


**SEEDING SOCIAL CAPITAL?  
URBAN COMMUNITY GARDENING  
AND SOCIAL CAPITAL**

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- Systematic literature review.
- Research questions:
- Can urban community gardening create or foster social capital?
- What can we learn from elucidating urban community gardenings social potentials through the concept of social capital?




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- What is community gardening? Community gardening defined:
- An *activity* based in *open spaces* which are managed by *members of the local community* in which *foods* and/or *flowers* are cultivated. ' (cf. Holland 2004, Pudup 2008, Kingsley et al. 2009).


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#### SEEDING SOCIAL CAPITAL? URBAN COMMUNITY GARDENING AND SOCIAL CAPITAL

- There is a continuing debate regarding urban community gardening's benefits to local communities, and a particularly interesting branch of this debate has focused on **community gardens capacity to encourage social interaction, which may generate social capital.**
- This review scrutinizes **how advantages of urban community gardening are unfolded, through the concept of social capital, and accordingly analyzes what we can learn from elucidating urban community gardening through the concept of social capital,** and how this also serves to problematize the concept and operationalization of social capital.



#### SEEDING SOCIAL CAPITAL? URBAN COMMUNITY GARDENING AND SOCIAL CAPITAL

- Extensive research on the potentials of urban community gardening for promoting and facilitating fruitful social interaction, and the concept of social capital has been widely used to examine and analyze these potentials** (Alaimo et al. 2010, Carpiano, 2006, 2007, Glover 2004, 2005 etc.). This review seeks to **critically examine the relevance of the concept of social capital to capture the desirable social dimensions of urban community gardening, reviewing the peer reviewed scientific literature published on the topic from 2009 to 2015.**
- As Troy Glover notes in his influential study from 2004, which also shows how the sociological interest in community gardens already have a long history, community gardens are less about gardening than they are about community, in the sense that they offer "third places" outside of work and home (Oldenburg, 1999)



#### THE MYRIAD OF CLAIMED SOCIALLY DESIRABLE OUTCOMES OF COMMUNITY GARDENING IS AT FIRST GLANCE IMPRESSIVE

- These include, among other things, **community empowerment and development** (Saldivar-Tanaja & Krasny 2004, Colding & Barthel 2013, Ohmer et al. 2009), **reducing prevalence of vandalism in local area** (Armstrong 2000, Hlubik et al. 1994), **social integration** (Colding and Barthel 2013, Glover & Parry 2005, Holland 2004, Levkoe 2006, Shinew, K.J., Glover, T.D., Parry, D.C. 2004, Kuo et al. 1998), **potentials for reducing aggressive behavior in local neighborhood** (Elings 2006, Kuo F.E., Sullivan W.C. 2001), **advancing community belonging and social networks** (Comstock, N. L., Dickinson, M., Marshall, J.A., Soobader, M., Turbin, M.S., Buchenau, M., Litt, J.S. (2010), Midden I., Dzidic P., Buckley, A., Bennett, D., Marian, T., Jones R. (2014)), **supporting social interactions across generations and cultural differences** (Guitart, D., Pickering, C., Byrne, J. 2012; Kingsley, J., Townsend, M., Henderson-Wilson, C. 2009; Furnass 1996; Shinew et al. 2004), **mutual trust and civic engagement** (Teig, E., Amulya, J., Bardwelle, K., Buchenau, M., Marshall, J.A. Litt, J.S. 2009), and in a review of a diversity of benefits attributed community gardens, Draper and Freedman (2010) state that **numerous studies show "...positive results in regards to the production of social capital"** (Draper & Freedman 2010: 479) .



#### METHODOLOGY, KEY CONCEPTS AND DEFINITIONS

- The literature reviewed for this paper was identified using **Google Scholar, Science Direct, Psychology & Behavioral Sciences Collection, and Cinahl**.
- Search terms included 'community gardens', 'community gardening', 'contested green space', 'urban agriculture', 'city farms', 'shared gardens', 'common gardens', 'urban gardens', 'collective gardens', and 'experimental permaculture plots', and they were combined with
- 'social capital', 'social health', 'collective efficacy', 'social connectedness', 'social cohesion', 'networks', and 'neighborhood resources'.
- Boolean operators have been used, and references of retrieved articles were examined, identifying further potential relevant studies.




