Increasing Park and Potential Greenspace user-ship Through Tailored Framing Efforts

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Abstract

In this short communication, we present data that suggests messages that incorporate identity frames can be an asset in engagement and support for greenspace development.

Introduction

Green spaces in the form of public parks and open-use areas provide numerous ecosystem, human health and social benefits[1-5]. For example, these spaces have been shown to improve air and water quality[2]. Such bioclimatic improvement has in turn been shown to increase one's feeling of health and wellness, which can improve social interactions[4]. Furthermore, physical and mental health has not only been correlated with green space but has also been shown to improve when exposed even for a short term to green environment[3,6,7].

With an expected increased demand for park use in the USA, at least at the state level[9], park managers could benefit from understanding why public engage with these spaces and how further support from the public can be gained. This brief communication provides data from a suburban/urban community in New Jersey, USA that suggest aligning park activity with individual identity can engender engagement that may be missed using a "one-size-fits-all" approach.

Previous work with this suburban/urban community has been published in this journal[10,11]. These articles reported that those individuals who tended to identify as environmentalists had attained higher levels of education and those who prefer to live in urban environments tend to be more trustful of the

government and of print media, which was previously shown to be a correlate of environmentalism[10]. Jordan *et al.,* 2015 also highlighted the existence of six environmental identity types associated with greenspace use. Identity types are based on specific frames and characteristics that are assigned by oneself and relate to social groups, personal decision-making, and consumptive habits. As evident in the previous work, greenspace use is associated with more than an individual's desire to be present in nature, but also with social engagement with community members, participation in sports, or cultural activities. This is especially prominent among those who support environmental causes but do not necessarily want to engage in nature-based causes[10]. Based on this, we posed the following research question: could messages that incorporate identity frames be an asset in encouraging broad participation and support for park land?

Methods
To determine whether specific identity frames may encourage visitation to a specific park, we visited some of the parks featured in the 2015 work and created a series of statements based on the identity types identified in Jordan *et al.,*2015. These statements are in response to the following: "I use parks or outdoor greenspaces because I," a. need to for my children, pets, family, etc.; b. want to. I seek green for the aesthetics; c. want to. I like community gardening; d. enjoy the culture, arts, or other organized events; e. like to meet up with family and friends; f. participate in exercise or sports; or g. like to hunt, fish, boat or use other natural resources. In addition, individuals were asked about trust in local government/community resources, use of greenspaces, and demographic information (including number of children and pets). Finally, individuals were shown six flyers. Each flyer used the same words and message about local park use. The only difference among these flyers was that each used some unique images and different arrangement of the wording. The six flyers were tailored to the specific identity types (types b. and c. (above) were merged). See this weblink (http://www.rebeccajordan.org/questionnaire.html) for the full survey.

Responses were collected either in person at either two parks in Middlesex County, NJ or through the mail (to addresses that bordered the two parks; efforts were made to ensure no duplication). 200 inquiries were made, but with a low return response rate of twenty. Given this low rate, the work will be repeated at a future date, however, we felt it timely to report our initial results on flyer preference given the high fidelity to identity types.

Results
Based on individual correlation analysis we found with reference to park use all six identity types (outlined in 10) shared a similar range of preferences; meaning that those who prefer to live in more rural areas had similar park expectations as those who preferred more urban environments. We next attempted to predict which flyer(s) would be most preferred by each respondent after reading their self-assignment of identity. Four individuals did not respond to this question. Using the six identity types and six flyers, we were able to correctly identify identity type by choice of flyer in eight of the 16 cases, or 50% of the time. If, however, the six flyers were reduced to three categories (cultural, sporting, or social) then we were able to identify 13 out of the 16 respondents, or 81% of the time.

Conclusions
While these data are limited, the high ability to predict what set of images an individual may choose based on the arrangement and emphasis of messaging could have important implications for future engagement with park activities. We feel this especially important because a review of genuine local park flyers (R.J. and A.S. pers. comm.) revealed many similarities, in particular all included images and wording that are likely to attract individuals who respond that they enjoy sports or being in nature. These are individuals who are likely already interested in, use, and are supportive of parks and greenspaces based on our prior research. Such framing could reduce broader public interest in parks who are more attracted to park use for social or cultural events.

