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The urban growth machine, central place theory and access to open space

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ABSTRACT

The provision of urban open space occurs through political and economic mechanisms that could marginalize racial minority groups. In this research, we explore two competing hypotheses of marginalized access to open space (greenways, parks, and natural areas). The first hypothesis couples Logan and Molotch's "growth machine" theory with the concepts of laissez-faire racism and White privilege. Urban space is conceptualized as contested terrain being sought after by local elites who utilize their political and economic will to co-opt government decision making authority. The second hypothesis—central place theory—posits that access to open space is determined by the spatial patterns of economic agglomeration. Analyzing Raleigh, North Carolina as a case study, the results do not support either the growth machine theory or central place theory. Rather, urban growth is found to have very localized social consequences, seen through variations in different racial/ethnic groups' level of access to open space.

Introduction

Purpose

Urban planners and scholars have recognized the benefits of publicly available open space for centuries.[1] In the United States, the creation of Boston Common in 1640 marked the first act by a government body to set aside land within the city for collective uses such as military training and communal grazing (Cranz, 1982). In the 370 plus years since, public open spaces have become a de facto part of the urban environment. Planners and local government officials frequently cite a generalized set of benefits (e.g., increased recreational opportunities, higher quality wildlife habitat, greater community identity, etc.) when advocating for the development and conservation of urban parks and green spaces. While urban open spaces undoubtedly do provide a whole host of benefits to local neighborhoods, only individuals and groups able to access and utilize these areas can realize desired outcomes. In short, the political and economic decisions that go into planning and developing urban open space can be the site of social marginalization. Urban scholars can easily overlook this fact by focusing primarily on market-based mechanisms of urban inequality (e.g., housing, access to diverse industrial sectors, etc.). Urban development, including decisions about where to cite urban open spaces, occurs through the actions of individuals who are often simultaneously engaged in public as well as private realms (Domhoff, 1990). In this research, we present the basic proposition that public open space, being a product of the urban political economy, can marginalize racial and ethnic minorities from the benefits of parks and open space. Explicitly, we examine the hypothesis that local government actors can and do manipulate public benefits by creating and conserving public open space in predominantly White neighborhoods while allowing commercial and industrial development to occur in neighborhoods with large proportions of minority populations. This hypothesis represents a coupling of Logan and Molotch's "growth machine" theory (2007) with the notions of laissez-faire racism (Bobo, Kluegel, & Smith, 1997) and White privilege (Pulido, 2000).

A political economic perspective is not the only lens through which access to public open space can be explored. A theory rooted in the historical processes of suburbanization and decentralization may also offer some guidance. Given that urbanization is a process of population concentration that occurs through both a "multiplication of points of concentration and [an] increase in the size of individual concentrations" (Tisdale, 1942, p. 311), a secondary

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[1] We refer to open space throughout both the literature review and our empirical model as all publically accessible parks, natural areas, and greenways. This classification excludes schoolyards, environmental mitigation areas, gamelands, and paved plazas.

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proposition to explain individuals' access to public open space can be developed. This second proposition adapts Christaller's central place theory (1933) and posits that access to open space is determined by the simple fact that as cities develop, the urban core develops first, followed by moderately dense areas that eventually extend out into rural and undeveloped areas.

To empirically test these hypotheses, we examine Raleigh, North Carolina as a case study. Using data on the spatial location and concentration densities of the area's urban minorities as well as the existing locations of public open space, a series of analyses are employed to answer two central questions: first, are public open space being utilized as a mechanism of marginalization, resulting in racial and ethnic minorities having less access to the benefits provided by public open spaces? Second, is access to open space determined by the spatial patterns of the metropolitan areas' minority population (the growth machine theory), or is open space determined by the historical processes of suburbanization and decentralization (central place theory)? The results reveal that while both theories may be valid at certain spatial scales and in certain social contexts, neither, when considered in isolation, can provide a sufficient framework for understanding the social causes and consequences of urban open space planning and development.

