AN EMERGING PRACTICAL THEORY TO CRITICALLY REFLECT AND UNDERSTAND THE ROLE OF COLLABORATIVE LEARNING PROCESSES FOR SUSTAINABLE DEVELOPMENT OF AGRICULTURE

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Abstract

There is a need to develop practical theories for collaborative learning and decision making in natural resource management. Theories that could guide extensionists and action researchers when designing, facilitating and evaluating processes of change. This paper aim to present a practical theory, based on the social pragmatic approach of three well known authors; G H Mead, K Burke and V Cronen. Mead's model of perspectivity, Burke's theory of dramatism, and Cronen's co-ordinated management of meaning model enable me to develop a framework which has been applied within ongoing research projects in the Swedish agri-food system. In this paper the framework is presented, and is hoped to add to the emerging discussion on the social psychological dimension of sustainable agri-food systems.

1. Challenging our thinking

1.1. A research problem

In order for people to retain a common belief in the potentials of sustainable development it has to be part of social practice. There is a need to focus more of our attention on *praxis* in the sustainable development discourse, but it seems that *we lack an understanding of the social psychological dimensions of sustainable development and natural resources management*, especially the micro-sociological processes of decision-making, learning and other group processes (see Conley and Moote, 2001, for a contemporary overview). Although we know a lot about both natural resource management, group psychology, adult learning and managerial decision making, we still need to developed practical theories, or robust knowledge, applicable to the real life settings where complexity and conflicts are to be managed and situations improved. Practical theories are needed which help extensionists and natural resource managers, such as farmers, to reflect upon their experiences, and around which researchers, extensionists and farmers can meet for shared inquiry.

Important contributions to an emerging framework focusing on some aspects of the social psychological dimensions of agri-food system and natural resource management groups has recently been put forward. Concepts like collective cognition, reflexive praxiology, social learning, building on what has been called 'the Santiago theory of cognition' reflects this (Ison and Russell, 2000; Cerf et al, 2000; Röling and Jiggins, 2000 and 2001). Another promising framework is the integration of theories from traditional social psychology, combining experimental findings with systems theory, applying them in real-life setting where groups are described as complex, adaptive systems (Arrow, McGrath and Berdahl, 2000; Stacey, 2001). Another strand is the merge of environmental communication and public participation, where Senecah's (2001) practical theories on what characterise public deliberation (i.e., voice, standing and influence) is one out of many examples. Nevertheless, none of these approaches will be elaborated in this paper.

1.3. A research question

This paper present an emerging practical theory which might help action researchers and/or process managers designing, facilitating and evaluating collaborative learning and decision making processes in agri-food systems. It should be noted that this study has been part of a broader research project where the aim is to apply existing and develop new contextually adapted methodologies focusing on the social psychological processes which enhances or hinder learning, the development of social identities, shared perspectives and collective action in groups aiming to manage natural resource dilemmas. Thus, communication, the structures of social life, and relational changes are the social psychological aspects which are focused on when developing an analytical framework. The presentation will, by necessity, be very brief.

1.4. Some reflections on practical theories in action research

From a social pragmatic and systemic perspective we are all inquirers. Everyone brings certain skills to collaborative processes. Every encounter with other people is a learning opportunity where new ideas and perspectives emerge. Some of them are accommodated, others are rejected. The definition of a practical theory that Cronen (1995) offers fits well within an action oriented framework: "Practical theory describes those features of a discourse that provides a general method for the study of social praxis and action, internally consistens and defensible in light of data, that generate useful interpretation, explanation and critique of situated human action. Practical theory and the discourses it generates are in the real world of human action as much as they may be about it" (p 189, emphasis in original). As praxis, a practical theory is constantly evolving. It is also action oriented, both by (theoretical) necessity and from ethical reasons. Furthermore, it is overtly heuristic, in that it is aimed to inform activity. The combination of the three practical theories presented in this paper may help when weaving the many complex elements together in order to understand and take action in social situations.

The three theories may increase the abilities of, for instance, extensionists involved in processes of change "to describe what is happening perspicaciously and to act into unfinished situations prudently" (Pearce and Pearce, 2001, p 105). Practical theories might thus become a means for extensionists to shift their identity from experts to facilitators.

