Communicative spaces – A perspective on learning

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Abstract: In this text learning is regarded as something done via communicative acts. Meaning is constructed and maintained in a communicative process where responses are exchanged between individuals. Some individuals do this often and intensively and by doing this, in co-operation with others, develop with them unique and shared perspectives, and through these perspectives they view the world and construct meaning in similar ways. The communication goes on between individuals, and the evolving uniqueness of this communication, and the resulting perspectives, constitutes the communicative space. Throughout the text the idea of communicative spaces is explored and also applied, in two cases: female teachers in the field of technology and students entering a large programme in engineering.

Keywords: communicative space, intellectual tools, learning

Introduction

People act in social contexts. These social contexts may be thought of as spaces where people communicate and via the communication develop certain perspectives upon the world. These perspectives, constructed to be used in order to enhance understanding of the world, could be called “intellectual tools”. (Säljö, 2000a) These tools are refined over time in a process describing something unique for the community that has constructed them. This might be a condensed description of learning at a “collective level” (Bowden & Marton, 1999). Learning at an “individual level” may be seen as a process where one person moves from the periphery into the centre of the space under which he develops his own version of the tools crucial for the space at hand. These spaces are maintained and developed via acts of communication, and so is the induction of individuals. Even the acts of keeping people out, definitions of boundaries, establishments of hierarchies, and rewards and punishments are conducted via acts of communication. Therefore these spaces are called communicative spaces.

A communicative space is only visible in interaction with other spaces. From within, the space is taken for granted by its members. The ongoing process of communication where the intellectual tools are used will work in a direction where the tools are internalised by the individuals to an extent where it is almost impossible to reflect upon them. Only when a variation appears, when a different perspective from another communicative space interacts with the first one, is it possible to fully recognise the intellectual tools.

Everyday communication is experienced in situations where activities have been going on for a long time, this “history” is shared by the people involved. When people share history they are also involved in a shared experience of learning (Wenger, 1999). Structures in the reality have been discerned and meaning has been constructed into views, perspectives, and
concepts, i.e. intellectual tool. Everything in a communicative process aims for construction of meaning. For an individual entering the space these tools have to be taken for granted in the process of socialisation (Berger & Luckmann, 1979) and will function as constraints for the individual’s communicative acts. Some acts from the individual will result in rewards; others will be punished, all with the help of responses from the people already within the space. It might be necessary to explain that even none-responses (“pretending the person is not there”) is a punishment because it signals: “You are not a part of us.” This can, in fact, be used, by the people inside a communicative space, as the ultimate punishment towards other spaces or individuals not acting according to the space’s values.

With this perspective in mind it is possible to analyse critical phenomena in the world of university learning and teaching. Here, two cases will be described briefly and the perspective outlined above will be applied. The two are 1) A minority space acting inside an older communicative space, i.e. female teachers at Lund Institute of Technology, Lund University. 2) Individuals entering a well established space where they have to acquire the intellectual tools handed over to them by older members of a communicative space. It is about students entering a large programme in engineering.

**Female teachers in the field of technology**

The Approaches to Teaching Inventory (ATI) was distributed to all teachers, about 1000, including Teaching Assistants at Lund Institute of Technology, Lund University during 2001. Approximately 700 were returned. The questionnaire’s aim is to describe teachers’ focus: student-focused or teacher-focused. The first indicates a closer relationship to deep approach among the students, the latter to surface approach (Prosser & Trigwell, 1999). ATI also indicates differences between the teachers’ intentions and practice.

The results from the 2001 survey show that female teachers are more student-focused in their intention than male teachers. In their practice, however, they shift their focus towards a more teacher-focused approach. The difference between intention and practice was much smaller among male teachers who also were more teacher-focused in their intention.

If we allow ourselves the freedom to imagine the possibility that the results are consistent with the reality and that women generally have a slightly different approach to communication, this could be an example of one smaller communicative space existing inside a larger and older one. The older one therefore would have had the opportunity to develop intellectual tools defining the world long before the younger one entered the scene.

