

Improving governance learning for sustainable development: introductory reflections on a specific issue in adult education

Apprendimento e governance per lo sviluppo sostenibile: riflessioni introduttive su un tema specifico dell'educazione degli adulti

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Abstract

Good governance is considered a pillar in the implementation of the Sustainable Development Agenda 2030. Failures in governance processes are considered to be at the origin of countless problems in ecosystem services management. The influence of formal and informal institutions, the role of state and non-state actors, the nature of multi-level interactions and the importance of social and economic conditions, that can facilitate or increase citizen participation, are identified as structural features of governance systems. The functioning of these systems is conceptualized as social learning as a conceptual framework to understand the dynamics and the adaptive capacity of governance systems to develop learning. Informal networks are considered to play a crucial role in these learning processes. This contribution presents a reflection on learning dimension of governance, based on relationships among sustainability, human development and ecosystem protection.

Keywords: governance learning; adult education; sustainable development; ecosystem services.

Abstract

Una buona *governance* è considerata un pilastro nell'attuazione dell'Agenda 2030 per lo sviluppo sostenibile. I fallimenti nei processi di governance sono considerati all'origine di numerosi problemi nella gestione dei servizi ecosistemici. L'influenza delle istituzioni formali e informali, il ruolo degli attori statali e non statali, la natura delle interazioni multilivello e l'importanza delle condizioni sociali ed economiche, che possono facilitare o ostacolare la partecipazione dei cittadini, sono identificate come caratteristiche strutturali dei sistemi di governance. Il funzionamento di questi sistemi è interpretato come apprendimento sociale in un quadro concettuale volto a comprendere le dinamiche e la capacità adattativa dei sistemi di governance in termini di apprendimento. Alle reti informali è riconosciuto un ruolo cruciale in questi processi. Il presente contributo presenta una riflessione sulla dimensione dell'apprendimento nei processi di governance, basata sulle relazioni tra sostenibilità, sviluppo umano e protezione degli ecosistemi.

Parole chiave: apprendimento; governance; educazione degli adulti; sviluppo sostenibile; servizi ecosistemici.

1. Natural, cultural and human capital

In the last thirty years, the category of environment has expanded and changed: it has seen a substantial convergence on the unity of natural and cultural dimensions, a greater consideration of the unavoidable dynamism determined by production, use and transformation (Paracchini, Zingari & Blasi, 2018). The concept of capital comes to be associated with nature and culture and consensus grows on the need of reconsidering the inextricable links between natural and cultural capital. The construct of *natural capital* has been proposed by David Pearce as a way to underline the role of nature in supporting economy and human well-being (Pearce, Markandya & Barbier, 1989) and it includes environmental goods and services (Costanza, 2008), be them depletable or non-depletable, renewable or non-renewable. The construct of *cultural capital* has been introduced by Pierre Bourdieu (1979; 1986) as the whole set of forms of knowledge, capacities, skills, education, that contribute to give a social status. Cultural capital has been defined also as adaptive capacity of human populations to deal with and modify the natural environment through interactions and coevolutionary interrelationship (Folke & Berkes, 1992). Furthermore cultural capital is a stock of goods and services expressed by tangible or intangible forms. Production, use and transformation of natural and cultural capital call into question a third element of the environment: human capital, a construct associated with the ability to produce, accumulate and exchange knowledge in order to generate innovation and to sustain the competitiveness of a system (Bramanti & Odifreddi, 2006). The main output of human capital is the ability to interpret and transform the environment and create culture. It is generated by the possibility to learn and it is sustained by education (Zingari & Del Gobbo, 2017). Learning is behind and at the base of individual and collective forms of knowledge, allowing the interpretation and transformation of the living environment, which is both naturally and culturally connoted. Consequently, the environment where we live, with its role and contexts, becomes an integral part of the potential of knowledge production in a learning process, which is necessary for the life: any living being constantly reorganizes itself through learning and, in this process, acts in a close interrelation with the environment (Maturana & Varela, 1987).

