Social learning – a useful concept for participatory decision-making processes?

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Abstract

Public participation plays an increasingly central role in natural resource management despite little knowledge about what constitutes a good process or outcome. The mixed success of participatory processes prompts researchers and practitioners alike to constantly search for and develop new approaches, methods and models for public involvement. Recently, learning processes have been increasingly emphasised as a key component of the participation discourse, and social learning is especially cited as an essential element of (participatory) natural resource management. Social learning as it is discussed in the context of public involvement features a process of collective and communicative learning which is thought to lead to a shared understanding of the situation and agreement. Theories of social learning are considered useful models to inform the design of collaborative processes. However, we must acknowledge that so far there is only limited evidence about the role of social learning in participatory processes and therefore it is difficult to judge its usefulness as a prescriptive model. Moreover, we argue that the social learning model has a number of conceptual and practical weaknesses.
Against this background we posit that research needs to focus on the underlying assumptions and claims made in connection with social learning, before proposing frameworks and methodologies to foster social learning in participatory processes. Furthermore, we argue that the debate needs to refocus on the question of what role social learning can reasonably play in participatory processes.

1 Introduction

Natural resource management is more and more recognised as a fundamentally social and political process as it affects stakeholders, their environment and their livelihoods. This realisation has lead to the increasingly central role of public participation in natural resource management despite little knowledge about what constitutes a good process or outcome. The mixed success of participatory processes prompts researchers and practitioners alike to constantly search for and develop new approaches, methods and conceptual models for public involvement. Recently, learning processes have been increasingly referred to in the participation discourse, and social learning is especially cited as an essential component of (participatory) natural resource management (e.g. Webler et al 1995; Pahl-Wostl 2002).

Indeed, the multi-faceted nature of socio-natural systems has prompted many writers (both theorists and practitioners) to call for wider use of social learning models to address the complexity of sustainable natural resource management and promote desirable behavioural change (e.g. Webler *et al* 1995; Pahl-Wostl 2002; Röling 2002; Schusler *et al* 2003). Jackson (2004) remarks that:

> *"[…] the realisation that people's choices, behaviours and lifestyles will play a vital role in achieving sustainable development is one of the (relatively few) points of agreement to have emerged from international environmental policy debates over the last decade or so" (p. 2). "[…] Behavioural change is fast becoming the 'holy grail' of sustainable development policy […]" (p. 94).*

However, the notion of social learning entered the debate on social change long before the idea of sustainable development was put on the political agenda. Friedmann (1984) points out that originally, social learning was presented as a critique of earlier discourses which assumed that the future could be planned rationally by those charged with securing efficient or profitable use of resources. He specifically refers to the work of Lewis Mumford (1938) who advocated an approach to planned social change where small groups of citizens would be helped by experts to learn about their social and natural surrounding to then appropriately act upon this knowledge.

This notion of social action as a means to induce social learning has been taken up by a number of authors who frame social learning as an interactive approach to decision-making and problem solving (e.g. Röling 2002; Ison et al 2004; Woodhill 2004). The primacy of communication and relationships as the facilitators of desirable change is reflected in the view that "sustainable society […] emerges from interaction" (Röling 2002, p. 26). Researchers and practitioners increasingly express the need to adjust our approaches to natural resource management and to establish participatory learning platforms, where individuals can meet, interact, learn collaboratively and take collective decisions (e.g. Keen *et al* 2005).

This expansion in the utilisation of the learning model is witnessed by Pretty (1995) who notes that there was a significant rise in participatory methods and approaches to learning in the context of agriculture development during the 1980s and 1990s. More recently, social learning has specifically been proposed as a means to support participative planning in water and river basin management (Woodhill 2004, Pahl-Wostl 2002), forest management (Buck *et al* 2001), and impact assessment (Webler *et al* 1995; Saarikoski 2000; Haxeltine and Amundsen 2005).

However, the literature fails to either deliver or consolidate an agreed upon definition of the term or concept of 'social learning' and only limited empirical research on the role or effectiveness of social learning in participatory planning and decision-making has been demonstrated so far.