According to theory individuals have to accept the existing views when entering social contexts (Berger & Luckmann, 1979). The question is: what does this really mean? Demastes et.al. (1995) studied high school children in order to understand how they integrated the subject content of evolution (Darwinism) with existing religious beliefs. In turn this was partly a way of testing the idea of conceptions organised into ecologies, presented by Posner et.al. (1982). The results from Demastes et.al. show that individuals react differently to the potential clash between the biology taught at school and the religious beliefs some of them were brought up with. Some of the students were disturbed by this and perceived it as a conflict; one seemed to solve the problem by using one perspective in school and another outside school, with almost no interaction between the two. Another student did not perceive any conflict at all since his life outside school did not include religious beliefs.
So individuals do not *have to accept* views and believes of the social context they enter.
Instead, one can have competing views at the same time and perceive conflicts between different views differently, as shown in Demastes’ study. This is consistent with the idea of conceptual ecologies, different conceptions existing at the same time within individuals. The particular conception that is brought to the forefront at any given time is dependent on the context, but not directly. It depends on the individual’s interpretation of the situation. (Marton & Booth, 1997) For example, an individual may interpret a situation in a way, which puts the actual belonging to the communicative space in focus. Or the situation may be interpreted in a way which puts the content of the communication e.g. evolution in focus. The play between these two might or might not lead to conflicts within the individual, which was the case in Demastes’ study.

This means that even if a person has access to a conceptual ecology, he or she can not act in more than one way at the same time. He/she has to choose one action when acting in one situation. And this action is one in a long row constituting the person’s idea of who he/she is. This is how the individual constructs him/herself as a person, by acting and observing these actions. (Berger & Luckmann, 1979) The idea, stated above, is that one can not fully understand one’s own action before one has seen the it’s response. The self is therefore only possible to construct via other persons’ responses. One is exposed to the interpretations and views of others. When one acts in a communicative space, the very construction of the self is dictated by that space.

A person may have access to, at the same time, both intellectual tools A, in line with the communicative space where he/she acts, and tools B, not tolerated by the space. It might be the case that tools B are more in harmony with the person’s previously constructed self-image. But since acts based on tools B may cause negative responses, the person can choose tools A in order to receive positive responses. This scenario might lead to possible reshaping effects on his/her self-image. Or he/she might use tools B. By doing so the person will get negative responses from the space, but on the other hand his/her self-image does not have to be reshaped. A person can and must choose either tools A or B in a given situation, but he/she can have them both and be aware of them as possibilities.

Returning to the female teachers acting as a minority inside a majority one would expect a certain tension and perceived conflict on behalf of the individual female teachers. The conflict can be described in terms of the difference between the teaching the female teachers want to conduct (student-focused) and the teaching they actually do (teachers-focused). The difference could, of course, be due to something else: the way the ATI is constructed; the way the questions are constructed etc. But, since the male teachers responded to the same questions in a different way their interpretation must have been influenced by something. It might have been the fact that they act more according to the views of the existing communicative space. Which, if this is the case, would support the idea of two communicative spaces, one larger and older and one smaller and younger.