This reconfiguration recomposes the relationship among culture, nature and society, between environment and people in a holistic and ecosystemic perspective.

A theoretical framework to understand these relationships is provided by the construct of ecosystem services (ES)¹. According to the definition of the Millennium Ecosystem Assessment (MA, 2003; 2005), ecosystem services are the multiple advantages offered by ecosystems to humankind. The conceptual framework, from which the MA (2003) begins, opens with the following consideration: “Human well-being and progress toward sustainable development are vitally dependent upon Earth’s ecosystems. The ways in which ecosystems are affected by human activities will have consequences for the supply of ecosystem services – including food, fresh water, fuelwood, and fiber – and for the prevalence of diseases, the frequency and magnitude of floods and droughts and local as well as global climate. Ecosystems also provide spiritual, recreational, educational, and other nonmaterial benefits to people. Changes in availability of all these ecosystem services can profoundly affect aspects of human well-being – ranging from the rate of economic growth and health and livelihood security to the prevalence and persistence of poverty” (pp. 26-27). Thus, the United Nations’ initiative of the Millennium Ecosystem Assessment

¹ Also, the concept of ES (Ecosystem Services) was first coined in early 1980s (Ehrlich & Ehrlich, 1981; Ehrlich & Mooney, 1983).

(MA) gave to the concept of ES relevance and impact as a political and practical tool: drawing attention to the many services ecosystems provide for human beings, the aim of the ES framework is ultimately to enable decision-makers to take appropriate management decisions about environmental resources (MA, 2003) and to raise public interest and concern for ecosystem protection (Setten, Stenseke & Moen, 2012).

The relevance of ES is underlined through their anthropocentric definition as benefits that people obtain from ecosystems (MA, 2003). The ES concept puts human needs and preferences at the centre of the ecological universe and measures the health of ecosystems based on their ability to provide humans with benefits – referred to as *services*².

However, the anthropocentric perspective of ecosystem services presupposes the recovery of the unity of the mankind/nature/culture system through a different relationship: every man/woman is an active and dynamic part of the relationship in respect of his/her own specificity and in the awareness of his/her own responsibility.

In fact, if the relationship between mankind and environment is now considered unsustainable, this has also happened because even the long-used educational categories, on which the relationship was built, have been based on an ideological model founded on an unsustainable position of subordination of the environment, subservient to humanity. This has led to the presumption of unlimited possibilities of interference in the environmental dynamics (we could say in a heterodirect form, i.e. not negotiated with the environment itself), whose consequences, paradoxically, seem today to end up being reduced to a sort of naturalization, which prelude to attitudes of fatalism and resignation. Thus, many disasters caused by the intervention of man end up being attributed to nature and an attitude of impotence and inevitability is affirmed, which denies responsibility and lays the foundations for disengagement. On the other hand, if alienation, disjunction, dissociation are concepts that increasingly define the current problematic and the overall criticality of the subject-environment relationship, in literature the overcoming of this problem cannot surely give rise to a sort of identification, which is uncritically definable in terms of *I am the environment*. It is not a late recognition of the naturalness of mankind that can lead to the overcoming of the situation of alienation of man with respect to his own environment of life, too long considered, especially in Western culture, in an objective and instrumental manner.

Recognizing that we are a part, therefore, is not the same as identifying ourselves, but means recognizing the inescapable relationship with our living environment. In fact, recovering nature also implies accepting the uncertainty of existence and the limit of material living conditions: from the perspective of possibility, for the design of different forms of creative action. In this framework, the ecosystemic view also means recognizing the differences in integration and reciprocal inter-action between humanity and the environment of life, an environment that must be known and interpreted in order to intervene in a conscious and intentionally responsible manner.

