Physical upkeep, perceived upkeep, fear of crime and neighborhood satisfaction

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ABSTRACT

Residents in a neighborhood view physical disorders as a potential incubator for negative incidents. Even though the disorders may not directly bring serious crime to the neighborhood, the poor physical conditions may affect residents in other ways, including increases in perceived physical disorder and fear of crime and decreases in neighborhood satisfaction. Focusing on the effects of physical disorder, this study examined the underlying associations between the actual upkeep, perceived upkeep, and neighborhood satisfaction using a structural equation model. The findings confirmed interrelationships between factors; confirmed that as some categories of actual upkeep improved, perceived upkeep and neighborhood satisfaction improved; confirmed that as perceived upkeep improved, perceived safety from crime and neighborhood satisfaction improved; and confirmed that as perceived safety from crime improved, neighborhood satisfaction improved. The structural equation model showed that actual physical upkeep factors each had indirect effects on perceived upkeep, safety from crime, and neighborhood satisfaction.

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1. Introduction

The broken window theory warns that minor forms of public disorder lead to serious crime and possibly to a downward spiral into urban decay (Kelling & Coles, 1996). It postulates that minor visual cues of disorder — such as graffiti, broken features, litter, and abandoned cars — attract criminal offenders, who assume from these cues that residents do not care about things in the neighborhood. This theory suggests that our society should address these minor cues of disorder, because they may trigger more serious harmful events.

The broken window theory may apply only under certain conditions, in association with social, racial, or economic constructions (Sampson & Raudenbush, 2004). However, residents may view physical disorders as a potential incubator for negative incidents in their neighborhood. Even though the disorders may not directly bring serious crime to the neighborhood, the poor physical conditions may affect residents in other ways, including increases in perceived physical disorder, fear of crime, and decreases in neighborhood satisfaction. Researchers refer to these poor physical conditions as physical incivilities and poor upkeep. The two differ slightly, in that physical incivilities tend to arise from an action (such as dropping litter), while poor upkeep tends to arise from inaction (such as failure to maintain a lawn). The present paper uses the term *upkeep* for both.

A large body of research has looked at the relationship of neighborhood satisfaction with perceived upkeep and safety from crime (Alvi, Schwartz, DeKeseredy, & Maume, 2001; Brown, Perkins, & Brown, 2004; Carvalho, George, & Anthony, 1997; Hur & Morrow-Jones, 2008; Lansing, Marans, & Zehner, 1970; Marans & Rodgers, 1975; McCrea, Stimson, & Western, 2005; O'Brien & Wilson, 2011; Taylor, Shumaker, & Gottfredson, 1985). That research confirms that as residents' perceptions of the upkeep in their neighborhood improves, their perceived safety from crime increases and their neighborhood satisfaction improves. However, perceived and actual physical conditions may differ (Nasar, 2008). People may notice and attend to some physical cues more than others or may integrate cues, and this may relate to their previous environmental experience. Thus, some residents, for example, may consider their neighborhood to be poorly kept because of the litter on the streets, while other residents in the same neighborhood may consider the neighborhood to be better kept because they notice the lack of abandoned houses.

The present research addresses the relationships between actual upkeep, perceived upkeep, and neighborhood satisfaction.

By isolating the relationships between types of actual upkeep and perceived upkeep, as well as the effect of both on neighborhood satisfaction, we sought to find the underlying associations between all of these factors.

2. Neighborhood satisfaction, physical and perceived measures

Neighborhood satisfaction research is often contradictory because of the complex nature of "satisfaction." Researchers have proposed theoretical models of neighborhood satisfaction (as the ultimate concept in the model or as one intermediate aspect to a bigger concept like "quality of life") to illustrate its multi-faceted characteristics, which include personal, physical, social, and psychological dynamics (Amerigo & Aragones, 1997; Francescato, 2002; Marans & Rodgers, 1975; Marans & Spreckelmeyer, 1981; Weidemann & Anderson, 1985). Research has shown that longer-term residents experience higher satisfaction with a neighborhood (Lipsetz, 2000; Oh, 2003; Potter & Cantarero, 2006; Speare, 1974). Homeownership also predicts neighborhood satisfaction (Grinstein-weiss et al., 2011; Lipsetz, 2000). Grinstein-weiss et al. (2011) found a positive impact of homeownership on neighborhood satisfaction among lower-income households who may have fewer choices of neighborhoods in which to live.

Research has frequently found perceived physical characteristics, especially perceived aesthetics, to be the most important factor for increasing neighborhood satisfaction (Hur & Morrow-Jones, 2008; Kaplan, 1985; Parkes, Kearns, & Atkinson, 2002; Sirgy & Cornwell, 2002). Social characteristics such as neighborhood cohesion, racial composition, or networking are also associated with neighborhood satisfaction (Alvi et al., 2001; Chapman & Lombard, 2006; Hur & Morrow-Jones, 2008; Lipsetz, 2000; Robinson, Lawton, Taylor, & Perkins, 2003; St. John & Clark, 1984).