One possible description of this conflict, is made by McVicker Clinchy (1990). Her aim was to investigate if the Perry scale (Perry, 1988) also applied to female students. She found, among other things, that female students reacted towards the so-called “doubting game”. If one claims something, other people react to this with criticism. This technique is often used as a way of testing hypothesis. It has been an intellectual tool successfully used by the scientific communicative space for a long time in order to assess the quality of scientific work. McVicker Clinchy describes this “doubting game” as *separate knowing* and as a contrast she describes the strategy preferred by female students as *connected knowing*. This is, instead of criticism, an initially reaction of interest: “It sounds interesting. Please tell me more.”
The two possible responses to someone’s statement (action), separate or connected, are interesting not only because they are described as a male and a female strategy. An even more interesting aspect is their function in conjunction with people entering or acting within communicative spaces. The connected strategy is an invitation, a handed over possibility to a person to act and thereby also a possibility to construct a notion of him/herself as being part of a space. And this invitation works even if the person entering does not know the rules of the communicative space in question. Separate knowing, on the other hand, has proven to be successful when it comes to securing quality among scientists. But if this is unknown or uncomfortable for an individual, the most likely interpretation of a response influenced by separate knowing is to view it as a defensive action, a border construction, a rejection, and it may cause a reaction like: “They don’t want me here.”

A point may have been reached when it comes to understanding more about why it is difficult to recruit female teachers or students into the field of technology. They experience a conflict concerning both how communication is carried out and, maybe, the object for the already existing communicative space’s interest. Most likely they also react to how they perceive the purpose of the communicative acts conducted by the existing space. And, nota bene, this way of reasoning is not built upon any moral issues. This is built upon the idea that people acting together construct shared views and perspectives. They construct meaning together. And individuals acting within this communicative space experience an imperative to internalise and use the intellectual tools already in use. The problem shows itself when one space interacts with another, or when one has to act within another larger and perhaps older one. The results are probably similar if one instead studies individuals from one culture immigrating into another, or males working in a traditional female area. They will all be expected to experience similar conflict as described by McVickers Clinchy’s or Demastes’ students.

**Students in Electrical Engineering**

In the following an authentic situation will be described. A few years ago in my role as an educational consultant at Lund University, I was contacted by a senior lecturer from the field of electrical engineering. He was responsible for a course with about 250 registered students, and a teaching staff of 15 colleagues. They had had some problems with the outcome of the course the year before and wanted help with the evaluation of the course. In short, the teaching was organised around the chapters in the textbook. Each chapter was introduced by a lecture followed by training exercises, where the students were supposed to solve a number of relevant problems mathematically. All eight parts of the course were organised in the same manner. This was repeated throughout the course which lasted (other courses were taught parallel to this one) from September to December. The exam was focused on understanding in such a way that it required analyses and syntheses.

When asked in November about how the course progressed, all teachers were very satisfied. “The students are really working”, was the common answer. “Like never before.” The situation became problematic, however, when, at the exam, only 28% of the students passed. The students were upset and the teachers, especially the senior lecturer in charge, were under a lot of pressure.

During a group discussion, with the team of teachers, we agreed that the teaching and the exam were not coherent. The teaching had its emphasis on application of standard methods for problem solving and the exercises trained problem solving routines lectured. The exam required analysis and synthesis, things not taught, while the teaching emphasised application. When the teachers were asked about how they taught in order to help the students develop
those high-order skills, they looked bewildered and answered that it was not possible to teach those things. “It just happens after a long period of time while you work intensively with the material”, was the almost unanimous answer.

The students’ learning acts asked for by the teachers were: “Listen to the lectures and work with the exercises, and all will be well.” The students reacted accordingly, they did what was asked for and they worked hard. This was recognised by the teachers and reported in November. Before the exam the communicative space worked well. The students accepted and played their part. The teachers played their part, having the students working with the material. But when the time came for the exam the entire communicative space from the students’ point of view changed dramatically. New things were asked for. The students were upset, they felt they had been treated unfairly. Their interpretation, one could argue, must have been that they were rejected by the communicative space they so hard had tried to enter. And the teachers were confused. They could not understand what had happened.

For the reader of this text it might be obvious that the teaching and the assessment were not going hand in hand, and if it does not you can be sure there will be problems. We can however, use the example given above as an opportunity to learn something about communicative spaces. We can understand something about how they function when they develop their intellectual tools and, perhaps even more, how they hand these tools over to ”incomers”. To do this it is necessary to understand something about how knowledge is developed. Some critical aspects are needed.