In the framework of ES, moreover, the main transversal constituent of well-being is the freedom of choice and action: “freedom of choice and action, including the opportunity to achieve what an individual values doing and being. Freedom of choice and action is

² Natural and cultural connections are rather explicit in the ecosystem services categories: (1) provisioning: food, water, timber, and fibers; (2) regulating: climate, floods, disease, wastes, and water quality; (3) supporting: soil, photosynthesis, and nutrient cycling; (4) cultural: recreation, aesthetics, and spiritual benefits.

influenced by other constituents of well-being (as well as by other factors, notably education) and is also a precondition for achieving other components of well-being, particularly with respect to equity and fairness” (MA, 2005, p. V). This position appears to be close to Sen’s (1999) and Nussbaum’s (1988; 2011) capability approach (Nussbaum & Sen, 1993). The capability approach purports that freedom to achieve well-being is a matter of what people are able to do and to be, and thus the kind of life they are effectively able to lead. Capability is the possibility of a subject to combine potential, starting from the available cognitive, emotional, value and environmental resources to mobilize projects in concrete, detectable and observable actions, that is knowledge in action.

In MA perspective the need for educational actions is recognized for the contribution that they can offer to the development of capacity for choice and action within the ecosystem for individual and collective well-being. The framework highlights how the ultimate goal of education is to make people able to consciously and responsibly act in his or her reference ecosystem, by critically using all available *services*, including *cultural services* through which they can find answers to their own values, spiritual, aesthetic, recreational and educational needs.

Freedom of action is necessarily linked to the concepts of awareness and responsibility and the person-oriented paradigm also implies the attention to bottom-up processes in policies and environment management methods, prefiguring the involvement of the various holders in dynamic networks for governance of ecosystem services.

2. Ecosystem protection, sustainability and human development

The ES, as already stated, involve the ecosystem protection construct in a form, without doubt, more complex and holistic. The *social* component of the concept of *protection* has been strengthened and the connections with participation, approaches of empowerment and the rights at the basis of sustainable development have been made more evident. Ecosystem protection has ended up appearing not simply as a duty and cost to pay to guarantee economic growth (with a guarantee of protection in direct proportion to the wealth expressed by a system), but as a form of investment in people, a potential instrument for promoting human capital and guaranteeing sustainable and inclusive development³.

The categories of human capital and human development in recent years also seem to have shared similar routes in the revision and expansion of their meanings. In its historic definition⁴ the expression human capital traditionally saw the prevalence of the noun capital over the adjective human, but today the very concept of capital has increasingly come to

³ From the early Seventies the concept of protection is present and connected to the concept of *human environment* into the Declaration of the United Nations Conference on the Human Environment (1972): “The protection and improvement of the human environment is a major issue which affects the well-being of peoples and economic development throughout the world; it is the urgent desire of the peoples of the whole world and the duty of all Governments” (<http://hrlibrary.umn.edu/instree/humanenvironment.html>).

⁴ The concept of human capital, despite being dealt with by various authors such as W. Petty, R. Cantillon, J. Von Thuner, A. Marshall, I. Fisher and J.M. Clark (Kiker, 1966), was never developed inside a solid theoretical structure, at least not until the mid-twentieth century, with the works of Jacob Mincer (1958), Theodore Schultz (1961) and Gary Becker (1964) from the University of Chicago.

include, alongside material goods and production, the competences involved in human action, and to consider the value of knowledge not only as a dimension capable of increasing the individual's productivity, but also his/her well-being. Furthermore, the social dimension has also been added to the adjective human. This has led to recognition of a *structural* foundation of development in that kind of capital which is formed not just by know-how, types of knowledge, and the information of which the subjects are at the same time holders and constructors, but also to the awareness of the value of the social networks, that is, the set of formal and informal interpersonal relations also essential in order for complex and highly organized societies to work.

