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Art and Education **Catherine Z. Elgin**

When budget cuts loom, school committees target arts programs. They consider education for the arts a frill, something nice to have in times of plenty, but not mandatory if money is tight. Nor is financial exigency the only threat. In the current climate, where curricula are designed around state mandated tests, schools see time devoted to arts education as time taken away from more important matters – namely, those that the states test. Evidently, with sharp limits on time and money, education for the arts is a luxury that schools can ill afford.

The idea that arts education is a frill is not new. Booker T. Washington argued that only after the African-American community had achieved prosperity should the arts be integrated into educational programs.¹ Nevertheless, the idea that the arts are peripheral to human wellbeing ignores the ubiquity of the arts. Unlike science, art is evidently a cultural universal. The earliest known paintings and drawings are over 14,000 years old. The earliest known musical instruments are 7,000-9,000 years old. Nor is prosperity a precondition for art. Frederick Douglass recalls,

[the slaves] would make the dense old woods, for miles around, reverberate with their wild songs, revealing at once the highest joy and the deepest sadness. They would compose and sing as they went along, consulting neither time nor tune. The thought that came up came out, if not in the word, in the sound, and as frequently in the one as in the other.²

But rather than supporting the desirability arts education, the ubiquity of art might serve as an argument against it. If people make art anyway, why should we devote scarce resources to teaching it? The slaves Douglass describes had no formal musical training. They made incredibly moving music without it. Why don't we just let art happen?

If this is a good argument against teaching art, it is an equally good argument against teaching language. Children learn their native language just by growing up around people who speak it. But no one would think we therefore should let nature take its course and drop the study of English from the curriculum. We appreciate how education improves, strengthens, enhances, and extends the capacity to speak English that native speakers of the language bring to school. If school committees do not think the same about arts education, it is, I believe, partly due to misconceptions about education and partly due to misconceptions about art. Once these misconceptions have been corrected, the contribution of art to education and the value of education for the arts will be manifest.

Skepticism about the feasibility of art education is grounded in a suspicion that art is unteachable. Stereotypes to this effect abound. Talent is a gift – something that a few select people just have. Art results from inspiration, and there is no hope of teaching anyone how to be inspired. Art appreciation, on the other hand, is purely subjective, a matter of how art makes a person feel. There is no accounting for matters of taste. If these stereotypes are correct, education cannot do much for either the artist or her

audience. Better we should spend our money teaching children the source of the Nile.

The misconception about education lies in the assumption that education consists mainly in information transfer. A student is an empty vessel into which the teacher pours justified true beliefs. The student thereby acquires a new store of knowledge. Since much art is nonpropositional, it does not consist of truths. Since most art does not contain arguments, it does not convey justification. And even if art moves us in profound ways, it rarely engenders new beliefs. Works of art have little, if any, credible information to convey. 'Construed as sources of knowledge,' Mothersill writes, 'the arts make a poor showing; as a means of acquiring new truths about the world or the soul, they are in competition with science and with philosophy.'³ In the competition, they do not fare well. But education does not consist entirely of information transfer. Students learn not just that $2+2=4$, but also how to add. They learn not just that 'bei' in German takes the dative, but also how to use and recognize German dative constructions. They learn not just that people resent being patronized, but also how to take the perspective of a patronized person and understand how things feel from her point of view. So even if we concede that the arts are in general poor sources of reliable information, we should not too quickly exile them from the educational realm. They may be repositories of and vehicles for learning of other valuable kinds.

What of the charge that art is impervious to education? We should look at this from two perspectives – that of the artist and that of the audience. If inspiration is essential to art, and no one can teach others to be inspired, then a crucial aspect of artistry cannot be taught. No doubt, inspiration sometimes figures in the creation of art. But the assumption that art is entirely a product of inspiration is unfounded. Orchestral music provides an obvious counterexample. The members of an orchestra need to know how to read music, how to play their instruments, how to tune their instruments, how to play together under the direction of a conductor. They need to recognize patterns, motifs, phrasings. They need to be sensitive to dynamics, rhythm, and pitch, as well as to what other players are doing. A composer needs to know a good deal about the capacities and limitations of the various instruments, about acoustic and tonal properties and their interactions, about melodic, harmonic, and rhythmic patterns and possibilities. Such matters can be learned, and some of them can be taught. Of course, there is no guarantee that a composer or performer of classical music who knows these things will be a good artist. But a composer or performer of classical music who is ignorant of or oblivious to such things is apt to be a bad artist.

