2014). Ferrer-i-Carbonell & Gowdy (2007) found that, among a sample  
20  
21 of 10,000 people from the British Household Panel Survey, respondents who reported  
22  
23 living in a polluted environment were unhappier than people who did not report living in  
24  
25 a polluted environment. A handful of studies have used similar techniques to show that  
26  
27 people who have actual and perceived greater and more hazardous exposure to polluted  
28  
29 air tend to have lower happiness (e.g., Welsch, 2006; Levinson, 2012; Li, Folmer, & Xue,  
30  
31 2014). Yet, evidence is not consistent that pollution and other adverse environmental  
32  
33 factors are related to happiness (Dolan et al., 2008). A factor that might explain this is  
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35 that, at least in theory, residents who are exposed to pollution should have lower housing  
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37 costs (Van Praag & Baarsma, 2005).  
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#### 46 *Emerging Research: The Role of Personality*

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51 Emerging research suggests that the match between people's personality and the  
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53 characteristics of their neighborhood may shape their happiness (Jokela et al., 2015;  
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55 Cutrona et al., 2005; Rentfrow, Gosling, & Potter, 2008). People with certain  
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3 personalities tend to cluster in particular places—an outcome partly of historic migration  
4 patterns, repeated social interactions, and physical features like climate (Rentfrow et al.,  
5  
6 2008). More extraverted people tend to live in the Midwest and Deep South; more  
7  
8 neurotic people tend to live in the Northeast (Rentfrow et al., 2008). Some environmental  
9  
10 conditions may contribute to happiness only among people with certain personalities. For  
11  
12 example, Jokela et al. (2015), in a study of over 56,000 London residents, found that  
13  
14 more open-minded people had higher happiness in neighborhoods that had other open-  
15  
16 minded people, greater ethnic diversity, and population density. However, more  
17  
18 extraverted and emotionally stable people had similar happiness regardless of where they  
19  
20 lived.  
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27         Researchers have yet to study links among personality, neighborhood built  
28  
29 environment, and happiness, so it is too early to draw conclusions on the aspects of  
30  
31 neighborhood built environments that may vary with the distinct personalities of different  
32  
33 people. However, it is possible that residents may be more or less affected by the built  
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35 environment features discussed in this section depending on their personality.  
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#### 41 *The Main Takeaways for Planners*

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44         This section has highlighted three ways that neighborhood built environment may  
45  
46 affect residents' happiness. Traditional neighborhood design features may offer residents  
47  
48 greater opportunities for social engagement. Residents living in neighborhoods with  
49  
50 street frontage, windows facing the street, and fewer vacant buildings may have a greater  
51  
52 sense of personal security. Existing research confirms that people who are more socially  
53  
54 engaged and feel more personal security where they live are happier; thus, neighborhoods  
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3 with design features that allow for greater socialization and eyes on the street and less  
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5 disorder and criminal opportunities may have happier residents, although researchers  
6  
7 have yet to establish this link. In turn, places that offer access to open, natural, and green  
8  
9 space may have happier residents. Planners can use this knowledge to plan for greater  
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11 opportunities for neighborhood happiness in their communities.  
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15 The effects of other neighborhood built environment elements on happiness,  
16  
17 including the diversity of housing types, housing conditions, transportation infrastructure,  
18  
19 and polluting land uses, are more debatable. In turn, emerging research suggests that the  
20  
21 characteristics of a neighborhood may not uniformly affect residents' happiness; rather,  
22  
23 people's personalities may influence these effects. Further research is needed on these  
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25 topics in order to draw lessons for planning practice.  
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### 32 Planning for Happy Neighborhoods

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36 Planners can improve on neighborhood happiness by evaluating existing plans,  
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38 policies, or projects or collaboratively engaging with residents to develop new plans,  
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40 policies, and projects. There are only two models that we know of that provide guidance  
41  
42 to planners on how to undertake these tasks. The first is a health impact assessment  
43  
44 (HIA), which is a process that planners can use to understand the potential impacts of an  
45  
46 existing plan, policy, or project on the happiness of residents within a neighborhood, as  
47  
48 well as advocate for changes that would lead to greater happiness. The second is the  
49  
50 Sustainability through Happiness Framework (StHF), which is a participatory  
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60 neighborhood planning process that planners can initiate to develop plans, policies, and

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3 projects with residents that would improve opportunities for neighborhood happiness.

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5 This section describes these approaches and their potential challenges to implementation.  
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### 10 *Health Impact Assessments*

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15 Planners can use a health impact assessment (HIA) to evaluate how neighborhood  
16  
17 level plans, policies, or projects may affect residents' happiness. Planners have  
18  
19 increasingly used HIAs to evaluate impacts on residents' physical health and to a lesser  
20  
21 extent mental health. Planners have yet to use HIAs to evaluate impacts on residents'  
22  
23 happiness. Doing so requires incorporating happiness-related indicators into a HIA's  
24  
25 evaluation criteria. We describe the components of a HIA, the increasing use of HIAs by  
26  
27 planning practitioners, and how to overcome barriers to using HIAs to improve residents'  
28  
29 happiness in this section.  
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34 A health impact assessment (HIA) is a tool for evaluating how plans, policies, or  
35  
36 projects may affect health (Bhatia & Wernham, 2008). A HIA has two purposes. First, it  
37  
38 allows planners to use evaluation criteria to assess how different decisions may impact  
39  
40 personal and community health. Practitioners may derive evaluation criteria from  
41  
42 standard checklists based on best practices reported by the literature (called a "desktop"  
43  
44 HIA) or by brainstorming and vetting criteria with area health experts and other  
45  
46 stakeholders (Dannenberg, Bhatia, Cole, & Dora, 2006). Second, a HIA recommends  
47  
48 courses of action that would best promote greater overall health and more equitably  
49  
50 distribute health outcomes. Research shows that HIAs are effective tools when conducted  
51  
52 early in the planning process, as they can influence decisions, spur new partnerships, and  
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3 increase policy makers' awareness of how their decisions affect health (Bhatia &  
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5 Wernham, 2008; Dannenberg et al., 2006; Bourcier, Charbonneau, Cahill, &  
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7  
8 Dannenberg, 2015; Bhatia & Corburn, 2011).  
9

10  
11 The HIA is growing in popularity as concerns about emerging epidemics of  
12  
13 obesity, heart disease, and diabetes escalate (Bhatia & Wernham, 2008; Bourcier et al.,  
14  
15 2015; American Planning Association, 2015b; Centers for Disease Control and  
16  
17 Prevention, 2014a, b, c). Practitioners had completed only 27 HIAs in the U.S. by 2007,  
18  
19 commonly as part of a broader federally or state mandated environmental impact  
20  
21 assessment (EIA) (Dannenberg, Bhatia, Cole, Heaton, & Feldman, 2008) The number of  
22  
23 HIAs completed or in process had increased to 300 by mid-2014, many conducted  
24  
25 independent of an EIA (Bourcier et al., 2015). Planning-related HIAs comprised an  
26  
27 estimated 1/3 of the HIAs undertaken in the U.S from 2004 to 2014 (American Planning  
28  
29 Association, 2015b). Most planning-related HIAs evaluated the health impacts of a plan  
30  
31 (63%); 24% evaluated the health impacts of a policy and 13% a project action (American  
32  
33 Planning Association, 2015b). Planners most often applied HIAs to assess, in declining  
34  
35 order, the impacts of land use plans, comprehensive plans, development regulations, and  
36  
37 transportation plans, policies, or projects (American Planning Association, 2015b).  
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43  
44 The evaluation criteria covered by HIAs typically relate to physical health, such  
45  
46 as the use of medical care, traffic hazards, air pollution, alcohol consumption,  
47  
48 substandard living conditions, noise-related sleep disturbance, and obesity. A minority of  
49  
50 HIAs assesses effects on mental health (Dannenberg, Bhatia, Cole, & Heaton, 2008).  
51  
52 HIA criteria commonly fail to cover factors addressing emotional and spiritual health or  
53  
54 happiness; one example is the collaborative Design for Health compiled best practice  
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3 criteria for doing a desktop HIA of the elements of comprehensive plans (Design for  
4 Health, n.d.). Yet, of the 22 criteria the Design for Health best practice criteria list as  
5 “essential for health” in land use elements, only one is remotely related to residents’  
6 happiness—adequate street lighting, which contributes to a sense of personal security.  
7  
8 Assessing potential detriments to physical health may reveal potential detriments to  
9 happiness, as physical health and happiness are linked, as previously discussed (Dolan et  
10 al., 2008; Lawless & Lucas, 2010). Yet, a more direct approach is warranted.

