



# WHY TEACH HABITS OF MIND?

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*Now, what I want is, Facts. Teach these boys and girls nothing but Facts. Facts alone are wanted in life. Plant nothing else, and root out everything else. You can only form the minds of reasoning animals upon Facts; nothing else will ever be of any service to them.*

Charles Dickens, *Hard Times*

The quotation above is spoken by Mr. Gradgrind, the stern schoolmaster in Dickens's novel of the Industrial Revolution. Mr. Gradgrind surely believes that his educational philosophy is as enlightened as the new mood of the 19th century: Stoke the furnace of the mind with facts, and out will grind knowledge! Yet we know, as Dickens knew, that a view of schooling based on the grim, dehumanizing procedures of industrialization is a poor model for teaching and learning. This model historically has influenced education, but most educators have moved toward an emphasis on person-centered skills and abilities. Unlike Mr. Gradgrind, we now want to teach students *how* to do things, not just what to know.

Depending on our educational goals, the skills and abilities we aim to teach run the gamut from basic literacy skills to vocational skills to discipline-based skills to broad critical and creative-thinking skills. In recent years, some educators have broadened this skill-centered view of learning into a more dispositional view. This view emphasizes the teaching of broad, high-level intellectual behaviors. Such behaviors include skills, but they also encompass attitudes, motivations, emotions, and other elements typically left out of a skill-centered view of learning.

Different writers have suggested slightly different lists of top-10 intellectual behaviors, alternatively labeling them habits of mind, as they are called in this book and series, or thinking dispositions (Ennis, 1987; Facione, Sanchez, Facione, & Gainen, 1995; Perkins, Jay, & Tishman, 1993). Despite the different appellations, the lists are quite similar in spirit. By and large, they all emphasize curiosity, flexibility, posing problems, decision making, being reasonable, creativity, risk taking, and other behaviors that support critical and creative thought. Characteristic of all these lists is a respect for people's abilities to make their own informed choices and to direct their own intellectual behaviors.

The habits of mind view is a theory of education, a philosophy of what and how people should learn. Like any theory of education, it rests on a foundation of beliefs and values. An age-old tool for exploring such foundations is philosophical examination—the practice of critically probing assumptions and beliefs to see what they rest on and whether they are justified. Schopenhauer (1970), a philosopher famous for his no-holds-barred critical spirit, says that the two main requirements for philosophical examination are “firstly, to have the courage not to keep any question back; and secondly, to attain a clear consciousness of anything that goes without saying so as to comprehend it as a problem” (p. 117). This advice is very much in the spirit of habits of mind, and it serves as a good guide for exploring them. This chapter discusses four fundamental features of habits of mind that, taken together, suggest a persuasive answer to the chapter's central question: Why teach habits of mind?

## HONORING TEMPERAMENT AND DIFFERENCES

*Character is a long-standing habit.*

Plutarch

Education is about helping people develop and exercise their intelligence, and a philosophy of education can't help but take at least a tacit stand on the question of what intelligence is made of. Most traditional views of intelligence emphasize the cognitive skills that people are capable of demonstrating upon demand. Certainly, cognitive skill is important, but let's apply the second piece of Schopenhauer's advice and try to “attain a clear consciousness of anything that goes without saying so as to comprehend it as a problem.”

What goes without saying in the ability-centered view of intelligence is the belief that there is a direct and dependable link between ability and

action. In other words, it is a belief that simply having an ability to think in a certain way pretty much guarantees that one will do so. Yet people possess all kinds of abilities that they don't use, or they don't use appropriately.

For example, many people have the capacity to make thoughtful decisions, but they aren't motivated to do so. Many people know how to pose problems and ask questions, but frequently they don't see the purpose in it. Many people have the ability to be persistent, but they lack the will or the inclination. Many people have the ability to think empathically, but they don't see it as a valuable part of learning.

Abilities alone are dry and dormant. Passions, motivation, sensitivities, and values all play a role in bringing intelligent behavior to life. Defining intelligence as a matter of ability, without honoring all the other elements that enliven it, fails to capture its human spark. The habits of mind express a character-centered view of intelligence that honors the role of temperament and individual differences. In contrast to an ability-centered view, the habits of mind view intelligence as dispositional. A disposition is a propensity to act in a certain way. Viewing intelligence dispositionally says that intelligence is expressed as characteristic patterns of intellectual behavior in everyday situations.

If developing students' intelligence involves cultivating specific habits of mind, are not individuality and individual differences threatened? Doesn't it say, in effect, that all good thinkers will or should have the same personality and the same intellectual profile? Not at all. Character is much broader than personality. For example, consider self-reflectiveness, part of the metacognitive habit of thinking about thinking. This character trait manifests itself differently in different individuals. A person can be deeply self-reflective, obsessively self-reflective, or tentatively self-reflective. Or consider the habit of persistence. Some people are doggedly persistent, others are strategically persistent, some are quietly persistent, others are intensely persistent, and still others are foolishly persistent. Character traits are like broad physical traits: They can be shared by many people and yet look quite different in different individuals. Most everyone has a pair of eyes, but very few pairs of eyes look alike.

The habits of mind also honor individual differences by emphasizing broad character traits that aren't tied to a single modality or intelligence. For example, flexibility can be exercised verbally, kinesthetically, or musically. Persistence can be applied to activities in virtually every modality. Questions can be posed in words, in images, through music, and through movement. Far from limiting individuality of expression, the habits of mind encourage it.

## MAKING ROOM FOR EMOTION

The connection between emotions and intelligence has received a good deal of attention in recent years. Many views of education now explicitly recognize the importance of emotions, or emotional intelligence, and the habits of mind are no different. The habits of mind make room for the many roles of emotion in intelligence. Sometimes, however, the various ways that emotions contribute to thinking go unexamined. Because different emotions affect thinking in different ways, it's worth taking a closer look at exactly how emotions are involved in the habits of mind.

Perhaps the most obvious way the habits of mind make room for emotions is by specifically naming inclination as an attribute of intelligent behavior. Inclination is a feeling of being drawn to or pulled by something, a desire for a certain outcome, or a drive to act in a certain way. Honoring the emotions connected with inclination follows naturally from a character-centered rather than skill-centered conception of intelligence. If intelligence is defined as how we truly feel inclined to think, not just how we are capable of thinking, then the feelings connected with inclination need to be part of our conception of intelligence.

Another two attributes of habits of mind that make room for emotion are a valuing of specific intellectual behaviors and a commitment to strive to continually reflect on and improve them. To value a pattern of intellectual behavior is to care about it. To make a commitment to strive to improve a pattern of behavior is to feel strongly about its importance.

The emotions involved in valuing and committing to intellectual behaviors like the habits of mind are reminiscent of what psychologist R. S. Peters (1974) calls the "rational passions." These are the emotionally charged beliefs and commitments that underlie the pursuit of knowledge. They include a passion for truth and truthfulness, a love of accuracy, and an abhorrence of intellectual dishonesty. These are genuine passions, like any others, because they are deeply felt and play a strong role in motivating behavior. Philosopher Israel Scheffler (1977) observes that rational passions contribute to intellectual conscience. Intellectual conscience exists in a deep concern for being as true as possible to reality and an equally deep discomfort with intellectual shoddiness and dishonesty. Without intellectual conscience, intelligence is blind. Although rational passions aren't habits of mind in the sense that persistence, problem posing, and metacognition are, they serve as the emotional compass that points these and similar intellectual behaviors in the right direction.

A third and rather different way that the habits of mind honor the role of emotions in intelligence is the emphasis on empathy. Rational passions may motivate the pursuit of knowledge. But sometimes, in a much stronger sense, knowing is feeling. Empathy is an imaginative taking-on of the feelings of another person, and it is literally a mode of understanding. To know something empathically is to know something through the faculty of feeling.

To include empathy as a top-level habit of mind—listening with understanding and empathy—makes an implicit claim about the nature of knowledge that should be clearly stated. The implicit claim is this: Sometimes, to know something is to feel it rightly. Consider coming to understand the experience of eastern European immigrants who arrived in New York City in the early years of the 20th century. Is it possible to know their story in a detached and objective way without experiencing any kind of empathic feelings? Without somehow imaginatively feeling what it must have been like to enter a city in which every sound and sight were strange and overwhelming? In a very real sense, to understand something about this immigrant experience is to enter into the feeling of it.

