# VAKing out learning styles—why the notion of 'learning styles' is unhelpful to teachers

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# VAKing out learning styles—why the notion of 'learning styles' is unhelpful to teachers

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The notion of learning styles, and the multiple intelligence theory from which some of this derives, has come to be one of the dominant themes in the discourse on learning and teaching. This article argues that much of the language associated with this recent educational phenomenon is misleading for teachers. The author argues that instead of drawing attention to how children learn and the tools and processes of learning, learning style theories have led to pupils being labelled as being particular types of learners. The article argues for a more sustained debate on the notion of learning styles that will encourage teachers to interrogate underlying concepts more deeply.

> I have come to realize that once one releases an idea—"meme"—into the world, one cannot completely control its behaviour—anymore than one can control those products of our genes called children. (Howard Gardner, 2003)

'Learning styles' has become the byword in the recent drive to push up educational standards. The Government's latest Five Year Strategy, the DfES Standards documentation, and even Microsoft advertising brochures inform us that every child has different 'preferred learning or thinking styles' which must be addressed if we are to deliver higher standards in our classrooms. And there is a vast commercial enterprise based on the notion of learning styles.

The notion of learning styles, and the multiple intelligence theory from which some of this derives, is completely misleading for teachers. Instead of drawing attention to how children learn, the tools and processes of learning, and hence teaching pupils towards effective learning, learning style 'theories' seem to have been taken for granted as valid, and, worse, pupils are now labelled as being particular types of learners.

I first came across this notion eight years ago as a PGCE tutor, when tutors were informed by a colleague in our Education Faculty that we should assess our students' learning styles in order to teach them and that by knowing their own learning styles our students would themselves be more effective learners. By introducing the concept to our trainee teachers, they could then address their pupils' learning styles in their teaching. In a teacher educators' workshop, we had to complete an on-line women's

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magazine-type of objective test questionnaire—which of these four phrases best suits your response in a given situation? This was the Honey Mumford Learning Styles Test, which according to your answers, assesses you to be a *pragmatist, activist, reflector* or *theorist* (in Honey & Mumford, 2000) The trouble for me was that the questions took no account of the context which I might be in, no account of my frame of mind, no account of whether or not I might want to choose more than one, or none, of those answers. It just could not and did not work for me. Anyway, I consider all those categories to be applicable to me, in different contexts. I enjoy fixing things. I demonstrate my opposition to war, I reflect on my work and actions and I thrive on theoretical analysis. Clearly, this sort of variation in interest and capability must also be true of my students and of school students. A year or so later I was horrified to find out that this theory was being pumped across my Education Faculty, as a model for developing an understanding of how people learn.

Apart from the issues mentioned above, there are other major problems with the use of learning styles and there are a plethora of other types of 'learning styles' (Coffield *et al.*, 2004, 2005). In their very thorough research project, Coffield *et al.* classified learning style theories into five broad categories or 'families':

i)    where 'learning styles and preferences are largely **constitutionally based**, including the four modalities, visual, auditory, kinaesthetic and tactile';
ii)   where 'learning styles reflect deep-seated features of the **cognitive structure** including patterns of 'ability';
iii)  where 'learning styles are one component of a relatively **stable personality type**';
iv)   where 'learning styles are **flexibly stable learning preferences**';
v)    theories which include '**learning approaches, strategies, orientations** and **conceptions of learning**'. (Coffield *et al.*, 2004, p. 19)

The notion of *learning styles*, as it is used in the British educational system, particularly in the National Strategy documentation, mainly stems from Howard Gardner's work on 'multiple intelligences' (Gardner, 1983), which the Coffield team identified as falling into their second, cognitive category, above.[1] Gardner's theory was not a teaching or learning theory, but was based on human potential, and as a constructivist psychologist, he was highly influenced by the developmental psychologist, Jean Piaget. He had an expertise in biological and behavioural sciences, and wanted to address the notion of varying abilities and talents amongst students and, initially was particularly interested in gifted and talented students (Gardner, 2002). He decided to call these faculties 'intelligences' and believed that they are all innate capacities, which begin as a seed, and can develop into expertise. This use of intelligence differs from the traditional notion: the multiplicity of intelligences, the cultural dimension, and the inclusion of culturally valued intelligences, were not previously considered within the domain of intelligence.

Much of Gardner's ideas seem contradictory. He is a liberal humanitarian, and suggests that cultural and cultural contexts play important roles, but his notion of

intelligence includes an aspect of biology, and genetic capacity, which is not that surprising, since he is a biologist. Despite Gardner arguing that such capacities can be developed in appropriate teaching climates, the innate essence of intelligence is a problem. He associates *intelligence* with physiology and genetics, and because of this innateness, the capacity must be fixed—you are either born with such a capacity or not! The old nature/nurture argument raises its head. This is a deeply contested arena which will be discussed later.