11  
12  
13 Slight adjustments to HIA criteria could effectively identify plans, projects, or  
14 policies in needs of happiness-centric interventions. The evaluation criteria in a HIA  
15 should include the impacts of proposed plans, policies, or projects on neighborhood  
16 social engagement and cohesion, given the strong role that social relationships play in  
17 happiness (Layard, 2005; Diener & Seligman, 2002; Dolan et al., 2008). Planners also  
18 can use HIAs to assess impacts on the neighborhood’s “eyes on the street,” disorder, and  
19 criminal opportunities—conditions that influence happiness by affecting residents’ sense  
20 of personal safety. Finally, practitioners could use HIAs to assess access to open, natural,  
21 and green space, given its connection to happiness. HIAs not necessarily related to  
22 planning have periodically covered impacts on social engagement, crime, and access to  
23 open, natural, and green space, but this is not standard practice (Bhatia & Wernham,  
24 2008; Dannenberg et al., 2008). Planners should aim to standardize these practices.

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HIAAs help planners to understand the impacts of existing plans, policies, and projects on residents’ happiness within a neighborhood. However, they do not provide guidance to planners on how to develop plans, policies, and projects that could lead to

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3 greater opportunities for neighborhood happiness. The next section will introduce a  
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5 model that planners could use to accomplish these ends.  
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### 10 *The Sustainability through Happiness Framework*

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15 The Sustainability through Happiness Framework (StHF) is an iterative and  
16  
17 participatory process that we developed to allow planners to help residents understand  
18  
19 how their neighborhoods affect their happiness and to plan for place-based interventions  
20  
21 to increase opportunities for happiness (Cloutier and Pfeiffer, 2015). No comparable  
22  
23 model exists to the best of our knowledge. We discuss in this section the stages of the  
24  
25 model and the outcomes and challenges experienced from applying the model in one  
26  
27 community in the southwestern United States.  
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31 The first stage of the StHF is a happiness visioning session involving planners,  
32  
33 local government agencies and institutions with ties to the community, and community  
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35 leaders. The purpose of the visioning session is twofold. First, planners identify  
36  
37 interventions that may improve opportunities for happiness and sustainability within a  
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39 neighborhood, based on their prior experience and factors identified in the existing  
40  
41 scholarly literature. Second, local government agencies, institutions, and community  
42  
43 leaders evaluate their own capacities and the feasibility of proposed interventions, based  
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45 on their local knowledge.  
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50 In the second stage of the StHF planners then engage neighborhood residents by  
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52 holding meetings and workshops, conducting interviews, and using other participatory  
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54 techniques designed to involve the public (Creighton, 2005). Residents are asked to  
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3 identify aspects of their neighborhood that contribute to and detract from their happiness.  
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5 These aspects are then compared with interventions identified in stage one. Only aspects  
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7 that overlap with previously identified interventions and embody sustainable  
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9 development principles—interventions enhancing environmental preservation, economic  
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11 development, and social equity—are explored in subsequent stages.  
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15 The third and fourth stages of the StHF, the profit inventory and systems  
16  
17 planning, as did the first stage, involve planners, local government agencies and  
18  
19 institutions, and community leaders. These stages focus on identifying sites within the  
20  
21 neighborhood that could host interventions identified in stages one and two as well  
22  
23 partners missing so far from the process and the activities needed to meet goals. In the  
24  
25 fifth and final stage of the StHF, sustainability interventions, planners, local government  
26  
27 agencies and institutions, and community leaders create a plan for the desired  
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29 interventions collaboratively with residents. Once interventions are made, the process  
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31 reverts back to stage one and commences again. After several iterations of planners  
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33 leading the process, the StHF eventually becomes resident-led.  
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39 We applied the StHF in one neighborhood in a fast-growing region of the  
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41 southwestern United States in 2014. Participants have carried out one cycle of the StHF  
42  
43 and are currently undertaking another cycle. The neighborhood, henceforth called “the  
44  
45 Valley,” is a predominately low- to middle-income Latino community of mid to late 20<sup>th</sup>  
46  
47 century single-family homes located along a canal. The Valley’s experience with the  
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49 StHF is described in depth in Cloutier & Pfeiffer (2015). Key planned interventions as  
50  
51 part of the StHF include a canal beautification project and a safety and education  
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53 program. Additional plans call for improving lighting, introducing solar power, reducing  
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3 water loss, and carving out a social space for residents. A local university is providing the  
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5 technical expertise to assist with these plans.  
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8 The challenges to implementing the StHF are common to participatory  
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10 neighborhood planning processes, which are addressed elsewhere (e.g., Creighton, 2005).  
11  
12 These include difficulties in 1) building residents' trust, 2) sustaining momentum and  
13  
14 retaining local knowledge, and 3) acquiring resources to carry out interventions.  
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16 Solutions to these challenges in the Valley have included 1) completing short-term  
17  
18 interventions before undertaking long-term interventions, 2) retaining a small core group  
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20 of resident participants throughout the process while providing opportunities for others to  
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22 cycle in and out, and 3) partnering with institutions, such as a research center at a local  
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24 university and a non-profit housing developer, to carry out interventions.  
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29 A unique challenge that users of the StHF face is convincing participants and  
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31 other planners and community members that happiness is a worthwhile goal to pursue  
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33 across diverse neighborhoods. Critics argue that undertaking happiness-related  
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35 interventions distracts from meeting more fundamental community needs such as access  
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37 to better schools, jobs, and public transit. Planning for neighborhood happiness may be a  
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39 more ethical approach in middle- or upper-income communities than in disadvantaged  
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41 communities facing many deprivations. However, research on happiness finds that people  
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43 from diverse cultures and of varying levels of affluence spend similar amounts of time  
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45 thinking about happiness and ascribe similar importance to it (Diener, 2000). We believe  
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47 that efforts to apply the StHF widely across diverse neighborhoods are justified based on  
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49 this finding.  
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### A Call to Action

Planning for health means working toward greater mental, emotional, and spiritual well being alongside physical health. This review article has demonstrated how planners can shape happiness, an important aspect of well being, on the neighborhood level. Happiness is a complex state. A large portion of what makes us happy is determined by the characteristics that we are born with, like our sex, race or ethnicity, and our personality. Yet, our experiences and environment also shape our happiness.

We identified two ways that planners can influence residents' happiness on the neighborhood level. First, planners can advocate for physical designs that increase residents' 1) opportunities for social engagement and 2) sense of personal security in their neighborhood. Social engagement and personal security are strongly linked to happiness; thus, design interventions leading to these outcomes may indirectly promote greater happiness. Second, planners can increase access to open, natural, and green space within a neighborhood, which research suggests directly increases residents' happiness.