To claim that feeling is a way of knowing departs from what sometimes has been called the standard scientific view of knowledge, which contends that knowledge is objective and can be apprehended purely intellectually. Most contemporary educators and philosophers no longer think this view is true, though it still lives on in many instructional and assessment practices. Finally, a fourth way that the habits of mind honor the role of emotions is by emphasizing emotional self-management. To act on one's intellectual values and commitments and to choose certain patterns of behavior over others, even in the face of countervailing forces, involve emotional self-control, resourcefulness, and insight. Writers such as Daniel Goleman (1995) have helped publicize the importance of emotional self-management in intelligent behavior. The habits of mind are compatible with this view, emphasizing self-reflection, managing impulsivity, and persisting.

### ATTENDING TO "SENSITIVITY"

One of the quieter but perhaps most significant features of the habits of mind is the recognition of the importance of intellectual sensitivity. The habits of mind draw explicit attention to sensitivity, which is an important and much overlooked element of intelligent behavior. Sensitivity involves the perception or recognition of opportunities to appropriately engage in certain patterns of intellectual behavior. For example, it involves recognizing

opportunities to think flexibly, to ask questions, to listen with empathy, or to be self-reflective.

The claim that sensitivity is important is like a wolf in sheep's clothing. It appears to be a mild and self-evident point: Who would argue with the notion that it's important to notice occasions to think? But this apparent mildness hides something that, as Schopenhauer might put it, has "gone without saying" in traditional accounts of good thinking. Typically, when we think about cultivating students' intellectual behavior, we think of the problem as having two sides: ability and motivation, or skill and will. You need to teach the right intellectual skills, the story goes, but you also have to motivate students to use them. Sensitivity is taken for granted.

Motivation is important, of course, and so are intellectual skills. But research reveals that sensitivity plays a much larger role in effective thinking than one might expect. Students often have quite a bit of difficulty perceiving opportunities to think critically and creatively when these opportunities are embedded in the everyday stream of life, even when they possess the skills and the will to do so.

A series of studies conducted by David Perkins, myself, and other colleagues at Harvard Project Zero reveals some interesting phenomena concerning sensitivity. Here are three relevant findings:

- First, we learned that sensitivity can truly be distinguished empirically from ability and inclination in measures of intellectual performance. In other words, sensitivity appears to be a genuine component of intelligence in its own right, distinct from both ability and inclination.

- Second, by measuring the relative contribution of inclination, sensitivity, and ability to overall intellectual performance, we discovered that sensitivity is often more of a roadblock to good thinking than a failure of inclination. In other words, students often fail to do their best thinking not because they aren't able to, and not because they don't want to, but *because they simply don't recognize occasions to do so.*

- Third, sensitivity is not as strongly correlated with IQ as is ability. In other words, high scores on ability measures are not necessarily accompanied by high scores on sensitivity measures. The reverse also is true: High scores on sensitivity measures don't necessarily reflect high ability. This finding underscores a belief that many educators already have. Traditional intelligence measures such as IQ tests (and standardized tests, whose scores are highly correlated with IQ) don't tell the whole story of intelligent behavior.

Earlier I mentioned that the emphasis on sensitivity as a component of good thinking is a wolf-like claim in sheep's clothing. Part of its wolfishness

consists in the rather daunting challenge of finding ways to teach sensitivity, which is very different from teaching skills or inspiring motivation. Teaching sensitivity means teaching students to notice, on their own, opportunities to employ habits of mind. Such work involves teaching students to notice occasions when it is appropriate to ask questions rather than pointing these occasions out to them. It involves teaching students to perceive the need for persistence rather than telling them when to persist. It involves cultivating a sensitivity to the need for precision rather than admonishing students to be accurate.