This paper provides a brief overview of the claims, the benefits and the existing evidence provided for social learning in participation and natural resource management. Based on this overview, we discuss the following questions: (1) Is social learning a useful concept for participatory decision-making processes and (2) what role *can* social learning reasonably play or what role *should* it play?

2 Social learning and participatory decision-making processes

Milbrath (1989) was among the first to link the term social learning to sustainable development using the expression 'self-educating community' to describe circumstances where people learn from each other and from nature. Sustainable development is considered a wicked problem (Rittel and Webber 1973) whose realisation ultimately depends on the capacity of different actors and groups to communicate, negotiate and reach collective decisions (Pahl-Wostl 2002; Schusler et al 2003; Woodhill 2004).

It is argued that traditional approaches to solving societal problems and fostering social change, such as a reliance on the development of appropriate technologies or market forces have failed (Röling and Maarleveld 1999; Röling 2002; Ison et al 2004; Woodhill 2004) and an alternative approach is required, namely a learning approach. Special reference is often made to Habermas' (1984, 1987) concept of communicative action which posits that people can solve problems (i.e. reach goals) through negotiation, deliberation, co-operation, and agreement about a shared definition of the situation, leading to consensus.

In fact, many authors in the context of natural resource management and public participation base their understanding of social learning on theories which van der Veen (2000) categorises as 'theories of communicative learning', such as situated learning (Pahl-Wostl and Hare 2004), the cognitive triangle (King and Jiggins 2002) and other cognitive theories explaining the interaction between the mind, the environment and action (Leeuwis and Pyburn 2002; Röling 2002). Through communicative learning a person constructs an inter-subjective understanding of a situation with others, which becomes especially relevant in the context of wicked problems where there is no clear knowledge, or perhaps there is conflicting knowledge, available about the situation or the best solution (van der Veen 2000).

Many authors also draw from another 'category' of theories of learning, which van der Veen (2000) refers to as theories of transformative learning, such as double and triple loop learning and experiential learning (e.g. Maarleveld and Dangbégnon 1999, 2002; Pahl-Wostl 2002). Transformative learning describes a process where people gradually change their views on the world and themselves. Such a transformation often occurs in response to an external 'trigger', when faced with a disorienting dilemma. These dilemmas or anomalies cannot be explained by old ways of knowing and eventually lead to critical reflection and perspective transformations. The theory of single and double loop learning, for instance, claims that double loop learning corrects errors by examining the underlying values and policies whereas single loop learning only corrects errors by changing routine behaviour (Argyris and Schön 1978). Experiential learning, most prominently promoted by Kolb (1984), describes how concrete experiences lead to reflection which in turn leads to abstract conceptualisations, for instance the development of

new ides. These then have to be tested in practice, which leads to new concrete experiences. Both theories describe re-iterative processes of assimilation, referring to the interpretation of events in terms of existing cognitive structures, and accommodation, the changing of the cognitive structure to make sense of the environment (van der Veen 2000).

Furthermore, the discourse on, and understanding of, social learning in participatory natural resource management not only draws from theories of communicative and transformative learning, but also employs other concepts to conceptualise social learning, as illustrated by the following quote taken from Keen *et al* (2005):

> *"We take an explicitly transdisciplinary approach by drawing out lessons from adaptive and participatory approaches to environmental management that are relevant to social learning. These insights are complemented with other useful concepts including those from systems analysis and organisational learning theory. They speak of five braided strands of social learning that appear to be crucial to environmental management; they include: reflection, systems orientation, integration, negotiation and participation (Keen et al 2005, p. 7).*

Leeuwis and Pyburn (2002) state that social learning has intertwined with related ideas such as adaptive management and soft systems thinking (see also Röling and Maarleveld 1999). Keen *et al* (2005) specifically refer to these concepts and even consider adaptive management as one approach to social learning. This linkage between the means and process of change is best illustrated by the model of social learning proposed by Pahl-Wostl and Hare (2004). Their framework embeds social learning in the socio-ecologic system where the outcomes of a participatory management process are of a technical and relational nature. These outcomes feed back into the adaptation of governance structures and influence intervention mechanisms and ambitions. They state that "Social learning is an iterative and ongoing process that comprises several loops and enhances the flexibility of the socio-ecological system and its ability to respond to change" (Pahl-Wostl and Hare 2004, p. 195).

