

# The Commons: Separating Tragedy and Triumph at a City Park

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Littering in a city park is often considered a capricious act of neglect associated with simple carelessness. Using Ostrom's model, *Governing the Commons*, this research finds that littering is correlated with specific park activities. This article advances our understanding of the Commons and littering by considering the concept of "pollution," as well as understanding patterns of litter for a communal city. I argue that among the variety of park activities, there are "nonlitter" activities that require little more than the husbandry of local communal governance and there are "litter" activities that require the additional husbandry of the state. However, additional empirical evidence was also discovered that there are instances where the abuse of common resources is socially structured and that there is, on occasion, a normative structure to norm-violating behavior.

## INTRODUCTION

The conservation of the global environment as a holistic "Commons" is a topic of interest for many of the world's ecologically concerned citizens. The Commons can be defined as a "class of resources for which exclusion is difficult and joint use involves subtractability" (Berkes et al. 1989: 91). Excludability refers to controlling access and subtractability denotes that each user is capable of subtracting from the benefit of other users. The key concern is the method of management of the Commons, which limits the use of natural resources to ensure their long-term economic and environmental viability (Ostrom 1990). Such management is established via collective action that must address a combined set of issues, such as "coping with free riding, solving commitment problems, and arranging for the supply of new institutions and monitoring individual compliance with sets of rules" (Ostrom 1990: 27). Commons include fisheries, wildlife, surface and groundwater, fields and forests (Feeny et al. 1990: 3). However, common assets, such as city parks, also fall into the category of Commons under "state property" (Feeny et al. 1990: 5). Exclusion at a city park is unlikely because of its nature of public use. Subtractability is demonstrated not by depletion in this case, but rather by destructive acts, such as littering, failure of dog walkers to pick up scat, graffiti, and vandalism.

This study applies methods appropriate for using "The Commons" (Hardin 1968; Ostrom 1990) as a model for understanding patterns of use and abuse of Chicago city parks

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by park users. Methods of participant observation and semistructured interviews were used to catalog, describe, and analyze varieties of park users, their patterns of park use, and their values and attitudes of appreciation pertaining to the park and public behavior by park users. Quantitative measurement tools were used to measure litter density. There is a focus on the emergence of formal and informal social groups of park users and the development of group norms for appropriate park use.

The field site of Washington Park, Chicago IL, was studied for acts and results of littering. Contributory factors to litter dispersal, such as wind and receptacle design, were also scrutinized. The foremost problem addressed and purpose of this research was to identify the source of litter by observing acts of littering and analyze evidence of unobserved littering by park users. The research questions are: (1) Do certain park activities result in more littering (and therefore more husbandry required) than others? (2) If littering is considered universally unacceptable by all park utilizers, why does it still occur even to the direct detriment of those littering?

This article explores and analyzes Washington Park as a Commons or Common Property Resource (CPR). Ostrom (1990) is at the forefront of this research, having studied three types of CPRs: (1) renewable resources, (2) situations of substantial scarcity, and (3) situations where users can substantially harm one another. She specifically excluded pollution problems in her analysis of the Commons, which provided me with a gap to complement her research (Ostrom 1990). Using Ostrom's framework and logic, this analysis hopes to advance CPR research.

## UNDERSTANDING THE COMMONS

In caring for the Commons there are two predominant views concerning state intervention. The first was expressed in Garrett Hardin's 1968 essay, *The Tragedy of the Commons*. Hardin stated that "each man is locked into a system that compels him to increase his herd without limit—in a world that is limited" (Hardin 1968: 1244). He stated that moral persuasion is futile and that temperance must be accomplished through administrative law and the coercive device of taxation and punitive accountability exercised by the state (Hardin 1968). The second was illustrated in Elinor Ostrom's book, *Governing the Commons*. Her observations provided that in certain scenarios, indigenous agents can develop a rapport of trust to preserve their commons through a communal approach as mutual utilizers without the need of state intervention (Ostrom 1990). She argued that neither the state nor the market is uniformly successful in long-term preservation of natural resource systems. The salient difference between these viewpoints is that of the governing agents; for Hardin it was the impersonal and exogenous state, for Ostrom it could be through endogenous mutual cooperation of self-governance by indigenous utilizers.

## GOVERNING THE COMMONS

A key intellectual debate among political economists since the 18th century has been whether social order is best maintained by Hobbes' "central authority" or through Smith's "invisible hand" of the market (Boettke 2010). Ostrom offered that many effective and efficient tools of governance lie outside the formal authority of conventional government and in the informal relationships that communities live by. A combination of scientific

and artistic association, as practiced through self-governance, provides a situation where communities can potentially be more effective than the government experts from afar especially as it relates to securing accountability for violation of local rules (Boettke 2010). Neither Boettke nor Ostrom state that “self-regulation” is the optimal form in all situations. They state only that in certain circumstances self-governance may lead to much more productive results than conventional bureaucratic governmental regulation.

Ostrom identifies three influential social science models that attempt to define ways of viewing problems that “individuals face when trying to achieve collective benefits”: (1) the tragedy of the commons, (2) the prisoner’s dilemma game—*New York split*, and (3) the logic of collective action or *free rider* (Ostrom 1990: 6). The first model reflects Hardin’s vantage point of tragedy of the commons, which symbolizes “the degradation of the environment to be expected whenever many individuals use a scarce resource in common” (Ostrom 1990: 2). Ostrom does not deny the possibility of the tragedy, just the inevitability. In the second model, Ostrom transitions Hardin’s model into a formalized prisoner’s dilemma where each player has a dominant strategy to maximize utility before the other does and, therefore, not become the “sucker.” While each player embraces their dominant strategy, they produce equilibrium of tertiary benefit (Ostrom 1990). This model is closely related to the “Diner’s Dilemma” model, which is also known in the vernacular as the “NY split.” The NY split scenario is created when a group of individuals go out to eat and prior to ordering they all agree to split the check equally regardless of what will be ordered by each individual. It is an assumption that the more expensive meal is the preferred one, but not necessarily the meal that would have been ordered if eating alone or fully responsible for that value of the meal. Thus, the individual reasons that in order to maximize the opportunity or not to be taken advantage of, he orders the more expensive meal. Under research condition, when given the choice between the NY split or paying individually, 80% chose the latter (Gneezy et al. 2004). The NY split and treatment of the Commons appear closely related. “Though individual incentives for excess exist, in small communities the social mechanisms arising from repeated interaction and strong other-regarding preferences are in place to discourage any such excess. Once these social mechanisms are eliminated, the tragedy of the commons results” (Gneezy et al. 2004: 277).