Similarly in the visual arts. Students in the fine arts learn the powers and limitations of the different media, the interactions of discrete factors, the effects of color, light, shade, shape, and form, as well as the effects of their various combinations and juxtapositions. Artists in all fields benefit from knowing about the history of their art – about what has been done, how it has been done, what succeeded, and what failed. Even if artistic talent is a gift, education can foster and develop a variety of artistic skills and abilities that figure in the exercise of that gift.

This might be an argument for the educational value of conservatories and art institutes, but most students are not going to be artists. Is there any reason to think that art should be part of the general curriculum? To answer that, we should consider the perspective of the audience. Although most of us will never be professional artists and relatively few of us will even be serious amateur artists, we are all members of audiences.

For audiences for the arts do not consist exclusively of a cultural elite. They include everyone who turns on the television, goes to the movies, plugs in an ipod.

The conviction that audiences cannot be educated is grounded in the idea that art is, in Langer's terms, presentational rather than discursive.⁴ In responding to art, she maintains, we respond to the sense perceptible qualities an object presents – to its colors, shapes, and tones. Our responses may be purely sensory or they may be emotional but, it they are not cognitive. If this is right, there is nothing to learn. And since taste is entirely subjective, a matter of how one feels about an experience, there is no need to learn either.

This viewpoint is wrong in several regards. First, both sensory and emotional responses can be educated. At a wine tasting, for example, one learns to detect nuances of flavor that one could not initially taste. Solfège trains the ear, enabling one to hear aspects of tones that were previously inaudible. And as we attend to our own and to other people's emotional responses, we learn to make distinctions that we could not originally make. We learn, for example, to distinguish between love and infatuation, where we once felt only an undifferentiated attraction. So even if art works were purely presentational, there would be something to learn. To be sure, simply telling a student that she should distinguish subtly different shades of blue that she cannot now tell apart is an unpromising pedagogical strategy. But students can, through a series of carefully crafted exercises, be brought to discern such subtle differences in color.

Nevertheless, one might ask, if responses to the arts are purely subjective, why should we bother? If there is no basis for saying that a crude reaction is worse than a refined one, the student was no worse off vis à vis her experience of the painting when she saw the blue as a single uniform color than when she saw it as a variegated field of subtly different shades.

Here it pays to turn to Kant.⁵ He points out that our responses to art take the form of judgments. In talking about art, we do not simply express our personal feelings, as a person might when he says, 'I don't like butterscotch.' We make claims on others. If a person says, 'This work is derivative', or 'That work is splendid', he intimates that others should think so too. We give reasons for our interpretations and evaluations of works of art. We take these reasons to hold generally, but recognize that they can be contested. In our discussions about art, we assume that there is such a thing as being wrong. Indeed, we take it that people can be wrong in a variety of ways. Although there are many acceptable interpretations of *Hamlet*, it is wrong to interpret it as a story about a boy and his dog. Nor do we deem every sensory or emotional response to a work of art acceptable. A person who finds *Madam Butterfly*'s plight mildly amusing simply does not understand the opera. A person who is oblivious to the juxtapositions of tonality and atonality in *The Firebird Suite* not understand the piece. Our discussions about art reveal that we do not take aesthetic responses to be purely subjective. The question, evidently, is how can they be anything else?

The answer lies in rejecting the idea that lurks behind Langer's contention that the arts are not discursive. She is surely right in saying that. But we should not assume that if they are not discursive, the arts do not symbolize at all.⁶

Goodman argues that works of art are symbols with determinate syntactic and semantic structures. Syntax determines the identity of a symbol; semantics determines what, if anything, it refers to. If we construe works of art as symbols rather than merely as attractive (or unattractive) artifacts, many of the problems relating to art and education

dissolve. For interpreting symbols is a cognitive matter, one that, in principle, education can influence. Moreover, the sorts of symbols used in the arts are also used in disciplines that fall squarely within in the province of education.