2. Theoretical perspectives

The theoretical perspective which guides my view on learning, conflicts, decision making, actions, etc., is the social pragmatic philosophy of George Herbert Mead (1863-1931). It is important to note however, that the purpose of elaborating his thoughts is not to present, analyse or apply them in a way which does them justice. The reason for using this theoretical window is quite instrumental (although I explicitly admit my commitment to his thinking): Mead's (1934) perspective helps me create a common platform for the three practical theories presented. The theories are:

- The model of perspectivity which is a practical theory elaborating epistemological issues in a simple, but not too reductionistic sense (based on G H Mead, 1926 and 1934).
- The co-ordinated management of meaning model which enable participants in collaborative learning to analyse and reflect upon the ongoing social interaction and communication (based on Cronen, 1995 and 2001).
- The theory of dramatism which is a practical theory that help us better understand the context in which social interaction occur, and its dynamic complexity (based on Burke, 1969).

First of all it is important to realise that the social psychological constructionism in Mead's thinking is *dialectic*. What Mead adds to this philosophical standpoint is a communicative focus on the relation between subject and object, resulting in a model of perspectivity, and a notion of the fundamental role of human communication for both mind, self, and the creation of institutions in society. It is this social description of man, with its strong focus on communication, that becomes helpful when discussing the very basic potentials and hindrances for collaborative learning and decision making in natural resource management.

2.1. Introducing social pragmatism

One of the most striking characteristics of human life is our sociality. Mead (1934) was one of the first social philosophers to explicitly apply evolutionary thinking to social systems. The fundamental feature of the pragmatic orientation in philosophy is evolutionary and systemic. Mead (1934) argued that it was not possible to say that mind precedes society or vice versa. They are simultaneously present in an ongoing development process, that is, human society is not possible without human minds, nor are human minds possible without the existence of a larger society. In order to understand human actions and the origin of social organisation, Mead argued that meaning must lie in the social act as a whole. As Stacey (2001) explains: "Meaning does not arise first in each individual, to be subsequently expressed in action." Meaning is not transmitted from one individual to another but, rather, arises in the interaction between them. Meaning is not attached to an object, or stored, but perpetually created in the interaction" (p 79). Meaning is realised only in relations, and is an emergent property in communicative situations (defined broadly). One way to describe Mead's social psychological perspective would be to call it a relational social psychology (cf., Israel, 1979). Communication is not only a verbal or cognitive process. All interaction involves emotions and affections. Damasio (1994) makes clear that "When you see, you do not just see: you feel you are seeing something with your eyes" (p 232). Mead understood the role of emotions and feelings for successful interaction, but he could not fully elaborate it. He argued that in consciousness there is an awareness of what the body is doing and that the unity of action (including cognitions and emotions) "is a unity of integration", but that "how this integration takes place in detail we cannot say" (Mead, 1934, p 24). What we perceive is always affectladen, and our basic affects, feelings and emotions will narrow down the breadth of perspectives (for instance the perceived options for action in a given situation). Contemporary research shows that there is a strong and inseparable connection between cognitions and emotions (cf., Forgas, 2000). Stacey (2001) creatively combines Damasio's findings on the inseparable links between emotions and cognitions, with Mead's social pragmatism and concludes that: "Feelings, therefor, are rhythmic patterns in a body and they make it possible for the gesture of one body to call forth in itself a similar response, a similar feeling of rhythm, to that called forth in the body to whom the gesture is made" (p 83). The body state then, will resonance in communication. As well as being able to cognitively anticipate responses, we can intuitively predict the consequences of gestures due to an ability to perceive how the bodily state resonates. The core in Mead's thinking can be summarised as the human ability to take the attitude of the other: to "import into one's conduct a tendency to respond as the other would respond to a given type of stimuli" (Cook, 1993, p 79). This ability is necessary in order to explain the co-ordination of our actions. According to Mead (1934) our self-image and identity is mainly based on our perception of other people's perceptions of us. The individual perspective thus has to be understood in relation to the common perspective of a group or society. As Mead puts it (1926): "It is only insofar the individual acts not only in his own perspective but also in the perspective of others, especially in the common perspective of the group, that a society arises and its affairs become objects of scientific inquiry. The limitations of social organisation is found in the inability of individuals to place themselves in the perspectives of others, to take their point of view" (p 78). Collective action, the development of shared identities and successful management of complex group and societal problems all depend on the individual's ability to take the other's point of view (i.e., taking the attitude of the other). It is in the relation to others that a group's problem solving potential arises and develops. Obviously the concept 'perspective' has a strong metaphorical connection to visual perception ('The way I see it...', etc.). I agree with Lindström (2001) when defining a perspective as the way an object (or a system of objects) emerges from a certain position within an individual (subject). A relational model of perspectivity builds on and elaborate three basic assumptions:

- The objective reality of perspectives (cf., Mead, 1926)
- The existence of multiple perspectives (cf., Mead, 1934)
- Subjective multiperspectivity (cf., Lüscher, 1990; Wicklund, 1999)

When talking about different individuals having different perspectives, the concept of 'multiple perspectives' seems meaningful to apply. According to Wicklund (1999) multiple perspectives are "a certain social phenomena: people can recognise that an event may be viewed, defined or perceived in more than one manner, through several focal points" (p 667). Another aspect, but less elaborated, is what has been called subjective multiperspectivity (Lüscher, 1990). Wicklund (1999) points out that "the readiness to acknowledge and represent diverse perspectives presumes that these multiple standpoints have been internalised" (p 669). This internalisation is an active process. A multiperspectivity refers to the fact that each and every individual have different perspectives between each other, and carry several perspectives within themselves. In summary, certain descriptive aspects of objects become salient within a given perspective. This can be said to be the temporary and partial meaning horizon of the object. When we act and have new experiences, the aspects that emerge in the perspective will change. Through vebal communication this process is enhanced. When interacting, taking each others perspectives, we widen the meaning horizon and thus socially constructed systems boundaries change. Nevertheless, some aspects, as well as evaluative positions, are kept constant over time and across perspectives. In figure 1 the most fundamental dimensions of a social psychological theory of perspectivity are illustrated.

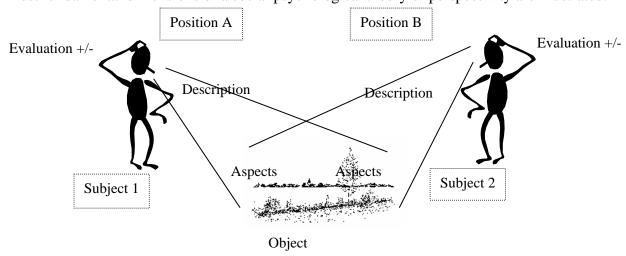


Figure 1: A social psychological model of perspectivity.

2.2. Co-ordinated management of meaning

The co-ordinated management of meaning model, the CMM model (figure 2), recognises how the *cultural patterns* of society influence and are part of every interaction. This is similar to

'social conventions' or 'norms'. Within those patterns, we develop a *self-concept*, 'we know who we are', and the many different identities we have.

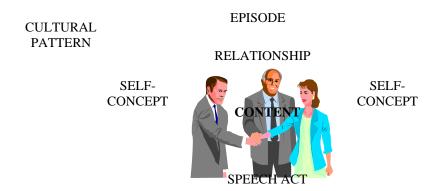


Figure 3: The building blocks of the CMM-model (Pearce and Cronen, 1980)

When we interact, we do so in the context of a *relationships*. These relations can be very different depending on how we interpret the situation and the other (cf., Fiske, 1990). Each interaction occurs as a particular event or *episode*. Our face-to-face communication consists primarily of *speech acts* which frame the actual words, or the *content*, of our speech. We also have *intentions* for what we say and do not say in the communicative act.

The CMM-model fits well within a social pragmatic perspective. Meaningful communication is about expressing practical judgement, being a sensitive and principled improviser; "to attend to both the unique details and the general norms and principles relevant to this complex circumstances" (Forester, 1999, p 224). Reciprocal communication has to be guided by the sensitivity of the present, as well as one's own pre-understanding and the other's perspective and needs. When a conflict or misunderstanding arises, it could be explained through all aspects of the model. Statements do not necessarily contain any sensible meaning (coherence) or balance (co-ordination). Coherence means that what we say only makes sense within the multiple contexts of the specific episode, our relationship, our self-identity, and our culture. According to Griffin (1997) these four aspects not only shape, but are shaped by the stories we tell. Consequently, new stories of sustainable development of agri-food systems can change episodes, our relationships, identity, and thus our culture.