The approach to human development is located in observance of these requirements⁵. It is a form of development that proposes to respond to everybody's needs, by offering answers that improve life in all its economic and social aspects and that proposes to reduce poverty, social exclusion, environmental degradation, social tensions and recourse to violence (Carrino, 2008). It is a development model that also considers the economic level not as independent but in close relation to all the other levels of social living in its contribution to overall well-being and social equity. It is the integration between different spheres and sectors that makes development sustainable. The concept of sustainability is now unmistakably divided into at least four closely connected dimensions: economic sustainability remains important in the sense of the capacity to generate constant income and secure work for the population's survival, but only insofar as it manages to combine with social sustainability, meant as the capacity to guarantee conditions of human well-being (security, health, schooling, etc.) fairly distributed among the whole population; environmental sustainability, meant as the capacity to maintain the quality and reproducibility of the ecosystem resources and services; and institutional sustainability, meant as the capacity to ensure conditions of real democracy and participation in the decision-making processes. And this is precisely the problem that the transformation of development has come across: the lack of participation (Gaventa, 2003; 2005) that requires the definition and enactment of new⁶ forms of social organization and recovery of the capacity of communitarian networks to represent a more or less direct source of social capital for individuals (Di Nicola, Stanzani & Tronca, 2008).

At the basis is the idea that the local community as a whole finds significance precisely in the responses it manages to offer to the needs of those who are part of it, so that the citizens verify it is worth taking part in it, and therefore develop that sense of identity and belonging (which is at the basis of civil responsibility and governance processes) when the responses effectively *respond* to their needs in terms of quantity, quality and continuity. Nevertheless, the needs do not always take on a defined outline enabling precise solutions. Luciano Carrino considers need a critical concept and states: "what are needs? Can they be strictly defined? [...] Needs can be defined as sentiments that work as mental stimuli. They are

⁵ The Rio Declaration The United Nations Conference on Environment and Development – *Earth Summit* (1992) – contains some important principles: in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it (Principle 4); peace, development and environmental protection are interdependent and indivisible (Principle 25) (<https://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>).

⁶ Perhaps it could be more correct to speak of a new vision and interpretation of the value of the networks of proximity that have always characterized social living (family, relatives, extended community, associations, general social living) and are at the basis of social organization itself.

closely connected to the individual's life or cultural processes and accompany the phase in which these processes cannot be fulfilled because something is missing or something is getting in the way of them being carried out. They have the function of stimulating the mind so that it puts thoughts and actions in motion that serve to get what is missing or to remove the obstacles. The sentiments called needs have characteristics of malaise, unease, pain or anxiety. They prompt the individual to get up and go in search of what can free him from these distressing stimuli. [...] The search for sentiments of well-being is the irrational engine moved by passion that is always at the origin of human actions. And since the latter always serve to obtain satisfactions and security, needs can be considered the engine of development" (Carrino, 2008, p. 5).

This idea of development is very much like a conceptualization of ecosystem protection as policies and programs aimed precisely at reducing vulnerability and people's exposure to risks and improving their capacity to deal with economic, social and environmental challenges. But it cannot be a set of actions or interventions made by an organism external to those with the needs, whether the State or a local institution. Because if need can be considered in terms of a sentiment, it is only by acting on transforming the sentiment of the subjects with the need that sustainable change can be initiated. Consequently, it is only by considering people as an active part of the development process and the search for ecosystem protection (as a response to the sentiment of insecurity) that this sentiment/need can be transformed and give rise to actions aimed at removing the obstacles.

The problem of ecosystem protection, moreover, is being increasingly affected by further transformations: indeed protection is appearing not as a response to contingent, sudden and temporary emergencies, but as a structural condition of a society that is constantly called upon to live with uncertainty and risk. In this context, if the *safety nets* remain dependent on the possibility of economic coverage and on centralized management alone, they risk not being sustainable. Therefore, the necessity is evident to recognize the not just functional, but structural importance that the individual, the person, assumes, no longer just considered as the beneficiary, but as capable of contributing to and jointly responsible for protection of environment in order to assure access and permanence of ecosystem services⁷. It is important to emphasize how local and traditional knowledge, adaptive technical skills and practices to manage environment have been working hand in hand with natural resources for ages, in most cases shaping and maintaining productive and resilient ecosystems.