Planners can use two strategies to meet these goals: the health impact assessment (HIA) and the Sustainability through Happiness Framework (StHF). HIAs help planners identify impacts that existing plans, policies, or projects may have on neighborhood happiness and recommend actions that help to increase happiness. The StHF guides planners in collaborating with residents to arrive at happiness-related neighborhood interventions. There are challenges, however, to implementing these strategies. For instance, existing HIA evaluation criteria are largely oriented to factors affecting physical health. Planners must integrate happiness-related indicators into evaluation criteria to

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3 assess impacts on happiness. In turn, users of the StHF will face the classic challenges of  
4 public participation in planning, such as building residents' trust, sustaining momentum,  
5 and securing resources to carry out goals. Users also face the unique challenge of  
6 justifying the ethics of a happiness-centric planning approach when other basic needs are  
7 unmet.  
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11 The time is ripe for planning scholars to engage in the hearty debates on  
12 happiness occurring across the social sciences. We know little about the relative  
13 contribution that neighborhood level factors play in individual happiness. An overarching  
14 challenge in examining the contribution of neighborhood factors to individual happiness,  
15 or conducting neighborhood level analyses of happiness, is the lack of geographic  
16 refinement available in publicly accessible longitudinal data sources, like the U.S.  
17 General Social Survey. Purchasing propriety data or collecting original data, which can  
18 be expensive and time consuming, often is warranted.  
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34 At the same time geographic and built environmental characteristics (regional  
35 level down to neighborhood level) accounted for less than 2% of variation in participants'  
36 happiness in Morris (2011)'s study. This pales in comparison to the estimated 33% to  
37 50% of variation potentially explained by genetic factors. Neighborhood context thus  
38 may play a small role in shaping happiness, but we require additional evidence.  
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46 Further research is warranted to understand the complex ways that neighborhood  
47 factors like the diversity of housing types, housing conditions, transportation  
48 infrastructure, and polluting land uses affect happiness, as well as how residents'  
49 personalities affect the impact that built environment characteristics have on their  
50 happiness, as previously discussed. Comparative research testing effects across  
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neighborhoods in diverse cities also is valuable; it often is unclear whether links between happiness and neighborhood built environment observed in a survey done among a sample of neighborhoods in one city may apply to others with different characteristics. Finally, methodological innovations are needed to tease out whether happier people tend to gravitate to neighborhoods with particular built environments or particular built environments make people happier. Answers to these questions will help to identify effective planning interventions.

For Peer Review Only



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**Review: Planning for Happy Neighborhoods**

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8 Abstract  
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10  
11 *Problem:* Planning for healthy communities is of increasing interest in the profession.

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13 Although much is known about how planners can affect physical health through  
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15 neighborhood design, less is known about how planners can affect mental health and well  
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17 being in neighborhoods.  
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21 *Research Strategy:* Drawing lessons from a cross-disciplinary set of studies, this review  
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23 reveals how the neighborhood built environment may affect one aspect of residents' well  
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25 being—happiness.  
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29 *Findings:* Providing residents access to open, natural, and green space may directly  
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31 increase their happiness. Incorporating design features that allow for social interaction  
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33 and safety also may promote residents' happiness.  
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37 *Takeaway for Practice:* Planners have the capacity to contribute to greater opportunities  
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39 for happiness in neighborhoods. Strategies include 1) integrating happiness-related  
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41 indicators into health impact assessments and 2) employing a new, participatory  
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43 neighborhood planning process, the Sustainability through Happiness Framework.  
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47 *Keywords:* neighborhood, happiness, subjective well being, life satisfaction, built  
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## Introduction

Planning for health is of growing concern in the planning profession, as seen in the dozens of conference sessions, articles, and special issues of journals that [have](#) addressed this topic since the early 2000s (e.g., American Planning Association, 2015a; Frank, 2000; Boarnet, 2006; Doyle, Kelly-Schwartz, Schlossberg, & Stockard, 2006; McAndrews & Marcus, 2014; Corburn, Curl, Arredondo, & Malagon, 2015). Planners, however, have focused overwhelmingly on their role in advancing physical health. This leaves a gap in our understanding of the role that planners can play in increasing mental and emotional health and spiritual well being.

This review article helps to fill this gap by revealing how planners can shape happiness, an aspect of well being, on the neighborhood level. Diverse measures for happiness exist, including positive or negative emotions about immediate life experiences, overall life satisfaction, and one's sense of purpose, fulfillment, and self-realization. We use a holistic definition of happiness that captures its complexity in this article—how positively people feel about their [lives](#).

First, we summarize lessons learned from a cross-disciplinary set of studies about the drivers of happiness. Then, we identify three neighborhood built environment characteristics that seem most directly related to residents' happiness: 1) access to open, natural, and green space, and 2) design features that allow for a) social interaction and b) personal security. Next, we show how planners can increase opportunities for neighborhood happiness by adapting health impact assessments and adopting a new participatory neighborhood planning process, the Sustainability through Happiness

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8 Framework. A health impact assessment is a tool that planners can use to assess a  
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10 proposed plan, policy, or project action and recommend decisions that would lead to  
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12 greater overall health and more equitable health outcomes. We recommend that planners  
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14 should integrate criteria addressing access to open, natural, and green space and design  
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16 features that allow for social interaction and safety into health impact assessments to  
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18 evaluate potential impacts on neighborhood happiness. Planners can use the  
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20 Sustainability through Happiness Framework to complement the use of health impact  
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22 assessments, since the Framework allows planners to proactively and collaboratively plan  
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24 with neighborhood residents for greater opportunities for neighborhood happiness.

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26 Planning scholars also have a role to play in helping to identify effective planning  
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28 interventions. Future research directions include better understanding on  
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30 research— how much neighborhoods shape residents' happiness and the complex ways  
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32 that built environment factors like the diversity of housing types, housing conditions,  
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34 transportation infrastructure, and polluting land uses affect happiness.

**Comment [S1]:** You must summarize your actual takeaways and additional research needs here. As the Guidelines for Authors clearly say you cannot simply *promise* to do later

### 35 36 37 What Drives Happiness?

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41 Happiness, as a field of inquiry, spans disciplines as diverse as philosophy,  
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43 psychology, sociology, and economics; yet, it is relatively unexplored by planners (e.g.  
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45 Morris, 2011). Governments worldwide recently have called for attention to happiness in  
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47 social policymaking (e.g., Thin, 2012; Diener, 2000; Kelly, 2012; Large, 2010). As a  
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49 result there are many efforts to collect data on happiness within nations and across the  
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51 globe (Dolan, Peasgood, & White, 2008). These activities have led to an explosion in

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8 knowledge on the drivers of happiness. We now know a great deal about the aspects of  
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10 people's identity, life circumstances and social relationships that lead them to be more or  
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12 less happy. We also have a growing understanding of how the characteristics of nations,  
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14 states, regions, and cities may affect happiness.

### 15 16 17 18 *Measuring Happiness*

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22 Happiness, or how positively people feel about their lives, is a multifaceted  
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24 concept with various options for measurement. Happiness is comprised of two  
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26 components. The first component, known as hedonic happiness, consists of positive or  
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28 negative emotions stemming from immediate experiences and overall life satisfaction  
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30 (Ryan & Deci, 2001; Diener, 2000). The second component is a more enduring sense of  
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32 purpose, fulfillment, and self-realization, known as eudaimonic happiness, which is not  
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34 necessarily influenced by recent experience (Ryan & Deci, 2001; Diener, 2000).

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36 Happiness research most commonly reports on life satisfaction and other hedonic  
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38 measures. Life satisfaction is captured as a global measure (overall life satisfaction) or as  
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40 a local measure pertaining to specific realms of life (e.g. family, friends, health, work,  
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42 etc.). Typically, happiness researchers measure life satisfaction through a series of  
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44 questions employing a 7 or 10 point Likert scale. An example statement might be "In  
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46 most ways, my life is close to ideal," where responding with a 1 means the respondent  
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48 "strongly disagrees" with the statement and a 7 or 10 means the respondent "strongly  
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50 agrees." Some studies directly ask about respondents' happiness or subjective well being.  
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52 Other studies account for overarching states like general well being, which includes

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8 conditions other than happiness, such as physical and emotional health, access to basic  
9 needs, and quality of life. Research on the outcomes of using different measures of  
10 perceived happiness finds that these measures are largely consistent (Diener, Suh, Lucas,  
11 & Smith, 1999).  
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16 What unites the diverse measures of happiness is that these conditions are  
17 *perceived* by individuals rather than *observed* in individuals. Debate, however, is heated  
18 in the happiness literature on the value of accounting for perceived happiness and the  
19 potential for using more objective measures, such as employing wearable technologies to  
20 collect data on biostatistical indicators (e.g., skin reactivity, brain activity, surface skin  
21 temperature, and stress measures). Research that objectively measures happiness is  
22 limited to date.  
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30 In this article, we use the term “happiness” to describe the findings of research  
31 that can include various measures of mainly perceived happiness, life satisfaction, or  
32 subjective well being.  
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### 36 37 *Individual Drivers*

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39 Much of our happiness is driven by traits that we are born with or acquire over  
40 time. Studies of differences in happiness among twins with diverse life outcomes have  
41 found that an estimated 33% to 52% of variation in happiness is explained by genetics  
42 (De Neve, Christakis, Fowler, & Frey, 2012; Lykken & Tellegen, 1996; Nes, Røysamb,  
43 Tambs, Harris, & Reichborn-Kjennerud, 2006). Some people are born with a higher  
44 baseline level of happiness than others (Sheldon & Lyubomirsky, 2006). However,  
45 changing life circumstances, like earnings, employment, and marital status, also can lead  
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8 a person with a particular baseline level of happiness to be more or less happy over time  
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10 (Lucas & Diener, 2008; Jokela, Bleidorn, Lamb, Gosling, & Rentfrow, 2015).