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- Systematic review methodology ideally encompass an exhaustive search of all databases and sources published or unpublished on a topic (Petticrew 2001, Guitart et al. 2012), but the breadth of this topic's key concepts forced an amount of constraint into the research design – limiting the study.
- Expanding the search with synonyms to not exclude potentially relevant articles, combined with the high number of search results required careful and time-consuming manual reviews of each article to determine relevance.




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#### METHODOLOGY, KEY CONCEPTS AND DEFINITIONS

- These search terms were included precisely because potential relevant studies for this review use alternative terminologies than social capital and community gardening, but still encompass relevant dimensions of social capital and urban community gardening, as defined in this review.
- The definitional ambiguity of the term community gardening demanded testing a range of search terms to exclude as few relevant articles as possible.




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Following the lines of Putnam (2002), Allaino et al. (2010), Szreter & Woolcock (2004), and Firth et al. (2011) **bonding social capital** is here defined as ***"trusting and co-operative relations between members of a network who see themselves as being similar, in terms of their shared social identity"*** (Szreter and Woolcock (2004: 5), **bridging social capital** as ***"...more distant ties that brings people together from diverse socio-demographic situations..."*** (Firth et al. 2011: 558), and **linking social capital** as ***"norms of respect and networks of trusting relationships between people who are interacting across explicit, formal or institutionalized power or authority gradients in society"*** (Szreter and Woolcock (2004: 56).

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Against the background of **44 articles identified**, as they met the criteria of inclusion, that is, they reveal seemingly relevant findings regarding community gardening fostering social capital, although (in some cases) using a different terminology than community gardening and social capital, or they either claim or seek to demonstrate that community gardening generate social capital, **8 articles** were more specifically analyzed and used in the article, in the light of the article's specific focus.

- Inclusion criteria: 2009-2015;
- Inclusion criteria: Empirical articles based on original research i.e. no review articles or descriptive case studies etc.
- Excluded articles and cases outside US, Australia, and Europe
- Excluded articles: not relevant in regards to the definition of social capital employed.
- Excluded articles: not *urban* community gardening
- Excluded articles: not relevant in regard to the definition of community gardening employed (e.g. allotment gardening etc.).
- Etc.

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### THE SYSTEMATIC LITERATURE REVIEW

- o Inspired by Pattern (1990) the studies are classified according to a number of **main features of the design of the study which are relevant to the review** (Pattern 1990) Pattern unfolds a typology of issues in research design, which can be used to identify design features of research, when reading research systematically.
- o Literature review matrix according to objective, study design (qualitative/quantitative/mixed methods), social capital, type of community garden, other claimed social advantages of community gardens etc.




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### BONDING SOCIAL CAPITAL

- o "trusting and co-operative relations between members of a network who see themselves as being similar, in terms of their shared social identity" (Szreter and Woolcock 2004: 5).
- o Firth, Chris, Damian Maye, and David Pearson (2011) "Developing "community" in community gardens, Local Environment, 16: 6, pp. 555-568
- o This study set out to examine the nature and construction of "community" in community gardens and how they potentially benefit local communities from a case study exploration of two community gardens in Nottingham, UK.
- o Qualitative interviews with four key stakeholders who had a role in developing the community gardens and participant observation.




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### BONDING SOCIAL CAPITAL

- o Firth et al. claim that "Bonding social capital was generated in each of the case studies ... it was clear from the interviews and supporting observational work that the community garden has ... enhanced levels of bonding social capital" (Firth et al. 2011: 561).
  - o No quotes or evidence is however presented for this, albeit it is *mentioned* that one of the community gardens "...offers many opportunities for local people to participate in community activities" and that conversations "...with participants at the time suggested these activities were useful ways to meet other people from the local area" (Firth et al. 2011: 526).
  - o That urban community gardening offer *opportunities* for community activities is no surprise, as this is one of the definitional characteristics of community gardening, and that participants *suggest* that common garden activities is a useful way to meet other people, is scarcely evidence that people do in fact meet, creating social capital in general and *bonding* social capital in particular.




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### BONDING SOCIAL CAPITAL

- Furthermore, as evidence of bonding social capital, community gardening is moreover claimed to provide “...**opportunities to volunteer, which ranged from managing the garden to helping out and/or attending events ...The high number of volunteers (58) that the garden can call on, with a group membership system which ... totaled 131, further strengthen local community commitment**” (Firth et al. 2011: 562).
- It is, however far from clear how the fact that the garden can call on a high number of volunteers and people involved in a group membership *necessarily* fosters bonding social capital as defined here and in the study conducted, and no evidence is presented to underpin this.
- While this is noteworthy, it is more interesting and indeed the present focus *how* this commitment to *insisting* on presenting *evidence* of bonding social capital, overshadow the different and multifaceted desirable social values the people involved in community gardening in fact attribute to these activities.



### BRIDGING SOCIAL CAPITAL

- Bendt, Pim, Stephan Barthel, and Johan Colding (2013) “Civic greening and environmental learning in public-access community gardens in Berlin”. Landscape and Urban Planning, pp. 18– 30
- Qualitative study of environmental learning in four community gardens in Berlin, based on open-ended interviews and field observations.
- Is not explicitly focused on identifying social capital generated by community gardening, but the article is however relevant as one of two of the main purposes is “...to gain an understanding of respondents’ perceptions of gardening practices and community dynamics to identify explicit and implicit learning experiences and ... to map out interactions with external actors and flow of participants and visitors through the gardens.” (Bendt et al. 2013: 21).
- These two aims could be interpreted as being related to social capital as defined in our review, more specifically, bridging social capital, *if* the forms of interactions with participants and visitors in the community gardens brings together people from diverse socio-demographic backgrounds and linking social capital *if* the interactions with external actors explicitly is associated with people in politically or financially influential positions.



### BRIDGING SOCIAL CAPITAL

- While no evidence is presented for this, the study does identify some interesting findings, more specifically that “...higher levels of boundary activity does increase the amount of learning streams within the garden communities and also engage a greater amount and a wider diversity of people in its activities, as most clearly exemplified by prinzeessingarten” (Bendt et al. 2013: 27).
- So while the “...guiding hypothesis in this paper is that PAC-gardens that tolerate high levels of boundary activity attract a wider diversity of urban peoples” (ibid 19), this is *not* confirmed in the conclusion. (Public-access community gardens (abbreviated as ‘PAC-gardens’)
- Other interesting results are however emphasized. These include that the “...externally oriented Prinzeessingarten ... , where joint enterprise and mutual engagement ... is strong in the core of the garden, while external participants and visitors engage continuously at its boundaries” and that it generates multiple learning streams revolving around gardening, self-organization, politics of space, and social enterprising” (ibid 25).
- So, although it is not clear that the study demonstrate that community gardening foster social capital, the activities in the gardens studied, in particular the Prinzeessingarten, does *indicate* that the joint enterprises including frequent gardeners and a diversity of external participants and visitors *could* produce bridging social capital, bringing people together from diverse socio-demographic situations, although it would have to be studied and analyzed further to document this.



## BRIDGING SOCIAL CAPITAL

- While another study by Johan Colding and Stephen Bartels study primarily focuses on the potentials of 'urban green commons' in the resilience building of cities, this study is relevant in this review, as a prominent example of urban green commons is community gardens and one central aspect of resilience building is understood as the degree to which integrated systems of people and the natural environment is capable of self-organization, and there are furthermore numerous examples of the concept of self-organization being directly linked to social capital (e.g. Ruitenbeek & Cartier 2001). More specifically, in this study urban green represents "...urban ecosystems of diverse ownership that depend on collective organization and management." (Colding & Barthel 2013: 157).



## BRIDGING SOCIAL CAPITAL

- Concerning beneficial effects of community gardens, Colding & Barthel point that they "... have been shown to promote positive placemaking in cities, community empowerment and development (Saldivar-Tanaka and Krasny, 2004), social integration and democratic values (Glover et al., 2005; Holland, 2004; Levkoe, 2006; Shinew et al., 2004), health benefits (Marcus and Barnes, 1999), and increase of property values (Been and Voicu, 2008).
- Interestingly, while the study has not "...explicitly dealt with the cultural diversity of the individuals and/or groups partaking in land management, ... it is stated that "...there are good reasons to believe that UGCs hold considerable potential in promoting cultural integration." (Colding & Barthel 2013, 161, emphasis added).
- Furthermore it is stated that "...community gardens *hold potential* for social integration, such as building a sense of community among neighbors and fostering positive interracial relationships" referring to Lewis, 1992; Linn, 1998; Schmelzkopf, 1996; Shinew et al., 2004 (Colding & Barthel 2013: 161).