Behind ecosystem protection a common thread can be identified, namely the conviction that it is the human communities themselves that have to be put in the condition to become protagonists of their own development and their own protection, through various forms of organization and the space that they are able to build in order to express their own individual and social potentials.

It is evident that the challenge is twofold.

⁷ The Johannesburg Declaration on Sustainable Development (2002) underlines three overarching objectives of and essential requirements for sustainable development: poverty eradication changing consumption and production patterns protecting and managing the natural resource base for economic and social development (https://unhabitat.org/wp-content/uploads/2014/07/A_CONF.199_20-Johannesburg-Declaration-on-Sustainable-Development-2002.pdf).

On one hand, recognition of an autonomous space for development of the subject, whether it be individual or collective, must be accompanied by the establishment of a democratic society that acknowledges everyone the right to take part and contribute in the community's social, cultural and economic, also helping to construct and maintain the ecosystem protection nets to response varied needs that a community can express.

On the other hand, it is impossible to think that development sustained by investment in education and training and by increasing the local population's competences automatically transforms the population itself into a subject that is competent and resilient in dealing with environment. Ecosystem protection and development need to be components of a single strategic program. If, instead, development and protection are considered as separate aspects responding to different logics and ways, pursued along parallel or even diverging paths or even conceived as having a subordinate relationship through mechanisms that see the second depending on the first (reduced to economic development), investment in community education can be ineffective. Education and training, as expression of cultural ecosystem services, assume a strategic value also in order to overcome that lack of participation that prevents or penalizes sustainable development.

Dealing with the problem from the side of individual and collective know-how enables us to better pinpoint the sense of a change of perspective that is as necessary as it is complex. A change that, before involving contexts, services and tools, must be a change in the know-how needed to interpret the problems and forms of solution, as well as the know-how needed to act and transform contexts.

3. Agenda 2030: focus on governance⁸

The 2030 Agenda and the Sustainable Development Goals (SDGs), adopted by the UN Member States in September 2015 for the period 2016-2030, reflects an ambitious and transformative framework – a paradigm shift in international development – to bring the world on a more sustainable path and ensure a life of dignity for all. The agenda is also underpinned by goals on improve institutions to make their work more effective. In this sense, for the implementation of the Agenda good governance will play a relevant role.

The starting point is that the need for governance exists anytime a group of people come together to accomplish an end. Governance guides decision-making processes and determines who has power, who makes decisions, how other players make their voice heard and how accountability is distributed. Innovative trends have emerged for understanding and managing social-ecological systems (Paavola & Hubacek, 2013) and this new emphases on sustainability requires increased social engagement, along with a participatory learning process (Pahl-Wostl et al., 2007).

There are also other characteristics to stress. Principal key words to define good governance to implement the Agenda are: accountability, transparency, rule of law, responsiveness, awareness, commitment, engagement, equity and inclusiveness, effectiveness and efficiency as well as participation. Frequently, attempts to build participatory governance systems are not able to get the results and these attempts do not translate into a collective

⁸ This paragraph takes up and deepens a reflection present in Zingari and Del Gobbo (2017), in relation to lesson learned by governance experiences of natural resources with specific reference to Headwater Catchments.

program due to a lack of community awareness, commitment, and participation, as well as the absence of mechanisms to support community involvement in the processes of ecosystem resources management (Fernández, 2015).

To build a participatory and consultative framework means to invest in learning and awareness of communities (Newig, Günther & Pahl-Wostl, 2010; Newig, Kochskämper, Challies & Jager, 2016): it means not only to underline the need of education for sustainability, but properly, the need of sustainable learning. Sustainability means that all the societal expectations, ideals and needs are balanced with the goods and services provided by ecosystems, under *appropriate* management, in a dynamic and constantly adjusting process.