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12 There is considerable consensus on the individual characteristics that lead to  
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14 happiness across studies. Dolan et al. (2008)'s review of the findings of large sample size  
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16 studies of happiness from mainly the economic literature highlights where consensus is  
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18 tightest. Being Latino, physically or psychologically healthy, married, and trusting of  
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20 others and society is strongly associated with being happier. Being a senior or young  
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22 adult, female, religious, and earning more is also associated with being happier, but these  
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24 relationships are weaker, meaning that the effects of these characteristics on happiness  
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26 are smaller or there are diminishing returns. For instance, people who earn more are  
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28 happier up to point, after which income does not strongly affect happiness. However,  
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30 feeling that you are earning relatively more income than others is strongly associated  
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32 with greater happiness. Conversely, being unemployed is strongly associated with less  
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34 happiness. Being disabled is associated with being less happy, but this effect may become  
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36 smaller over time by adapting to the disability. People who have higher ambitions and  
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38 take care of others also tend to be less happy.

#### 39 40 41 *Social Drivers*

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45 Social relationships exert a strong positive force on happiness (Diener &  
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47 Seligman, 2002; Dolan et al., 2008; Holder & Coleman, 2009, Fowler & Christakis,  
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49 2008; Baumeister & Leary, 1995; Myers, 2000; Layard, 2005). Considering the tendency  
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51 of very happy people to have deep and fulfilling social relationships, Diener and  
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8 Seligman (2002) propose “good social relationships are, like food and thermoregulation,  
9 universally important to human mood” (p. 83). Social engagement connects us with  
10 others and prevents us from being isolated, which may help to bolster happiness over the  
11 lifecycle (Hawton, Green, Dickens, & Richards, 2011). Social capital may arise from our  
12 relationships when we trust and reciprocate with one another and share information and  
13 social norms (Coleman, 1988). Social capital enables us to rely on our relationships to  
14 obtain knowledge and resources and get things done (Coleman, 1988; De Souza Briggs,  
15 1997). Greater trust of others, in turn, is associated with greater happiness (Layard,  
16 2005).  
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### 28 *Geographic Drivers*

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30 There is a growing understanding of the role that national, state, regional, and city  
31 geographies may play in happiness. Most of the scholarship on happiness at these scales  
32 addresses how aggregate demographic and socioeconomic conditions within a geographic  
33 unit affects its aggregate happiness. Largely overlooked are how geographic conditions  
34 may affect *individual* happiness, and the potential role that the built environment may  
35 play in aggregate happiness. Nations are most commonly studied, although there is  
36 increasing interest in exploring variation in happiness among states, regions, and cities  
37 within nations.  
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45 Debate on contributing factors is more heated in the body of literature on the  
46 geographic drivers of happiness. An enduring conversation concerns the role that relative  
47 versus absolute conditions play in a nation’s happiness. For instance, research shows that  
48 nations that have higher incomes have higher happiness (Diener & Suh, 1997; Easterlin,  
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8 1995; Diener, Oishi, & Lucas, 2003). However, it is unclear whether countries with the  
9 highest incomes always have the happiest people, or whether people who are relatively  
10 high earners within poorer countries might also have high happiness (Deaton, 2008;  
11 Stevenson & Wolfers, 2008; Easterlin, 1974, Easterlin, 1995). There also is growing  
12 awareness that nations with greater income inequality may have lower levels of  
13 happiness, though this claim is similarly debated (Wilkinson & Pickett, 2009;  
14 Goldthorpe, 2010; Dolan et al., 2008).

21 This body of literature also highlights a range of factors that may affect happiness  
22 after income is controlled for. Nations with a more individualistic culture tend to be  
23 happier, potentially because their citizens have greater choices and freedom of self-  
24 expression (Diener et al., 2003; Rentfrow, Mellander, & Florida, 2009). Happier  
25 countries also seem to have stronger track records of human rights and greater social  
26 equality (Rentfrow et al. 2009). Places with higher educational attainment have happier  
27 people (Rentfrow et al., 2009; Lawless & Lucas, 2010; Florida, Mellander, & Rentfrow,  
28 2013). States with a higher proportion of creative class workers—occupations like  
29 computer science, architecture, and law that involve problem-solving and extensive  
30 education—have residents who exhibit healthier behaviors but not necessarily greater  
31 happiness (Rentfrow et al., 2009). People living in states with better climates are not  
32 necessarily happier than those living in states with poorer climates (Schkade &  
33 Kahneman, 1998). Cities with higher levels of income inequality may have lower  
34 happiness (Glaeser, Resseger, & Tobio, 2009), but other studies show more mixed results  
35 about the impact of income inequality at the [state](#) level on happiness (Dolan et al., 2008).

36 There is debate about the association between aggregate happiness and the inclusiveness

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8 of a geographic unit, as approximated by the percent of cohabitating gays, artists, and  
9 immigrants. Rentfrow et al. (2009) found no effect for gays and artists but a positive  
10 effect of immigrants on happiness at the state level; Lawless and Lucas (2010) found a  
11 weak or negative effect of gays, artists, and immigrants on happiness at the regional  
12 level.  
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18 There is also research that links housing values, population density, and commute  
19 time with happiness. States with higher median housing values have greater happiness,  
20 controlling for income (Rentfrow et al., 2009). One theory is that higher housing values  
21 are associated with higher quality community amenities that make people happier, such  
22 as top-rated schools, parks and open spaces, and shopping opportunities (Florida &  
23 Mellander, 2010). Lower population density living also generally is associated with  
24 greater happiness at various geographies ranging from national to city scale (Lawless &  
25 Lucas, 2010; Davis & Fine-Davis, 1991; Richmond, Filson, Paine, Pfeiffer, & Taylor,  
26 2000; Campbell, Converse, & Rodgers, 1976; see Crider, Willits, & Kanagy, 1991 for a  
27 review), although other research finds modest or no effects from population density on  
28 happiness (Florida et al., 2013; Crider et al., 1991). Research also shows that living in a  
29 city or larger city adversely affects or does not affect happiness (e.g., Dolan et al. 2008;  
30 Morris, 2011). One theory is that less dense places, rural areas, and small towns may  
31 have greater social engagement and cohesion among neighbors, leading to greater  
32 happiness (Crider et al., 1991). Another theory is that these places may be less  
33 competitive, and their residents may have lower ambitions and more achievable goals,  
34 which is a recipe for greater happiness (Clemente & Sauer, 1976). Studies addressing the  
35 metropolitan level drivers of happiness also have examined commute time. Some studies  
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8 have found that long commute times detract from happiness (Stutzer & Frey, 2008;  
9 Morris, 2011); others have found weak or no associations between commute time and  
10 happiness (Florida et al., 2013; Lawless & Lucas, 2010).  
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### 14 15 16 An Underexplored Link: Neighborhood Built Environment and Happiness 17