Ostrom’s third model is credited to economist and social scientist Mancur Olson’s *The Logic of Collective Action* (Olson 1965). Olson challenged the optimism of cooperative group action; that individuals with common interests would voluntarily act or contribute collectively to achieve group benefits and, thus, there is individual motivation to become the *free rider*. The free-rider problem occurs when a person cannot be excluded from the benefit of utilization of a resource that others tend or provide for at a cost to themselves. This results in each person being motivated not to contribute to the common good but rather to free ride on the efforts of others. The two critical characteristics of free riding are nonexcludability and nonaccountability. The trend toward free riding is due to the inherent nature of the *collective good*. In a collective group, certain individuals cannot be kept from consuming a collective good once any other individual in that group had provided it for himself. As the group enlarges, the free-riding tendency enlarges also (Olson 1965). To test this theory, Albanese and van Fleet reviewed representative studies relevant to free riding. They concluded that “Behavior involves both cognitive and noncognitive processes aimed at satisfying some mix of altruistic and selfish motives . . . Altruistic motives may reduce the likelihood and degree of free riding, but they do not

eliminate it" (Albanese & Van Fleet 1985: 252). Countering free-riding tendency may be accomplished by offering incentives, providing forms of recognition, or establishing an identifiable accountability for group members.

Beyond Ostrom's three models, there is a fourth model that is applicable to the Commons, that is, *diffusion of responsibility* or the *bystander effect* (Darley & Latane, 1968). The bystander effect may occur in group settings where an individual is unwilling to engage in a necessary action of intervention because of the presence of others. Generally, that individual rationalizes his inaction based on the belief that others will intervene and that it is not his responsibility to do so. Diffusion of responsibility is also an inherent part of organizational structure. "As long as there is division of labor, there will be questions about division of spoils and the division of responsibility" (Phillips 2010: 534). "To the extent that social control relies heavily on the creation, diffusion, and enforcement of social norms, central actors have a large role to play in this process" (Phillips 2010: 541).

The four social science models of the tragedy of the commons, NY split, free rider, and diffusion of responsibility theories all seek to explain rational attitudes and resulting actions of individuals and groups engaged in the use of the Commons. The majority differentiate between individual and group responses, as well as the effect social ties have on the group, and an individual's responsibility for his actions. Individual and group responses, the effect of social ties, and an individual's responsibility for his action/inaction are represented in my research of the park.

## PARKS AS COMMONS AND LITTERING

One of the most fundamental questions in environmental thought is, "How much can we use the environment without spoiling what we find most valuable about it?" (Manning 2007: 5). The second part of that statement, "what we find most valuable," reflects a consideration of social norms as it relates to valuation of the park by utilizers or the experiential dimension. In his book, *Parks and Carrying Capacity*, Manning provided that standard empirical work based on population expansion and logistic growth models lacks real-world applications. He finds that with "higher life forms," there are many more variables to include natural variability in what is acceptable as environmental conditions and interspecies competition (Manning 2007). Succinctly stated, what is considered acceptable is an interpretation of what is normative based on certain values based on the activity. This research compliments these findings as it relates to varied park activities.

Litter, through its subtractability or detractability, reflects the quality of the park resource for a panoply of activities that have varied degrees of aesthetic appreciation for the park. Hardin wrote that "*carrying capacity* is inversely related to the quality of life" (Hardin 1968). Carrying capacity is defined as "the level and type of recreation use that can be accommodated in a park without violating standards" (Manning 2007). Carrying capacity attempts to balance the inherent tension of park utilization of the Commons and protection of the resource to an acceptable standard. The science of carrying capacity for parks consists of three dimensions: (1) resource, (2) experiential, and (3) managerial (Manning 2007). The environmental resources are the physical Commons itself as they relate to ecological characteristics. The experiential aspect is the quality of the recreational experience as it reflects the needs and wants of utilizers. The managerial dimension is the extent and type of park management action taken to maintain a standard

via legal directives and agency guidelines (Manning 2007). Standards are the minimally acceptable conditions based on indicators, which vary depending on the resource and are closely related to potential problem areas. Common park indicators are crowding, park condition, vandalism, and litter. Litter has been found to be a universally important indicator. Indicators, such as *displayed human waste*, *discourtesy*, and *litter*, can be characterized by universal utilizer unacceptability at the experiential dimension almost immediately (Manning 2007).

An example of how litter was perceived by a group socially was provided by Alexandra Murphy's study of litter in Penn Hills, PA. In February 2009, Murphy conducted a 3-year ethnographic study that utilized participant observation "to elucidate the process by which litter becomes defined as a social problem" (Murphy 2012: 212). She found that community members consistently believed that litter was a significant problem but that although people rarely witnessed the actual act of littering, they created "folk theories" that others were to blame and were "disreputable litterers" based on socioeconomic status (Murphy 2012). Murphy documented the specific locations where litter accumulated and observed that litter tends to accumulate repeatedly in particular places and that these sites of accumulation were problematic for residents. She found a *territorial stigmatization* where "people occupying spaces of disorder become contaminated by the disorder by which they are surrounded" (Murphy 2012: 214). The structural features described for Penn Hills can be applied to Chicago.

Finally, another pertinent study concerns neighborhood social ties (NSTs) in common spaces. In the study *Fertile Ground for Community: Inner-City Neighborhood Common Spaces*, the authors found that the presence of trees and grass support common space use and informal social contract among neighbors (Kuo et al. 1998). Structured interviews were conducted with residents in the Robert Taylor Homes (RTH) public housing developments in Chicago, IL, which offered a variety of vegetation levels of grass and trees or *greenness* between apartment complexes. The quantitative data collected from the interviews were based on participant assessments of levels of greenness and NSTs utilizing a 5-point Likert scale. The authors provided evidence that NSTs do not form solely as a function of membership activity but also based on environmental setting. The greenness of a common space has a positive influence on community sentiment compared to the same space devoid of vegetation. The "greener" or the greater level of vegetation, such as grass and trees, the stronger the NSTs as well as a "greater sense of safety and adjustment among residents" (Kuo et al. 1998: 828). The authors concluded that such outdoor spaces appear to attract people and provide for increased opportunities for social encounters and formation of NSTs (Kuo et al. 1998). The sentiment of environmental greenness and the development of NSTs are directly applicable to a city park. Having studied parks as Commons and reviewed research on neighborhood littering, it is appropriate to proceed to the research field site, which is a green common space surrounded by neighborhoods.

## DATA AND METHODS

The purpose of the research was to identify the source of litter by observing acts of littering and analyze evidence of unobserved littering by park users. The actual contemporaneous observation of littering was rare for some activities and fairly common for others. As this study did not incorporate clandestine cameras throughout the park,

some evidentiary deduction was made for the resulting litter deemed to be logical residue from a park activity. To quantitatively measure litter, the *Keep America Beautiful* standard of Photometric Index (PI) was used (Manning 2007: 140). This standard consists of a 16 × 6 ft. grid of (96), 1 ft. square area cells. Litter accumulation is measured according to how many cells are occupied by litter. Thus, the PI rating can vary from 0 (no litter) to 96 (every cell had litter). Conventional PI is done through digital photography. For this study, the author paced a 16 × 6 grid area and counted the pieces of litter to adapt to an already acceptable standard and created an index as Approximate Photometric Index (API). As a matter of reference, the social norm curve for litter for the Boston Harbor Islands National Recreational Area provided that an API of 4 was deemed unacceptable and that 1–2 pieces of litter were considered tolerable (Manning 2007: 142).