Sensitivity is often triggered by emotions (Tishman, 1998). For example, sensitivity to occasions for asking questions is often cued by a feeling of puzzlement or curiosity. We feel puzzled and interpret the feeling as a cue to ask questions. But we can also interpret puzzlement as a signal to give up on an inquiry, to not bother asking questions and to throw in the towel. Similarly, feelings of confusion or frustration can be interpreted as cues to persist in an inquiry. But they also can be perceived as signals to give up. More subtly, perhaps, that itchy, impatient feeling of wanting to raise one's voice to get one's opinion heard can be a cue to do simply that and drown out others. Or it can be interpreted as a signal to try harder to listen to others. By emphasizing the importance of sensitivity, the habits of mind remind us that emotions need interpreting. How they are interpreted influences the direction of intellectual activity.

Although sensitivity often is cued by emotions, it is triggered in other ways, too. For example, psychologist Ellen Langer (1989) believes that our alertness to thinking occasions can be heightened by heightening our general state of mindfulness. In the research I mentioned earlier, we learned that the visual layout of text has a surprisingly strong influence on sensitivity. Researcher Ron Ritchhart is currently conducting research into the behaviors of effective teachers who successfully cultivate sensitivity, and early observations suggest that the visual text on the classroom wall—posters, quotes, and so on—plays an important role (Ritchhart, 1998). But these findings are just the beginning. Considerably more research into how to cultivate sensitivity is needed. Very few, if any, contemporary instructional philosophies acknowledge the role of sensitivity, and its inclusion in the attributes of habits of mind is a great strength.

## CROSS-CONTEXT RELEVANCE

This chapter has discussed some broad theoretical features of habits of mind. But of course the habits of mind are more than abstract theory. The

habits of mind emphasize broad intellectual behaviors that are relevant and important across disciplines and in everyday life.

For example, the habit of thinking flexibly, the ability to see things from diverse perspectives, is important when interpreting scientific evidence. It also is relevant to understanding works of art, to exploring the viewpoints of others, and in making the myriad life decisions students face as they mature. The habit of listening with understanding and empathy is relevant to literature and the arts; it also is important when evaluating philosophical arguments and envisioning scientific systems.

Let's consider cross-context relevance from two angles. First, are broad habits of mind really transferable across context? Second, are the habits of mind culturally justifiable? In the spirit of Schopenhauer, a good way to analyze a claim is to explore possible objections to it.

#### THE TRANSFERABILITY OBJECTION

Suppose we are convinced that the intellectual behaviors expressed by the habits of mind are indeed useful ways of gaining understanding in many different contexts. We still need to know whether they transfer across contexts, which is a somewhat different issue. Just because transferring, say, the habit of questioning and posing problems from science to the arts to the workplace and beyond would be efficacious doesn't mean that the mind obligingly works that way. Indeed, some scholars have argued that cognitive skills are deeply context bound (e.g., Lave, 1988). Basically, the argument goes like this: We learn cognitive skills within a very specific context. Even if a skill is theoretically applicable to a wide variety of situations, or even if the skill is obviously useful and relevant, it can be so tightly linked to the contextual cues of the discipline or to the context in which it was learned that we are blind to other opportunities to apply it. For example, you may learn to pose good scientific problems in the context of the science lab, but that skill doesn't predict anything about your propensity to pose problems elsewhere.

There are two factors to remember. First, the tendency to transfer is itself a habit of mind. In this book, it goes by the label "applying past knowledge to new situations." Some people appear to have a greater propensity than others to seek wide applicability for the knowledge and skills they learn. The skills of transfer can also be taught (see Bransford, Franks, Vye, & Sherwood, 1989; Fogarty, Perkins, & Barrell, 1991; Perkins & Salomon, 1988). For example, people can be taught to look for comparisons between learning in one context and learning in another, and to seek cross-disciplinary connections.