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20 We draw on the findings from existing research in this section to show how the  
21 neighborhood built environment may shape residents' happiness. We don't well  
22 understand what makes some neighborhoods have happier residents than others, and how  
23 neighborhood conditions affect residents' happiness. This is problematic, because  
24 neighborhoods are a primary setting where life is carried out. The neighborhood built  
25 environment also is a central realm of planning, where planners can enact change. The  
26 built environment includes all elements of a neighborhood that are manmade and  
27 influenced by local zoning, building codes, and land use regulations: buildings,  
28 infrastructure systems, open and green spaces, and the interactions among these elements.  
29 The built environment is distinct from the natural environment, a realm also addressed by  
30 planners, which includes topography, climate, and water supply (Northridge, Sclar, &  
31 Biswas, 2003).  
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### 45 *Design Features that Promote Social Engagement and Personal Security* 46 47

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49 The physical characteristics of a neighborhood, including its housing design and  
50 density, street connectivity, land use mix, and the availability of public spaces, may lead  
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8 to more or less opportunities for social engagement among neighbors (Talen, 1999;  
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10 Duany, Plater-Zyberk, & Speck, 2010; Putnam, 2000; Leyden, 2003; Lund, 2003;  
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12 Williamson, 2002; Glaeser & Gottlieb, 2006; Brueckner & Largey, 2008; Freeman, 2001;  
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14 Mason, 2010). One theory is that places with more traditional neighborhood design  
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16 features—such as grid-lined streets, anterior garages, moderate housing density, and front  
17  
18 porches—have greater social engagement among neighbors. Studies testing this theory  
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20 find on some level that a more compact neighborhood urban form may lead to a higher  
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22 level of interaction among neighbors (Leyden, 2003; Lund, 2003; Mason, 2010). Strong  
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24 links exist between social engagement and happiness, as previously discussed. (Diener &  
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26 Seligman, 2002; Dolan et al., 2008; Layard, 2005). Thus, places with more traditional  
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28 neighborhood design may also have greater happiness, although researchers have yet to  
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30 establish this link.

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32 Interestingly, research that attempts to approximate a more compact urban form  
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34 by measuring the effect of geographic location (e.g. central city) or population or housing  
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36 density on social engagement tends to find no, mixed, or contradictory effects on social  
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38 engagement (Williamson, 2002; Glaeser & Gottlieb, 2006; Freeman, 2001; Brueckner &  
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40 Largey, 2008). Further, Morris (2011) found a negative relationship between population  
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42 density and happiness through analyzing national data from the Gallup-Healthways Well-  
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44 Being Index survey, suggesting that high levels of population density may be associated  
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46 with lower levels of happiness.

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48 Two additional observations are warranted. First, more socially engaged residents  
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50 may be able to better combat threats like crime and recover from disasters (Sampson,  
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52 Raudenbush, & Earls, 1997; Seidman, 2013). Overcoming threats and crises may  
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8 reinforce residents' social ties and sense of agency and increase their happiness. Second,  
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10 researchers have not adequately studied whether or not a person's happiness depends on  
11  
12 social engagement with neighbors. Neighborhood residents may be happy and socially  
13  
14 engaged, just not with each other.

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16 A neighborhood's physical characteristics also affects its "eyes on the street,"  
17  
18 disorder and decay, and criminal opportunities (Wilson & Kelling, 1982; Skogan, 1990;  
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20 Cohen & Felson, 1979), which in turn shape residents' sense of personal security, stress,  
21  
22 and experience of crime—and thus ultimately happiness. For instance, residents living in  
23  
24 neighborhoods with buildings that have more street frontage and windows facing the  
25  
26 street may be more aware of what is happening in the neighborhood and able to contest  
27  
28 threats to personal security (Wilson & Kelling, 1982). In turn, neighborhoods with fewer  
29  
30 problems like vacant or deteriorating buildings and unlit spaces hidden from public view,  
31  
32 may have fewer places where people can engage in elicited behaviors, deterring criminal  
33  
34 activity (Skogan, 1990; Cohen & Felson, 1979).

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36 Research has established a link between residents' perceived personal security  
37  
38 and their level of happiness. Its results are conclusive—people who live in places they  
39  
40 perceive as threatening their personal security tend to be less happy (Dolan et al., 2008;  
41  
42 Lelkes, 2006; Morris, 2011; Cutrona, Russell, Brown, Clark, & Hessling, 2005).  
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44 Research analyzing the correlates of happiness among about 30,000 people from 21  
45  
46 countries using data from the European Social Survey found that those who lived in  
47  
48 unsafe areas had a 7% lower chance of being very happy (Lelkes, 2006). A study of 720  
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50 African American mothers living in small to mid-sized U.S. cities found that those who  
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52 lived in more disadvantaged neighborhoods with greater social disorder, as measured by  
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**Comment [S3]:** There's a comma problem here—does my change make sense. Because I can't see what you meant with the original text.

**Comment [DP4]:** Yes, looks good

**Comment [S5]:** What number did you mean? 300K or 30K?

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8 dilapidation, delinquency, and substance abuse, were unhappier, particularly after  
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10 undergoing a negative life event (Cutrona et al., 2005). Morris's national study (2011)  
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12 found that respondents' sense of personal security walking alone where they lived at  
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14 night was the geographic factor that contributed the most to their happiness.  
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### 16 17 18 *Access to Open, Natural, and Green Space*

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20 Humans became isolated from the natural world relatively late in evolutionary  
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22 history. Yet, our engrained biological instincts may draw us to the outdoors (Nisbet,  
23  
24 Zelenski, & Murphy, 2011). E.O. Wilson used the term "biophilia" to characterize the  
25  
26 psychological benefits that people get from engaging with the natural environment and  
27  
28 living things (Wilson, 1984; Kellert & Wilson, 1983). A rich body of research has since  
29  
30 confirmed links between access to open, natural, and green environments and happiness  
31  
32 (Akers, Barton, Cossey, Gainsford, Griffin, & Micklewright, 2012; Kaplan, 2001; Wells  
33  
34 & Laquatra, 2010; Campbell & Wiesen, 2010). Access to these spaces can occur at  
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36 different scales—from a window over looking a grassy lawn or forest to living near a  
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38 regional park. Windows offer a brief respite from other activities with little effort  
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40 (Kaplan, 2001). Parks, community gardens, botanical gardens, building exteriors, and  
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42 rights-of-way are examples of "restorative" open spaces that may make people feel  
43  
44 happier (Campbell & Wiesen, 2010). Access to active, green environments may be  
45  
46 especially important to seniors' happiness (Wells & Laquatra, 2010; [Loukaitou-Sideris,](#)  
47  
48 [Levy-Storms, Chen, & Brozen, 2016](#)). [Research shows that seniors who use or live near](#)  
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50 [parks report better physical and mental health, including happiness; however, parks must](#)  
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8 [offer appropriate facilities and programming to attract seniors \(Loukaitou-Sideris et al.,](#)  
9 [2016\).](#)

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12 What about access to open, natural, and green spaces makes people happy is  
13 debatable. Humans may have an affinity for nature, as mentioned above. Part of this  
14 effect may connect to simply viewing the color green. Green contributes to feelings of  
15 serenity (Akers et al., 2012). Green environments also symbolize fertility and food  
16 availability, which historically have been critical to our survival (Akers et al., 2012).  
17 Another theory is that open, natural, and green spaces may bolster happiness by  
18 cultivating wonder and prompting exploration, since these spaces are complex and  
19 malleable. Finally, these spaces may contribute to happiness by improving other aspects  
20 of physical and mental health if they allow for activities like gardening and exercise  
21 (Ferrer-i-Carbonell & Gowdy, 2007).  
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33 *Debatable Effects: Housing Diversity and Conditions, Transportation Infrastructure, and*  
34 *Polluting Land Uses*  
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39 Existing research offers lessons on links between other neighborhood built  
40 environment features and happiness, but the results are less conclusive. These elements  
41 include a) housing diversity, b) housing conditions, c) transportation infrastructure, and  
42 d) polluting land uses.  
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47 The diversity of housing types and tenures within a neighborhood may affect its  
48 transiency and, in turn, its residents' social engagement and happiness. Neighborhoods  
49 that have a broader range of housing types and tenures may have more opportunities for  
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8 residents to age in place, that is, stay in the neighborhood over the lifecycle. Places where  
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10 people age in place have low levels of residential transition and potentially greater social  
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12 engagement, cohesion, and happiness. The opportunity to age in place may be  
13  
14 particularly critical to seniors' happiness, as they rely more strongly on their existing  
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16 social networks and integrate their homes into their sense of self (Kochera, Straight, &  
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18 Guterbock, 2005; Harrell, Lynott, Guzman, & Lampkin, 2014; Carstensen, 2006;  
19  
20 Csikszentmihalyi & Rochberg-Halton, 1981).

