

## PARADOXES IN TEACHING

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### ABSTRACT

This article presents the findings from an inquiry into teachers' conceptions of teaching. The study focuses on the teachers' descriptions of their conceptions of the meaning of teaching and their reasoning about the possibility of acting according to their views on teaching. The students' conceptions of teaching are perceived as a dominant restriction on the teachers' actions. In an analysis of the teachers' descriptions of that restriction, many teachers were found to regard this as a question of control over the educational process. This can be described as a game about who is going to control the rules for the communication process in the classroom. This control game forms different configurations in the relations between students and teachers. These configurations are described and interpreted as three qualitatively different kinds of relations. Two of these relations have the character of being paradoxical from the control point of view.

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### Introduction

The history of inquiries into teaching shows how this field has gone through different phases. From its beginnings until the middle of this century it was a field that was based on philosophy and ideas of empirical findings in psychology. Its main characteristic was that it was *prescriptive*. The main idea was to deduce the "best" systems for teaching from philosophical and psychological conceptions (e.g., the approaches of Dewey, Skinner). This was counterbalanced by the growing empirical educational research into the field of teaching. This "classroom" research had another characteristic - it was *descriptive*. It put forward the aim of describing what was actually happening in the classroom and used observation as its prime source of data. These researchers wanted to understand or explain teaching behavior in terms of the conditions for teaching rather than exploring the philosophical or psychological conceptions (e.g. Smith, 1963; Lundgren, 1972) as a ground for their inquiries into teaching.

This article represents neither of these two approaches. It is a study into

conceptions not of the prescriptive kind but of those that can be found in the classrooms, i.e., it is a descriptive, empirical study of teachers' conceptions of teaching. The rationale for this can be found in the idea that the actors' conceptions of their world are a basis for the understanding of them and their acts (see e.g., Snyder, 1971; Bussis et al., 1976; Marton, 1981; Säljö, 1982). Marton (1981, p. 178) writes about the distinction between the first- and second-order perspective:

In the first and by far the most commonly adopted perspective we orient ourselves towards the world and make statements about it. In the second perspective we orient ourselves towards peoples' ideas about the world (or their experience of it). Let us call the former the first-order and the latter the second-order perspective.

Teachers' decisions can be understood from their way of interpreting their situation. This idea is not absolute – on the contrary, it is *one perspective* on teaching complementary to the first order perspective.

In this study an attempt is made to describe the relations of power that are behind the constitution of the chosen form of teaching – from the teachers' perspective. The reason for this interest in the power-relations between students and teachers is the fact that teachers find these important as restrictions on their freedom of action. They recognize other restrictions such as lack of time, etc., but these have been thoroughly investigated by others; here we concentrate on the actors in the classroom.

## Method

### SUBJECTS

The inquiry is based on empirical material consisting of 29 interviews with teachers in the Swedish adult education system at the secondary level who taught the syllabus of the regular secondary school in at least one of five subjects: physics, chemistry, mathematics, social science or history. The interviews were intensive and informal, aiming at an understanding of the more fundamental conceptions these teachers held of their work. Concepts like knowledge, teaching skill and problems such as what constitutes the real curriculum were investigated in depth.

### DESIGN

The study was carried out as a part of the work in a research group in Göteborg led by Professor Marton. Our analysis aims at descriptions from a second-order perspective.

The form of analysis is qualitative, i.e., we want to find qualitatively different categories that are characteristic for our material. More precisely, we want to describe the variation of categories that could be traced in our empirical material. The latter functions as working material for the final aim: to describe the variation in the conception of a certain phenomenon in the collective mind (Marton, 1981). This means that, for us, the categories are the main results, not the number of people holding a certain conception. Another characteristic of our work is that we do not wish to describe the material in predetermined categories. Rather we want to find the categories that best describe our empirical material.

## Results

This section contains several kinds of findings: first, we present the teachers' perspective on teaching – what they think is the essence of teaching; then we present the variation in the forms of teaching these teachers in fact use; and, finally, we present the teachers' conceptions of the restrictions on their freedom to act as teachers. After the presentation of the results, an interpretation is proposed.

### TEACHING FROM THE TEACHERS' PERSPECTIVE

Two fundamentally different conceptions of teaching were found:

*Conception A* – The essence of teaching is that a content should be presented and structured for the students. This means that the content should be prepared so that the students can learn without too much interpretation.

This conception is built on the view, taken-for-granted or not, that the teacher must do some of the interpretational and/or structuring work for the students. In some cases those teachers holding this conception do think that the students could themselves do this interpretation and structuring, but only as a complementary task to the fulfillment of conception A.

*Conception B* – The teaching ought to involve the students in interpretational and structuring work. If they are not involved, real changes will not occur or they will not develop real knowledge.

