RECENT DISSERTATIONS

MARGARETA SVENNBECK, 2004:

Care for nature. About the selective traditions in science education, with a focus on environmental education and gender.

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Abstract

This thesis is intended as a contribution to the discussion about science education, especially with regard to how care for nature can be understood, to what extent care for nature is included or excluded in the science education discourse and the importance of this in regard to an environmental education and a gender perspective. The empirical part of the thesis is carried out as a case study, where the discourse of physics is studied as a case within the discourse of science education. The discourse of physics is investigated by analyses of textbooks for lower secondary school in Sweden.

In the thesis, I present two ways of understanding care for nature. The first way is related to a systemic aspect of ethics that is based on principles. If the principles in use ascribe intrinsic value to nature, then the ethics can be seen as an expression of a systemic aspect of care for nature. The second way is related to an aspect of ethics based on care in 'I-Thou encounters' with nature, and is seen as a non-systemic aspect of care for nature.

Three forms of analyses are performed: 1) of the discourse and selective traditions in physics, 2) of orientations (attitudes) towards nature, and 3) of ways of knowing (indicating what meetings with nature students are offered in science education).

The analyses performed showed one discourse in physics education, consisting of two selective traditions. The systemic aspect of care for nature is excluded as the discourse has an anthropocentric foundation. The non-systemic aspect of care for nature is also excluded, as no I-Thou meetings are offered through the ways of knowing and no expression for the I-Thou attitude is found in either of the traditions. Further, ways of knowing and an ethical orientation associated with female gender are excluded. Thus, the discourse in physics does not contribute to obtaining the goals of the national syllabuses concerning gender equality and care for nature from the perspectives investigated.

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