Learning, Arts, and the Brain

The Dana Consortium Report on Arts and Cognition[1]

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A recent report from the Dana Foundation, whose mission focuses on sharing knowledge about and sponsoring research on the brain, immunology, and arts education, offers the results of three years of research in seven areas concerning education in the arts and brain development. These areas of research include: how arts training influences cognition; music as it influences mathematical cognition and cognitive systems; dance and the development of the brain and of memory; and training in the arts and reading skills.

The research was conducted on children between the ages of four and seven. Different types of brain measuring were used, some familiar (e.g., electrodes on the scalp) and some sophisticated and new. For example, using advanced functional magnetic resonance imaging (fMRI) tools to determine which parts of the brain are active during different activities, researchers were able to point to brain development that is influenced by the arts and not influenced by other kinds of learning. Results also demonstrate levels of brain activity that reflect engagement or attentiveness during learning, including particularly the kinds of arts activities that hold children's attention.

The report validates scientifically what we know as Waldorf educators. Artistic activity stimulates motivation. Highly motivated children stay engaged in activities. Artistic activity stimulates both hemispheres of the human brain and deepens learning. The language of Waldorf teachers differs from that employed in the Dana report, but the report supports statements that Steiner made in the early part of the twentieth century, that modern science would catch up with his view of education and confirm the remarkable benefits it provides.

The difference between the approaches of the Dana Foundation and Waldorf education is the difference between materialistic science and an anthroposophical view of human beings. The first proceeds from cause to effect; the second begins with the wholeness of the child, which it allows to develop with the best that teachers and parents have to offer, knowing that all learning must be digested artistically, and that the engagement of a child in education is essential. Some might say that, regardless of starting point, proof of the value of the arts in education is now available. Others might conclude that one or the other view is definitive, creating both a distinction and a difference. The Dana report, for example, includes suggestions for how to improve test scores and increase brain capacity through use of the arts; these support the current "outcomes-based" approach to education. The report, therefore, is not likely to be useful to Waldorf educators beyond conclusions that demonstrate the power of the arts in education. The report reduces the arts, as a vehicle for a child's levels of engagement and balance, to a tool in service of scores and outcomes. Nonetheless, Waldorf teachers might use the report as scientific verification of their practices and continue the important task of enthusiastically approaching the human being as a mystery to unfold, not as a product to be generated. The arts are among the best educational means to assist this unfolding of human capacities.

Endnote

1. The complete report may be found at: http://www.dana.org/uploadedFiles/News_and_Publications/Special_Publications/Learning,%20Arts%20and%20the%20Brain_ArtsAndCognition_Compl.pdf.