This conception has two parts, one concerning the essence of teaching and one that is a criticism of conception A, explicit or implicit. The criticism is in all cases built on the idea that the learning effect of such teaching is weak. In some cases the teachers referred to their own experiences as students. Mathematics

was sometimes excluded as a subject impossible to teach from a conception B basis.

#### CONCEPTIONS AND ACTIONS

If one reflects on these conceptions of teaching, it is tempting to infer what sorts of teaching these teachers practise in real life. That would in fact be too rapid a conclusion to draw – there is a relation but this relation is somewhat complicated. We will now attempt to describe and understand this relation: how it appears from the teachers' viewpoint.

From the teachers' reports, the actual teaching situation can be divided into a category of strong teacher control and one of weak teacher control over communication in the classroom. The first category includes expressions like lecturing, discussion under the surveillance of the teacher or going through the content of the lesson. The standard view is that the teacher has control over the forms of communication and the messages sent and is in fact also the dominant sender. The second category refers to what teachers call problem-orientation, group-work or explorative classes. Here, general opinion is a certain lack of control that the teacher has of the forms of communication, especially of the messages sent. Table I gives the teachers' conceptions and their actual teaching.

TABLE I

Teachers conceptions of their actual control	Conceptions of teaching	
	A	B
strong	8	10
weak	0	6

(In five cases it was not possible to identify the conceptions of teaching.)

Referring to the Table, we can identify a certain logic in the results. All teachers with conception A have strong control over the communication process. In the cases of conception B this direct relation cannot be found. The majority of the teachers exercise strong control over the communication process which is counter-intuitive. The conclusion is that we must search the background for this contradiction between the conception and acting. What circumstances can solve the contradiction and make us understand the pattern more fully? In our inquiry we assume that the teachers encounter some sort of restrictions on their freedom of action.

## RESTRICTIONS ON THE TEACHER

A salient restriction is the time-limit the teachers experience. There is a difference between the amount of time given to certain material in adult education as compared to ordinary secondary school. In fact the time in adult education is considerably shorter for a certain course. One can say that the ordinary school sets the background – the norm for what is normal – from which emanate the “abnormalities” of adult education. The experience of time-restriction dominates among teachers with conception A. It is also prominent among teachers with conception B, but in their case there is another restriction that competes in importance: the students’ conceptions of their teaching. There are some indications that the latter is the one that has the power to change the teachers’ main form of teaching, while the former presses for minor changes. The students’ conceptions of teaching are described in the same way by everyone, i.e., the dominating view is an A conception. Not every teacher reports the students’ view on teaching but everyone expressing a view on the matter reached the same conclusion. Fifteen out of sixteen teachers with conception B and two out of eight with conception A reported the students’ conception as one that could be described as conception A.

## THE RELATIONS BETWEEN TEACHERS AND STUDENTS

If we further analyze the students’ view as a restriction, interesting evidence is found of how the teachers experience their power. By “power” we mean their conceived possibility to act according to their intentions – intentions here referring to their conceptions of teaching. Several different forms of relations between students and teachers from the power point of view can in fact be described from the analysis of the interviews.

The contradictions shown in Table I can then be analyzed. Whether the teachers with conception B use strong or weak control of the communications process is a question of power. Does the teacher force the students to accept his intentions, or is he forced by the students to accept theirs? From the interviews we can illustrate how this is experienced. We quote a teacher discussing his freedom, where he describes how his formally wide freedom becomes very restricted when he is confronted with the students’ demands.

Q: What chance do you have of practising teaching as you wish?

A: Well, in fact the opportunities are very great, we can say that the external frames are given . . . I think that I can control my working situation rather a lot, at least in theory I can do that and if I just want to have group-work for the whole year, I can do that. If I just want to have educational visits, I can do that. If I want to skip a textbook, I can do that. There are schools where the students work exclusively with newspaper articles in our subject. So, I can obviously choose the form of teaching just as I like, either alone or in

cooperation with the class. In practice I do not think that the freedom is that wide since the students, as I see it, want a textbook and become very disturbed when you read things that cannot be found therein and want to know where it can be read and what they should prepare. We have talked about grades now. It is said in certain quarters that most students do not want grades in school; I have never believed that. We distributed a questionnaire here at school, and it revealed that 21 out of 23 classes clearly expressed what they wanted – they wanted to see a result from their work. And that leads to us, I suppose, having some sort of periodic report; if not, they feel that they have not learned anything; they want to show that they have prepared themselves. They want to see a result, they want to be rewarded at once. And that means that one must then work in a certain way, so that it is possible to have a test, so to speak. Then you cannot exclusively have group-work because it becomes very difficult to measure, but instead you must have some sort of reading through of the same text for everyone.