However, the research on neighborhood satisfaction has often overlooked the *actual* physical characteristics that may affect residents' overall neighborhood satisfaction. Brown, Brown, and Perkins (2004) included observed incivilities — broken windows, pavement, peeling paint, litter, graffiti, and lack of flower or vegetable gardens — as predictors of confidence and place attachment. However, they failed to find an effect of incivilities in the model, perhaps because of the absence of decay in the studied units. Studies examining attributes of the physical environment have often relied on *perceived* properties of the physical environment or its condition (obtained through ratings) rather than *actual* physical measures of them (Galster & Hesser, 1981; Kim & Kaplan, 2004). For example, some research has examined how neighborhood satisfaction relates to *perceived* physical appearance rather than to specific physical properties of the environment that may account for that perceived appearance. The findings from such research do not tell decision-makers "how" to achieve the perceived appearance to enhance overall neighborhood satisfaction. Research has examined the association between *actual* physical environment, physical activities such as walking and cycling, and health outcomes (Brown, Werner, Amburgey, & Szalay, 2007; Clifton, Livi-Smith, & Rodriguez, 2007; Frank, Schmid, Sallis, Chapman, & Saelens, 2005). It has also examined the association of *actual* physical properties of the environment with crime and cues related to fear of crime (Brown et al., 2007; Caughy, O'Campo, & Patterson, 2001; Perkins, Meeks, & Taylor, 1992; Perkins, Wandersman, Rich, & Taylor, 1993). Since crime and fear of crime affect neighborhood satisfaction (Chapman & Lombard, 2006; Hipp, 2009), these studies suggest that actual and perceived properties of the environment would have powerful effects on neighborhood satisfaction.

Research on physical and perceived upkeep in relation to safety from crime has also addressed the relationship between disorder and neighborhood attitudes, suggesting that similar results might apply to neighborhood satisfaction. Research has consistently found neighborhood satisfaction to be associated with decreases in *perceived* incivilities or increases in perceived upkeep (Carvalho et al., 1997; Dassopoulos, Batson, Futrell, & Brents, 2012; Hur & Morrow-Jones, 2008; McCrea et al., 2005; O'Brien & Wilson, 2011). It has also found perceived fear of crime (or safety from crime) and actual crime to be associated with *actual* upkeep (Accordino & Johnson, 2000; Alvi et al., 2001; Brown, Perkins, et al., 2004; Kelling & Coles, 1996; Perkins et al., 1992; Perkins et al., 1993; Taylor et al., 1985), and this association has held across race, social class (St. John & Clark, 1984) and locality (Cook, 1988; Marans & Rodgers, 1975; Miller, Tsemberis, Malia, & Grega, 1980; Pitner, Yu, & Brown, 2012). The association remains stable for information from indirect signals (physical cues) to people unfamiliar with the place (O'Brien & Wilson, 2011). Thus, it seems that neighborhood satisfaction is related to perceived upkeep; and that fear of crime and crime, which affect neighborhood satisfaction, are related to actual upkeep. A more holistic model for upkeep and neighborhood satisfaction would include measures of actual upkeep, perceived upkeep, perceived safety from crime, and neighborhood satisfaction.

For upkeep, it may help to consider three kinds of features of the physical environment: fixed, semi-fixed, and movable (Rapoport, 1982). Unlike physical infrastructural features such as building setback and road network, many physical features that degrade upkeep take a less fixed form (Brown & Perkins, 2001; Kelling & Coles, 1996; LaGrange, Ferraro, & Supancic, 1992). Thus, we grouped upkeep into Rapoport's (1982) three categories. We defined *fixed* upkeep as more permanent and requiring more resources and time to change, such as a vacant or dilapidated building (Accordino & Johnson, 2000; Brown, Brown, et al., 2004; Brown, Perkins, et al., 2004; LaGrange et al., 1992; Perkins, Florin, Rich, Wandersman, & Chavis, 1990; Perkins et al., 1992, 1993; Spelman, 2004). We defined *semi-fixed upkeep* as somewhat less permanent and easier to change, such as a dilapidated lot overgrown with weeds or broken but more easily fixed elements, such as a broken window (Accordino & Johnson, 2000; Brown, Perkins, & Brown, 2004; LaGrange et al., 1992; Perkins, et al., 1990, 1993; Perkins, Meeks, & Taylor, 1992; Spelman, 2004). We defined *movable* upkeep as non-fixed features, such as litter.

This present research aims to contribute to the neighborhood satisfaction literature by looking comprehensively at the relationships between *physical upkeep, perceived physical upkeep* and *safety from crime,* and *neighborhood satisfaction*. We expected to find effects related to *physical upkeep*, *perceived upkeep,* and *perceived safety from crime*. We lacked an adequate basis for judging the relative strength of the effects of fixed, semi-fixed and movable features, but we expected to find the three kinds of actual features to be interrelated, as each form of disorder probably makes the others more likely. In addition, based on theory and previous research, we expected to find that as *actual* physical upkeep improves:

1. *Perceived* upkeep will improve,
2. *Perceived* safety from crime will improve, and
3. Neighborhood satisfaction will improve.

We expected that as *perceived* upkeep improves:

1. *Perceived* safety from crime will improve, and
2. Neighborhood satisfaction will improve.

Finally, we expected that as *perceived* safety from crime improves: