

Understanding Young People's Engagement with Sustainability. An Ecological Approach

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ABSTRACT

There is a clear recognition of the importance of considering both social and environmental dimensions in the understanding of sustainable development. Agenda21, for example, underlines the crucial role played by citizens within communities for the achievement of sustainability.

Since the concept of development implies an ongoing temporal continuum, the role of the new generations in society and their engagement in this process are of particular significance. However, the literature on young people's development has not yet explored sustainable engagement as a construct based on the union of both civic and environmental dimensions and as such they risk continuing to be treated separately.

The aim of this paper is to propose a framework within which to explore the concept of sustainability for young people and to enhance their role in its development. In particular, it considers the relationship between empowerment, engagement, and competence, how both community and individual factors can play a role in promoting competence and enhancing young people's engagement at local level and the importance of educational processes in achieving this goal.

INTRODUCTION

Several frameworks (e.g., Agenda 21, Civic Environmentalism, Civic Science) emphasize the role of the social dimension in the understanding of sustainability (for a more detailed analysis see Rossi and Dodman, 2015). Without people's participation, the implementation of sustainable policies cannot be successful. Citizens are the very essence of society, and its development depends on people's actions. In particular, Agenda 21 emphasizes their action at local level, within communities, because only in such a specific context is a partnership between citizens and institutions possible. As a result of this partnership several social processes can be activated, each of which is important for the achievement of sustainability: *capacity building*, defined as the coordination of all public agencies addressed to a common goal such as the achievement of sustainability); a *participatory approach* in the phase of design, implementation and evaluation of policies, which in turn enhances people's empowerment and public awareness; the identification of *groups with particular needs* and the implementation of *specific programs*. The feasibility of these processes depends on their being situated within a given local context.

Hempel's (1999) definition of a sustainable community offers a useful framework: "A sustainable community is a community in which economic vitality, ecological integrity, civic democracy, and social well-being are linked in a complementary fashion, thereby fostering a high quality of life and a strong sense of reciprocal obligation among its members." From this perspective, both social and environmental components can be seen as underlying the

development of sustainable communities. We intend to focus our attention on these components and on understanding how they may develop within communities, therefore within citizens, and in particular young people, creating the conditions for empowerment and consequent engagement based on the development of competence promoted by educational agencies.

SUSTAINABILITY AND HUMAN DEVELOPMENT: YOUNG PEOPLE, CIVIC AND ENVIRONMENTAL ENGAGEMENT

If we consider how the civic and environmental dimensions underlying the concept of sustainable development have been explored in the literature on human development, two broad research areas emerge one focusing on civic engagement and the other on pro-environmental engagement. The term engagement refers to two main spheres: *cognitive* (e.g., attitudes, values, norms, etc.) and *behavioral* (all types of civic and pro-environmental actions). Studies tend to focus on the development either of civic or pro-environmental values or of civic or pro-environmental behaviors. The separation of the two perspectives seems to derive from their reference to different theoretical frameworks. On the one hand, studies focusing on civic engagement involve young people regarding the role of new generations, while studies are focusing on pro-environmental actions mainly involve adults and tend not to deal with young people (Chawla and Flanders Cushing 2007; Grønhøj and John Thøgersen 2011; Matthies et al. 2011). Moreover, the approach through which civic engagement is explored is often ecological (e.g., Bronfenbrenner's approach), emphasizing the fact that developmental outcomes may derive from the interaction between personal and environmental factors (ranging from formal educational agencies like the school to non- formal and informal agencies such as the family and the peer group). In contrast, research on pro-environmental engagement mainly focuses on internal factors, such as knowledge, values, beliefs, norms, considered as predictors of people's pro-environmental behavior. Several authors (Steg and Vlek 2009; Wakefield et al. 2006; Uzzell, Pol and Badenas 2002) have also emphasized the lack of an adequate consideration of contextual factors.

Since the process of sustainable development is possible only if citizens participate and are active at the local level, it is essential to understand to what extent our developmental outcomes, civic engagement, and pro-environmental behavior are related to contextual factors such as, in particular, people's perception of the community. Authors exploring young people's civic engagement have already emphasized the importance of considering contextual factors in the understanding of which mechanisms underlie their civic attitudes and skills (Da Silva et al. 2004; Atkins and Hart 2003; Quane and Rankin 2006; Kegler et al. 2005; Zeldin, Larson, Camino and O'Connor 2005). What emerges from these studies is that both environmental and social

features within contexts impact on the level of young people's civic engagement. On the one hand, the availability of structural opportunities such as associations, clubs, local organizations, where they can be engaged and participate are essential for the development of civic skills and competencies (Atkins and Hart 2003; Quane and Rankin 2006; Catalano and Hawkins 1996). On the other hand, by being embedded in social networks, young people are more likely to be exposed to positive role models and assimilate civic values and behaviors (Kegler et al. 2005; Zeldin, Larson, Camino and O'Connor 2005; Lenzi, Vieno, Pastore and Santinello 2013). Moreover, by experiencing a social bonding within contexts, they are more likely to experience support (Lenzi, Vieno, Pastore, et al. 2013), social cohesion (Levental and Brooks-Gunn 2000) and social capital (Furstenberg, Cook, Eccles, Elder and Sameroff 1999). All these factors are relevant in the understanding of civic values and behaviors among young people (Lerner et al. 2007).

Various authors offer theoretical frameworks for analyzing these factors in the understanding of young people's development: the Social Development Model (Catalano and Hawkins 1996), the Situated Learning Theory (Lave and Wenger 1991), and the Social Cognitive Theory (Bandura 1977). According to Catalano and Hawkins (1996), adolescents learn patterns of values and behaviors by interacting with a range of socializing agents across different social domains (e.g., family, school, community). Four components may underlie the process of assimilation of these patterns: a) perceived opportunities for involvement in activities and interactions with others; b) the degree of involvement and interaction; c) the skills possessed by individuals which permit their participation in these interactions; d) the reinforcement that adolescents perceive from this involvement and interaction. Lave and Wenger (1991) argued that through experience, skills and competences can be acquired. Hence, they stress the role of practice: individuals learn to do something by doing what they want to do practically.

Both Catalano and Hawkins and Lave and Wenger emphasize how, together with involvement and practice, the role of adults is crucial. By supporting young people in their experience, adults may achieve the dual goal of both helping an individual and nurturing a new potential contributor to the development of the community's well-being (Lave and Wenger 1991). Three principal and interrelated concepts were particularly interesting for our purpose: identity, knowing, and social membership. "Learning involves the whole person; it implies not only a relation to specific activities but a relation to social communities - it implies becoming a full participant, a member, a kind of person. In this view leaning only partly - and often incidentally - implies becoming able to be involved in new activities, to perform new tasks and functions, to master new understandings. Activities, tasks, functions, and understandings do not exist in

isolation; they are part of a broader system of relation, in which they have meaning. These systems of relations arise out of and are reproduced and developed within social communities, which are in part systems of relations among persons. The person is defined by as well as defines these relations. Learning those implies becoming a different person with respect to the possibilities enabled by these systems of relations. To ignore this aspect of learning is to overlook the fact that learning involves the construction of identities” (Lave and Wenger 1991, 53). Moreover, the authors argue that being fully involved in a community enhances individuals’ sense of membership of that group, which in turn implies a deeper sense of responsibility in their commitment to that group. The process is directly related to the concept of motivation: the more people are involved in an activity, the more they feel responsible for that activity and the more they are motivated to improve their engagement and improve the situation. By performing and mastering experiences, assessing capabilities in respect of social models, perceiving social influence and persuasion and by living specific psychological and emotional states, people may develop a sense of efficacy (Bandura 1977). At the individual level, Bandura (1997) defines self-efficacy as the confidence in one’s ability to control and execute the actions required to deal with current and future situations, while collective efficacy is “people’s shared beliefs in their collective power (...). A groups’ attainments are the product not only of shared knowledge and skills of its members, but also of the interactive, coordinative, and synergetic dynamics of their transactions.” (Bandura 2000, 76).

As regards pro-environmental engagement, only a few studies have explored the pro-environmental values and behaviors of new generations, and the processes that may lead to engagement on the part of young people remain unclear (Gronhoy and Thorgesen 2011; Mathies et al. 2012; Blanchet-Cohen 2008). Some studies have emphasized how the micro social domains in which young people are embedded, in particular, family and peers, are relevant in promoting pro-environmental attitudes and values (e.g., Gotschi et al. 2010; Gronhoy and Thorgesen 2011). In their study based on the American survey *Monitoring the Future*, Wray-Lake et al. (2007) focus on individual beliefs and values while analyzing trends in adolescents’ environmental concerns over the last 30 years in the United States. They find that adolescents’ environmental responsibility and behavior are associated with the following beliefs: faith in technology, endorsement of materialism, belief in resource scarcity and attitudes toward governmental leadership. The study suggests that young people seem to view conservation as a collective problem, and when they believe that government should respond to environmental issues then they are likely to feel a personal obligation in acting pro-environmentally. Furthermore, belief

concerning resource scarcity may have the largest impact on both young people's conservation attitudes and behaviors. Studies focusing on adults offer some theoretical models which may be of use when considering young people. In the theory of *planned behavior* (Ajzen 1991), it is argued that variables at individual level, such as attitudes, norms, and perceived behavioral control may be associated with the intention to conduct particular behavior and, in turn, with the action execution. Schwartz (1977) argued that personal norms predict behavior when two different conditions are satisfied: awareness of the consequences of one's behavior together with the ascription of at least some responsibility for these consequences to oneself. In the theory of *normative conduct*, Cialdini et al. (1990) include the role played by the social normative influences, called *descriptive* norms relating to "normal behavior," those actions that are adequate in specific circumstance, and *injunctive* norms which refer to what ought to be done, hence those actions underlined by moral judgments of what is morally approved or disapproved.

If we wish to move from a perspective focusing mainly on individuals to a contextual one, there would seem to be a lack of studies exploring the way in which factors deriving from the interaction between young people and their communities, such as psychological bonding with the territory or with the other citizens, may be relevant to the understanding of their pro-environmental values and behaviors. Some studies have explored this association in relation to adults. For example, factors that have been associated with pro-environmental outcomes are place identity (Bonaiuto et al. 2008; Vaske and Cobrin 2002); community attachment (Perkins, Brown, and Taylor, 1996) and place attachment (Scannell and Gifford 2013; Budruk, Thomas and Tyrell 2009). However, on the one hand, very few studies focused on which psychosocial phenomena within community underlie people's pro-environmental engagement, and the topic is still open to debate (Lewicka 2010; Rossi and Dodman 2015). At the same time, the lack of studies of young people means a reference to the literature on adults is potentially misleading since some evidence suggests that different mechanisms may underlie young people's and adults' pro-environmental engagement. By comparison with adults, young people would indeed seem to have more positive environmental attitudes, but to be less likely to conduct pro-environmental practices (European Commission 2008a; Grønhøj and Thøgersen 2009; Johnson, Bowker and Cordell 2004). The world view known as *technofix* was found to be associated with conservation behaviors among adults, but not among young people, who believe that technological efficiency is not something that absolves individuals of responsibility and personal environmental concern (Wray-Lake et al. 2010). Moreover, the difference between attitudes and behaviors does not emerge so clearly when we refer to young people in comparison with adults. In their study, Eilam and Trop (2013) found

that programs of environmental education at school were likely to have a greater impact both on children's behavior and attitudes than on adults. Adults may tend to be influenced only at a behavioral, but not at an attitudinal level, suggesting that the development of attitudes is something deeper, involving more complex cognitive and affective processes. Similar evidence has been found by Crocetti et al. (2012) concerning young people's civic engagement, underlining the fact that the development of civic values may involve a cognitive interplay between the processes of identity formation and personal self-awareness.

From this brief literature review emerges the need to find common factors influencing both civic and environmental engagement among young people. Since the definition of a sustainable community emphasizes that both a collective sense of responsibility and ecological integrity (Hempel 1999) are important for the achievement of sustainability within communities, unifying this two different perspectives is essential in order to allow those factors which may play a role in the understanding of sustainable engagement at local level among young people to emerge.

UNDERSTANDING AND PROMOTING YOUNG PEOPLE'S SUSTAINABLE ENGAGEMENT IN COMMUNITIES

Our proposal is based on the premise that society must promote an educational process based on formal, non-formal and informal agencies to permit every person to develop her/his learning potential to the maximum extent and thereby make a full contribution to society itself.

Three general objectives of the educational process can be identified: developing an aptitude for lifelong and life-wide learning, furthering personal acculturation and the building of one's personal and professional life project life, promoting full citizenship based on awareness, responsibility, and active participation. Each of these goals requires the development of competence and a consequent growth of empowerment and engagement.

In this respect, it is important to consider a definition of competence that is able both to interpret and inform the learning processes involved. Starting from its etymology, the concept of competence is particularly significant in that it expresses (*cum-petere* = "with," "together" - "seek," "aim," "project") the idea of a dynamic co-construction of pathways capable of constant expansion and enrichment, of adapting to change, meeting challenges, building new knowledge, facing new problems that require new solutions. Competence can thus be considered a capacity for self and joint orientation, in that, is the ability to understand certain situations and act in a conscious way to achieve given objectives. These can be grouped into four major categories that

relate to building of knowledge (knowledge-building competence), communicating information (communicative competence), experimenting and consolidating a range of methods and operations (methodological and operational competence) developing relationships with oneself and others (relational, or personal and social, competence) (Dodman 2008, 2013). Thus, four types of objectives that enable people to orient themselves in all lifelong and life wide situations can be considered four significant competence types that constitute human learning, thereby forming the necessary personal basis for developing empowerment and engagement.

We believe that a framework for understanding and promoting this development must be based on an ecological approach. Bronfenbrenner (1994 38) argues: “human development takes place through processes of progressively more complex reciprocal interaction between an active and involved biopsychological human organism and the people, objects and symbols within its immediate environment (...). The form, power, content and direction of the proximal processes giving rise to development vary systematically as a joint function of the characteristics of the developing person, of the environment, both immediate and more remote, in which the processes take place and of the nature of the developmental outcomes under consideration.” Since people’s participation must occur at local level, the community becomes the arena within which all the psychological mechanisms underlying young people’s sustainable engagement necessarily be promoted (Fig.1)

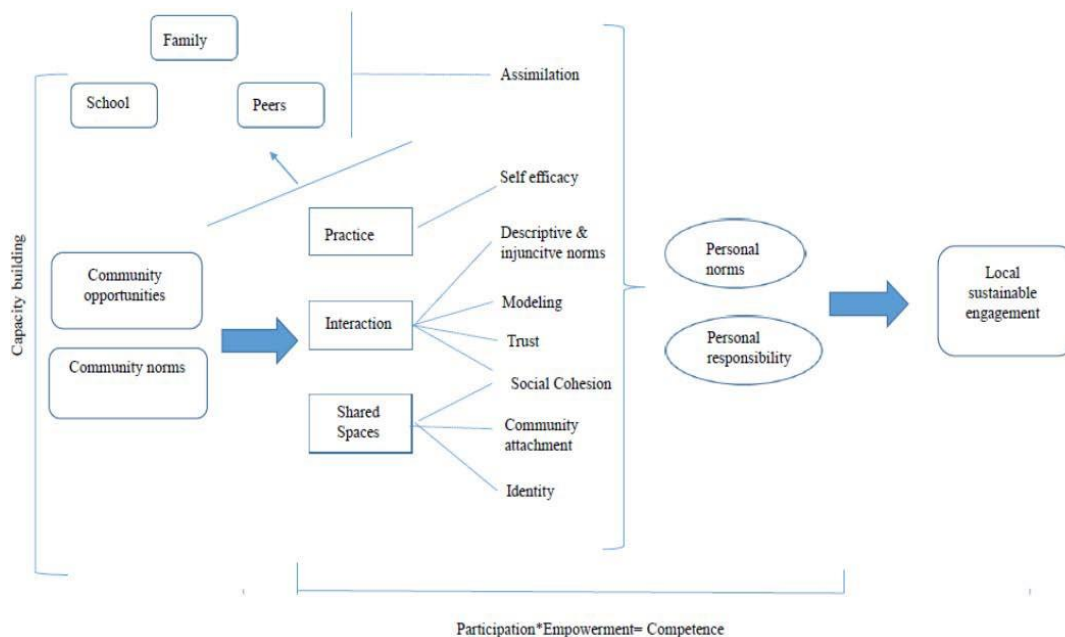


Fig.1. Factors associated with young people’s engagement with sustainability at local level

Firstly, the community must offer adequate structural opportunities and furnish norms coherent with the concept of sustainability (Catalano and Hawkins 1996; Vining and Ebreo 1992). This requires provision of two kinds of public spaces. On the one hand, there must be spaces where people have the opportunity to build knowledge on how to conduct particular practices (e.g., recycling, production of natural detergents, purchasing products not detrimental for the environment, etc.) and to exercise them (Lave and Wenger 1991). On the other hand, there must be other kinds of spaces the management of which is directly under the control of citizens (Riche et al. 1995), such as urban vegetable plots (Thorp and Townsend 2001). From these contextual factors, several psychological mechanisms may be activated which lead to engagement and a parallel development of communicative and relational competence through acting and interacting. The more people have the possibility to practice a specific behavior, the more they will be likely to gain a perception of personal competence (Atkins and Hart 2003; Quane and Rankin 2006; Catalano and Hawkins 1996) and understanding of both the background and the consequences of that behavior (Lave and Wenger 1991), nourishing the perception of self-efficacy (Bandura 1977). By perceiving that specific patterns of behavior and norms are shared within the context in which they are embedded, the activation of both descriptive and injunctive norms is likely to happen. In turn people's behavior will be guided respectively by following reflections: "I do so because everyone is doing so, it is the right thing to do" and "everyone expect that I also behave in a particular way, if I do not do it, I will be the different one" (Cialdini et al. 1999). The risk of social exclusion is hence a perceived possible consequence if the behavior is not carried out. By interacting with others in such contexts, individuals begin to observe and make comparisons with each other and the process of reciprocal influence, or modeling, starts (Bandura 1977). Through regular interaction, trust and social cohesion can be developed (Putnam 2000; Browns, Perkins and Brown 2003). Moreover, the perception of control towards places, nourishes both the sense of attachment and belonging (Browns, Perkins, and Brown 2003), and having shared feelings with the physical context allows the development of place identity (Proshansky 1978). In particular, urban gardening encourages the establishment of bonding with the territory and with the environment (Thorp & Townsend 2001; Blair 2009). These psychological feedback processes between the individual and the context are of vital importance for the development of both young people's values and responsibility coherent with the concept of sustainability and underlying an active engagement. All those processes, moreover, have not just an influence on people, but also on their micro-social contexts, such as family and peers, considered the main social domains for the process of assimilation at the heart of such learning and the development of competence on the part of individuals and the community they form.

There is a clear relationship between competence, empowerment, and engagement. Empowerment is a concept with intrapersonal, interactional and behavioral components (Zimmerman and Rappaport 1988) comprising people's awareness and understanding of themselves and their environment, development of the capacity to act and influence, participation in decision-making and problem-solving processes. Engagement is a commitment which depends on a sense of empowerment and the presence of opportunities for participation in given contexts. Empowerment and engagement exist on the basis of reciprocal feedback processes and involve the development of competence.

If all the public and educational agencies within the community, such as local administrations, community organizations and schools, promote norms and behaviors coherent with the concept of sustainability by offering the necessary structural opportunities, then together they contribute to the common goal of sustainable engagement based on the empowerment of young people as citizens who possess the capacity and the opportunities to participate actively in the life of the community.

CONCLUSION

The need to understand how to engage the new generations in the process of promoting sustainability has emerged in both the literature on human development (e.g., Chawla and Flanders Cushing 2007) and policy papers (e.g., Agenda21). As Chawla and Flanders Cushing (2007, 441) argue: "People cannot purchase energy efficient cars, use public transportation or travel on bikeways, for example, unless business and Government make these choices available. Therefore, the literature on young people's political socialization and civic action is highly relevant to environmental education". Hence, the need to explore the concept of sustainable engagement by uniting civic and behavioral dimensions has emerged. Chawla and Flanders Cushing (2007) also provide a summary of the conditions that foster responsible environmental behavior, civic action, and the development of individual and collective competence. Starting from this perspective, our framework emphasizes the importance of considering the local community as the arena in which all the mechanisms and processes underlying young people's engagement takes place, explores possible relations between those mechanisms and processes and proposes a model for analyzing the concept and promoting the development of competence.

The arena of the community is of crucial importance for two main reasons. On the one hand, the literature suggests that it is at the community level that people may develop the collective phenomena which enhance individual, collaborative and cooperative action (social cohesion, collective efficacy, collective responsibility) (e.g., Putnam 2000). At the same time, the

partnership between citizens and institutions is necessary to bring about concrete and beneficial outcomes. Only in limited and specific contexts can an understanding of people's needs clearly emerge and people are likely to participate because they know the arena in which they are acting and can observe the results their engagement can bring (Torney Purta et al. 1999). A reciprocal relationship between competence, empowerment and engagement are established, and as Walzer (1989) states it is indeed within local communities that young people can exercise rights and assume opportunities, hence learn what it means to be a good citizen. By educating its members, society educates itself. The learning processes of the people who inhabit it are the learning processes of society itself. Through education, society shapes the future of both its individual members and its collective self (Dodman 2008, 2013).

REFERENCES

- Ajzen, Icek. 1991. "The theory of planned behavior." *Organizational Behavior and Human Decision Processes* 50: 179–211.
- Atkins, Robert, and Daniel Hart. 2003. "Neighborhoods, adults, and the development of civic identity in urban youth." *Applied Developmental Science* (3): 156-164. doi: 10.1207/S1532480XADS0703.
- Bandura, Albert. 1977. *Social Learning Theory*. Englewood Cliffs, N.J.: Prentice Hall.
- Bandura, Albert. 1997. *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, Albert. 2000. Exercise of Human Agency Through Collective Efficacy. *Current Directions in Psychological Science* 9 (3): 75-78.
- Blair, Dorothy. 2009. The Child in the Garden: An Evaluative Review of the Benefits of School Gardening. *Journal of Environmental Education*, 40 (2): 15-38.
- Blanchet-Cohen, Natasha. 2008. "Taking a stance: child agency across the dimensions of early adolescents' environmental involvement." *Environmental Education Research*, 14 (3): 257-272. doi:10.1080/13504620802156496.
- Bonaiuto, Marino, Elena Bilotta, Mirilia Bonnes, Emanuela Ceccarelli, and Helga Martorella. 2008. "Local Identity and the Role of Individual Differences in the Use of Natural Resources: The Case of Water Consumption." *Journal of Applied Social Psychology* 38 (4): 947–967. doi: 10.1111/j.1559-1816.2008.00333.x.
- Bronfenbrenner, Urie. 1994. In *International Encyclopedia of Education* Vol. 3, 2nd. Oxford: Elsevier.
- Brown, Barbara, Douglas D. Perkins, Graham Brown. 2003. "Place attachment in a revitalizing neighborhood: Individual and block levels of analysis." *Journal of Environmental Psychology* 23: 259–271. doi: 10.1016/S0272-4944(02)00117-2.
- Budruk, Melgha, Heidi Thomas, and Timothy Tyrrell. 2009. "Urban Green Spaces: A Study of Place in Attachment and Environmental Attitudes in India." *Society and Natural Resources: An International Journal* 22 (9): 824-839. doi: 10.1080/08941920802628515.
- Catalano, Richard F., and David, J. Hawkins. 1996. "The social development model: A theory of antisocial behavior." Chap 4 In *Delinquency and crime: Current theories*, edited by David J. Hawkins. Cambridge: Cambridge University Press.

- Chawla, Louise, and Debra Flanders Cushing. 2007. "Education for strategic environmental behavior." *Environmental Education Research* 13 (4): 437-452. doi: 10.1080/13504620701581539.
- Cialdini, Robert B., Raymond R. Reno, Carl A. Kallgren. 1990. "A focus theory of normative conduct: recycling the concept of norms to reduce littering in public spaces." *Journal of Personality and Social Psychology* 58: 1015-1026. doi: [10.1037/0022-3514.58.6.1015](https://doi.org/10.1037/0022-3514.58.6.1015).
- Crocetti, Elisabetta, Parissa Jahromi, Wim Meeus. 2012. Identity and civic engagement in adolescence. *Journal of Adolescence* 35: 521-532. doi: 10.1016/j.adolescence.2011.08.003
- Da Silva, Lisa, Ann Sanson, Diane Smart, and John Toumbourou. 2004. Civic responsibility among Australian adolescents: Testing two competing models. *Journal of Community Psychology* 32 (3): 229-255. doi: 10.1002/jcop.20004.
- Dodman, Martin. 2008. "Le competenze: un paradigma per la società contemporanea" *Rivista dell'Istruzione* 4: 27-32
- Dodman, Martin. 2013. *Linguaggio e plurilinguismo: apprendimento, curriculum e competenza*. Trento: Erickson.
- Eilam, Efrat, and Tamat Trop. 2012. "Environmental Attitudes and Environmental Behavior—Which Is the Horse and Which Is the Cart?" *Sustainability* 4: 2210-2246. Doi: 10.3390/su4092210.
- European Commission. 2008a. *Europeans' attitudes towards climate change, Special Eurobarometer300/69.2*. Brussels: European Commission.
- Furstenberg, Frank F., Thomas D. Cook, Jacquelynne Eccles, Glen H. Elder, and Arnold Sameroff. 1999. *Managing to make it: Urban families and adolescent success*. Chicago: University of Chicago Press.
- Gotschi, Elisabeth, Stefan Vogel, Lindenthal Thomas, and Manuela Larcher. 2010. "The Role of Knowledge, Social Norms, and Attitudes Toward Organic Products and Shopping Behavior: Survey Results from High School Students in Vienna." *The Journal of Environmental Education* 41(2): 88-100. doi: 10.1080/0958960903295225.
- Grønhøj, Alice, and John Thøgersen. 2009. "Like father, like son? Intergenerational transmission of values, attitudes, and behaviours in the environmental domain." *Journal of Environmental Psychology* 29: 412-421. doi: 10.1016/j.jenvp.2009.05.002.
- Grønhøj, Alice, and John Thøgersen. 2012. "Action speaks louder than words: The effect of personal attitudes and family norms on adolescents' pro-environmental behavior." *Journal of Economic Psychology* 33: 292-302. doi:10.1016/j.joep.2011.10.001.
- Hempel, Lamont A. 1999. "Conceptual and analytical challenges in building sustainable communities." in *Towards Sustainable communities: Transition and Transformations in Environmental Policy*, edited by Daniel.A. Mazmanian, and Michael E. Kraft. Boston, MA: MIT Press.
- Johnson, Cassandra Y., J.M Bowker, and Ken H. Cordell. 2004. "Ethnic variation in environmental belief and behavior: an examination of the new ecological paradigm in a social psychological context." *Environment and Behavior* 36: 157-186. doi: 10.1177/0013916503251478
- Kegler, Michelle C., Roy F. Oman, Sara K. Vesely, Kenneth R. McLeroy, Cheryl B. Aspy, Sharon Rodine, and LaDonna Marshall. 2005. "Relationships among youth assets and

- neighborhood and community resources.” *Health Education and Behavior* 32: 380- 397. doi: 10.1177/1090198104272334.
- Lenzi, Michela, Alessio Vieno, Massimiliano Pastore, and Massimo Santinello. 2013. Neighborhood social connectedness and adolescent civic engagement: An integrative model. *Journal of Environmental Psychology* 34: 45-54. doi: 10.1016/j.jenvp.2012.12.003.
- Leventhal, Tama, and Jeanne Brooks-Gunn. 2000. “The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes.” *Psychological Bulletin* 126: 309-337. doi: 10.1037/0033-2909.126.2.309.
- Lerner, Richard, M., Amy E. Alberts, and Deborah L. Bobek. 2007. *Thriving youth, flourishing civil society: How positive youth development strengthens democracy and social justice. A Bertelsmann Foundation White Paper.* Thousand Oaks, CA: Sage Publications.
- Lave, Jean, and Etienne Wenger. 1991. *Situated Learning: Legitimate Peripheral Participation.* Cambridge: Cambridge University Press.
- Matthies, Ellen, Sebastain Selge, and Christian A. Klöckner. 2012. “The role of parental behaviour for the development of behaviour specific environmental norms - The example of recycling and re-use behavior.” *Journal of Environmental Psychology* 32: 277- 284. doi:10.1016/j.jenvp.2012.04.003.
- Perkins, Douglas D., Barbara B. Brown, and Ralph B. Taylor. 1996. “The Ecology of Empowerment: Predicting Participation in Community Organizations.” *Journal of Social Issues* 52 (1): 85-110. doi: 10.1111/j.1540-4560.1996.tb01363.x.
- Putnam, Robert. 2000. *Bowling Alone.* New York: Simon and Schuster.
- Quane, James M., and Bruce H. Rankin. 2006. Does it pay to participate? Neighborhood- based organizations and the social development of urban adolescents. *Children and Youth Services Review* 28: 1229-1250. doi:10.1016/j.chilyouth.2006.01.004.
- Rich, Richard C., Michael Edelstein, William K. Hallman, and Abraham H. Wandersman. 1995. Citizen participation and empowerment: the case of local environmental hazards. *American Journal of Community Psychology* 23 (5): 657-676.
- Rossi, Giulia, and Martin Dodman. 2015. “The contribution of psychology in connecting the civic and environmental dimensions of sustainability.” *Visions for Sustainability* 3:16-24. doi:10.7401/visions.03.03.
- Scannell, Leila, and Gifford Robert. 2010. “Defining place attachment: A tripartite organizing framework.” *Journal of Environmental Psychology* 30: 1-10. doi:10.1016/j.jenvp.2009.09.006
- Schwartz, Shalom H. 1977. Normative influences on altruism. Pp. 221-279 in *Advances in experimental social psychology*, vol. 10, edited by Leonard Berkowitz. New York: Academic Press.
- Steg, Linda, and Vlek Charles. 2009. Encouraging pro-environmental behavior: An integrative review and research agenda. *Journal of Environmental Psychology* 29: 309–317. doi: 10.1016/j.jenvp.2008.10.004.
- Thorp, Laurie, and Christine Townsend. 2001. Agricultural education in an elementary school: An ethnographic study of a school garden. *Proceedings of the 28th Annual National Agricultural Education Research Conference in’ New Orleans*, 347-360. Retrieved from http://www.aaaeonline.org/conference_files/758901.

- Torney-Purta, Judith; Schwille, John; Amadeo, Jo-Ann. Eds. 1999. *Civic education across countries: Twenty-four case studies from the IEA Civic Education Project*. Amsterdam: IEA.
- Uzzell, Davis, Enric Pol, and David Badenas. 2002. "Place identification, social cohesion, and environmental sustainability". *Environment and Behavior* 34:26-53. doi: 10.1177/0013916502034001003.
- Vaske, Jerry J., and Katherine C. Kobrin. 2001. Place Attachment and Environmentally Responsible Behavior. *The Journal of Environmental Education* 32(4): 16-21. doi: 10.1080/00958960109598658.
- Vining, Joanne, & Angela Ebreo. 1992. Predicting recycling behavior from global and specific environmental attitudes and changes in recycling opportunities. *Journal of Applied Social Psychology* 22: 1580-1607.
- Wakefield, Sarah E. L., Susan J. Elliott, John D. Eyles, and Donald C. Cole. 2006. "Taking Environmental Action: The Role of Local Composition, Context, and Collective." *Environmental Management* 37 (1): 40–53. doi: 10.1007/s00267-004-0323-3.
- Walzer, Michael. 1989. "Citizenship." Pp. 211-219 in *Political innovation and conceptual change*, edited by Terence Ball, James Farrand, and Russell Hanson. Cambridge: Cambridge University Press.
- Wray-Lake, Laura, Costance A. Flanagan, and Wayne D. Osgood. 2010. "Examining trends in adolescent environmental attitudes, beliefs, and behaviors across three decades." *Environment and Behavior* 42: 61–85.
- Zeldin, Shepherd, and Dimitri Topitzes. 2002. "Neighborhood experiences, community connection, and positive beliefs about adolescents among urban adults and youth." *Journal of Community Psychology* 30 (6): 647-669. doi: 10.1002/jcop.10025.
- Zimmerman, Marc A., and Julian Rappaport, J. 1988. "Citizen participation, perceived control, and psychological empowerment." *American Journal of Community Psychology*, 16: 725-750. doi:10.1007/BF00930023.