In this case it is according to the students' premises that the forms of teaching are chosen and they immediately oppose deviations from their ideal. The students in fact force the teacher to take strong control of the communication process. This can be looked upon as a paradox: the students use their control to press the teacher to exert control over them.

Other teachers choose to enter into conflict with their students and force them to accept their intentions, without regard to the students' resistance. As in the above question there is a conflict but here the teacher is the "winner":

Q: Concerning the students' conceptions of what the subject should be about, as you say about the government and the parliament and just memorizing facts: How do you handle such situations, where *you* hold a different view from *them*.

A: There *can* be problems in certain classes to enforce such a form of teaching. I think in fact that I have succeeded in most cases. I do not think that I have been confronted with such resistance that I have had to leave the idea and go back to one hundred percent lecturing. But neither is it so that I only have problem-oriented teaching, nor have to make a summary of certain central points in social science.

A teacher in physics describes his feelings preceding a new term where he wants to do teaching in line with his intentions, i.e., conception B:

And I shall probably start a new course in physics in the spring and then I want to build further on what I have worked with during this period. And this will be a very difficult start, difficult to start and difficult to know how to structure it and how you should make them accept a different way, because there is a restriction there too . . . one could call it a conservative perspective on what teaching in physics means.

In these cases we can see the students' perspectives as a restriction on the teachers' freedom of choice. But here the teachers enforce their view on the students. In the first transcript, it is described as a rather uncomplicated task,

while in the second it is a difficult challenge. In this case too there is a paradox – but of another kind. Here the teachers with conception B force the students to accept the teachers’ weak control of the communication process. The use of teachers’ authority or force is contradictory to their intention: the weak control of the communication process. It means in effect that the students are supposed to accept greater responsibility in the teaching process in contradiction to their view that this can best be controlled by the teacher.

So far two forms of relations concerning control over the communication process have been described: these were based on the conflict between the teachers’ perspective on teaching (conception B) and the students’ view (conception A). The paradoxical character stems from this constellation of perspectives, but the variation in forms is related to the “solution” of the conflict. The ways in which they are “solved” are the paradoxes.

Amongst the teachers with conception A only two teachers described the students’ view. The reason for this could be the lack of conflict. If we suppose the “silent” teachers’ perception of the students’ conception of teaching to be the same as that of those who describe the students’ view, it is logical that they do not talk about the students’ conception of teaching as a restriction, precisely because in their case it is not a restriction. Rather, the views of students and teachers are here in harmony. If they act according to their perspectives they will take complementary roles – the teacher controlling and the students accepting control. In this case control of communication is explicitly in the hands of the teacher.

#### AN INTERPRETATION

The results so far presented consist of the description of three qualitatively different forms of teacher–student relations. These descriptions have a striking similarity to models used in the tradition of “communication-theory.” The latter models describe relations in terms of rules for communication and control over those rules. The tradition was founded by Bateson (1973) and is used primarily to understand psychiatric symptoms. Beginning with the works of certain logicians (e.g., Russell) he constructed a system for the interpretation of the rules of communication. The model has elaborated a control aspect of communication that is relevant to the results presented. It should be pointed out that we do not take a stand for the correctness of the model as such – we only want to show that the *structure* of the “communication theory” model offers a good map of the *structure* in the descriptions the teachers give of their relations to the students.

We want to present this structure as it is presented by Haley (1963), one of Bateson’s earliest collaborators. Haley operated with three qualitatively different forms of relationships which he called symmetrical, complementary and meta-complementary. The symmetrical relationship is defined in the following way:

A symmetrical relationship is one where two people exchange the same type of behavior. Each person will initiate action, criticize the other, offer advice, and so on. This type of relationship tends to be competitive; if one person mentions that he has succeeded in some endeavour, the other person points out that he has succeeded in some equally important endeavour. The people in such a relationship emphasize their symmetry with each other.

The next kind of relationship, the complementary, is characterized in this way:

A complementary relationship is one where two people are exchanging different types of behaviors. One gives and the other receives, one teaches and the other learns. The two people exchange behavior which complements, or fits together. One is in a "superior" position and the other in a "secondary" in that one offers criticism and the other accepts it, one offers advice, and the other follows it, and so on.

One characteristic of the model is the idea that communication takes place on several *levels* – and this can happen simultaneously. The level that is superordinated to another level is then called meta-communication. As a consequence of this relationship that is called meta-complementary is described:

A complication must be added to this simple scheme of relationships. There are times when one person lets another use a particular maneuver. If A behaves helplessly and so provokes B to take care of him, he is arranging a situation where he is in a secondary position since he is taken care of. However, since he arranged it, actually B is doing what he is told and so A is in a superior position. In the same way, one person may teach another to behave as an equal, and so ostensibly be arranging a symmetrical relationship but actually doing this within the framework of a complementary relationship. Whenever one person lets, or forces, another to define a relationship in a certain way, he is at a higher level defining the relationship as complementary. Therefore a third type of relationship must be added to the other two and will be termed a meta-complementary relationship. The person who establishes a meta-complementary relationship with another is controlling the maneuvers of the other and so controlling how the other will define the relationship.

