Cultivating Standards of Taste:
“Aisthesis” in Liberal Arts and Science Pedagogy

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In *Of the Standard of Taste*, David Hume retells a story lifted from Cervantes’s *Don Quixote*. Sancho Panza, it is revealed, comes from a family with an excellent capacity for discernment in wine; it is a “quality hereditary” in his line. Indeed, Pancho declares, two of his kinsman on his father’s side—the finest tasters in la Mancha!—were once asked to bear judgement upon a hogshead of a particularly fine vintage. While these master tasters did not leave unimpressed, they each independently identified two unexpected flavors: in one instance, the faint taste of leather, and in the other, the metallic tang of iron. Hume writes, “You cannot imagine how much they were both ridiculed for their judgment. But who laughed in the end? On emptying the hogshead, there was found at the bottom an old key with a leathern thong tied to it.”¹

Hume’s metaphor points to the discriminatory capacity that comes with experience in a domain. More direct to our thesis, Pancho’s two kinsmen were able to discern that something was not quite right with the wine. We suggest that educators also want their students to be able to discern when something is not quite right. Educators seek to supplant students’ raw or naive intuitions with more refined intuitions about a particular domain—tasting the leather and the iron in the wine, so to speak. Educators want students, and people more generally, to recognize when ideas, frameworks, and processes

don’t “look right.” Consequent to this recognition may be attempts to fill in knowledge gaps and learn new problem-solving approaches. When we know that something does not look right, sound right, or feel right, we investigate further. We dub this faculty for recognition “aisthesis.”

The decision to call this faculty “aisthesis” rather than “aesthesis” is intentional. Whereas aesthesis tends to refer to either the qualitative, conscious dimension of experience (in Kant), or to the refinement and cultivation of preferences (in Schiller), what we mean by aisthesis is something rather more fundamental: the intuitive capacity to recognize and identify incoherence. We say “intuitive” because coherence is not by any means as circumscribed as more determinate concepts, such as “chair,” or “gross domestic product.” Indeed, it cannot be; there is no set of analytically necessary and eternally sufficient conditions for coherence, as Barry Allen observes. Knowledge and skill sets may cohere—viz., they may be internally consistent—in many ways.

However, simply because coherence is intuitive does not mean that coherence is something that humans acquire naively; it does not come along for free. On the contrary, the capacity to discern coherence—in other words, aisthesis—is something that requires gentle nurturing and cultivation—a patient coaxing, as if convincing a stubborn houseplant to express flowers. Furthermore, acquiring this skill is itself a precondition for recognizing and using determinate concepts in a competent manner. While it might be the case that a student without a sense of aisthesis can speak intelligently on the internal features of a given determinate concept, asking that same student to make sense of how that determinate concept might relate with other determinate concepts in a given context is impossible without aisthesis. Indeed, it is only through the cultivation of aisthesis that human beings develop the requisite “prelogical preference, prelinguistic sensitivity to felt differences, an aesthetic comprehension of objective, synthetic, constructed coherence.”

We would like to stress that simply because aisthesis is itself “aesthetic” by no means implies that it is relevant only for disciplines on the “literature” side of the union between literature and the sciences. To the contrary, this cultivated sensitivity to coherence is relevant to scholars across all disciplinary domains, irrespective of method.

3. Ibid., pp. 262–263.
or subject matter. Not only is this purported and much-ballyhooed distinction between magisteria likely premised upon a category error—as J. E. Gordon observed, “Ship design differs from the creation of poetry only in its numerate content”—but to imagine that scientific enterprises themselves do not benefit from a cultivated sensitivity to coherence is fundamentally misguided; indeed, sensitivity to coherence is enormously helpful for the working scientist.4 As Paul Thagard writes, “Explanatory coherence . . . involves theories that progressively broaden and deepen over time, where broadening is explanation of new facts and deepening is explanation of why the theory works.”5 Cultivating a sense of coherence is key to understanding not only how scientific theories work, but also how those theories fit together.

It is for this set of reasons that teaching and pedagogical practice at the baccalaureate level, are, we argue, fundamentally about training this sense of aisthesis in students: what we might profitably describe as a capacity to discern coherence within conceptual structures. Not only should educators impart atomic instances of knowledge, but also a general sense in which knowledge should cohere: knowledge being more than the assemblage of atomic facts. This holds for all disciplines, and is (explicitly or otherwise) a shared goal for most liberal arts educators. So educated, students are positioned for lifelong learning, which builds from a recognition of (in)coherence.

So how can (and do) educators, across disciplines, train aisthesis? Often, training begins at the outset of a course if instructors provide a brief history of their field. Such a sketch is quite common in textbooks, for example. Disciplinary histories are stories tracing the evolution of thought. Significant disciplinary changes—be they in arts, literature, medicine, or science—entail some reaction to former practices, tools, frameworks, or values, and they provoke a discussion of the improvements suggested by a new movement. In traversing the uneven terrain of disciplinary change, students are taught the virtues and limitations of thought structures that organized knowledge and praxis of a particular time. Students explicitly learn about the traps, fallacies, or otherwise partial worldviews that ensnared former disciplinary giants.