In the arts and elsewhere, we construct and use symbols with different syntactic and semantic properties. Maps, pictures, charts, diagrams, and musical scores are familiar non-linguistic symbols. At the syntactical level, a crucial difference is between symbols that belong to systems that consist of discrete, sharply differentiated characters and symbols that belong to systems that lack such differentiation. Every linguistically significant symbol in a written language consists of some combination of letters, spaces and punctuation marks. The primitive elements are finite – indeed extraordinarily limited – in number. Musical scores likewise consist of combinations of relatively few discrete and determinate primitive elements. Representational symbols, such as pictures and maps, on the other hand, are syntactically dense. The smallest difference in certain respects makes a difference to the identity of a representational symbol.⁷ If a line on a map or a drawing were the least bit shorter, it would be a different symbol. But if the letter ‘k’ were printed in a different font or size – as a k or a k, for example – it would still be a ‘k’.

At the semantic level, Goodman recognizes two basic modes of reference: denotation and exemplification. Denotation is the semantic relation in which a name stands to its object, a predicate stands to the members of its extension, a picture stands to its subject. Description and representation thus depend on denotation. Fictional symbols, such as unicorn pictures or the names of fictional characters, are denoting symbols that lack denotata. Their intelligibility, Goodman believes, derives from symbols that denote them. Because ‘Ahab-description’ denotes the members of a specific collection of names and descriptions (predominantly, but not exclusively, those occurring in *Moby Dick*), those names and descriptions fix Ahab’s fictive identity. We learn who Captain Ahab is by reading the novel, just as we learn who Captain Cook was by reading a biography. But whereas Captain Cook was who he was regardless of what the biographies say about him, the Ahab-descriptions in the novel constitute the character. They make Ahab the character that he is.

Some symbols, including works of abstract art, most instrumental music, and many dances, do not even purport to denote. They refer by other means. Prominent among these is exemplification, the relation between a sample or example and the features it is a sample or example of. To exemplify a feature, Goodman maintains, a symbol must both instantiate and refer to it. Under its standard interpretation, a fabric swatch exemplifies its pattern, color, texture, and weave. The swatch makes these features manifest and affords epistemic access to them. The swatch also has a vast number of unexemplified properties, such as a particular mass, age, and distance from Sheboygan, Wisconsin. It makes no reference to these.

Because commercial samples belong to regimented exemplificational systems, established practice and accepted precedent dictate which features the swatch standardly exemplifies. But, even outside the arts, not all exemplars are so regimented. A teacher might hold a student paper up to the class as an example of particularly good or bad work. When she does so, the paper functions as an exemplar of the things she wants her students to notice. Depending on her current pedagogical objectives, it might exemplify its content, its form, its argumentative strategy, or even the neatness of the author’s

handwriting. Exemplars are selective. They point up, highlight, display and convey some of their features by marginalizing, overshadowing or downplaying others.

Exemplification plays a major role in the arts. Works of art exemplify some of their own properties, highlighting them and bringing them to the fore. A Mondrian painting, for example, exemplifies squareness. It not only consists of squares, it also points up this aspect of itself. *The Firebird* exemplifies tensions between tonality and atonality. It focuses attention on and heightens our sensitivity to such tensions. Representational works can also exemplify. Titian's portraits of Pope Paul III denote the Pope and exemplify decadence. Tolstoy's description of the Battle of Borodino both describes the battle and exemplifies an attitude toward war. The songs Douglass describes both denote aspects of the slaves' lives and exemplify the intermingling of joy and bitterness. In the arts a single symbol may simultaneously perform a variety of referential functions. And unlike commercial samples, exemplars in the arts typically do not belong to regimented systems. They function more like the student paper in that interpretation, which is far from automatic, is required to determine what they exemplify.

Denotation and exemplification need not be literal. Metaphorical symbols genuinely refer to their metaphorical subjects. 'Bulldog' genuinely, albeit metaphorically, refers to Churchill, and 'Churchill was a bulldog' is true under its metaphorical interpretation. Many people believe that metaphors are purely decorative. They are just 'artsy' ways of saying things that could be expressed literally. But, as is well known, metaphors typically resist paraphrase. Although 'Churchill was stubborn' is in the right neighborhood, it is less precise than 'Churchill was a bulldog'. Metaphors evidently are not just fancy paraphrases for accessible literal truths. They pick out extensions that are otherwise semantically unmarked.⁸ Standard English contains no literal predicate for the class of people in the metaphorical extension of 'bulldog'. So metaphors extend our semantic and cognitive range. They enable us to say things that we strictly have no way to say literally. They function similarly in representational realms. A caricature of Churchill as a bulldog, in metaphorically depicting him as a bulldog, characterizes Churchill in a way that no literal portrait of Churchill would quite do.

