Transformative capacities and urban ecologies at the forefront of sustainability challenges—from a behavioral science and cognitive perspective

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Abstract

In this work that builds on empirical studies the spatial and institutional design of a city is set in correlation with the accessibility of its inhabitants to experience natural environments, and what effects this may have on peoples emotional and cognitive affiliation with nature (Colding and Barthel, 2013; Bendt et al. 2013; Giusti et al.- submitted). Urbanization often removes perceived and experienced links between people and nature as modern life-styles are adopted and people cease to depend on local ecosystems. This may lead to ‘extinction-of-experience’ of nature in cities (Pyle 1978) and to the increase of ‘environmental generational amnesia’ among urban populations (Miller 2005), as physical spaces for the development of social-ecological memory are transformed to other uses (Barthel et al. 2010). It is therefore critical to broaden city-inhabitants’ understanding of their dependence on ecosystems both inside and outside urban landscapes. We refer to such adaptive capacity creation as cognitive resilience building, denoting the mental processes of human perception, memory and reasoning that people acquire from interacting frequently with local ecosystems, shaping peoples’ experiences, world views, and values towards local ecosystems and ultimately towards the biosphere (Colding and Barthel 2013). Designing accessibility to urban spaces that foster a connection with nature during childhood, as well as later in life, is likely to support the kind of emotional and cognitive attachment to nature—a re-connection with the biosphere—that many scholars are calling for (Folke et al. 2011; Bragg 1996; Samways 2007; Miller 2005). An affiliation with the biosphere is indeed hypothesized as primal to the establishment of sustainable human behaviors (Stern 2000; Stern, Dietz, and Kalof 1993). This talk will lend support to the notion that daily and frequent exposure of natural environments makes a difference.

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