

English summaries

Mattias Johnsson, 2003: Towards a relationist approach – F.H. Bradley’s metaphysics and research within the academic discipline of Pedagogik /Mot en relationistisk ansats – F. H. Bradleys metafysik och forskning inom ramen för vetenskapen pedagogik/. Pedagogisk Forskning i Sverige, Vol 8, No 4, pp 209–224. Stockholm. ISSN 1401-6788.

The aim of the text is to discuss the possibility of a research approach within the academic discipline Pedagogik, which takes a relationistic view of reality as its point of departure. The relationistic ontology is presented with support of F.H. Bradley’s (1902) text *Appearance and Reality*, and is explained in contrast to the classic ontologies of realism and idealism.

The decisive difference between relationism and the classical positions is argued to be as follows: while the later assumes a dualistic understanding of everyday phenomena, either focusing on a self-governing subject or on a world composed of independent objects, relationism eradicates all dualisms through the assumption that reality is organized as a monistic unity. This means that reality is a whole, in which distinctions can be made but in which divisions do not exist. In other words: reality is not constituted of autonomous, sovereign objects or subjects in relation to each other. Relations give rise to phenomena, instead of being situated in-between them; relations are internal, not external, Relata (i e the phenomena that appear to be related to each other) are entirely and unreservedly determined by Relatio (i e the relation in it self).

The epistemological standpoint, derived from the ontological assumptions expressed above, claims that all phenomena of experience, and thereby all knowledge concerning them, are to be understood as appearances. There is, in other words, no absolute truth to be found in knowledge based upon experience (including human knowledge), only more or less reflected appearances. This might seem to indicate that all knowledge is arbitrary. But that is not necessarily the case since all human action and thinking is determined by an experience-based understanding of the world. Everything a human does – the knowledge she creates, the relationships she has, the emotions she deals with, the work she does etcetera – is determined by the specific way in which she makes distinctions in the whole of reality and thereby comprehends the world. Consequently, for those whose aim is to understand humans, or aspects of human existence, knowledge concerning the way in which humans understand the world is of great importance. The question is how the researcher is

to attain such knowledge, without herself being predestined to acquire nothing more than mere appearances.

The answer to this question is found above: In order to gain meaningful knowledge the researcher must strive to gain an understanding based upon the internal relations that determine and give meaning to social phenomena, including humans. There are no such things as individuals who can be ascribed qualities or merits of their own, all perceptual things are what they are in relation to each other; they exist through distinctions made in a whole, that give rise to seemingly related phenomena. Of course, single persons embody specific and, in some sense, different ways in which to understand reality. But the meaning and significance of these perspectives (what they are), as well as of the bodies that represent them, cannot be grasped in any other way than as an expression of internal relations in a monistic entity.

The process of seeking an understanding based upon internal relations might seem less than problematic, if it was not for the assertion that there are no autonomous, monistic entities except the whole of reality itself; the totality of existence, regardless of time and space. Of course it is impossible for the researcher, as an experiencing and finite being, to encompass reality as a whole; to understand everything as it is in relation to everything else in the totality of phenomena. But since the relationist perspective holds that there is no meaningful knowledge to be found other than in internal relations this is a problem that must be solved. I argue that one way of making empirical research possible, in a way that corresponds with the ontological assumptions of relationism, is for the researcher to construct epistemic objects as autonomous, monistic entities. Each study is in this way treated as a totality, where the meaning and significance of the knowledge produced is bound to the constructed object.

The conclusion drawn from this argumentation is that, for the researcher inclined to support the relationistic point of view, there are certain fundamentals to bear in mind when formulating a research approach.

First the approach must allow the research process – spanning from ontological assumptions, via data collection and analysis, to results – to be internally coherent. Knowledge is something that is produced rather than something that can accurately depict an absolute reality independent of the researcher. The research results refer to, and are given as a consequence of, the researchers ontological assumptions, and the thereby following research process.

Second: as mentioned above the epistemic object must be constructed as an autonomous entity. What is left »outside« the constructed object must not be allowed to affect the research process, other than if, and in the way that, it is expressed as meaningful by the relations inherent in the object.

Further, the researcher must refrain from regarding the constructed, epistemic object as if it is composed of autonomous entities with given qualities of their own. The purpose of the monistic construction of the object is to make it possible to study and grasp internal relations, which in turn determine the existence, meaning and significance of various phenomena found within it. The construction of the object must permit the researcher to treat it and

understand it through empirically grounded research; to use the study in order to break with her own common sense understanding of the social world.

The research approach must, in other words, be inductive in part, in the sense that the researcher has to be very conscious of making assumptions concerning the inner constituents of the epistemic object. This can seem confusing in light of the weight laid on the construction of the object, a construction that inevitably implies some kind of assumptions regarding it. The confusion may be settled by the statement, that while the fundamental supposition of this research approach maintains that no assumptions may be made regarding the substantial composition of the object, at the same time it rests on the notion that all objects must have the same principal composition, as being constituted by internal relations.

