

The trouble with multiple intelligences

Howard Gardner's theory of multiple intelligences (MI) is enormously popular among teachers, not least for its help in raising the self-esteem of students otherwise hard to motivate. The theory's massive take-up is odd because, as **John White** hopes to show, it lacks solid foundation.

MI rejects the idea that intelligence has to do with the logical, mathematical and linguistic abilities associated with the IQ. Gardner claims there are another six or more types of intelligence, including spatial, musical, bodily-kinaesthetic, interpersonal, intrapersonal and naturalistic varieties. Each of us is differentially endowed with strengths and perhaps weaknesses across all these abilities. Some of us take easily to mathematical thinking but not to self-understanding; others are more responsive to music or physical activity.

MI theory is a godsend to teachers whose students have become used to seeing themselves as 'thick'. Having a lowish IQ says nothing about one's ability in some other field. Secondary Teacher of the Year 2004 Philip Beadle showed us in the recent Channel Four series *The Unteachables* how Zaak, Grace and his other difficult 13-year-olds began to blossom after he told them, on the basis of an MI test, that they were musically or bodily intelligent. He adapted his English teaching to their preferred 'learning styles', via karate-based lessons in punctuation and silly, guitar-accompanied songs on the concept of the adverb. And his zaniness really paid off. A weekend of this inspired idiocy and his wild ones were eating out of his hand.

MI can be put to good use, that's very clear. Yet it does not stand up to critical scrutiny. If you ask how Howard Gardner came to identify his intelligences in the first place, you may be disappointed to hear that this was not based on empirical studies of how people behave, but on a subjective value-judgement of his own. Gardner started his quest by picking out activities he held to be of high cultural importance – things like music, poetry, novel-writing, mathematics; bodily pursuits like dance; spatial pursuits like painting. It is these that generated the 'intelligences' (or at least putative intelligences: see below). The method has nothing to do with psychological data about individuals' abilities, and everything to do with Gardner's personal taxonomy of cultural achievements. As he says himself, it is only by chance that he decided to call his categories 'intelligences': he might easily have labelled them 'forms of knowledge'. If he had done, would 'multiple forms of knowledge theory' have taken the educational world by storm? Would the DFES (2002) have promoted it in its key stage 3 document on 'learning styles' in geography?

It is no accident that so many of the intelligences originated in aesthetic pursuits. The first half of Gardner's long career was devoted to a Piagetian account of developmental stages in aesthetic learning. He kept this developmentalism in the more full-blown theory in *Frames of Mind* (Gardner, 1983). Here he sees a similar pattern in each of his approved cultural areas: innate strengths in one or the other of these unfold from infant beginnings through to mature forms. Just as an acorn grows into an oak, so a baby gifted with bodily-kinaesthetic intelligence may unfold, with proper handling, into a mime artist or a ballet dancer. (It is interesting, but not surprising, that MI is as much a draw for gifted and talented education as it is for that of the 'unteachables'.)

There are immense problems with a developmentalist approach to educa-

tion. The biggest concerns its unjustified assumption that the growth from seed to mature state that is an undoubted feature of the biological world of plants and animal bodies is equally true of the world of the mind. Everything we know of children's learning points to the key role of social induction – of initiating the learner into what is held to be valuable, into correct ways of thinking about things and appropriate ways of behaviour. Modelling human learning on biological growth is a fast track to non-achievement.

The existence of 'a distinctive developmental history' is one of eight criteria (Figure 1) that Gardner relies on to confirm that something is an intelligence. In White (1998 and 2005) I also discussed problems with other specific criteria in his list.

There is also a puzzle over how the criteria are to be applied. Gardner makes it clear that they are not all necessary for a putative intelligence to pass the test. There are no clear-cut rules for how to apply them. He says that 'it must be admitted that the selection (or rejection) of a candidate's intelligence is reminiscent more of an artistic judgment than of a scientific assessment' (Gardner, 1983, p. 63). Once again, the subjective basis of MI theory becomes very evident. Equally disconcerting, Gardner gives no account of why he goes for these eight criteria in the first place. The choice of criteria seems to be as arbitrary as how they are to be applied.

1. Potential isolation by brain damage.
2. The existence in it of *idiots savants*, prodigies and other exceptional individuals.
3. An identifiable core operation or set of operations.
4. A distinctive developmental history, along with a definable set of expert 'end-state' performances.
5. An evolutionary history and evolutionary plausibility.
6. Support from experimental psychological tasks.
7. Support from psychometric findings.
8. Susceptibility to encoding in a symbol system.

Figure 1: Eight criteria that Gardner relies on to confirm that something is an intelligence.

Source: Gardner, 1983, pp. 62-9).

It may seem odd, in the light of all these problems with the theory, that MI has proved such a useful tool for switching kids on to classroom learning. The explanation, I think, is that many teachers who buy into it don't tangle with, and perhaps don't know about, the more fundamental, scientifically shaky, parts of the theory.

Teachers are rightly exercised by the thought that intelligence is not tied to IQ. MI is correct about this, but we don't need MI to tell us this common sense truth. Intelligent behaviour is a matter of flexibly adapting means to ends. Human beings have innumerable ends – from academic and aesthetic goals to practical ones of all sorts: planning a holiday, repairing a relationship, managing a shop. We display our intelligence in the flexible judgements we make on the way to meeting these goals.

Key stage 3 students who are weak in maths and science may be good at sorting out household plumbing problems or interacting with much younger children – like Zaak and Kirsty in *The Unteachables*. Once no longer in thrall to IQ intelligence, we should not be surprised at this. We do not need a grandiose psychological theory to disabuse us.

The trouble with MI is that it corals all the heterogeneous forms of human intelligence into a few categories of dubious provenance. Some may find it impressive because it is backed by the authority of a famous Harvard professor. But teachers should be wary of appeals to authority. Evidence is what counts; and MI is evidentially weak.

It could also be dangerous. Across the world, young people are now typing themselves as 'kinaesthetic', 'spatial', 'interpersonal' learners. They think this is the sort of person they are: they have been made this way. All this is trapping them within a myth – a myth which is as much a threat to their sense of their own identity as the IQ



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myth was to that of their predecessors. In this respect, MI is a pluralistic version of IQ intelligence, and potentially as constraining.

In a recent *Education Guardian* article, Beadle (2006) freely acknowledged the inadequacies of MI theory, but said he sticks with it nevertheless – because it works. If it does the job, he implied, who cares about its truth?

This is a difficult issue. What is faulty in theory may deliver the goods in practice. Are teachers justified, then,

in using it? They, of all people, might be thought to attach an especial importance to truth. If MI were the only means they could use to get through to students, concern for truth might have to play second fiddle to students' learning. But is MI the only way forward? Intelligence, as we have seen, is marked by flexibility in adapting means to ends. There must be more imaginative ways of getting through to difficult students than relying on a multiply inadequate theory like MI. ■

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