Need for socio-spatial explorations of urban open space access

Empirical examinations of the relationships between minority populations and access to public open space are particularly needed as many progressive urban planners and policy makers are attempting to recast urban open spaces as spaces which express personal and cultural diversity (Ward Thompson, 2002). Ward Thompson (1996) notes the role of public open space in American life has dramatically shifted during the last several decades. She notes park and green space planning often assumed public open spaces exemplified the ideals of social and cultural "melting pots" and largely ignored cultural differences. More recently, however, many urban planners and management frameworks have attempted "to accept diversity in needs, attitudes and expression" (Ward Thompson, 2002, p. 60).

Particular emphasis on the spatial dimension of these relationships is warranted given that numerous studies have illustrated urban open space usage is dominated by individuals and groups who live in immediate proximity to the resource (e.g., Comedia/Demos, 1995; Godbey, Graefe, & James, 1992; Kaplan & Kaplan, 1989). As a result, the social groups with most need for access to public open space and the benefits that urban green spaces can provide are those groups who are least mobile—the elderly, the poor, those without personal transportation, and in particular importance to this study, socially marginalized groups like racial and ethnic minorities. A large body of past research has recognized this need and has attempted to discern if, and to what extent, minority groups are marginalized from urban open space (e.g., Heynen, 2006; Heynen, Perkins, & Roy, 2006; Powell, Slater, & Chaloupka, 2004; Wen, Zhang, Harris, Holt, & Croft, 2013; Wolch, Wilson, & Fehrenbach, 2005). While notable, this research has yet to employ a spatially-explicit analytical approach that can be utilized to discern exactly *where* specific minority groups are experiencing marginalized levels of access within an urban area.

To fulfill this need, we present two rival hypotheses to explain access to parks, greenways, and natural areas. We frame the research with the following questions: is there inequitable access to open space? And if so, does it occur along racial lines? If not, can access to open space be predicted by some broader determinant inherent in the realities of urban growth?

Related literature

The city as a growth machine

Urban space is understood to be socially and economically valued land. In their influential thesis on the political economy of urban space, Logan (1976) and Molotch (1976), and later Logan and Molotch (2007) suggest that urban growth is predominantly driven by a land-based elite who's primary concern is maximizing exchange values through the process of land-use intensification. Urban space is a finite resource that is utilized by individual actors to generate what Marx would refer to as surplus value. To focus on local political economies, land parcels must be conceived "not merely as a demarcation of legal, political, or topographical features, but as a mosaic of competing land interests capable of strategic coalition and action" (Molotch, 1976, p. 311).

The key assertion behind Logan and Molotch's thesis is that otherwise disparate local actors and organizations coalesce to form "growth machines" designed to direct resources into specific urban locations and stimulate growth. The collective interest of a growth machine lies in maximizing the urban rents which its constituents have a vested interest in, most explicitly through direct ownership. Those actors and organizations involved in a growth machine, the land-based elites, primarily pursue exchange values, the monetary returns that can be obtained from the exchange of pieces of property. The motivations of a growth machine—maximizing exchange values—are inherently contradictory to individuals, particularly residents, whose primary concern is maintaining use values. Use values being the personal and social utility a piece of property generates by meeting individuals' non-economic wants and needs in their daily lives (Harvey, 2006).

Through the Marxian notions of exchange and use values, the growth machine hypothesis ties power and social class hierarchy to actual physical space. The conflict between those seeking to gain from exchange values and those from use values is highly asymmetrical. Each group of individual actors is differently equipped to mobilize their individual, organizational, and class resources to meet their collective needs.

Because of the asymmetrical power relationships tied to place, the life chances of poor and minority neighborhoods are dramatically impacted. Local residents who live in poor and minority communities do not have an equitable say in local decision making, but they do pay the price for others' plans—they suffer a double disadvantage (Logan & Molotch, 2007). This consequence of growth machines can be seen in the consistent and positive relationship found between