## BRIDGING SOCIAL CAPITAL

- Both cultural diversity and promoting social integration could reasonably be interpreted as being very close to the definition of bridging social capital in this review, as more distant ties that brings people together from diverse socio-demographic situations.
- However, *stating* that urban green commons (including community gardens) *hold potential* of promoting cultural integration, social integration, and building sense of community among neighbors, is obviously no evidence that they in fact do, and thus it is not substantiated or exemplified in this study that community gardens foster social capital, bridging or otherwise.



## BRIDGING SOCIAL CAPITAL

- In the previously mentioned study conducted by Firth et al. one of the gardens studied has purportedly been "...effective in bringing together diverse ethnic groups in the local community" where "[f]ood growing and cooking has been one of the key factors drawing people together enabling them to share and express cultural practices. As one of the Arkwright Meadows staff members commented, "a few years ago there were barriers between the Asian and Black communities, but these have been broken down as people have joined in our food-related activities" (ibid. 563).
- This example and quote is, however, the *only* indication of community gardens fostering bridging social capital, and this is specifically tied to the food-related activities established in the garden.



## BRIDGING SOCIAL CAPITAL

- So, even though it is claimed that "[b]ridging social capital provided by organizations such as the city-based Garden to Plate and Food Initiatives Group were utilized by both case-study community gardens" and "[i]ndividuals involved in these organizations and community gardens form a community of interest which support many community growing initiatives" (Firth et al. 2011: 563) the evidence and examples underpinning that this specifically fosters bridging social capital, characterized by more distant ties bringing people together from diverse socio-demographic situations, due to the community gardening is weak.
- However, this is rather an argument for unfolding *how* the individuals involved in the gardening activities create a community, and *how* they *value* and *understand* this, rather than dismissing the study as well as the concept of bridging social capital.



- Kingsley, Jonathan, Mardie Townsend, and Claire Henderson-Wilson (2009) "Cultivating health and wellbeing: members' perception of the health benefits of a Port Melbourne community garden", Leisure Studies, 28:2.
- Presents research undertaken with members of a community garden in Port Melbourne, Australia, to investigate the ways in which a garden community contributes to the enhancement of health, wellbeing and contact with nature for urban dwellers, using a qualitative methodology – interviewing ten members of the community garden, via semi-structured questions exploring perceptions of health and well-being benefits related to membership.
- It is thus stated that "Members universally described [the community garden studied] 'Dig in' as beneficial to their health and wellbeing" and "...allowed members to have a defined role in their community and gave them a sense of achievement...." (Kingsley et al. 2009: 211).
- Kingsley et al. moreover notes that "...community gardens creates opportunity for culturally diverse groups and people of different ages to come together and develop a sense of community and belonging" (Kingsley et al. 2009: 209, cf. Crouch 2003, Rhode & Rendle 1997, Shinew et al. 2004).



- It would, of course, be relevant for particularly bridging social capital if it was documented that community gardens connected culturally diverse groups and people of different ages, but articulating that they *create opportunities* for doing so, does obviously not constitute evidence that they do.
- The study could however indeed present relevant findings, in regard to social capital, *if* it was unfolded *how* members understood that the gardening activities gave them a sense of achievement, and how they valued the kind of sense of belonging and community, seemingly facilitated by participating in the community gardens.




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#### LINKING SOCIAL CAPITAL

- Linking social capital is as previously noted defined as “norms of respect and networks of trusting relationships between people who are interacting across explicit, formal or institutionalized power or authority gradients in society”.