These were the three forms of relations used by Haley. We can notice one characteristic of the model – that every possible relation could be described: it is a complete system.

Returning to our empirical material – the teachers' view of their situation and their possibility of forming the teaching according to their intentions – we want to demonstrate the similarity with communication theory in structure.

In the result section the first relation to be presented was the one where the conception B teachers gave up their intentions to accept the students' definition of the teacher's role. In the language of communication theory this could be described as a meta-complementary relationship with the students as the final controller of the rules of communication. The students use their power at the meta-level to force the teacher to take the leading part in a complementary relation.

The second kind of relation we described as one where the teachers, though adherents to a conception B of teaching, forced the students to accept a type of teaching with a weak teacher control of communication. It is a maneuver where the teachers use their superiority to create a more equal situation with regard to the communication process. This kind of relationship is also a meta-complementary one, but here it is the teacher who has control at the meta-level. It is solely because of the teachers' superiority that a relationship can be created that appears symmetrical.

Finally, we have the third case. It was a relation that was characterized by the lack of conflict, which emanated from the students' and teachers' sharing of conception A. Conception A strongly stresses the teacher's control of the communication at all levels. This harmonious relation is one of the teachers' superordination and the students' subordination and can therefore be characterized as a complementary relationship.

#### THE SYMMETRICAL RELATIONSHIP

In our interpretation of the empirically-based description, we could trace two of the three kinds of relationships that Haley described. The one lacking is the symmetrical relationship. If we tried to transfer this kind into the classroom context, the teachers and the students would both fight for the power to control. The existence of different intentions should then lead to compromises where the interests could meet. This kind of situation cannot be found in our material due to the fact that the students' conception is described exclusively as an A conception. This conception, when it is held by the students, cannot lead to a symmetrical relation, since they do not "admit" or have any personal intrinsic interests in the situation. We can nevertheless find school situations that could be characterized as symmetrical. A situation fraught with conflicts but which was symmetrical could sometimes be found in the "students' revolt" in the late sixties. Communication was in those cases explicit and both sides fought, for instance, for control over the syllabus content or communication in the classroom. The result of this was, however, that students' control was "pedagogized," i.e., it became a way of influencing the students. This means that the teachers transformed the *forms* of a symmetrical relationship into a meta-complementary relationship. Parallel to this is the change that occurred in the students' intentions. For a short while they did not care about adjusting to the surrounding society, but this mentality was soon confronted with realities like exams, problems of unemployment, etc.

#### THE RATIONALITY IN THE STUDENTS' CONCEPTION OF TEACHING

If we accept the teachers' description of the students' view of teaching, one

can inquire into its basis. In modern society, the school has a strongly selective function. The reason is the main change in the school-system in this century: that almost all children now are nationally allocated to one and the same system. This has meant that selection by other criteria than the schools has weakened and that the schools' criteria of success have become more important – and is experienced so. From studies by Snyder (1971), Miller and Parlett (1974) we have descriptions of the examination system as a steering system for the students. We think this steering system function has grown in importance over the years, as a logical consequence of the increasing significance of school criteria in the selection process. If we analyse the students' conception of teaching from this perspective, the students' view is a rational one. If the latter want to maintain their success in the system they must gain control over grading. This control necessitates an insight into the hidden curricula (Snyder, 1971). The student must seek the cues (Miller and Parlett 1974) but to be able to seek those cues there must be a curriculum that is easy to interpret. This curriculum must then be characterized by a visible pedagogy. To master their own achievement, it is then logical that students need a situation where the teacher who is also the examiner shows the criteria as clearly as possible. Teaching according to conception B is weak since it is difficult to gain insight into the rules and, in fact, even the teachers find it difficult to assess the students in such a teaching system. So, from the students' viewpoint it is rational maneuver in the given context to force the teacher to control the situation.

However, from the perspective that knowledge should be developed or transmitted, the results are not promising. Several studies on learning of meaningful material indicate that the outcome of learning in such circumstances is problematic. When students have an instrumental intention, i.e. have the rewards in focus rather than the content, they tend to adopt a surface approach to the learning material (Marton, 1975; Säljö, 1975; Fransson, 1977; Hounsell, 1979; Gibbs, 1981). Such a surface approach is characterized as a kind of memorizing instead of trying to grasp the message that was sent (which would be a deep approach). And as a consequence of this surface approach the learner would often miss the point in the message, the organizational idea (Säljö, 1981, 1982).

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