Webler *et al* (1995) suggest that the crucial point of social learning in a participatory setting is when the group transforms from a collection of individuals pursuing their private interests to a 'community' which defines a common purpose and is oriented towards shared interests. More specifically the following elements are claimed to be part of a social learning process: recognition of each others' goals and perspectives, making explicit underlying values, shared problem identification, co-creation of knowledge, understanding of interdependence, understanding of the complexity of the management system, and trust (Pretty 1995; Pahl-Wostl and Hare 2004).

The outcomes of a social learning process are assumed to influence both the social process and the outcomes of the decision-making process: social learning may result in the generation of new knowledge and technical and social skills as well as a change in cognitions and attitudes. By sharing and reflecting on our experiences, ideas and values with others, individuals might transform these, thus creating the basis for a common understanding of the system or problem at hand. This may enable a group of stakeholders to reach *agreement* and decide on *collective actions* based on a shared understanding of the situation (Webler *et al* 1995; Maarleveld and Dangbégnon 1999; Pahl-Wostl 2002; Röling 2002; Craps and Maurel 2003; Woodhill 2004; Keen *et al* 2005).

In summary, the debate draws from a wide variety of models and concepts in describing social learning within a participatory planning context. However, at the core of these models is a process of collective and communicative learning which may lead to an accommodation of perspectives and the creation of a shared understanding of the situation. More importantly though, strong emphasis is placed on the assumption that this collective process enables participants to transform underlying views, attitudes and values, eventually preparing the ground for modification of the socio-ecological relationships. Figure 1 presents a compound model of social learning which captures the major claims made for it in the literature.