The full exercise of identification, analysis, data collection, mapping, assessment, monitoring and evaluation is a two-way, top-down and bottom-up, and a multi-scale-related process. The top-down corresponds to the overall framework provided by the European and national policies, strategies, methods and data. The bottom-up or local scale takes the lead either in terms of stakeholders engagement and in terms of field data collection. The *holders* are a large variety. They vary from the communities and groups, to the individual stakeholders as interest-holders, but also share-holders (e.g. private and public owners), local and traditional knowledge- and skill-holders, provision-holders, value- and memory-holders (e.g. people living and working in territories), as well as final decision-holders and cost-holders. Their engagement is directly related to their perceptions, interests, values, intrinsic motivation and good communication (Mauerhofer, Hubacek & Coleby, 2013). Their commitment is linked to their knowledge and skills as well as the awareness of their role. Participation per se is insufficient if there is no selection and real engagement of the key holders. Moreover, a stakeholders based approach is not effective unless it is able to generate social learning processes and to move towards a collaborative governance (Pahl-Wostl et al., 2007). This governance connects individuals, organizations, agencies and institutions at multiple organizational levels (Pahl-Wostl, 2009). Key people provide leadership, trust, vision, meaning and help to transform management organizations towards a learning environment. Adaptive governance systems are often self-organize as social networks with teams and groups of actors who draw on various knowledge systems and experiences for the development of a common understanding and policies. The emergence of *bridge organizations*, as educative agencies can be, seems to reduce collaboration costs and to permit conflict prevention, enabling legislation and government policies to be supportive of self-organization and creativity for adaptation efforts and for constructing resilient socio-ecological system (Folke, Hahn, Olsson & Norberg, 2005).

Implementing a participatory management does not mean building a project network, aimed exclusively to the distribution of functions and tasks within a project, but it means giving life to a strategic partnership. It is a strategy that necessarily is based on *social learning* for sustainable development (Wals, 2009). Social learning as an approach for the understanding and management of environmental issues has become a prominent interpretative framework in the assessment and management of natural resources. In resource assessment and management, the notion of social learning coincided with the thrust for public participation and the growing importance given to sustainable development.

4. Conclusion

This position considers the need of a distributed and shared common learning at local community level, considering the same sustainability as a result of a co-constructed learning process through the involvement of different institutions, groups, networks and individuals. The local community, in the framework of social learning, learns through an interactive and negotiated process among the various actors involved, for functional integrated solution of problems and development of a widespread culture of sustainability. It is understandable that the same management actions can take the value of action to support learning of all who in various ways are involved. This is in fact a sustainable approach to the problem of management, that aims to highlight the educational action in its transversal and global, democratic and ecological sense in the light of an *educational ecology*, which perceives the value of learning in the different contexts: formal, non-formal and informal.

New methodological approaches, such as participatory integrated assessment and sustainability science, involved the consideration that public participation is necessary in any attempt to build robust knowledge capable of dealing with the challenges, complexities, and uncertainties of sustainable development (Tàbara & Pahl-Wostl, 2007). From a pedagogical point of view, the reference framework can be also lifelong lifewide learning. This model requires, or rather, necessitates an autonomous, flexible and enlarged network system of education and training, that can satisfy the needs expressed by the territory.

The definition of effective governance processes is a challenge: it is an action of change induced and accompanied through a work method similar to the model of the EU's Open Method of Coordination (OMC) (https://ec.europa.eu/culture/policy/strategic-framework/european-coop_en) and in this sense constitutes a process not based on *hard law*, but rather on *soft law*, which requires guidelines, indicators, benchmarks and sharing of best practices (Federighi, 2007; 2011)

Governance processes require research, needs to be tested and investigated from different but integrated theoretical perspectives. In addition to the aforementioned perspective of social learning, the literature also identifies interpretations of the governance processes linked to organizational learning (with references to the theories of Argyris and Schön (1978) that on single-loop learning and double-loop learning processes) and model studies of adaptive governance through the knowledge utilization theories to identify methods and metrics for its measurement (Crona & Parker, 2012).

In the framework of the 2030 Agenda, research lines are outlined on the learning dimension in sustainable development processes.

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