Metaphor is not restricted to denotation. In referring to a feature it metaphorically possesses, a symbol metaphorically exemplifies that property. Thus, Churchill metaphorically exemplifies bulldoggedness when serving as an example of that trait. Expression, Goodman maintains, is a form of metaphorical exemplification. A work of art, functioning as such, expresses the properties it metaphorically exemplifies. Being inanimate, the *Pietà* cannot literally exemplify sorrow. But it can and does exemplify the property metaphorically. It thereby expresses sorrow.

Exemplification thus accommodates the properties Langer labeled presentational. Works may literally exemplify sensory properties and metaphorically exemplify emotional properties. Since exemplification is a device for exhibiting or displaying properties, we can say that the works present the properties in question. But, according to Goodman, literal exemplification by works of art is not restricted to sensory properties, nor is expression restricted to emotional ones. A painting, although literally immobile, may express movement. A fanfare, although literally invisible, can express brightness and color.

I have discussed Goodman's theory in some detail, because the construal of works of art as symbols helps explain what art education is, why education facilitates the

creation and appreciation of art, and how understanding art interfaces with understanding of other kinds. A critical insight is that the symbolic devices used in the arts are also used in other disciplines. To deny that these devices function cognitively then would be to deprive ourselves of resources used in plainly cognitive domains, such as natural and social science. But once we admit that they function cognitively in such domains, it is hard to deny that they do so in the arts.

If a work of art is a symbol, then to create a work of art is to devise a symbol. To create a work of art that conveys a particular insight is to devise a suitably effective symbol. Moreover, to understand a work of art is to interpret a symbol correctly. That requires mastering its syntax and semantics. The parallel to language is illuminating here. Students need to know how to read works in the non-verbal arts as well as in the verbal arts. So art education analogous is to literacy education. Learning how to read and write effectively requires mastering the syntax and semantics of a natural language. A student needs to learn the alphabet, the vocabulary, and the grammar. She must develop facility with using and recognizing not just literal descriptive locutions, but also locutions that function in a variety of other ways. She must learn how to recognize and interpret metaphors, allusions, and other tropes. She must acquire the ability to construct and use them effectively. She has to learn how to tell whether something left unsaid is implicated by what is said. And she has to master the use of implicatures to convey more than she actually says. She even needs to acquire the ability to determine what to make of what is left unsaid in a particular passage. She must be able to tell what a particular passage exemplifies or expresses. And she must learn how to compose passages that exemplify and express what she wants them to.

All of this is familiar in the study of literature, but it is also critical in other areas. Political discourse, for example, is rife with metaphor, allusion, implicature, and expression. That a term for an ethnic group expresses contempt may be far more important to understanding a politician's remarks than knowing the exact boundaries of the group the derogatory term denotes. His failure to mention ongoing negotiations with adversaries may implicate that he is ready to go to war. To understand the political climate of an age then requires a complex array of linguistic abilities. Reading and understanding the primary source documents in history thus requires facility with symbols of a variety of different kinds.

The skills needed to understand literature are to a significant extent continuous with those needed to understand other uses of language. So, it is perhaps unsurprising, that the study of literature is far more deeply integrated into standard school curricula than the study of any other art. But the syntactic difference between linguistic symbols and representational symbols might seem to suggest that mastering representational symbols is hopelessly difficult. If every difference between two marks constitutes a difference between characters – if, for example, every difference in the length or shape of a line makes it a different symbol – we will never be in a position to tell exactly what symbol confronts us. How can we hope to interpret a symbol, if we cannot even be sure what the symbol is?

Luckily, such pessimism is unfounded. Students regularly master syntactically dense representational systems. Even if we ignore, for the moment, their facility with interpreting pictures, it is plain that they learn to read and make maps, charts, and diagrams. Maps represent such things as the course of a river, height of a mountain, the

location of a city, the boundaries of a state. In certain respects, every difference between marks makes a difference to the identity of a symbol on a map. So if, for example, the line representing the Nile had been shorter or thinner, it would have been a different symbol. The difference might, but need not, have been semantically significant. On a map purporting to show the precise source of the Nile, then if the line representing the river had been shorter, it would have indicated that the river began further north. If the thickness of a line representing a river is supposed to correlate with the river's volume, then representing it with a thinner line would have indicated that it was a smaller river. If, on the other hand, the source is only roughly indicated on the map, and there is no significance to the thickness of the lines indicating rivers, then these syntactic differences have no semantic consequences.