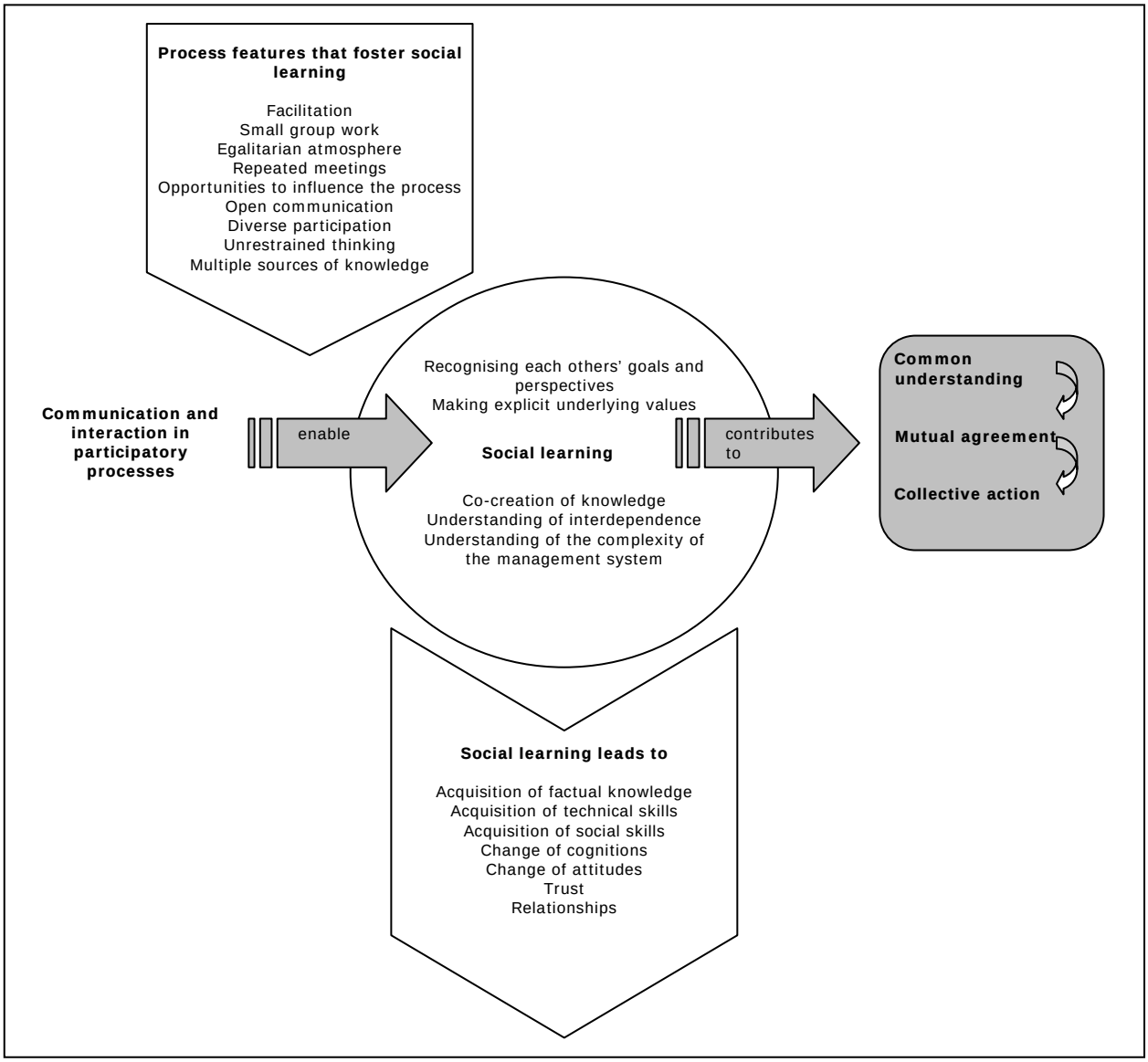

Figure 1: A compound model of social learning drawn from literature

It is easy to understand the reasoning and logic behind the assumptions illustrated in Figure 1 and they essentially reflect arguments brought forward to foster more open and participatory natural resource management processes. However, the internal cognitive processes of individuals are hard to comprehend. Koelen and Das (2002) rightly ask why participants in a participatory process *should* change their views or abandon their interests in favour of the group. And why should they be more likely to do so within a participatory process of social learning? While some authors (Webler *et al* 1995; Schusler *et al* 2003) name a number of process features assumed to foster social learning, the role of motivations and other factors that might prompt individuals to put the common good above their individual interests remains unclear.

Research into group processes suggests that individuals feel a strong pressure to have accurate views about their surroundings and abilities and turn to others to validate their opinions and performance thus creating a social reality. Therefore, group membership serves as a means to establish who we are and what we believe in (Baron *et al* 1993). This seems to support the social learning model, in the sense that group processes help to *create a common understanding*. However, if we take into consideration that a group consists of a number of people with different views, interests, status and probably different capacities to exercise influence, we need to acknowledge that group dynamics might also result in people *adapting* their views, perhaps to be commensurate with those of dominant individuals or sub- groups.

So, is there anything wrong with using theories of social learning to inform the design and management of participatory processes? As Figueroa *et al* (2002) state: “Theories are not right or wrong, only appropriate or inappropriate given the circumstances and the nature of the phenomenon to which they are applied” (p.2). Some of the assumptions brought forward in the debate on social learning and participatory decision-making processes lead us to believe that there might be several shortcomings in social learning as a descriptive if not as a prescriptive model.

Firstly, the basic underlying assumption for fostering a social learning approach in participatory processes is that the motor for future societal progress is shared understanding and consensus. This supposition contains two fundamental flaws: progress is frequently based on conflict and competition with others and more importantly, participatory decision-making does not inevitably result in more ‘environmentally-friendly’ or sustainable outcomes.