## DESCRIPTION OF THE STUDY AREA

Washington Park in its entirety is approximately 370 acres. It was originally considered the “western division” of a 1055-acre park that was known as South Park (CPD 2016). The western division was connected to the “eastern division” via the Midway Plaisance. The park as it looks today was designed by Frederick Law Olmsted and Calvert Vaux and was completed in 1871 (CPD 2016). In 1881, the South Park Commissioners named the western division Washington Park after the first American President (CPD 2016). Washington Park was divided into two areas, north and south, which were separated by Rainey Drive. My research focused solely on the north side of Washington Park because of the overall open layout of that area, which is conducive to contemporaneous close, medium, and far observations of multiple usage events, such as walking, softball playing, and picnicking. For the purposes of this study, I refer to only this area as *The Park* (see map, Figure 1).

The specific boundaries of this research area were: 51st Street at the north; Rainey Drive at the south; Payne Drive at the east, and South Ellsworth Drive at the west (see attached map). The park contained an enormous green area that was filled with 17 softball fields, three soccer/football fields, and three cricket fields. The soccer/football fields were in the north center of the park with the cricket fields in the south center. The softball fields encircled these center fields in an oval shape with the long axis running north and south. The fields were circumscribed by an unpaved walking, running, cycle path that was approximately 1.5 miles long. This path intertwined and intersected with asphalt surfaced paths that are found in the northern and southern parts of the park. Outside of this path perimeter, two tennis courts and parking lots were found at the north end near 51st Street. Numerous trees were scattered throughout surrounding the playing fields (see Figure 2).

The park had three inscribed rock markers that signify three of the four cardinal points of the compass: north, east, and west. These bore the inscriptions, “Harold Washington, Common Ground, North (East and West accordingly) Boundary.” There are two additional southern rock markers in an area that was called “Common Ground” Meadow. The first inscription read: “Chicago is one city. We must work as one people for our common good and our common goals. I want to reach out my hand in friendship and fellowship to every living soul in this city—Mayor Harold Washington 1983 (see Figure 3).” The second marker was inscribed: “We want a ground to which people may easily go after their

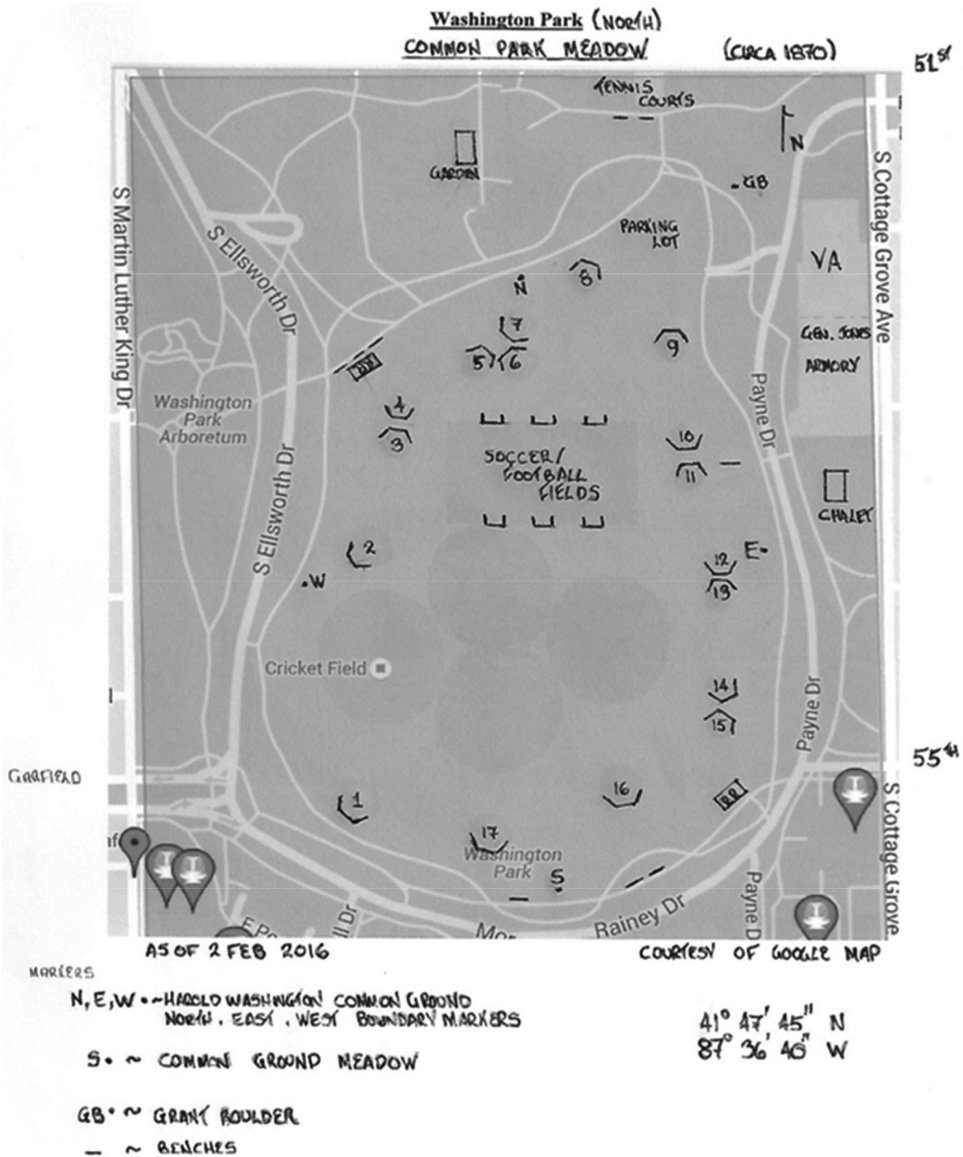


FIG. 1. Hand-modified Google map.

day's work is done. And where they may stroll for an hour seeking, hearing, and feeling nothing of the bustle and jar of the streets, where they shall in effect, find the city put far away from them—Frederick Law Olmsted Landscape Architect 1870.” One other stone marker was found outside the path perimeter in the northeast corner of the park. It commemorated the planting of a tree by US President Ulysses S. Grant in 1879. Along the perimeter paths, there were nine park benches. Three were located in the south and southeast area, four were located in the north and northwest area, and two were located





**FIG. 2.** The holistic perspective of Washington Park was selected to exhibit the objective aesthetic beauty of the park and its potential for being valued and appreciated by various utilizers. The Chicago city skyline can be seen in the background. [Color figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



**FIG. 3.** Marker stone delineating the southern boundary of the northern portion of Washington Park. The park was named after the first American President. The reference to “Common Good” and “Common Goals” provides a demonstrative venue of serendipity for this study of “The Commons.” Three more boundary markers are found at the other cardinal points. [Color figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



in the east by the Washington Park sign that was near the ball fields 10 and 11. Five more benches were located in the north area by the tennis courts. Restrooms were found in the northwest and southeast corners of the park. The southeast restroom area exhibited evidence of a transient camp.