In order to describe these critical aspects a perspective borrowed from Marton & Booth (1999) will be used. It rests on the phenomenografic idea that learning is an act of awareness. One becomes aware of a variation where there before was a whole. According to this perspective every act of learning has a how-aspect, what one does while learning, and a what-aspect, which refers to the object (the direct object) of one’s attention, always intentional and directed towards something. The how-aspect is, in its turn, composed of a how-aspect and a what-aspect. This time the what-aspect is the actual act of learning (the act), the latter (the indirect object) refers to what capability the act is aiming for. Different individuals have been found to aim for different capabilities when they engage in what visibly looks like the same sort of act. The indirect object might be things like: “I should be able to repeat this on the exam.”, or: “By doing this I might be able to do something differently afterwards.”, or: “I might develop as a person if I do this.” The description by Marton and Booth goes into a lot more details, but in this context the direct object, the act, and the indirect object, will be enough.

The teachers in the example mentioned above were focusing on the direct object, the content of the course, and the act. The idea was that students were set to work with the course material, and if they worked hard they would learn the materiel according to the objectives of the course. The indirect object was never taught. It was taken for granted by the teachers. Responses were exchanged between the teachers and the students about the direct object (defined in the syllabus) and the act (the encouragement to listen to lecturers and to work on the exercises). The indirect object was never made explicit in the communicative space formed by the teachers into which the students were invited. The result was that the students engaged in a communicative space focusing on the object and the act, and they did so because that was what rewarded them with responses. The indirect object, in a way the quality-outcome of the process, was not on the agenda.

The process is much the same as when an apprentice enters a relationship with a master (Säljö, 2000b). The apprentice tries to copy the master by doing the things he is told to do.
The things done by the apprentice are then assessed by the master, and the result of the assessment is handed over without comments on why some things are better than others. This is due to the fact that the master’s expertise is never articulated explicitly. (Dreyfus & Dreyfus 2000). Our interpretation moves in the direction that the communicative space in the example above hands over intellectual tools in a Master-Apprentice like fashion. If the assumption is true problems of at least two kinds can be expected. Firstly, since the criteria for a good performance is not apparent for the individual entering the communicative space he will focus on the person (the master) in order to be able to guess what is asked for, in order to be able to deliver just that. This is a strong imperative since the individual will judge future possibilities in the space on the ability to satisfy the “master”. The notion of the master as a supportive mentor will be threatened by the notion of the master as a judge. The in-coming individual will focus on the relation during the learning act, not on the direct object. Or, put in another way: The relation is the direct object. The direct object is to maintain the relationship with the master. Secondly, the teaching is not carried out scientifically. If the teaching is supposed to be carried out scientifically, the whole process should be made apparent to the individuals entering the communicative space in question. This is based upon the idea that one critical aspect of “scientifically” is that everything that is done is accessible to everyone involved, otherwise there will be no critical dialogue. If the assessment criteria were made evident to the students then the teacher could act as a mentor and thus be able to discuss the outcome. And the person entering the communicative space could, instead of focusing on the relation, focus on the direct object, e.g. the content of a course, namely the acquisition and competent handling of relevant intellectual tools.

Summary

The decisions made by female teachers in technology or students in engineering, described above, might be better understood if they are looked upon as a process where the individuals interact with communicative spaces. If one enters a space one has to deal with its demands for adaptation. An in-comer is guided by the responses he/she gets, and constantly has to negotiate with him/herself whether to accept the values of the space or not. The process is further complicated if the responses received are incomplete, as in the case with the engineering students; or experienced as negative, as in the case with the female teachers.

It is possible to understand more about why people choose to or choose not to engage in activities by focusing on the communicative processes forming communicative spaces. The type of responses a person gets on his/her actions effect his/her learning and thereby also his/her decisions about the future. Further exploration of this process may result in a deeper understanding of people's internal motivation.

References:


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