Certainly individuals of different ethnicity, natal landscape, and socio-ecological background differentially use green spaces in the United States. A long history of ethnic and racial inequality, state oppression, and differing philosophies regarding parks and recreation have created divides in who

has access and a desire to engage in greenspaces[12]. While these divides are largely structural, there are also barriers involving individual or group perception of space (e.g.,13). In this manner appropriate planning and framing could be critical to engender more diverse space usage. Cities could work with regions of cultural or social value to underserved populations. Even if these spaces are not currently green these spaces could undergo some level of greening to encourage greenspace engagement. This approach should be handled cautiously as unintended consequences such as increased property value could further push underserved communities from access to these spaces (e.g.,14). Nonetheless, local parks could feature images with ample picnic, trash, shade/sun, and restroom facilities that would attract people interested in hosting large social gatherings that cannot be held in compact urban dwellings, which was true for people living at the urban/suburban boundary[10].

Another example of how identity might encourage greenspace use relates to one of the identity types from Jordan *et al.,*2015. A number of the urban dwellers who report high affinity to aspects of the environmentalist movement but reject the notion of the traditional "hippie environmentalist" (aka. an individual who enjoys communing with natural elements at the expense of modern amenities), might be attracted to messaging about parks that emphasize cultural events over other park amenities.

In broadening these frames, park and greenspace managers can engender greater support for parks in terms of money, political support, and other resources (i.e., volunteering) from a more diverse population. Even at a very local level, we demonstrate the potential for minor changes in imagery caused varied responses toward interest in attending certain park events. We argue that this focus and on and potential tailoring for support and engagement is critical in times of diminishing resources for supporting parks and greenspaces.

References

1. Bedimo-Rung AL, Mowen AJ, Cohen DA. The significance of parks to physical activity and public health: a conceptual model. *American journal of preventive medicine*. 2005; 28(2), 159-168.

2. Thompson CW. Linking landscape and health: The recurring theme. *Landscape and urban planning*. 2011; 99(3-4), 187-195.

3. van den Berg AE, Maas J, Verheij RA Groenewegen PP. Green space as a buffer between stressful life events and health, *Social Science & Medicine*. 2010;70(8): 1203-1210.

4. Cetin M. Determining the bioclimatic comfort in Kastamonu City. *Environmental Monitoring and Assessment*. 2015; 187(10),640.https://doi.org/10.1007/s10661-015-4861-3

5. Cetin M, Sevik H. Evaluating The Recreation Potential of Ilgaz Mountain National Park in Turkey. *Environmental Monitoring and Assessment*. 2016; 188 (1): 52. DOI: 10.1007/s10661-015-5064-7.

6. Irvine KN *et al.,* Ecological and Psychological Value of Urban Green Space. In: Jenks M., Jones C. (eds) Dimensions of the Sustainable City. Future City. 2010; vol 2. Springer, Dordrecht.

7. McEachan RR *et al.,* The association between green space and depressive symptoms in pregnant women: moderating roles of socioeconomic status and physical activity. *Journal of Epidemiology and Community Health*. 2016; 70(3):253-259

8. Cetin M, Sevik H. Evaluating The Recreation Potential of Ilgaz Mountain National Park in Turkey. *Environmental Monitoring and Assessment*. 2016; 188 (1): 52. DOI: 10.1007/s10661-015-5064-7.

9. Siderelis C, Moore RL, Yeung Y-F, Smith JW. A nationwide production analysis of state park attendance in the United States. *J Environ Manage.* 2012; 99:18–264.

10. Jordan R, Sorensen A, Clark D. Urban/ Suburban Park Use: Links to Personal Identity? *Curr. World Environ.* 2015;10, 355–366

11. Clark DG, Sorensen AE, Jordan RC. Characterization of Factors Influencing Environmental Literacy in Suburban Park Users. *Curr World Environ.* 2016;11(1) DOI: http://dx.doi.org//10.12944/CWE.11.1.01

12. Byrne J. When green is White: The cultural politics of race, nature and social exclusion in a Los Angeles urban national park. *Geoforum.* 2012;43(3): 595-611.

13. Stodolska M. Shinew KJ, Acevedo JC, Izenstark D. Perceptions of urban parks as havens and contested terrains by Mexican-Americans in Chicago neighborhoods. *Leisure Sciences.* 2011; 33(2):103-126.

14. Wolch, JR, Byrne J, Newell JP. Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough.' *Landscape and Urban Plannin.* 2014;125:234-244.