Gardner has identified a variety of intelligences, but seems, currently to focus on what he calls 'eight and a half' intelligences—culturally valued capacities, which he claims can be identified and measured. His list includes the traditional academic domains of *logical-mathematical* and *linguistic* intelligence, but also embraces other areas: *musical, spatial, bodily kinaesthetic, interpersonal* and *intrapersonal* (he has recently included others: naturalist and spiritual and is contemplating others (Gardner, 2003)). He has always been adamant that pupils should not be said to possess just one intelligence, but that:

> human beings are better described as having a set of relatively autonomous intelligences ... While we all have these intelligences, individuals differ for both genetic and experiential reasons in their respective profiles of intellectual strengths and weaknesses. No intelligence is in itself artistic or non-artistic: rather several intelligences can be put to aesthetic ends, if individuals so desire. (Gardner, 2003)

As White (1998, 2004) has pointed out, he has chosen a somewhat arbitrary set of intelligences. Gardner wanted them to be culturally valued attributes, and indeed recognises the influence of cultural factors (Gardner *et al.*, 1996), and yet he has missed out several important basic abilities. White exemplifies that the ability to recognise different people, what they say, what their position is, etc., are all invaluable attributes in all societies, but omitted by Gardner.

However, more important for teachers is the fact that Gardner's multiple intelligence theory, if applied in terms of learning styles, becomes a reductivist notion, where individual learning is perceived as a capacity, not a process. His concept of intelligence is used by far too many 'educationalists' to refer to basic sensory actions as well as the means through which learning and thought is mediated. Some of those faculties that he sees as *intelligences*, teachers should perceive as *communicative* and *sensory tools* for learning. Further, his theory of multiple intelligences, problematic as it is, has been melted down into a theory of learning styles, which in turn has been reduced to three—visual, auditory and kinaesthetic: VAK—which teachers are encouraged to assess as individual pupils' learning styles. Some schools even give their pupils 'smart' cards or badges which indicate which sort of learning style they have (see the DfES Standards website for information and pictures of pupils with their smart cards). This stereotypes each pupil as being a particular learner, and sends out problematic messages to teachers, parents and other pupils.

The way that VAK learning styles have been erroneously drawn from Gardner can be seen if we further examine some of the *intelligences*. Gardner identified the ability to recognise and manipulate different shapes as *visual spatial* intelligence. This, of course,

has been a traditional aspect of intelligence tests. The VAKists reduce this intelligence to 'visual' learning style, and pupils identified as predominantly 'visual learners', for whom teachers should adapt their teaching strategies. But the main point is surely that we learn through our vision, and we live in an increasingly visual age. As Kress (2000) and others have shown, the texts we use are increasingly visual, using diagrams, charts, pictures, etc., rather than the traditional written word-dominated books. Pupils watch and learn through the image, moving and still. Therefore it is important that teachers use a range of visual images in their teaching to stimulate learning for *all* pupils, rather than to focus on what they might consider to be visually able pupils.

The VAKists add the auditory dimension to their model. This is not an intelligence identified by Gardner, but like the visual, it is a sensory faculty that is essential in the learning process. Unless pupils are hearing-impaired, teachers always address this sense in their teaching, but hopefully not too much. Talk and chalk leads to boring 'mono-modal' (c.f. Kress) lessons, dominated from the front, unless, of course, the lesson involves reading. But again, non-stop teacher talk, without interchange, can be tedious for most, and can cause pupils' attention to wander. Interesting lesson are usually interspersed with a range of 'multimodal' (Kress, 2000) activity.

Proponents of VAK labelling suggest we validate our athletic or successful sports pupils, who may be low achieving academically by describing them as kinaesthetic learners. Highly active pupils are also so described. This learning style stems from Gardner's admiration of the creative and dextrous presentations of the French mime, Marcel Marceau. Gardner described this sort of skill as the basis for his *bodily kinaesthetic intelligence*—'the ability to use one's body in highly differentiated and skilled ways, for expressive as well as goal-orientated purposes' (Gardner, 1993, p. 207). It is true that there are many pupils who are successful in the domain of physical education. This skill, of course, requires practice (as does his musical category) but the innateness of such a skill is arguable. It is also dangerous to label pupils as kinaesthetic. Does it actually mean 'non-academic' when pupils receive their Kinaesthetic Smart Badge? Surely, in terms of teaching, the merits of activity-based learning, as proposed by Vygotsky and Piaget, benefit all pupils, not just the more dextrous or active ones. Manipulating cards, ordering the big ideas and their supporting little ideas in practice reinforces learning. These strategies should not be used to calm active pupils, or as a sop to the non-academic sporty ones, but positively as an aid to learning.

The websites for teachers also draw on Gardner's other multiple intelligences. Again, there are problems if we look to intelligences, rather than understanding the processes of learning, and hence pedagogy for teaching our pupils.