21  
22 However, neighborhoods with diverse housing types and tenures also may have  
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24 greater residential transition and less social engagement and cohesion. Homeowners stay  
25  
26 in place for longer than renters. About two-thirds of renters moved from 2005 to 2010  
27  
28 compared with less than one-quarter of homeowners (Ihrke & Faber, 2012). Residents  
29  
30 living in a neighborhood with more transient renters may be less socially engaged than  
31  
32 those living in a neighborhood with less transient homeowners (Putnam, 2000; Rohe &  
33  
34 Lindblad, 2013). Further, a neighborhood's mix of housing types, tenures, and costs  
35  
36 shapes its demographic and socioeconomic conditions. These conditions, in turn, may  
37  
38 influence residents' social connections and happiness. Older, wealthier, and more  
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40 educated people socialize more than younger, poorer, and less educated people (Putnam,  
41  
42 2000). Communities of concentrated poverty or affluence may be more socially  
43  
44 fragmented than middle class or socioeconomically diverse communities (Wilson, 1987;  
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46 Oliver, 1999). How the diversity of housing types and tenures within a community  
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48 impacts residents' happiness is still an open question.

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50 Relatively few studies assess the potential effects of housing conditions on  
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52 happiness. This is curious, given that the roots of planning stem in part from efforts to  
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8 ease overcrowding and improve housing conditions in slums (Sloane, 2006). Existing  
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10 research suggests that relative, as opposed to absolute, housing conditions may be most  
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12 associated with happiness. People who live in housing that is relatively better than where  
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14 they lived previously or in line with their aspired housing conditions may be happier  
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16 (Campbell & Converse, 1972; Campbell et al., 1976). In turn, having more desirable  
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18 housing conditions typically indicates living in a neighborhood with more desirable  
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20 community conditions, which actually may more directly influence residents' happiness  
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22 (Florida et al., 2013).

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24 A neighborhood is not only a place but also a point of access to jobs, recreation,  
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26 shopping, and other features of a broader city and region. Access is enabled by a  
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28 neighborhood's transportation system, which has infrastructure that allows for the safe  
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30 and convenient use of transit, biking, walking, and driving. Infrastructure includes  
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32 features like pedestrian paths, bike lanes, bus and rail stops, parking, and freeway on and  
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34 off ramps. Transportation is a derived need. People's happiness may diminish if  
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36 inadequate transportation or mobility interferes with their pursuit of their life goals (e.g.,  
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38 visiting frequently with family or friends) or leads them to use a less desired  
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40 transportation mode (Ettema, Gärling, Olsson, & Friman, 2010).

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42 Researchers have begun to examine links between a neighborhood's  
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44 transportation infrastructure and residents' happiness, but their conclusions are  
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46 inconsistent (e.g., Morris, 2011; Leyden, [Goldberg, & Michelbach](#), 2011; Brereton,  
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48 Clinch, and Ferreria, 2008). Morris (2011) found that living near subways was associated  
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50 with being happier. Relationships between happiness and proximity to bus or commuter  
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52 rail were murkier; there was no relationship between living near jobs or shopping and  
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8 happiness. Leyden et al. (2011) found that people who felt that subways, trains, or buses  
9 were more convenient to use in their city tended to be happier. Brereton, Clinch, and  
10 Ferreria (2008) found no relationship between living near public transit and happiness in  
11 their survey of 1,500 Irish people. Yet, those who lived closer to major roads were less  
12 happy.  
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18 Indirect evidence on how neighborhood transportation infrastructure may affect  
19 happiness comes from a related body of research addressing links between travel  
20 behavior and happiness (e.g., Morris, 2015; Morris & Guerra, 2015; Delbosc, 2012; De  
21 Vos, Schwanen, Van Acker, & Witlox, 2013; Olsson, Gärling, Ettema, Friman, & Fujii,  
22 2013; Ellaway, Macintyre, Hiscock, & Kearns, 2003). Neighborhoods with infrastructure  
23 or regulations that encourage walking or bicycling, such as sidewalks, ample street  
24 crossings, bike lanes, and slower traffic speeds, may have happier residents, since people  
25 who spend more time walking and bicycling tend to be happier (Morris & Guerra, 2015;  
26 Morris, 2015; Olsson et al., 2013). However, neighborhoods with infrastructure allowing  
27 for vehicle ownership, such parking, also may have happier residents, since people who  
28 have access to vehicles and travel by car tend to be happier (Morris, 2011; Morris &  
29 Guerra, 2015; Ellaway et al., 2003). Clearly further research is needed to better  
30 understand the tradeoffs of including infrastructure for different travel models on the  
31 happiness of neighborhood residents.  
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45 This review has mainly focused on built environment characteristics that may  
46 increase happiness, such urban designs that may lead to social engagement and personal  
47 security and amenities like open, natural, and green space, transit, and others. However,  
48 built environment characteristics also decrease physical and mental health (e.g.,  
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Comment [S6]: What's planning infrastructure? I am not sure what this sentence means.

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8 Kawakami, Winkleby, Skog, Szulkin, & Sundquist, 2011), and potentially happiness,  
9 although researchers are still making this link. For instance, one factor that may explain  
10 the mixed results on the link between access to transit and happiness is that living near  
11 transit may also mean living near more noise, which may reduce happiness (Diener,  
12 2000; Van Praag & Baarsma, 2005).  
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18 Some research shows that living in a polluted environment may diminish  
19 happiness (e.g., Ferrer-i-Carbonell & Gowdy, 2007; Welsch, 2006; Levinson, 2012; Li,  
20 Folmer, & Xue, 2014). Ferrer-i-Carbonell & Gowdy (2007) found that, among a sample  
21 of 10,000 people from the British Household Panel Survey, respondents who reported  
22 living in a polluted environment were unhappier than people who did not report living in  
23 a polluted environment. A handful of studies have used similar techniques to show that  
24 people who have actual and perceived greater and more hazardous exposure to polluted  
25 air tend to have lower happiness (e.g., Welsch, 2006; Levinson, 2012; Li, Folmer, & Xue,  
26 2014). Yet, evidence is not consistent that pollution and other adverse environmental  
27 factors are related to happiness (Dolan et al., 2008). A factor that might explain this is  
28 that, at least in theory, residents who are exposed to pollution should have lower housing  
29 costs (Van Praag & Baarsma, 2005).  
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#### 43 *Emerging Research: The Role of Personality*

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47 Emerging research suggests that the match between people's personality and the  
48 characteristics of their neighborhood may shape their happiness (Jokela et al., 2015;  
49 Cutrona et al., 2005; Rentfrow, Gosling, & Potter, 2008). People with certain  
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8 personalities tend to cluster in particular places—an outcome partly of historic migration  
9 patterns, repeated social interactions, and physical features like climate (Rentfrow et al.,  
10 2008). More extraverted people tend to live in the Midwest and Deep South; more  
11 neurotic people tend to live in the Northeast (Rentfrow et al., 2008). Some environmental  
12 conditions may contribute to happiness only among people with certain personalities. For  
13 example, Jokela et al. (2015), in a study of over 56,000 London residents, found that  
14 more open-minded people had higher happiness in neighborhoods that had other open-  
15 minded people, greater ethnic diversity, and population density. However, more  
16 extraverted and emotionally stable people had similar happiness regardless of where they  
17 lived.  
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28 Researchers have yet to study links among personality, neighborhood built  
29 environment, and happiness, so it is too early to draw conclusions on the aspects of  
30 neighborhood built environments that may vary with the distinct personalities of different  
31 people. However, it is possible that residents may be more or less affected by the built  
32 environment features discussed in this section depending on their personality.  
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### 39 *The Main Takeaways for Planners*

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41 This section has highlighted three ways that neighborhood built environment may  
42 affect residents' happiness. Traditional neighborhood design features may offer residents  
43 greater opportunities for social engagement. Residents living in neighborhoods with  
44 street frontage, windows facing the street, and fewer vacant buildings may have a greater  
45 sense of personal security. Existing research confirms that people who are more socially  
46 engaged and feel more personal security where they live are happier; thus, neighborhoods  
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**Comment [S7]:** Is this really a word that needs a plural?