The park was part of the Chicago Park District and was maintained by crews working in the spring, summer, and fall. They were observed pruning, mulching, and moving top soil. During the organized sports league season, additional crews of trash pickers were observed cleaning up the entire park early Monday mornings after the Sunday games and picnicking. There were upwards of 20 members in the cleanup crew engaged at that time. This pattern was observed in the summer and fall of 2015 and the late spring of 2016. It should be noted that the cleanup crews did an effective job of cleaning almost all the debris. In the winter, no cleanup and little maintenance was observed.

## FINDINGS

This study found distinctions among park activities that identified “nonlitter” activities (Group I) and “litter” activities (Group II). The activities of Group I, exercise and walk through, required little monitoring or oversight as it related to littering. The activities of Group II, organized sports activities, sports spectators and picnickers, car maintenance, evening picnicking/parking, and transient camping, transcended the ability of the community to effectively self-govern and required the services of the state to return the park to its natural condition. This assessment was based on observed litter deployment and logical evidentiary findings.

## PARTICIPANT OBSERVATION

The activities observed for this essay consisted of (1) *exercise*, (2) *organized sports*, (3) *sports spectators and picnickers*, (4) *walk through*, (5) *car maintenance*, (6) *evening picnicking/parking*, and (7) *transient camping*. Exercise activities were self-explanatory and consisted predominantly of walkers and runners. Organized sports activities were those centered on league formation or weekly customary play. They usually draw family and friends as spectators. Sports spectators also included those who watch the games on fields #8 and #9 from their car in a modified form of “tailgating.” Walking and walk-through activities were distinguished by their apparent purpose. Walking activity at the park was defined as walking in the park either for exercise or aesthetic appreciation of the park. Walk through was distinguished by the apparent need to merely traverse the park in order to get from point A to point B. An exact differentiation between activities is not without potential error. However, several factors usually are characteristic of the walk-through user. The first is a backpack or carry bag. The second was direct traversing of the park in a linear fashion to efficiently get from point A to point B. Last, the walk-through does not complete the circuitous route around the park. Car maintenance was observed on pleasant days where men were tending to their cars either alone or in the company of other men maintaining their cars. One other category of activity that was not directly observed but evidence of such activity was discovered was that of *evening picnicking/parking*. These activities were defined as nighttime conduct on park benches or in parked cars (in the parking lot or along the adjacent roads along the park) to include drinking alcohol and public fornication.

Transient camping was defined as illicit activity of sleeping in the park with accumulated personal gear.

Park activities were analyzed using the combined methods of observation, participant observation, and interview. The predominant method was that of participant observation yet the qualitative interview process was critical in identifying various indigenous perspectives and understandings, which would have been missed by pure observation or quantitative analysis. Approximately 6 months of informal observations and rapport building were conducted prior to the interview stage. From July to December 2015, the author walked year-round approximately three to five times a week at the park and personally immersed in some of the ongoing social activities. The formal observation stage began in January of 2106 with 30 formal observations. The legitimate roles that were available during the research period of February 2016 were limited to walking and running and normally 30–90 minutes per day were spent engaged in those activities or in litter pickup. This was a therapeutic exercise, as well as a productive one for this study. The increased opportunity for social encounters and the health benefits of walking made participant observation optimal for rapport building and the formation of NSTs. Tang's descriptive role as a bridge builder over "nepantla," which she defines as the spaces between the academic world and the practitioner's as part of "activist scholarship," was embraced (Tang 2008). Mere observation was transcended and was incorporated by engaging in litter pickup at the park. Being an active participant in park activities and being seen as a part of the clean-up effort, the author established the credibility to speak and engage with regular park users without being perceived as a pest or a threat. This allowed a subtle opportunity to either sit quietly on a park bench and engage in ethnographic observation or segue appropriately into an interview scenario. Thus, the combined use of multiple methods provided for the cumulative and complementary benefit of being part of the regular park user culture.

Daily public activity normally occurring at a city park was examined. Information observed and recorded was that of destructive evidence such as vandalism and litter. All interviews were conducted in a public park setting and no private information was requested or gleaned. Observations and interviews were conducted 3–5 days per week. Potential for direct benefits to participants in this study was two-fold: (1) opportunity to provide an opinion and express oneself concerning the park and (2) potential for future park improvement via research conclusions.

Embracing the roles of runner, walker, trash collector, and bench observer provided for a vantage point favoring activity of those that apparently do not litter. Unable to expand to roles of a player of organized sports, such as cricket, soccer, and softball, the author compensated for this prejudice with numerous in-depth interviews of organized sports players. The logic of role expansion could also be applied to the illicit park activities of the transient and other activities. Previous employment in the FBI and law-abiding tendencies did not incline the author, at this stage of research, toward litter production and deployment as it would open up the proverbial "Pandora's Box" of potential dilemmas of participating in illegal activity or reporting such. The objective distance was deemed as being not only prudent but also less intrusive into activity areas where prying eyes may not have been welcome.

## INTERVIEWS

The interview stage was conducted in February and March 2016 with 13 formal individuals or group interviews of 30 respondents. A formal recruitment script was used and provided for semistructured interview formats with 17 open-ended questions. Semistructured interviews provided for smooth interaction between participants and a more natural flow of response was received through open-ended questions. Interviewees were selected at random based strictly on opportunity. The larger number of respondents for organized sports is accounted for by the random nature of the interview process of group activities as opposed to individual activities. When approaching a ball field and engaging with one team member, other members of the team also wished to express their sentiments and engage in the interview. The author did not restrict any expression or interject any sampling bias in the random interview process. The length of time for each interview session was approximately 15–30 minutes long. Hundreds of park users were directly observed on various days during a variety of daylight hours.

## CHALLENGING FACTORS

The month of February 2016 inherently precluded many fair-weather activities of organized sports. Park activity was limited during this period to walking, running, and certain illicit activities. Interviewing potential respondents was limited as social interaction during inclement weather was usually politely brief. Yet, as unfavorable as these weather conditions were, there were illuminating and unexpected alternatives for analysis. On 15 February 2016, at 2:10 PM an unusual opportunity for observation was provided at the park. The past 24 hours provided a snow fall that produced 2–3" of snow on the ground. Besides providing the bucolic beauty of virginal snow, these conditions provided the opportunity to see how much litter exactly accumulated in the park during that 24-hour time period. Tracking methods, via imprints and spacing, illustrated activities in the snow such as running, dog walking, walking, and walk-through activities. Another example of adversity turned "opportunity for learning" was the observation of 19 February 2016. Although the temperatures were unusually mild, the winds were gusting at a gale force of 60 knots. These conditions provided an outstanding opportunity to see massive movements of litter and their source. The specific conclusions shall be provided in the next section.

Except for certain circumstances, direct observation of littering for all activities was challenging. There were only three daylight times that could consistently and reasonably confirm that litter would be deployed. The first was during the activity of organized sports by players. The second was observing spectators of the sports. The third was during windy days. The combination of all three elements provided the greatest tendency for littering and greatest dispersal. Because the author could not be in the park all the time, this combined strategy effectively produced the data that were later analyzed. Empirically speaking, the research was imperfect because accounting for every movement of every activity to provide a definitive quantitative analysis was not made. Yet, this initial research is strongly indicative of the potential that certain park activities promote more litter than other activities.