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#### LINKING SOCIAL CAPITAL

- Alaimo, Katherine, Thomas M. Reischl, and Julie Ober Allen (2010) “Community gardening, neighborhood meetings, and social capital”, *Journal of Community Psychology*, Vol. 38, No. 4, pp. 497–514
- Examines the association between participation in community gardening, beautification projects and neighborhood meetings with perceptions of social capital and discussing the result of the conducted quantitative study, based on data analyzed from a cross-sectional stratified random survey conducted in Flint, Michigan, using hierarchical linear and logistic regression analyses it is claimed that the “...results of this study *confirms* the importance in neighborhood activities for the development of different types of social capital”, specifically in regard to participation in either community gardening, beautification projects or neighborhood meetings.




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### LINKING SOCIAL CAPITAL

- However, in spite of claiming that "...[results] *suggest* involvement in neighborhood meetings augment the individual and neighborhood-wide perceptions of social capital associated with community gardening and beautification projects" (ibid.: 497, emphasis added), the *single* statistical significant findings in regard to the connection between both individual and neighborhood level participation in community gardening is concerning linking social capital, where there is a 20% increase in the level of the perception of linking social capital, here understood as "[p]eople in neighborhood have connections to people who can influence what happens in the neighborhood" (ibid.: 503, 508).
- Furthermore, as noted, this is *both* regarding community gardens and beatification activities, so there is no evidence of community gardening increasing the level of neither linking social capital in this study.



### LINKING SOCIAL CAPITAL

- Firth et al. additionally claim that linking social capital "...was evident ..." in the community gardens studied (Firth et al. 2011: 564) and exemplifies with noting that one of the gardens was successful in obtaining grant funding, a 'strong' relationship with the local council (although not receiving core funding from the council), and that the garden engages in influencing local policy by being part of a consultative group, while another garden's production of linking social capital is illustrated by stating that "...the local health authority valued the community garden as a health promotion resource..." and that these connections have enabled that garden to "...gain access to resources and funding from health and local authorities", although no examples are presented of this. Thus, while these links possibly could be interpreted as linking social capital, it is not substantiated how and why exactly these connections are characterized by norms of respect and networks of trusting relationships, which is a prerequisite for linking social capital, as defined by Firth et al. as well as in this review.



### LINKING SOCIAL CAPITAL

- Therefore it seems right that the article concludes that the evidence in the paper "...*suggest*, there are [a number of] ... ways in which community gardens generate social capital" and that they are "...*potentially* very inclusive spaces and open to a range of social backgrounds" (emphasis added, ibid 656), the central words of course being *suggest* and *potentially*, which is why the evidence presented for community gardens producing or generating social capital is underwhelming, and not consistent with the introductory claim that linking social capital was "...evident..." in the studied gardens (ibid. 564). This is not, of course, to state that the findings are not interesting from a social capital point of view, but that to unfold the social desirable outcomes of the community gardening activities, we need to operationalize the concept in another way to capture these.



- In my review I argue that to demonstrate and analyze valuable social benefits of urban community gardening, a promising strategy would be to
- (i) operationalize the concept of social capital another way than has been employed in the academic literature between 2009-20015, and
- (ii) to employ participant observation revealing how agents involved in urban community gardening articulate valuable benefits related to this involvement, with the use of interpretive methods that focus on the meanings people assign to their experiences, and how they understand phenomena in their own lives (bottom-up perspective on 'social capital').
  - This approach is suggested by Troy Glover in his seminal study of social capital among members of a garden group in a community garden in Midwestern US (Glover 2004).



- Another (not mutually exclusive) way to operationalize social capital is (of course) to use **quantitative measures**. This could be particularly fruitful for documenting that community gardening creates 'bridging' social capital ("...brings people together from diverse socio-demographic situations..."); (e.g. ethnic backgrounds, cultural backgrounds, generations, income, education, religion etc.)



#### A COMMUNITY GARDEN IN COPENHAGEN: "INTEGRATIONSHAVEN"



- Urban Community Garden:
- 150 small garden plots + 4 large common garden areas.
- A bottom-up initiative seeking to strengthen local community and integration (50% of gardens is reserved to people born outside of Denmark).
- Mixed methods approach: 'measuring' bridging social capital (mapping out the participants backgrounds, level of involvement etc.) and the use of interpretive methods that focus on the meanings people assign to their experiences, and how they understand phenomena in their own lives (bottom-up perspective on 'social capital' (participant observation, semi-structured interviews)).