A second point concerning the transferability of habits of mind is that they express a *dispositional* view of intelligence that goes beyond basic cognitive capacity to include character traits, values, and emotions, including the sensitivity to interpret emotions and other stimuli as cognitive cues. So one way the habits of mind account for the problem of transfer is by proposing that dispositions, rather than skills, are the "stuff" that is generalized across contexts. This view certainly has a good deal of theoretical support. As mentioned in the beginning of this chapter, many researchers and educators have conceptualized good thinking as a matter of a small set of broadly generalized thinking dispositions. A limited amount of empirical research has been conducted that explores the generality of these dispositional aspects of intelligence, by and large with positive results (Facione et al., 1995; Perkins & Tishman, 1997; Stanovich & West, 1997). More research is needed. A long research tradition in personality psychology shows that although acknowledging the interaction between personality and situational variables is important, some broad personality traits *do* tend to be quite stable across a wide range of situations (traits such as extroversion and introversion, timidity, adventuresomeness, flexibility, and achievement orientation). We cannot, however, automatically assume that habits of mind will have the same sort of stability profile. But the research does suggest that, if one is looking for broad transfer across contexts, taking a character-centered rather than skill-centered view of intellectual behavior makes more sense.

#### THE CULTURAL BIAS OBJECTION

A second objection to claiming broad relevance for habits of mind concerns their cultural orientation. Behaviors such as flexibility, persistence, and reasonableness may be well and good for students who live in families and communities that value them, but what about students who don't? We can't escape the fact that virtually any list of educational goals will reflect cultural ideals: We live inside a culture, and we can't help but value those behaviors that we believe best suit its philosophy or worldview. This is as true for habits of mind as any other view. But one dimension of habits of mind is worth inspecting more closely. This dimension concerns the connection to critical thinking.

Many of the habits of mind discussed in this book and elsewhere have been put forth as intellectual behaviors that support critical thinking. We have often heard that the teaching of critical thinking is especially suitable for a democratic culture because it is the best training for informed and intelligent democratic citizenship. But we have also heard that in certain

authoritarian cultures, the critical spirit—which includes asking questions, probing assumptions, and seeking reasons—is *not* a valued disposition. When students who live within these cultures at home encounter critical thinking in school, the experience can cause distress. Certainly, educators need to be sensitive to the connection between the classroom culture and the culture of the home. But no classroom anywhere will perfectly mirror the culture of each child's home, and the question of whether there should be a parallel between the home culture and the culture of the classroom is different than the question of whether habits of mind that support critical thinking have a cultural bias.

The philosopher Robert Ennis has carefully examined this question, and proposes an interesting and compelling answer. He defines critical thinking as "thinking that is reasonable and reflective, and is focused on deciding what to believe or do" (Ennis, 1998, p. 16). He argues that critical thinking is *not* biased (i.e., it is objectively worthwhile) for any culture that values decision making that best achieves the culture's goals or ideals. His point is that the decisions that are most likely to achieve a culture's goals are best made "if seeking reasons and alternatives, and being open to alternatives,] are part of the activity" (Ennis, 1998, p. 30).

In other words, decision makers in any culture that wants to preserve itself (which is pretty much any culture one can think of) do their job best when they think critically about the decisions they make. This view does not take a stand on whether the culture's goals are correct or incorrect, morally right or morally wrong. Nor does it take a stand on whether all members of the culture are, or should be, decision makers. These issues are cultural matters. What's at stake is whether or not to teach students the skills and dispositions that will empower them to be decision makers within their own cultures. This is a choice that individual educators and families have to make. Those who do not want their students or children to be empowered to make decisions for themselves will do well to avoid habits of mind.

## A HUMANISTIC PHILOSOPHY

Questions often spiral back to themselves, and as we conclude, this chapter returns to the question with which it began: Why teach habits of mind? I have suggested that the following four features of the habits of mind are significant:

- The habits of mind are based on a character-centered view of intelligence that emphasizes attitudes, habits, and character traits in addition to cognitive skill.
- The habits encompass a view of thinking and learning that accommodates several of the different roles that emotions play in good thinking.
- The habits of mind recognize the importance of sensitivity, which is a key yet often-overlooked feature of intelligent behavior.
- The habits are a set of specific intellectual behaviors that support critical and creative thought within, across, and beyond school subjects.

Mr. Gradgrind would be disappointed with what he read in this chapter: The habits of mind view is not a philosophy of facts. It is a humanistic philosophy of respect for others that expresses a belief in people's capacity for developing their intellect through reasoned reflection and appropriate emotion. Why teach the habits of mind? At this point, I invite you to decide for yourself.

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