2.3. An analytical model of dynamic social systems

The practical theory developed in this paper builds on yet another model: Kenneth Burke's theory of dramatism. According to Gusfield (1989) Burke's pragmatic approach is an analytical device to understand the 'complete' answer to the question "What is happening?" (p 15) in a social situation. To get such an answer, a grammar of five key questions, by which one can explain the motivation in symbolic action, have to be asked (and examples of related analytical tools):

- 1. What took place? (the act) e.g., through process analysis
- 2. What is the context in which it occurred? (the scene) e.g., through analysis of context or structure
- 3. Who performed the act? (the agent) e.g., through stakeholder analysis
- 4. How was it done? (the agency) e.g., through means or incentives analysis
- 5. Why was it done? (the purpose) e.g., through analysis of intention or meaning

The most interesting contribution is the strong and dynamic interconnection between the above mentioned aspects and the fact that these relate to each other in such an integrated way in every social situation. Burke's theory of dramatism (the pentad) is useful when analysing on-going social situations. The five questions direct our attention so that we get an initial structure for complex and dynamic human relations. Burke's point that the five guiding aspects are closely interconnected, has the interpretative effect that we cannot talk about one aspect without taking the others into account. That is, in real life you cannot change any one of the aspects without in some way affecting the others. For instance, when enforcing specific actions through the agency of a methodology, the scene is re-defined. From working in a group, discussing and adding knowledge in a shared learning process, going into individual reflections, the group members go from one identity level to another. The activities and scene change accordingly. By emphasising that new aspects should be taken into account (social, ecological, and economical) the facilitator also creates new systems boundaries, and thus has the potential to change the scene for thought (creating a new social construct). The overall process design is a kind of agency. Through the process design and facilitation one may successfully enable radical shifts in perspectives both on an individual and group level. The agents are the same if seen as individuals (e.g., the agribusiness man, the farmer, etc.), but the shift from a collective self (a social identity) to a personal self (a personal identity) also enhance the shift in perspective. A new perspective of the individual integrates a new scene, a new identity, specific actions, and a new purpose. The importance of having a model of perspectivity as a foundation when aggregating data on different levels of sociality is crucial. Consequently, Hallgren (2000) notes that a statement about what is going on (e.g., the speech acts in a social situation) is implicitly a statement about the scene, the agents, and their purpose. As facilitating extensionists, drawing conclusions and giving recommendations about how collaborative learning and decision making processes work or should be designed, it is important to keep this in mind.

Figure 3 could illustrate the following story: In a communicative situation a farmer and an advisor (agents) discuss what to do with a piece of arable land in order to decrease the nutrient leakage. They act by responding to each others gestures (conversation). The interaction is reciprocal, and the communicative act has a content which reflects the meaning they make of the aspects they perceive. Although entering the situation with different perspectives, during the interaction a new, shared perspective emerge.

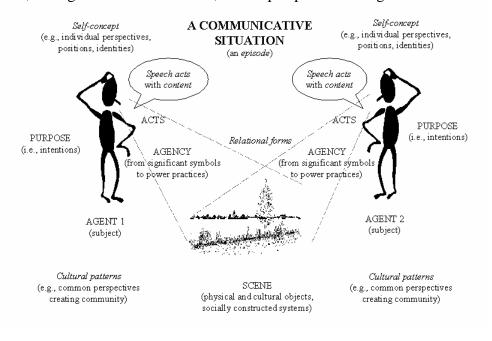


Figure 3: An integrated model or description of the communicative act, applying concepts from the models of perspectivity, co-ordinated management of meaning, and dramatism (based on Montgomery and Qvarsell, 2000; Cronen, 1995; Burke, 1969).

The situation can be described as a speech act, and through the interaction they have created a specific relationship (one relational form). Every act is grounded in a conscious or unconscious intention or purpose and they use their agency to make claims and perhaps convince the other. If the intention is to understand the other, they use specific types of agency (e.g., listening, asking clarifying questions, etc.), and thus agency can be everything from the significant symbols used in verbal language to planned and strategic power practices. When entering the situation the individual bring with them different self-concepts, organised in an unique way for each individual. The self-concepts contain individual perspectives and personal and social identities.

A self-concept is subjective, but always socially constituted, and the position of the individual may be said to reflect the unique perspective in relation to the common perspectives. The common perspectives are the cultural patterns that exist independently of a specific individual, and which enable a sense of continuity. Cultural patterns are one aspect of the scene or context, and reflect the specific cultural objects, as different from physical objects (both are social constructions in that they have meaning only in relation to an interpreter, but still real in their existence). A similar story can be told also with a whole group of people, as in a collaborative learning or natural resource management group, as well as any other platform process. A pragmatic-systemic approach to social interaction is, as I see it, necessary if action researchers, extensionists, or facilitators are to intervene in a thoughtful and responsible way. An example of an analytical framework for the action researcher to direct one's attention is given in table 1.