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8 with design features that allow for greater socialization and eyes on the street and less  
9 disorder and criminal opportunities may have happier residents, although researchers  
10 have yet to establish this link. In turn, places that offer access to open, natural, and green  
11 space may have happier residents. Planners can use this knowledge to plan for greater  
12 opportunities for neighborhood happiness in their communities.  
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18 The effects of other neighborhood built environment elements on happiness,  
19 including the diversity of housing types, housing conditions, transportation infrastructure,  
20 and polluting land uses, are more debatable. In turn, emerging research suggests that the  
21 characteristics of a neighborhood may not uniformly affect residents' happiness; rather,  
22 people's personalities may influence these effects. Further research is needed on these  
23 topics in order to draw lessons for planning practice.  
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### 31 Planning for Happy Neighborhoods

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35 Planners can improve on neighborhood happiness by evaluating existing plans,  
36 policies, or projects or collaboratively engaging with residents to develop new plans,  
37 policies, and projects. There are only two models that we know of that provide guidance  
38 to planners on how to undertake these tasks. The first is a health impact assessment  
39 (HIA), which is a process that planners can use to understand the potential impacts of an  
40 existing plan, policy, or project on the happiness of residents within a neighborhood, as  
41 well as advocate for changes that would lead to greater happiness. The second is the  
42 Sustainability through Happiness Framework (StHF), which is a participatory  
43 neighborhood planning process that planners can initiate to develop plans, policies, and  
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**Comment [S8]:** I don't understand what that phrase means. What kind of response do planners make to existing plans?

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8 projects with residents that would improve opportunities for neighborhood happiness.

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10 This section describes these approaches and their potential challenges to implementation.

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14 *Health Impact Assessments*

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18 Planners can use a health impact assessment (HIA) to evaluate how neighborhood  
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20 level plans, policies, or projects may affect residents' happiness. Planners have  
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22 increasingly used HIAs to evaluate impacts on residents' physical health and to a lesser  
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24 extent mental health. Planners have yet to use HIAs to evaluate impacts on residents'  
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26 happiness. Doing so requires incorporating happiness-related indicators into a HIA's  
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28 evaluation criteria. We describe the components of a HIA, the increasing use of HIAs by  
29  
30 planning practitioners, and how to overcome barriers to using HIAs to improve residents'  
31  
32 happiness in this section.

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34 A health impact assessment (HIA) is a tool for evaluating how plans, policies, or  
35 projects may affect health (Bhatia & Wernham, 2008). A HIA has two purposes. First, it  
36 allows planners to use evaluation criteria to assess how different decisions may impact  
37 personal and community health. Practitioners may derive evaluation criteria from  
38 standard checklists based on best practices reported by the literature (called a “desktop”  
39 HIA) or by brainstorming and vetting criteria with area health experts and other  
40 stakeholders (Dannenberg, Bhatia, Cole, & Dora, 2006). Second, a HIA recommends  
41 courses of action that would best promote greater overall health and more equitably  
42 distribute health outcomes. Research shows that HIAs are effective tools when conducted  
43 early in the planning process, as they can influence decisions, spur new partnerships, and  
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**Comment [S9]:** You drag us along too far before suggesting how HIAs can be used to address happiness concerns. I think you need to restructure and refocus this whole section to make the point that planners can and should (?) use HIAs to measure happiness in certain ways—but that there are some barriers or ...to doing so. Then explain (in more detail) what an HIA is, what it does, why it gets done, the increasing planning role in HIAs, and then illustrate clearly what an HIA addressing happiness would look like.

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8 increase policy makers' awareness of how their decisions affect health (Bhatia &  
9 Wernham, 2008; Dannenberg et al., 2006; Bourcier, Charbonneau, Cahill, &  
10 Dannenberg, 2015; Bhatia & Corburn, 2011).

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14 The HIA is growing in popularity as concerns about emerging epidemics of  
15 obesity, heart disease, and diabetes escalate (Bhatia & Wernham, 2008; Bourcier et al.,  
16 2015; American Planning Association, 2015b; Centers for Disease Control and  
17 Prevention, 2014a, b, c). Practitioners had completed only 27 HIAs in the U.S. by 2007,  
18 commonly as part of a broader federally or state mandated environmental impact  
19 assessment (EIA) (Dannenberg, Bhatia, Cole, Heaton, & Feldman, 2008) The number of  
20 HIAs completed or in process had increased to 300 by mid-2014, many conducted  
21 independent of an EIA (Bourcier et al., 2015). Planning-related HIAs comprised an  
22 estimated 1/3 of the HIAs undertaken in the U.S from 2004 to 2014 (American Planning  
23 Association, 2015b). Most planning-related HIAs evaluated the health impacts of a plan  
24 (63%); 24% evaluated the health impacts of a policy and 13% a project action (American  
25 Planning Association, 2015b). Planners most often applied HIAs to assess, in declining  
26 order, the impacts of land use plans, comprehensive plans, development regulations, and  
27 transportation plans, policies, or projects (American Planning Association, 2015b).

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41 The evaluation criteria covered by HIAs typically relate to physical health, such  
42 as the use of medical care, traffic hazards, air pollution, alcohol consumption,  
43 substandard living conditions, noise-related sleep disturbance, and obesity. A minority of  
44 HIAs assesses effects on mental health (Dannenberg, Bhatia, Cole, & Heaton, 2008).  
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HIA criteria commonly fail to cover factors addressing emotional and spiritual health or  
happiness; one example is the collaborative Design for Health compiled best practice

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criteria for doing a desktop HIA of the elements of comprehensive plans (Design for Health, n.d.). Yet, of the 22 criteria the Design for Health best practice criteria list as “essential for health” in land use elements, only one is remotely related to built environment elements likely affecting residents’ happiness—adequate street lighting, which contributes to a sense of personal security. Assessing potential detriments to physical health may reveal potential detriments to happiness, as physical health and happiness are linked, as previously discussed (Dolan et al., 2008; Lawless & Lucas, 2010). Yet, a more direct approach is warranted.

Slight adjustments to HIA criteria could effectively identify plans, projects, or policies in needs of happiness-centric interventions. The evaluation criteria in a HIA should include the impacts of proposed plans, policies, or projects on neighborhood social engagement and cohesion, given the strong role that social relationships play in happiness (Layard, 2005; Diener & Seligman, 2002; Dolan et al., 2008). Planners also can use HIAs to assess impacts on the neighborhood’s “eyes on the street,” disorder, and criminal opportunities—conditions that influence happiness by affecting residents’ sense of personal safety. Finally, practitioners could use HIAs to assess access to open, natural, and green space, given its connection to happiness. HIAs not necessarily related to planning have periodically covered impacts on social engagement, crime, and access to open, natural, and green space, but this is not standard practice (Bhatia & Wernham, 2008; Dannenberg et al., 2008). Planners should aim to standardize these practices.

HIAs help planners to understand the impacts of existing plans, policies, and projects on residents’ happiness within a neighborhood. However, they do not provide guidance to planners on how to develop plans, policies, and projects that could lead to

**Comment [S10]:** I don’t understand what other kind of land use elements they considered. It seems strange to say that “land use elements” have nothing to do with the built environment.