Secondly, social learning models see cognitive learning as a prime prerequisite for behavioural change and conflict resolution. However, the view that learning results in a change of behaviour can be challenged in two ways: (i) not all changes in behaviour result from experience involving learning; (ii) a change in beliefs, attitudes, and intentions resulting from new experiences involving learning does not necessarily lead to a change of behaviour. For a long time it has been assumed that there existed a close link between attitude and behaviour. But when put to the test it has been discovered that attitudes are a poor indicator of behaviour. Certain behaviours are so dependant on the situational context that they become virtually unpredictable through attitudes (Ajzen and Fishbein 1980). Furthermore practices and social interest are closely linked to the situational context and may also be transformed through other strategies, such as policies, incentives etc. and not necessarily through a change in cognitions (Leeuwis 2000).

Thirdly, social learning posits the idea that participants could easily overcome conflicting personal or institutional interests as well as economic and educational

differences and develop a mutual view of the situation and agree on future actions. This perspective implies symmetry in the relationship of participants and presumes that that the differences among people are superficial and can be mediated by group processes (Schafft and Greenwood 2003). However, participatory processes are implicit or explicit processes of negotiation; power relationships limit the actors ability or willingness to act as stakeholders are part of systems which are not easily changed. Furthermore, it might not always be easy to identify what common interests are; nothing guarantees that a generalisable interest can be found or that differing values and beliefs can be brought together (van den Hove 2006).

Despite these conceptual weaknesses and a lack of a widely accepted definition of social learning, researchers and practitioners increasingly emphasise the need to encourage social learning in participation through process features such as an egalitarian atmosphere, open communication, small group work and facilitation (e.g. Webler *et al* 1995). However, even though learning is implicit in many participatory processes and methodologies there are only few practical examples that specifically refer to social learning and only limited evidence is available that would validate the assumptions underlying the concept of social learning.

Leeuwis and Pyburn (2002) claim that social learning already serves as an inspiration to practical intervention strategies. However, our investigations have identified only a few examples where a participatory processes have been specifically based on theories of social learning (e.g. Woodhill 2004, Daniels and Walker 1996, Schusler *et al* 2003). Yet, Röling and Maarleveld (1999) maintain that a number of participatory methodologies have been developed in order to guide the facilitation of social learning, such as Soft Systems Methodology (Checkland and Scholes 1990) or Rapid Appraisal of Agricultural Knowledge Systems (RAAKS) (Engel and Salomon 1997) and 'Platforms for Resource Use Negotiation' (Röling and Jiggins 1998; Steins and Edwards 1999).

Very few studies have provided any evidence in terms of if and how social learning shapes a participation process. Furthermore, few studies have evaluated participation processes and identified elements that can be associated with social learning. Those that have include Webler *et al* (1995) who investigated cognitive and moral changes, Petts (2001) who included questions on the promotion of mutual understanding, learning and the development of new perspectives in her evaluation, Schusler *et al* (2003) who focused on the identification of a common purpose and the transformation of relationships, Frame *et al* (2004) who investigated the generation of knowledge, understanding and skills, relationships and social capital as well as changes in behaviours, Rees *et al* (2005) who assessed changes in perspectives, the level of trust and the quality of relationships and Cheng&Daniels (2005) who explored the emergence of a sense of community in a collaborative watershed initiative.

So, while most studies seek to address the question of whether social learning occurs and which factors might facilitate or inhibit the process, only few researchers have actually explored the contribution of social learning to the overall process outcomes. If we recall the motivations and underlying assumptions for fostering a social learning approach in participatory natural resource management, some important questions remain unanswered, such as: Does social learning enable participants to reach agreement and engage in collective action? And if not, which other factors might influence communal debate, sense making, and decision-making?

The limited empirical evidence suggests that participants do change cognitions and develop a shared understanding of the situation but there is no evidence to suggest that this actually results in agreement or even collective action. Indeed, findings by a study conducted by McCullum *et al* (2004; see also Pelletier *et al* 1999 reporting the same study) suggest quite a different story. They investigated how a participatory process influenced participants' viewpoints in the context of local food and nutrition policies.