Language underpins almost all learning experiences, and, sure enough, linguistics is included in the MI list. But it is seen in terms of expertise at the craft of using language creatively, rather than the role that language plays in terms of communication and mediating with and structuring thought. Gardner says that 'Linguistic competence is, in fact, the intelligence—the intellectual competence that seems most widely and most democratically shared across the human species' (1993, p. 77). He cites the poet as the prime example of one with this type of intelligence, drawing on a

literary interpretation of linguistic ability. This is the culturally valued, and, perhaps, somewhat elitist perspective on language, and language competence. However, the role of language in education can itself be seen in a multiplicity of ways, having a variety of roles. A significant contribution that the Russian educational psychologist Vygotsky (1978, 1986) made for teachers was to show that language is a social, cultural, communicative *tool* (rather than an *ability* or *competence*), whose vital function is in structuring and mediating thought. We use the concepts of language to think, and to think further. We use language to interact, and this process leads to further thought processes. Gardner has isolated an aspect of language, and identified it as an intelligence, whereas Vygotsky understands language in the role that it plays in developing our intellectual capabilities.

Where language is identified as a particular area of intelligence, then the focus for teachers is misplaced. Language is always the main means through which children learn, through talk or the written word. Teachers need to be aware of the importance of developing pupils' conceptual understandings, understanding the concepts used in the educational context, rather than focusing on an aspect of it, or playing to the strengths of literariness. Further, someone who is exceptionally creative in their use of language would have learnt this through their educational and social environment. Language use varies in different contexts, and so do valued linguistic forms. What is considered to be 'good poetry' in one culture may not be so considered in another.

Further, Gardner wrongly draws on increasingly discredited Chomskian notions of innate capacities for language. Chomsky (1986) argued that all languages have a grammar, and that all children learn to speak their first language, using aspects of the mother-tongue grammar. He concluded that this must be because they have what he termed a 'language acquisition device'. This theory sees language in purely physiological and mental terms, neglecting meaning and the impact of the social environment on the child. Sociolinguists, such as Halliday (1978) and Kress (1985), show how grammar is very much related to the social context and it is our meanings, what we want to say, what the topic is about, who we are and the setting in which we find ourselves and the means through which we use language, that affects the grammar that we use. Further, Bernstein (1971), Heath (1983), Kalantzis and Cope (1993) and many others have shown how social class and culture have an influence on the language we use. Teachers need to be aware of the linguistic and the related cognitive demands of schooling for all their pupils in order to scaffold their learning effectively. Assuming that there is one linguistic superior intelligence undermines the essential role that the social environment plays in the learning process.

In addition to the sensory and linguistic, musical and spatial arenas, Gardner wanted to include 'personal' intelligences in his list: he wanted to include a Freudian notion of self-awareness which he called *intrapersonal* intelligence ('access to one's own feeling life' (1993, p. 240)), and the Jamesian idea of expertise in relating to others—*interpersonal* intelligence ('the ability to notice and make distinctions among other individuals'). Intrapersonal intelligence refers to what is sometimes known as emotional literacy, which Goleman (1995) has further developed. Again, these are somewhat arbitrary 'intelligences' to choose. But more importantly, he has chosen the

processes of learning as intelligences, diverting our attention away from how children learn.

As I showed earlier, language plays a crucial role in the learning process, through its interactive active role. Vygotsky explained how our social interactions, our *interpersonal* interactions, have an impact on the way that we as individuals think, *intrapersonally*. If a pair of pupils are discussing their work together, they will share each other's ideas, interpersonally, and then begin to use the new learning that they have gained from this interchange, intrapersonally, within their own minds. By interacting within their own cultural setting they learn, through their 'higher mental functions', which originate through the medium of language or some other means of communication with others:

> *An interpersonal process is transformed into a intrapersonal one.* Every function in the child's cultural development appears twice: first on the social level, and later, on the individual level; first, *between* people (*interpsychological*), and then *inside* the child (*intrapsychological*). This applies to voluntary attention, to logical memory and to the formation of concepts. All the higher functions originate as actual relations between human individuals. (Vygotsky, 1986, p. 57)

This Vygotskian interpretation, like Gardner's, also draws on a Freudian interpretation of thinking and how language mediates this process, but despite Gardner's admiration for Vygotsky (Gardner, 2002), he has hijacked the terms to develop a rather different perspective. Gardner sees these processes of interaction and consequent thinking development as separate capacities, rather than understanding the processes to be part of the means of learning. We should not, as teachers, see our aim as simply developing personal capacities, but should always give pupils opportunities to interact, to think aloud, and to share their ideas with others, in order to develop thinking and learning.

It is crucial that teachers understand the processes of learning, in which language, inter- and intra-action, collaborative activity and using effective visual images, play an essential role. Of course every individual is different, with different strengths, abilities and areas of difficulty. All the more reason to understand the learning processes, rather than label our pupils. As Gillborn's (2002) research has shown, teachers make assumptions about pupils' abilities, often based on ethnicity and that they perceive ability to be fixed: the label sticks. This is confirmed by the use of Cognitive Ability Tests preformed on 11-year-olds, intended to predict GCSE results. Likewise, labelling pupils as having specific intelligences or learning styles puts pupils into fixed categories. Surely teachers have to believe in the difference that schooling can offer to pupil development. Pupils develop, learn and can flourish. Labelling can only serve to annihilate this process.

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## Note

1. As Coffield *et al.* show, there are several other dominant learning style theories in use in education. The above-mentioned work of Honey and Mumford and Kolb are the main other theories referred to, but this is mainly in Further and Higher educational contexts.

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