## ANALYSIS OF DATA AND RESULTS

### EXERCISERS

This group consisted of walkers, bikers, runners, and dog walkers. In the 10 months of formal and informal observation, hundreds of individuals were observed exercising. None were ever observed to litter and no evidence of such was gleaned. Empirical evidence was found from the observation on 15 February 2016 at 2:10 PM. This was an interesting scenario that allowed collection of evidentiary data by tracking methods in newly fallen snow. This provided an effective time-lapse analysis as 15–20 park users were identified by tracks over an approximate 24-hour period. The activities identified by tracking were running, walking, and walk-throughs. The walk-throughs were distinguished from walking by their linear tracks traversing across the park and not on the path in an apparent effort to cross in the shortest distance. The exactness of tracking identification was not critical since none of the activities produced new litter during that time period. No evidence of after-hours picnicking was found at any of the park benches. What the snow conditions illuminated was that no new trash was evidenced on top of the newly fallen snow, which indicated that exercisers for that day left no litter. One can deduce that based on overall evidence exercisers do not generally litter to a substantial degree.

Six semistructured interviews of walkers and runners were conducted for qualitative data. Every respondent indicated either directly or upon follow-up questioning that the litter was a problem. Other deficiencies with the park noted by exercise respondents were the lack of open bathrooms, transient camping, human scat, birds, bird scat, natural deadfall, and a lack of police presence. The recurring deficiencies were litter and transient camping along with the associated human scat. Most respondents felt that the litter was attributed to other activities, such as organized sports or illicit activities, such as evening picnicking/parking and transient camping. All felt the litter was significantly aggravated by the inefficient receptacles and the wind. Exercise respondents generally felt safe at the park and none have reported any felonious incidents. A few respondents would prefer added security measures such as marked patrols or call boxes.

All exercise respondents lived within four blocks or closer to the park. Most come to the park at least 2–3 times a week and stay an average of an hour or more. A recurring theme among exercise respondents was that the park offered a peaceful respite, a healthy environment, and an opportunity to commune with nature. All respondents indicated that the park was a positive and necessary asset to their neighborhood. Most of these respondents liked the social aspect of the park and considered it a positive activity, which I interpreted as a form of NST. There were observed on numerous occasions regular groups of walkers who met in the morning to talk and exercise together. When passing other exercisers, they were observed to consistently exchange pleasantries. Some individuals were observed irregularly picking up trash in the path, moving obstructing deadfall limbs, and offering scat bags to dog walkers. If the parks were unavailable or nonexistent, all respondents indicated forms of dismay, but resolution to use another park, if necessary. All felt that the loss of the park would have a negative impact on the immediate neighborhood. One respondent stated, “The park is a place for people to go when they need to get away . . . it makes them calm” (Interview, 23 March 2016). These respondents appeared to demonstrate an appreciation for the park based on its aesthetic beauty. As

exercise respondents by their nature carry limited gear, they appear to be disinclined to litter and have limited litter potential.

## ORGANIZED SPORTS

This group consisted of organized league sports to include baseball, softball, cricket, soccer, and some pseudo-organized sports such as ultimate Frisbee. Direct observation provided that baseball and softball participants littered drinking cups, containers, snack bags, and other debris. These participants also self-reported as chronic violators and reported their spectators as even worse violators. Some ball players attempted a cleanup of their immediate area, thus limiting the amount of trash. In total, 20 organized sports respondents (such as baseball and softball players and spectators) were interviewed. All respondents drove to the park. Respondents lived 0.5–50 miles away with most living more than a mile away. They generally spent 2–6 hours on Sundays playing official games and more than 2 hours on Wednesday, Friday, and Saturday for practice. All respondents were quick to provide that baseball and softball leagues pay thousands of dollars for use of the fields. This indicated that there was a sense of added entitlement on the part of these ball players because they all paid to be in the league. All sports respondents indicated that litter was a problem and self-reported as being partially culpable. One baseball player asked me wittily, “Yeah we litter, but that’s baseball. Have you ever been to a clean ball game?” (Interview, 20 March 2016). From past attendance at professional baseball games, this certainly was a true statement. Interviewees provided a remarkable insight: littering may be a part of the sports culture and is actually encouraged as a form of expression or outrage. In addition to the structured norm of “norm-violating behavior” that is, direct littering, there may be the additional deleterious result of nonchalance via the bystander effect on the part of nonlittering players and spectators. Individuals not inclined to litter may be unwilling to intervene as this would be a violation of the normative structure of littering at the game. This form of diffusion of responsibility could also be seen as an effort to minimize their involvement or accountability for littering. Transcending the bystander effect, this scenario is illustrative of a form of territorial stigmatism that Murphy identified in her study. In the case of the park, *activity stigmatism* is more appropriate. This was reflected in interviews where respondents assigned a type of *culpability hierarchy*. Specifically, some respondents admitted some degree of fault, in this case littering, but they saw others as at greater fault. The baseball players stated that as bad as they were, their spectators were worse. Additionally, baseball players thought they littered much less than the softball players at the north end of the field. One baseball player stated, “Those guys are bad. They just throw their shit on the ground and leave it!” (Interview, 20 March 2016).

When interviewed, all the sports respondents indicated that they really liked the park because of its ball fields and the opportunity to picnic with family on Sunday while they play ball. They attributed some of the litter problem to inefficient trash receptacles that blew over in the wind. They considered these “weak-assed” garbage cans, and believed that the park needed commercial grade receptacles. A softball player offered a clever alternative of bottom weighting the current receptacles so that they would not blow over. Another litter problem was attributed to the fact that the softball teams are forced to rotate fields in between games on Sunday. If they clean up their area, and they rotate to a



field that was not cleaned up, they feel “suckered” and, thus, they do not make an effort to clean up their area as typified in a NY split dilemma.

Sports respondents indicated park deficiencies beyond the litter; notably the closed restroom in the off season and the poor condition of the fields. They would like to see the ball fields better manicured. Most sports respondents felt that the park was a tremendous asset for ball playing but that if this particular park was not available they would drive somewhere else. For almost all softball players, the park was a necessary resource for them to engage in a sports activity as well as to socialize. The park was considered as a “neutral zone” as it is not related to violent crime and all respondents looked forward to playing softball as the highlight of their week. Many respondents emphatically stated that if they were not engaged in softball, they would probably be committing crimes or getting into trouble again.

One respondent lived close to the park and also came to the park to visit and “find peace.” This respondent provided personal insight to the littering as he saw it. He stated that he was not “indifferent” to the litter, but that he had to be somewhat “indifferent” or he would “get stressed-out” thinking about it. He stated sadly, “There is nothing I can do about it” (Interview, 23 March 2016). He did also mention that although softball players and their spectators were litters, the soccer players were also bad litters. This is another example of minimization and the assignment of culpability hierarchy.