Finally it should be mentioned that it is difficult to argue that this research approach excludes any kind of data collection technique. Interviews, observations, questionnaires, field diaries amongst others can all be sufficient tools, under the condition that they are used in a way corresponding with the fundamentals mentioned above.

Peter Nyström, 2003: Birds of a feather flock together? A teacher discourse on ability grouping in upper secondary school /Lika barn leka bäst? En gymnasie-lärdiskurs om nivågruppering i matematik/. *Pedagogisk Forskning i Sverige*, Vol 8, No 4, pp 225–246. Stockholm. ISSN 1401-6788.

The problems and effects concerning ability grouping in primary and lower-secondary education have been studied extensively. There is, however, not very much work reported on ability grouping of students over the age of sixteen. The aim of this study is to describe and interpret how mathematics teachers at an upper secondary school express their experiences and beliefs concerning ability grouping.

This article presents results from interviews with six mathematics teachers, all working at the same Swedish upper secondary school. The study is based on a discourseanalytic approach (Potter & Wetherell, 1987). The intention was to explore and present the variation in what teachers at this particular school say about ability grouping. What they say is not treated as a manifestation of a consistent belief, but rather as a statement made in a given context and with a certain purpose. As a background and interpretative tool, research on ability grouping and teacher beliefs are briefly reviewed.

The results are structured around four themes. The first theme concerns teachers' views on student diversity and the relevance of this diversity to ability grouping. Teachers identify student differences in a number of aspects, and the most characteristic ones are previous knowledge, study-ambition; motivation, interest, diligence, and emotions. All of these are considered to

have some relevance for ability grouping. Five out of six teachers instantly answered yes to the question: Is student diversity an obstacle to learning in school?

The second theme covers the advantages, disadvantages, prospects, obstacles and risks that teachers express concerning ability grouping. The teachers in this study express a number of reasons for their generally positive evaluation of the kind of ability grouping that has been practised in their school. The teachers argue that they could help the increasing number of students not passing the courses in a cost-efficient way, and also offer students the opportunity to study more mathematics. In addition ability grouping was seen as a way of coping with the large diversity of students, and the teachers felt that grouping students enabled them to better stimulate the high-achieving students.

The list of advantages and possibilities is definitely longer for groups of high-achieving students compared to groups of low-achievers. Disadvantages and problems are almost entirely connected to groups of low-achievers, for example the risk that being exclusively with others who find mathematics just as difficult or uninteresting as they themselves do does not give students good opportunities to learn. The students »hold each other back«. Teachers also speak of problems concerning the formation of groups and the risk of placing students in the wrong group. Despite the teachers' focus on problems with ability grouping where low-achievers are concerned, teachers are generally positive to its possibilities and positive effects on all students. What consequences the awareness of drawbacks and risks has for what teachers do in the classroom is beyond the scope of this study.

Within the third theme teachers views on how teaching differs, or should differ, between classrooms with students at differing ability levels were explored. Teachers talk about two features differentiating teaching a high-achieving group from teaching a low-achieving group. With low-achieving groups, whole-class teaching activities must be significantly shorter and expectations on student activity, focus on task and perseverance are much lower.

The fourth, and last, theme deals with how teachers picture other people's views (e.g. headmasters, students or the public) on ability grouping. Teachers say that students are generally positive to ability grouping. The teachers' opinions differ regarding the views of people higher up in the school hierarchy, but they seem to feel free to create ability groups if they want to.

In summary, what these teachers express concerning the advantages and disadvantages of ability grouping varies a great deal. There are, however, some things they more or less agree on. They have a basically positive view of the way in which ability grouping has been practised at their school. They identify problems with ability grouping for low-ability groups, primarily related to the mixing of students who have trouble learning with those who primarily have motivational problems.

My interpretation is that the teachers try to find rational solutions to problems created by conflicting goals and external limitations. In their experience some students need more mathematics than the normal study

programme offers, and some students do not learn enough mathematics to pass the courses. The teachers feel obliged to do something about this situation and ability grouping is considered to be a solution (or perhaps the solution), in particular given the restraints concerning group size and rooms that the teachers talk about and their beliefs concerning mathematics and mathematics teaching and learning.

An intriguing result of this study is the relatively small differences that characterise teachers descriptions of teaching groups with different achievement levels. The study presented here is not a classroom-study, it is a study of teacher discourse, but the lack of variation in how teachers describe classroom practice can be interpreted as an indication of what the practice looks like. At the very least it indicates that these teachers do not have a model for teaching mathematics that is varied enough to take advantage of the prospective possibilities created by the grouping of students.