



The Naturalist Intelligence

by [Thomas Hoerr](#)

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Looking for Other Intelligences

When Gardner first raised the specter of multiple intelligences, he said that if one accepted the notion of the pluralization of intelligences, there was no reason to think that seven was a finite number. If there were seven different intelligences, he pointed out, certainly there could be more. Indeed, he felt that it was likely that more would be identified.

The search for other, new intelligences captures our imagination. Years ago, when our faculty read *Frames of Mind* and discussed the probability of other possible intelligences, what Gardner terms "candidate intelligences," several came to mind. We speculated about sense of humor, nurturing abilities, mental processing speed, and morality, among others. When we applied Gardner's criteria for what constitutes an intelligence ([see list](#)), however, we found that our candidate intelligences either were part of an already identified intelligence or didn't really qualify at all. As we talked about sense of humor, for example, we concluded that each intelligence had its own form of humor. Depending upon whether humor was demonstrated by puns or mime, one would be manifesting either the linguistic or bodily-kinesthetic intelligence. Similarly, as we thought about processing speed as a possible intelligence, we realized that this, too, varies by intelligence, so it also has no life of its own as a candidate for MI. (Our faculty committee was not alone in this quest for other intelligences. Gardner has said that candidate intelligences are often presented to him by others, proclivity in cooking and spirituality among them. He has also said that he does not wish to be the arbiter for what is or is not an "official" intelligence, and that the criteria for determining an intelligence should serve that purpose.)

The Eighth Intelligence

Recently, however, Gardner has identified an eighth intelligence, the naturalist intelligence. He describes the naturalist as the individual who "is able to recognize flora and fauna, to make other consequential distinctions in the natural world, and to use this ability productively [in hunting, in farming, in biological science]" (1995, 206). While certainly the ability to "live off the land," to enjoy the outdoors and to be comfortable with nature are important aspects of this intelligence, it seems to me that the naturalist intelligence is most typified by an ability to discern, identify and classify plants and animals. (Admittedly, this ability would make it easier to live off the land and so on, so my distinction may be a heuristic one.)

In *Undaunted Courage*, the story of the Lewis and Clark expedition, Stephen Ambrose talks a great deal about the talents possessed by Meriwether Lewis, the skills which caused Thomas Jefferson to select him to lead the expedition. Ambrose on Lewis:

He was a man whose mind never stopped working, and during his long walks on the plains or in the mountains he had plenty of time to think—even though his eyes were constantly picking up flora and fauna, geographical features, the distance to this or that spot, and registering them in his mind so he could write about them in his journal. (p. 262)

Ambrose also cites Gary Moulton's writing (in *The Journals of the Lewis and Clark Expedition*) in describing what we, today, would call Meriwether Lewis's naturalist intelligence:

Lewis' ability to distinguish between species based on leaf and fruit characteristics again demonstrates his remarkable botanical powers of observation.

Another individual who must have possessed a very strong naturalist intelligence was Charles Darwin. In writing a review of a book by Janet Browne about Darwin, Stephen Jay Gould uses the theory of multiple intelligences to help explain Darwin's success. Gould notes that Darwin was an indifferent student: "Absolutely nothing in any record documents the usual characteristics of intellectual brilliance." Yet Gould continues, "He coordinated the multiple intelligences that can seek, obtain, and order such information." Darwin's ability to identify and classify insects, birds, fish, and mammals, resulting in his theory of evolution, ranks as perhaps the major intellectual contribution of the nineteenth century.

Implications for Instruction

As we approach the world of the twenty-first century, our environment is quite different from that which existed at the turn of the nineteenth century when Lewis and Clark pursued the water route to the Pacific Ocean; it is different, too, from the second half of that century when Darwin sailed on the H.M.S. Beagle. Today wilderness areas are rare, identified and protected vestiges from an earlier era. Today's youth spend summers in air-conditioned malls or playing sports on suburban fields or blacktopped courts. As a result, kids have few opportunities to acquaint themselves with nature, to develop their naturalist intelligence and make sense of the world of plants and animals.

Interestingly (and given what have just described, fortunately), while the naturalist intelligence would logically be manifested and employed in natural settings, Gardner speculates that the naturalist intelligence today is still used by youngsters is in identifying and categorizing. Instead of applying it to flora and fauna, though, he suggests, they use this intelligence to recognize, sort, and organize sports trading cards, automobiles or athletic shoes!

Our work with the naturalist intelligence is just beginning. (Candidly, I still grapple with how it is different from and similar to the logical-mathematical intelligence.) But it is clear that the identification aspects of intelligence gives us still another way to look at students and tap into their strengths. As we think about this intelligence and how we can reach those students who possess it, we should look for opportunities to let students use their abilities to identify and organize. Ideally, we should provide a naturalistic setting for the naturalist intelligence. But that is only a starting point. Whether it is asking students to create categories to classify Civil War generals and organize them in a way that explains events; allowing children to be the first grade "docents" in the class's plant museum; arranging the student-drawn Mona Lisas according to some framework; having a student share and explain a collection of cards, matchbooks, or rocks; or making a point of taking the class outside to a nearby field or on a field trip to a nature preserve, we need to begin to look for this intelligence in our students, too. The reason we bring the theory of multiple intelligences to our classrooms is that it gives our students more avenues to succeed; the naturalist intelligence offers one more way to help students understand and learn.

Gardner's Criteria for Intelligence

1. Potential isolation by brain damage.
2. Experience of idiot savants, prodigies and other exceptional individuals.
3. An identifiable core set of operations -- basic kinds of information processing operations or mechanisms that deal with one specific kind of input.
4. A distinctive developmental history, along with a set of "end state" performances.
5. An evolutionary history and evolutionary plausibility.
6. Support from experimental and psychological tasks.
7. Support from psychometric findings.
8. Susceptibility to encoding from a symbol system.

This article is taken from *Succeeding with Multiple Intelligences: Teaching through the Personal Intelligences*.
The book is available from [Zephyr Press](#).

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