Subsequently, students are introduced to contemporary knowl-

edge, analytical frameworks, types of argumentation, and modes of production. Why? In some cases, it is so that students can become competent professionals in the domain they are learning. But more often, we believe, educators train critical thinking and critical perception for lifelong learning. We equip students with skills and dispositions that will serve them beyond the classroom, even if their professional lives do not directly draw upon the knowledge and skills taught. We hope students will be more likely to recognize flawed reasoning or rhetorical appeals, even if they have long forgotten the details of logic, statistics, and argumentation.

Aisthesis is further cultivated by projects that require students to analyze, evaluate, and synthesize (or create) material. Readers likely recognize these terms as descriptions of higher levels of Bloom’s (revised) taxonomy. These levels depend on knowledge and comprehension of basic facts, concepts, and procedures. What the higher levels have in common is their focusing of attention to relationships between lower-order information. In attending to relationships, one discovers that the whole of some body of knowledge becomes more than the sum of its parts. The whole is a system in which constituent parts cohere. Higher-level projects stitch together atomic facts. Procedures can be seen as linking subordinate data and processes. By asking students to analyze, evaluate, and synthesize, educators create the conditions for aisthesis.

Notably, aisthesis is not the same as analysis, evaluation, and synthesis. Aisthesis is a product of these activities. It is not a higher-order skill, per se. We are not suggesting that Bloom’s taxonomy include a new level with a higher peak. But rather, aisthesis is a marker of education. It indicates an understanding of relationships between more elementary information and skills. Aisthesis may be more more robust to deterioration than any of the particular skills within Bloom’s taxonomy. Cultivated conceptual systems have many links between their constituent parts, as between neurons in a neural network. The operation of deeply interconnected networks transcends individual connections. Densely constituted cognitive networks have a longer life than the components that constitute them. When we, as students, forget particular bits of information, or forget the specifics about how to apply particular analytic or synthetic methods, we can still recognize when something is not quite right. We may then recall that we have forgotten something, and can seek to refresh what we

have lost. Or we may recognize simply that there is a problem, and
turn our attention toward a solution.

Educators prompt students to remember, understand, apply, ana-
lyze, evaluate, and create so that they can recognize when such in-
formation, understandings, and skills should be drawn upon in the
future. Lifelong learners must be able to deploy their skills not only
when prompted, but also when unprompted. That signal for deploy-
ment, when internal, is aisthesis. Consequently, aisthesis provides a
novel lens for pedagogy. Training aisthesis can be done using many
“best practices”: active learning, problem-based learning, project-
based learning, and more. What these have in common is requiring
that students forge the links between their developing cognitive net-
works. Aisthesis further motivates the use of these synthetic, active-
learning activities.

Aisthesis may also provide a novel, and useful, framework for as-
sessing education. Instructors typically assess the knowledge and
skills students acquired in a class. We ask students to articulate what
they know, to demonstrate their understanding, to apply, to analyze,
to evaluate. In addition to these typical ways educators assess stu-
dent competence, we might also assess students’ ability to recognize
problems, or to recognize whether a problem exists. How to do this,
within and across disciplines, is an area that deserves attention. As-
essment of aisthesis may be given at the conclusion of a course to
provide a novel evaluation of how material coheres for each student.
In addition, since we suggest that aisthesis deteriorates at a different
rate than its constituent knowledge and skills, aisthesis provides a
way of assessing the long-term impact of an education. Insofar as ais-
thesis is critical for lifelong learning, assessment of aisthesis become
assessments of lifelong learning.

To conclude: aisthesis is a marker of education. Although it doesn’t
refer to particular sets of knowledge or particular skills in analyzing
and evaluating problems, it provides a overarching framework that
binds educators in both literature and science. However, while we
as liberal arts educators might broadly agree about the necessity of
training aisthesis, there is no clear sense of how we should perform
or assess this training, given the lack of positive content in aisthe-
sis itself. This absence of clear success criteria obviously presents a
problem for educators interested in fostering aisthesis in students.
Nonetheless, this should not pose a cause for alarm.

To the contrary, we are rather bullish about the possibilities offered
by the recognition of aisthesis—not only in terms of developing new
pedagogical methods, but also with respect to rethinking the role
and conceptual bedrock for existing methods, such as flipped classrooms, and problem- and project-based learning. However, in order to do so, we must be willing to not only think seriously about and elaborate upon the pedagogical utility of aisthesis, but also to reflect upon the tastes of leather and iron in our own assumptions regarding pedagogy and domain-specific content.