Sports respondents generally held a great functional appreciation for the park in its ability to provide many ball fields. They appeared to exhibit kinship ties based on like-minded activity but they generally lacked direct conventional NST unless they also lived in the immediate area. By the nature of their activity and the length of time that they spend in the park, they typically brought food and drink items to the park. They self-admit to littering and explain the condition as a part of the culture of ball playing. Little concerted effort was observed in the cleanup of their area after use.

## SPORTS SPECTATORS AND PICNICKERS

This group consisted of day-time activities of people who are spectators of organized sports, family picnickers, bench picnickers, and parking picnickers. Many of the picnicking activities were closely associated with the viewing of organized sports and were not easily separated by mere observation. The analysis of this group is closely associated with some of the observations and analysis of the organized sports category. The author was not able to determine what percentage of the spectators walked or drove to the park or who lived nearby or far away. Evidence of parking lot picnickers’ littering was seen around the parking lot on many occasions. This littered area consisted of the entire parking lot perimeter and extended approximately 30 feet into the surrounding grass. Litter consisted of beer cans, alcohol bottles, cigar and cigarette packages, expended lighters, snack bags, and assorted food debris. One lunch-hour parking picnicker was observed to have dumped a McDonald’s bag and cup out of her window and driven away. The spectators by the nature of their activity bring a variety of food and drinks to the park. Littering was a common part of the spectator activity and, utilizing the “ball park” cultural mentality as explained by the sports respondents, this may be a cultural nonappreciation of the aesthetic potential beauty of the park.

## WALK-THROUGH

This group consisted of those who appeared to use the park primarily as a means of getting from point A to point B. They include those on foot or on bicycle. At no time did I witness them dispersing any trash. No interviews were conducted as most appeared to be traveling directly and “with purpose” so that disruption of their travel was deemed an interruption and most likely unproductive.

## CAR MAINTENANCE

This group consisted of those who came to the parking lot at the northeast end of the park to polish their cars and conduct vehicle maintenance. In interviews, two respondents indicated that they lived approximately four blocks away but many of their associated social circle came from miles away. Formal and informal observations identified that this could be a solo activity or a joint activity with another motorist who was maintaining his car. Evidence was found on several occasions of specific litter attributable to car maintenance such as wiping cloths, wax and polish containers, disk brake pads, tires, starter solenoids, and car batteries. Other trash that might be attributable would be cigar and cigarette butts and packages, lighters, and drink and food containers. The author witnessed a man maintaining his car throw his empty cigarette pack and empty lighter on the grass. It should be noted that this group can also be associated in joint activities, at times with the sports spectators.

Interviews with these respondents provided a similar kind of experiential appreciation to other activity members as it is related to social interactions. The park was important to these respondents because it offered a place that was “better than the neighborhood, better than the street, better than the stoop” (Interview, 26 March 2016). The park offered a place for “chopping it up” (hangout and talk) while engaged in the like-minded activity of car maintenance. The interviewees did not like the litter and some indicated that they tried to clean their litter up. Respondents offered that the park was a place to relax without concerns of danger or being harassed by the police.

## EVENING PICNICKING PARKING

This group of bench occupiers and parking picnickers consisted of two subgroups: (1) those who conduct park activities in the evening prior to park closure and (2) those who engage in a variety of activities when the park was officially closed at 11:00 PM. Organized sports players/spectators can be comingled into the first group as their daylight activities transform to night activities especially for fields #8 and #9 since those fields are lit at sundown. In addition to the parking lot in the northeast corner of the park, there are pullover parking areas almost completely around the perimeter of the park. These areas are unmetered and generally unmonitored by park services and police based on my observations. It is not unusual to see parking for rest, relaxation, waiting, or meal eating. Interviews were not conducted with this group so as not to intrude. However, parking picnickers were witnessed to have thrown trash out the window. The pattern of trash left

behind and location provided investigative clues as to how other litter that was found can logically be ascribed to evening picnicking/parking. For example, on 6 February 2016, at 8:45 AM, evidence of evening picnicking was found at the park bench located near the restrooms in the northwest corner of the park. A concentration of litter was found in a  $6 \times 16$  grid from the center of the bench. The debris included: (6) empty bottles of alcohol, (2) bottles of water, assorted bags and wrappings, and (2) pairs of undergarments that provided for an API of 12. It should be noted that all this litter was left between my late afternoon observation of 5 February 2016 (ending at 4:00 PM) and my 6 February 2016 observation. In addition to being an amorous and humorous ethnographic anecdote, this observation also demonstrated a high concentration of litter associated with the activity of evening bench picnicking. This was just the first of many such observations. Several March evidentiary observations provided occasions of the results of evening parking picnicking in the parking lot and along the park perimeter. Areas that were cleaned up the day before were littered the next day with a concentration of litter consisting of beer cans, alcohol bottles, and other items consistent with parking–drinking–dumping.

## TRANSIENT CAMPING

This group consisted of 1–2 individuals who were camped in the southeast corner of the park. Evidence of an illicit transient camp was initially observed in the summer of 2015. The camp was located at the southeast corner in between ball fields #15 and #16 right behind the restrooms. The camp consisted of assorted gear placed in trees and in a garbage can that was used as a storage locker that was hidden from public view behind the restrooms facing the fields. An active bedroll containing at least one occupant (possibly two) was observed on 6 February 2016, at approximately 9:00 AM. It is a matter of perspective whether the personal gear in the trees is litter or not. The point of this research is to address not transiency but litter. As the activity is an illicit one and against park regulations and local ordinance, any such gear displayed is effective litter for the legitimate park user. Additionally, it was observed that trash, such as beer cans and food containers, was concentrated in that area. No direct observation of littering by the occupants of the camp was observed. Although the area was picked up on several occasions by the author, new trash was continuously concentrated in that area until early March 2016. On 11 March, the transient camp was abandoned and an upright cup of liquid was placed inside the receptacle used for personal storage by the transient and on top of the gear as a field test to determine if the camp was still active. Before departure, it was determined that the area had a concentrated (vertical) API of 40 because of the bedding and debris lodged in a cluster of trees. The area also had a conventional (horizontal) API of 15 with beer cans, alcohol bottles, food debris, and scattered wet clothing. On 17 March, after checking the clandestine field test for activity, the camp was determined to be inactive. Dismantling of the abandoned camp was executed and the trash and the fouled and dilapidated gear were placed in a receptacle. On 18 March, the author brought trash bags and placed more of the camp debris on the street for trash collection. As of the last observation, this site was still free of transient camping and several park utilizers mentioned how much safer they felt with the camp gone.

## NATURAL FACTORS AFFECTING LITTERING

A powerful and productive observation concerning litter deployment was done on 19 February 2016 at 12:30 PM. The winds were blowing from the southwest reaching gale force gusts of 60 knots. Previous observations provided that wind played a factor in blowing light litter such as bags and newspapers. On this day, the deleterious effects of the wind were brought into sharp focus. Upon the author's entry to the park, garbage cans were blown down and they appeared empty. As the observation continued an old pile of trash that was created by snowplows and was previously compacted by the process of plowing as it was combined with sand and snow now demonstrated a life of its own. With the wind tearing at the pile, the trash was plucked from the pile and thrown down the wind. The pile was diminished and being spread. Upon circumnavigation of the park, the author noticed that all the garbage cans were blown down. It was on the west side of the park that a recently blown-down full trash can was being ripped off its contents as the wind deployed the litter in full entropy.