The results confirm the findings of the above mentioned studies by Webler *et al* (1995), Petts (2001), Schusler *et al* (2003), Frame *et al* (2004), Rees *et al* (2005) and Cheng&Daniels (2005) in the sense that Pelletier *et al* also observed a change in cognitions. However, when they looked more closely at the power relations in the process they discovered that, as the participatory process progressed, the interests and concerns of the disenfranchised participants became increasingly similar to those of other, more powerful participants, and less similar to the interests they expressed at the beginning of the exercise.

Interestingly, the disenfranchised participants identified a distinctive set of salient issues in the safe environment of a pre-event focus group, and identified the same set of issues in a post-event focus group. The results of the process reflected the power structures of the group, although the process result was deemed a consensus and the process itself considered fair, energising and satisfying by the internal participants and external observers. The results provided by Pelletier *et al* (1999) and McCullum *et al* (2004) suggest that changes in viewpoints can be precipitated by factors other than social learning, and that consensus must not inevitably be a real representation of shared interests and agreement.

Another point we would draw attention to is that the processes described by many proponents of social learning are not dissimilar to common participation activities situated on the higher rungs of Arnstein's ladder (Arnstein 1969). Furthermore, Haxeltine and Amundsen (2005, p. 2) correctly suggest that "social learning may occur whether or not the project is explicitly considering social learning as a goal and/or implementing a methodology to achieve that goal".

However, such participation processes often fail to result in mutual agreement or verifiable consensus (Leeuwis 2000; Nelson and Wright 1995; Connelly and Richardson 2004), which raises the question why participants are not always able to develop a common view of a situation as intimated by the theory We are not suggesting that the failure of participatory processes indicates a lack of social learning but rather that other factors might determine the willingness or ability of stakeholders to take into consideration other actors' perspectives and interests (c.f. Leeuwis 2000).

3 Conclusions

We must acknowledge that so far there is only limited evidence about the role of social learning in participatory processes and that the social learning model has a number of conceptual weaknesses.

Initially, we posed the question whether social learning is a useful concept for participatory decision-making processes? Based on this brief review of the current discussion and the evidence provided so far, it is difficult to judge its usefulness as a praxis model. At present, the idea of instigating social learning in and through participatory processes resulting in agreement and collective action for sustainable

development seems more like wishful thinking than fact and too many questions remain unanswered, e.g.

- Do participants really accommodate their views and create a new, shared understanding of the situation or is it more likely that they adapt to the views of another group?

- Which other factors might influence communal debate, sense making, and decision making?

- Why should individuals in a participatory process be expected to change their views or abandon their interests in favour of the group?

Against this background we argue that a primary aim of future research should be to focus on the underlying assumptions and claims made in connection with social learning, before proposing frameworks and methodologies to foster social learning in participatory processes. More specifically, there is a need to investigate

(i) whether participatory processes lead to a shared understanding of the circumstances on which agreement and action can be based,
(ii) which process features and context factors foster or inhibit this change and
(iii) how it contributes to process outcomes.

This poses a number of serious challenges as firstly the literature suggests that social learning involves internal changes which are generally hard to qualify and measure, and secondly the lack of a consistent concept of social learning complicates the task of defining common indicators to measure social learning as either process or outcome.

Answers to these questions have crucial practical implications: as long as we do not know about the links between process, method, and context, we are basing process design on assumptions and limited empirical evidence. Therefore we need to conclude that despite its popularity in the participation debate, the utility of the social learning model for participatory processes still needs to be proven.

Finally, we would like to draw attention to a second, more fundamental question regarding social learning in participatory planning and decision-making processes: what role *can* social learning reasonably play or what role should it play? The discussion on social learning strongly advocates the idea that shared views and a common understanding of the situation are an essential prerequisite for consensus and collective action. However, as we already pointed out, consensus might not be the only motor for change and, more importantly the stakeholders' perspectives might be irreconcilable. Indeed, van den Hove (2006) points out that "we are faced with the existence of an irreducible plurality of standpoints" (p. 11) and that the consensus model in general might not be sufficient, or even appropriate to guide the design of participatory processes (see also Leeuwis 2000).

We believe that the current debate clearly requires a more critical discussion on the potential role of social learning in participatory processes, before moving on to its translation into practice.

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