Table 1: An emerging analytical framework for a practical theory for collaborative

learning.

ASPECT	DESIGNING	FACILITATING	EVALUATING
PURPOSES (motives	What should be done?	Why do participants do	Why did certain things
and objectives)	What are the	what they do? Motives?	happen?
,	objectives?	, and the second	
SCENES (socially	What scenes are needed	What socially	What did the
constructed contexts)	to be socially	constructed scenes	participants create in
	constructed?	emerge? What shared	terms of shared visions
	How is the physical and	perspective and context	and rich pictures? What
	social setting?	exist?	were constructed?
PROCESS DESIGN	How should the whole	How should the process	How should the whole
(episodes and agency of	process be designed?	design be changed	process be described,
the action researcher)	What phases or	because of what is	for instance, historically
	episodes should be	happening?	and phase by phase?
	planned?		
ACTORS (identities and	Who should be invited	Who more be invited?	Who were involved and
roles)	(competence,	Is there any shift in	in what degree? What
	stakeholder, role,	identities? New	group identity was
	identity, etc.)?	identities?	developed?

ACTS (mainly speech	How do we want people	How do people interact?	How did the
acts, but also collective		Is collective action	participants interact?
action as an outcome)	tangible outcomes do	taken or do they act	Did the process result in
	we want?	individually?	collective action?
RELATIONS (relational	What relations do the	How do people relate?	What new relations
forms)	invited actors have	Do the relational forms	where built in the
	before starting the	shift?	process? Do the
	process?		relations live on?
CONTENT (what is	What characterise the	What do the participants	What did the
talked about)	issues which are to be	talk about? What	participants spend most
	elaborated, such as	information do they	time elaborating? What
	complexity/uncertainty?	seek or need?	was the
			outcome/conclusion?
TIME	When should the	How much more/less	How much time were
	process start and how	time is needed? Is it	spent on different
	much time is needed?	time to move on?	episodes or phases?
INSTITUTIONAL	What institutional	How do the institutions	Was the institutional
SUPPORT	support is needed	giving support react on	support enough? What
	before, during and after	what happens in the	is needed for managing
	the process (defined	process? More support?	the future work?
	broadly)?		

The simplified framework may help, for instance, the action researcher to capture different dimensions of the collaborative learning and decision making when both a) designing, b) facilitating, and c) evaluating the process. I believe one has to ask oneself slightly different questions depending on where you are in the process yourself. The framework is simplified in several respects. It does not explicitly cover aspects such as; structural power, the importance of sense of self-in-place, uncertainty and risk, instututional capacity, etc. Furthermore, the questions asked are only examples of questions that could be asked. Nevertheless, the concepts put forward and the questions exemplified build on experiences done in practice, and seem to have a potential value (Ljung, 2001).

3.2. Concluding remarks

Cronen (2001, p 21) argue that "in a pragmatic-systemic approach, the grammar of practices is observable" and consist of more than measurable variables and probabilities. He continues, saying that "entering into a system we can observe over time how the system takes thoughtful action" (p 21). That is, only by being part of the system, observe it from inside, can we understand what is really going on. The change in the system being a consequence of intervening, as in extension, might lead to new connections with elements not before implicated: "However, practical work does allow one to form hypotheses about the consequences of an interventive move and then explore the changes that have come about" (Cronen, 2001, p 27). Not least for this obvious reason, practical theories within an communicative or learning framework are informed by practical work.

Bringing an analytical framework to a social situation is helpful for the action researcher for, at least, four reasons (Ljung, 2001); a) clarifying some aspects of a fuzzy social system, b) helping the participating facilitator to consciously direct the attention, c) fostering an iterative and reflective learning process through feed-back to the participants, and d) giving the action researcher an instrument for critically reflecting instant interpretation of the situation. It is important to keep in mind that the facilitating action researcher acts simultaneously in two worlds. The facilitator has to be present and act with good timing, as well as be reflexive and critical. The assumption is that an analytical framework can help the action researcher, as well as all other participants, manage this dilemma. As an action researcher, one can start to

develop one's own skills as a practitioner (for instance as a facilitator), while the practitioners could develop their skills as researchers (for instance through learning processes using critical systems thinking). Collaborative learning is thus not only a response to the dilemmas that actors in the Swedish agri-food system face, but also a response to the need to integrate theory and practice in a sustainable development of agri-food systems.

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