**Comment [DP11]:** All of the criteria concern built environment elements. I removed the phrase below so as not to confuse readers. Elements they address are density, income diversity of housing, brownfields, transit service, distance between amenities and major roads, complete streets, and many others. These factors are important to consider in planning for physical health, but we don’t know if they affect happiness.



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8 greater opportunities for neighborhood happiness. The next section will introduce a  
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10 model that planners could use to accomplish these ends.  
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### 12 13 14 *The Sustainability through Happiness Framework* 15

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18 The Sustainability through Happiness Framework (StHF) is an iterative and  
19 participatory process that we developed to allow planners to help residents understand  
20 how their neighborhoods affect their happiness and to plan for place-based interventions  
21 to increase opportunities for happiness (Cloutier and Pfeiffer, 2015). No comparable  
22 model exists to the best of our knowledge. We discuss in this section the stages of the  
23 model and the outcomes and challenges experienced from applying the model in one  
24 community in the southwestern United States.  
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31 The first stage of the StHF is a happiness visioning session involving planners,  
32 local government agencies and institutions with ties to the community, and community  
33 leaders. The purpose of the visioning session is twofold. First, planners identify  
34 interventions that may improve opportunities for happiness and sustainability within a  
35 neighborhood, based on their prior experience and factors identified in the existing  
36 scholarly literature. Second, local government agencies, institutions, and community  
37 leaders evaluate their own capacities and the feasibility of proposed interventions, based  
38 on their local knowledge.  
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47 In the second stage of the StHF planners then engage neighborhood residents by  
48 holding meetings and workshops, conducting interviews, and using other participatory  
49 techniques designed to involve the public (Creighton, 2005). Residents are asked to  
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8 identify aspects of their neighborhood that contribute to and detract from their happiness.  
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10 These aspects are then compared with interventions identified in stage one. Only aspects  
11 that overlap with previously identified interventions and embody sustainable  
12 development principles—interventions enhancing environmental preservation, economic  
13 development, and social equity—are explored in subsequent stages.  
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18 The third and fourth stages of the StHF, the profit inventory and systems  
19 planning, as did the first stage, involve planners, local government agencies and  
20 institutions, and community leaders. These stages focus on identifying sites within the  
21 neighborhood that could host interventions identified in stages one and two as well  
22 partners missing so far from the process and the activities needed to meet goals. In the  
23 fifth and final stage of the StHF, sustainability interventions, [planners, local government](#)  
24 [agencies and institutions, and community leaders](#) create a plan for the desired  
25 interventions collaboratively with residents. Once interventions are made, the process  
26 reverts back to stage one and commences again. After several iterations of planners  
27 leading the process, the StHF eventually becomes resident-led.  
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37 We applied the StHF in one neighborhood in a fast-growing region of the  
38 southwestern United States in 2014. Participants have carried out one cycle of the StHF  
39 and are currently undertaking another cycle. The neighborhood, henceforth called “the  
40 Valley,” is a predominately low- to middle-income Latino community of mid to late 20<sup>th</sup>  
41 century single-family homes located along a canal. The Valley’s experience with the  
42 StHF is described in depth in Cloutier & Pfeiffer (2015). Key planned interventions as  
43 part of the StHF include a canal beautification project and a safety and education  
44 program. Additional plans call for improving lighting, introducing solar power, reducing  
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8 water loss, and carving out a social space for residents. A local university is providing the  
9 technical expertise to assist with these plans.  
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11         The challenges to implementing the StHF are common to participatory  
12 neighborhood planning processes, which are addressed elsewhere (e.g., Creighton, 2005).  
13 These include difficulties in 1) building residents' trust, 2) sustaining momentum and  
14 retaining local knowledge, and 3) acquiring resources to carry out interventions.  
15 Solutions to these challenges in the Valley have included 1) completing short-term  
16 interventions before undertaking long-term interventions, 2) retaining a small core group  
17 of resident participants throughout the process while providing opportunities for others to  
18 cycle in and out, and 3) partnering with institutions, such as a research center at a local  
19 university and a non-profit housing developer, to carry out interventions.  
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29         A unique challenge that users of the StHF face is convincing participants and  
30 other planners and community members that happiness is a worthwhile goal to pursue  
31 across diverse neighborhoods. Critics argue that undertaking happiness-related  
32 interventions distracts from meeting more fundamental community needs such as access  
33 to better schools, jobs, and public transit. Planning for neighborhood happiness may be a  
34 more ethical approach in middle- or upper-income communities than in disadvantaged  
35 communities facing many deprivations. However, research on happiness finds that people  
36 from diverse cultures and of varying levels of affluence spend similar amounts of time  
37 thinking about happiness and ascribe similar importance to it (Diener, 2000). We believe  
38 that efforts to apply the StHF widely across diverse neighborhoods are justified based on  
39 this finding.  
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### A Call to Action

Planning for health means working toward greater mental, emotional, and spiritual well being alongside physical health. This review article has demonstrated how planners can shape happiness, an important aspect of well being, on the neighborhood level. Happiness is a complex state. A large portion of what makes us happy is determined by the characteristics that we are born with, like our sex, race or ethnicity, and our personality. Yet, our experiences and environment also shape our happiness.

We identified two ways that planners can influence residents' happiness on the neighborhood level. First, planners can advocate for physical designs that increase residents' 1) opportunities for social engagement and 2) sense of personal security in their neighborhood. Social engagement and personal security are strongly linked to happiness; thus, design interventions leading to these outcomes may indirectly promote greater happiness. Second, planners can increase access to open, natural, and green space within a neighborhood, which research suggests directly increases residents' happiness.

Planners can use two strategies to meet these goals: the health impact assessment (HIA) and the Sustainability through Happiness Framework (StHF). HIAs help planners identify impacts that existing plans, policies, or projects may have on neighborhood happiness and recommend actions that help to increase happiness. The StHF guides planners in collaborating with residents to arrive at happiness-related neighborhood interventions. There are challenges, however, to implementing these strategies. For instance, existing HIA evaluation criteria are largely oriented to factors affecting physical health. Planners must integrate happiness-related indicators into evaluation criteria to

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8 assess impacts on happiness. In turn, users of the StHF will face the classic challenges of  
9 public participation in planning, such as building residents' trust, sustaining momentum,  
10 and securing resources to carry out goals. Users also face the unique challenge of  
11 justifying the ethics of a happiness-centric planning approach when other basic needs are  
12 unmet.  
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18 The time is ripe for planning scholars to engage in the hearty debates on  
19 happiness occurring across the social sciences. We know little about the relative  
20 contribution that neighborhood level factors play in individual happiness. An overarching  
21 challenge in examining the contribution of neighborhood factors to individual happiness,  
22 or conducting neighborhood level analyses of happiness, is the lack of geographic  
23 refinement available in publicly accessible longitudinal data sources, like the U.S.  
24 General Social Survey. Purchasing propriety data or collecting original data, which can  
25 be expensive and time consuming, often is warranted.  
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33 At the same time geographic and built environmental characteristics (regional  
34 level down to neighborhood level) accounted for less than 2% of variation in participants'  
35 happiness in Morris (2011)'s study. This pales in comparison to the estimated 33% to  
36 50% of variation potentially explained by genetic factors. Neighborhood context thus  
37 may play a small role in shaping happiness, but we require additional evidence.  
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43 Further research is warranted to understand the complex ways that neighborhood  
44 factors like the diversity of housing types, housing conditions, transportation  
45 infrastructure, and polluting land uses affect happiness, as well as how residents'  
46 personalities affect the impact that built environment characteristics have on their  
47 happiness, as previously discussed. Comparative research testing effects across  
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neighborhoods in diverse cities also is valuable; it often is unclear whether links between happiness and neighborhood built environment observed in a survey done among a sample of neighborhoods in one city may apply to others with different characteristics. Finally, methodological innovations are needed to tease out whether happier people tend to gravitate to neighborhoods with particular built environments or particular built environments make people happier. Answers to these questions will help to identify effective planning interventions.

For Peer Review Only

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