## CONCLUSIONS AND DISCUSSION

### TRAGEDY OF THE COMMONS

Based on observations and interviews, there appeared to be a definitive difference in Manning's experiential dimension as it is related to what the acceptable norm of littering was between Group I and Group II. The individual and group utilizers of the park and their activities demonstrated some of the attributes noted in the social models and theories discussed earlier in this essay. While there was a tragedy of the commons in the form of detractability when considering litter, there was also a NY split, free rider, and bystander effect. Certain activities, such as sports spectators and picnickers, car maintenance, and the illicit activities of evening picnicking-parking and transient camping, were indicative of utilization of the park for personal gain while others husband the park. Although the ball players do not free ride, because they pay fees to use the fields, they are guilty of a bystander effect based on the group norm of littering at ball games and someone else cleaning it up. There was no fixed social norm for either ball players or their spectators to effectively intervene in littering. Effective intervention is such that all the trash that a group brought in is thoroughly cleaned up to restore the site to the same condition as when they entered. This lack of accountability to self-monitor was offset only by state intervention of sanitation cleanup on the Mondays after the games. Even though littering was conducted almost habitually by ball players and spectators, interviews provided consistently that litter itself was not deemed acceptable. This finding was in keeping with Manning's account of the Boston Harbor Islands National Recreational Area. Basically, some litter is tolerable but no litter is preferred even by the litterers themselves.

The park, as well as other common green spaces, allows for increased social potential and the formation of NSTs. Each of the activities observed exhibited a degree of kinship based on the identification of like activity. That is not to say that there was intolerance for any other legitimate activity but rather a greater understanding and the sharing of more equivalent norms as it is related to litter deployment. Those participating in legitimate daytime activities at the park respected the rights of other participants who engaged

in legitimate daytime activities. However, there was a recognized culpability hierarchy demonstrated by all groups. Exercise respondents were never found to litter and tended to blame all other activities for the litter. Baseball players admitted to littering, but said softball players were worse. Both softball and baseball players thought their respective spectators were even worse litterers. A softball respondent thought that soccer players were “bad litterers.” Based on observations, sports activities were highly culpable along with their associated spectators for day-time littering. Evening activities provided the second densest deposits for litter. Illicit transient camping had equal API litter density to sports players but in a smaller area. Yet, this was created by 1–2 transients while a single softball game can have over a hundred players and spectators on a single field.

Wind observations of 19 February and 23 April illustrated that individual activities of park users and any potential correlation of litter deployment were dwarfed by the results of poor trash receptacle planning by the city and the natural force of the wind. As a reflection of these observations as data, a reasonable mitigation can logically be offered. The park utilizes light-duty residential trashcans for commercial purposes that are not located along the walking path but rather are located along the outer perimeter of the park, close to the street. Ostensibly this is for ease of trash pick-up and for the convenience of vehicle parkers and socializers. Commercial receptacles that are more robust to wind conditions, steel cradles that hold the containers upright, or appropriately weighting the current receptacles is necessary along the walking path and especially important around the ball fields. Regardless of the choice, an additional measure of a self-locking lid is further needed to keep the wind from whipping the lid and exposing the contents of the container to the effects of the wind, squirrels, and gulls. These solutions fall into the managerial dimension of Manning’s carrying capacity model.

The tragedy of the Park Commons is that litter was considered by all park users as unacceptable to be viewed. However, for some park utilizers, litter was acceptable to be deployed as part of a structured sports norm. Interviews with ball players provided empirical evidence that although litter was universally unacceptable, the abuse of the park and common resources was not only acceptable, it was socially structured in the form of an advocated expression in comradery, demonstrating a normative structure to norm-violating behavior. Until this dominant norm of acceptability is modified, and until park managers account for the effects of the wind, this tragedy will continue. In the meantime, the tragedy will be mitigated by the husbandry of the state.

## TRIUMPH OF THE COMMONS

Beyond the tragedy of littering, there were several positive outcomes leading also to a triumph of the commons. The park was utilized by many people who engaged in many sorts of activities. It was appreciated by all those interviewed and considered a place of sanctuary by many. The majority of the respondents felt comfortable and safe using the park. Informal interviews with people who live in the area but do not use the park provided that Washington Park has a “reputation” as a dangerous location. The divergence of sentiment between those who use the park and those wary of the park encouraged the author to conduct statistical criminal research of the park itself. Criminal incident reports from the *Chicago Tribune* for the month of January 2016 illustrated (0) violent crimes, property crimes, and quality of life crimes were reported in north Washington Park



(*Tribune* 2016). Even though it was January in Chicago, such crimes were reported along the park perimeter and surrounding areas. Further research was conducted utilizing data from the City of Chicago. The dataset reflected the reporting of incidents of crime that have occurred in the City of Chicago over the past year, minus the most recent 7 days of data. Data were extracted from the Chicago Police Department's CLEAR (Citizen Law Enforcement Analysis and Reporting) system (Chicago 2016). These data illustrated that although there were a variety of crimes committed in the surrounding area, none were committed in north Washington Park. Why is this so?

The high level of use, the number of activities that the park attracts, and the open layout of the park may account for some of this benefit. Wolf's "Crime & Public Safety" referenced the criminological theory of Crime Prevention Through Environmental Design and the focus on how the physical environment may influence behavior, as well as how settings may enable or deter criminal acts (Wolf 2005). The general open-field layout offers clear "field of view" from one end of the park to another. Only certain areas, such as the restrooms, offer some "cover and concealment." The restrooms that are locked off season may be an inconvenience, but it may also deter additional transiency or other criminal activity. Conversely, they force legitimate park utiliziers to publicly urinate in bushes or behind the cover of their car. Another factor that may have had a preventative effect on criminal activity was in the design of the park and the activities engaged. The walking/running paths that circumnavigate the park provided for de facto monitoring as walking patrols of civilians effectively secure the park on a routine basis. This is in absence of de jure monitoring forces. That the transient camp was allowed to establish itself can be perhaps attributed to the bystander effect and a notion of human compassion regardless of detractability. Effective de jure forces may not have been as tolerant.

An intriguing and compelling discovery was made during the respondent interviews of softball players (13) on 26 March 2016 as they were practicing and finishing. The park was consistently described by many softball players as a "safe haven," "sacred ground," or "neutral zone" where felonious criminal activities would not be tolerated. People came to the park and relaxed. Respondents stated that there was an *unwritten rule*, "Do not start no shit at the park!" The organized sports and their spectators accounted for large groups of families and friends engaged in a common desire that provided for strong unconventional temporary NSTs and a sense of comradery, while at the park. One softball player indicated that he believed the park was so safe because of the high level of sports activities and other legitimate activities. The playing of organized sports provided a level of security and effectively an *invisible hand* of protection throughout the immediate area. Some of the sports involving the use of bats may also have a subtle psychological deterrent effect. Neither the walking patrols nor the inherent security of organized sports players was sufficient to mitigate the relatively minor illicit activities such as after-closure picnicking parking and transient camping. This may be due to the fact that ball players and their spectators are significant violators of littering. Not only do they lack any "moral high ground" to effect any productive coercive social norm upon the illicit situation, they may, in fact, contribute to creating conditions of "broken windows," which may encourage such behavior. However, their experiential dimension is such that they highly value softball and the use of the park. Several softball respondents self-reported as being former felons. One team provided that 90% of the team was criminals of varying sorts. They indicated that softball and the park keep them out of jail. Even accounting for street bravado,

this was a powerful sentiment and testament to the positive effects of green spaces like the park.

Observations and interviews indicated a decided lack of *de jure* police presence at the park. Credit for the park's lack of felonious crime cannot be logically attributed to the Chicago Police Department but may instead belong to a variety of inherent self-monitoring effects of the park. The park has a layout that permits clear fields of view and walkers provide effective roving patrols around the perimeter of the park. Yet, a powerful indicator of self-monitoring came from the utilizers of all activities, that of an intolerance of nefarious violent activity. People come to the park to "get and show respect" while also coming to relax. The park was thought of as an "Indian burial ground" in terms of its sacred status. The ball players thought of their time at the park as their "glory time" where they can engage in sports and stay out of trouble. This triumph of the Commons is due to the *unwritten rule*. The effectiveness of this self-enforcement is illustrated by credible criminal statistics. The triumph can be succinctly stated by one less than loquacious soft-ball player when asked about police patrols, "We don't need them. We don't want them. We got this" (Interview, 26 March).

#### LIMITATIONS OF THIS STUDY AND FURTHER RESEARCH POTENTIAL FOR THE WASHINGTON PARK COMMONS

This article has several limitations. One limitation is that of generalizability when grouping activities and associated sentiments. Attempts to demonstrate typical experiential attitudes and norms by activity were made via randomized interviews and observations. Some utilizers engage in multiple activities and each have variations of attitudes. It is not inferred that all exercisers never litter or that all organized sports players/spectators always litter. Conclusions are based on formal and informal observations, and limited interviews that suggest general tendencies. Without the use of a camera system that could account for all activities at all times at the park, the author must draw conclusions based on random chance; that is, the chance of observations that accurately reflect the situation and the chance that the interviews of the sample are representative of the population. Reasonable effort to empirically collect data, recognize and limit personal ethnographic prejudice, and draw reasonable conclusions about a community situation were made. While there may be limits to the generalizability of my findings, the interviews gathered provided for rich and productive insights into aspects of the park-user culture, which are not obvious to the casual observer. The confessions of the litterers of Group II and their subsequent reverence for the park speak to a unique and seemingly contradictory social bond they have with their Commons at Washington Park.

Further research should include more quantitative elements to include the technical use of photometric imagery, a larger set of observations, and a greater number of interviews. This essay was conducted to stimulate thought on a topic that is important, utilizing metrics that are readily understood in an effort to reach relatively straightforward conclusions. As a park commons indicator, litter has been shown to be universally unacceptable. Yet, there are other social norms and values that act as conflicting variables in limiting its deployment. Finally, the *de facto* *unwritten rule* and its effective implementation directly complements Ostrom's premise of potential self-regulation for the Commons. Washington Park could conceivably harness the *unwritten rule* to promote a more overarching

care of the Commons to include signage that encourages litter pickup by park users, the posting of signage illustrating criminal codes against transient camping, and the implementation of robust, commercial grade, wind resistant trash receptacles.

## REFERENCES

- Albanese, Robert, and David D. van Fleet. 1985. "Rational Behavior in Groups: The Free-Riding Tendency." *The Academy of Management Review* 10(2):244–55.
- Berkes, Fikret, David Feeny, Bonney J. McCay, and James M. Acheson. 1989. "The Benefits of the Commons." *Nature* 340:91–3.
- Boettke, Peter J., 2010. "Is the Only Form of 'Reasonable Regulation' Self Regulation?: Lesson from Lin Ostrom on Regulating the Commons and Cultivating Citizens." *Public Choice* 143(3/4):283–91.
- Chicago, Co. 2016. *City of Chicago Public Safety*. Chicago, IL: Crimes-Map. Retrieved from <https://data.cityofchicago.org/Public-Safety/Crimes-Map/dfnk-7re6>
- Chicago Tribune. 2016. *Chicago Tribune*. Chicago, IL: Chicago Tribune. Retrieved from <http://crime.chicagotribune.com/chicago/community/hyde-park/?address=60615&lng=-87.6034698486>
- CPD. 2016. *Washington Park*. Chicago, IL: Chicago Park District. Retrieved from <http://chicagoparkdistrict.com/parks/washington-park>
- Darley, John M., and Bibb Latane. 1968. "Bystander Intervention in Emergencies: Diffusion of Responsibility." *Journal of Personality and Social Psychology* 8(4):377–83.
- Feeny, David, Fikret Berkes, Bonnie J. McCay, and James M. Acheson. 1990. "The Tragedy of the Commons: Twenty-Two Years Later." *Human Ecology* 18(1):1–19.
- Gneezy, Uri, Ernan Haruvy, and Hadas Yafe. 2004. "The Inefficiency of Splitting the Bill." *The Economic Journal* 114(495):265–80.
- Hardin, Garrett. 1968. "The Tragedy of the Commons." *Science, New Series* 162(3859):1243–8.
- Kuo, Frances E., Rebekah Levine Coley, and Liesette Brunson. 1998. "Fertile Ground for Community: Inner-City Neighborhood Common Spaces." *American Journal of Community Psychology* 26(6):823–51.
- Manning, Robert E., 2007. *Parks and Carrying Capacity*. Washington, DC: Island Press.
- Murphy, Alexandra K., 2012. "'Litters': How Objects of Physical Disorder are Used to Construct Subjects of Social Disorder in a Suburb." *ANNALS, AAPSS* 642:210–27.
- Olson, Mancur. 1965. *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge, MA: Harvard University Press.
- Ostrom, Elinor. 1990. *Governing the Commons*. Cambridge, UK: Cambridge University Press.
- Phillips, Robert A., 2010. "Ethics and Network Organizations." *Business Ethics Quarterly* 20(3):533–43.
- Tang, Shirley. 2008. "Community-Centered Research as Knowledge/Capacity Building in Immigrant and Refugee Communities." In Charles R. Hale, *Engaging Contradictions: Theory, Politics and Methods in Activist Scholarship*, pp. 237–64. Oakland, CA: University of California Press.
- Wolcott, Harry F. 2005. *The Art of Fieldwork*. New York, NY: Altamira Press.
- Wolf, Kathleen. 2010. "Crime and Fear—A Literature Review." Pp. 1–11 in *Green Cities: Good Health, College of the Environment*. Seattle, WA: University of Washington.