This is a familiar aspect of maps, and is one that students readily learn. Significant features of the terrain tend to be marked on maps. Features that are relevantly alike are represented in the same way. On a road map, for example, cities of the same size are apt to be represented with dots of the same size or the same color. On a political map, regions with the same voting patterns are apt to be represented in the same color. So cities that are represented in the same way on one map might be given distinct representations on another. In learning to make and read maps, students need learn how to construct and interpret the non-verbal symbols. This involves more than recognizing that a blue line represents a river and a dot represents a city. It also involves, for example, recognizing what the map does not represent. Should they infer from the fact that the map records no city between Rochester and Syracuse that there is no city between the two? That there is no major city between the two? That there is no city with a significant Polish population between the two? It depends. Students need to know what sort of information the map is designed to convey in order to answer such questions. The crucial point here is that map reading and map making are readily learnable skills. That every difference in particular respects *can* make a difference is compatible with the fact that it is possible to learn how to recognize in particular cases which features actually *do* make a difference.

Syntactic density then is in principle no barrier to symbolic mastery. Students readily learn to read maps, diagrams, and charts. But, one might argue, all such symbols are highly regimented. Maps contain keys that tell the reader what is represented, how it is represented, and at what scale. Charts and diagrams are standardized as well. The problem with paintings, sculptures, and the like is that they do not provide such keys.

But art is not alone in this regard. To understand a political poster, it is as important to recognize that the illustration is derogatory as that the words are. To understand his campaign speeches, one needs to recognize that some of his gestures express contempt and others express admiration. Properly interpreting his verbal, pictorial, and gestural tropes is critical to understanding what he is doing. The skills and abilities that students need to master symbols in other disciplines such as history and civics are thus the same, or continuous with those that they need to master artistic symbols.

Nevertheless, art arguably has more degrees of freedom than other disciplines. In history, geography, or physics, context sharply circumscribes, providing cues as to what aspects of a symbol are significant, and what they are likely to symbolize. But a painting or a quartet (particularly a contemporary painting or quartet), could in principle

symbolize just about anything via just about any of its features. This is a difference in degree not in kind. At best, it would indicate that learning to interpret aesthetic symbols is more difficult than learning to interpret symbols used in other disciplines. But even this may be conceding too much. For even though art as such allows for symbolization along any dimension and to any degree of precision, it is not the case that every work of art symbolizes along every dimension and with every degree of precision. In learning to interpret works of art, as in learning to interpret other symbols, the student starts out with relatively simple symbols, and works her way up to more difficult ones. In picture books for very young children, for example, the colors tend to be bright, the palette limited, the figures sharply defined, the mood clear. The picture of the woods near the witch's house may express scariness. But a three year old is not generally expected to decide whether they express eeriness, spookiness, or ominousness. If she recognizes that the picture depicts the woods and expresses scariness, she interprets it correctly. Even though scariness can be further divided into subcases, such as ominousness, eeriness, and spookiness, the symbol itself need not reflect these further distinctions. Just as we can say that something is scary without further refinements, a picture can *express* scariness without expressing any more refined sort of scariness. In that case, the child who takes the picture to exemplify scariness gets it right.

As she matures, the student encounters pictures that symbolize along additional dimensions and that belong to symbol systems that are capable of drawing finer distinctions. Eventually, she may be called upon to decide whether a work, such as Dürer's *Knight, Death and the Devil* expresses mere scariness, or a more refined emotion such as eeriness, ominousness, or spookiness. Although the question is difficult, and any answer is controversial, the question is not obviously any more difficult or the answer any more controversial than, for example, deciding whether Lear's mad scene expresses genuine insanity, or rage, or fury. One way students advance is by learning to construct increasingly sensitive interpretations of works of art. As they learn, the standards of correctness rise.

Evidently, art education is possible. The sorts of symbols used in the arts are also used in disciplines that are uncontroversially part of the curriculum – history, English, geography, and so on. The skills needed to create and interpret works of art are also needed to create and interpret symbols in the other disciplines that use them. Creativity, talent, and genius are desirable in all disciplines, but no more necessary in art than in history, science, or geography. The fear that there is something about art that locates it outside the boundaries of education is unfounded.

This raises a further question. Not everything that can be taught, should be taught. What reasons are there for saying that art should be part of the general curriculum?

One answer appeals to the intrinsic value of art. Making and appreciating art is an end in itself that need not be justified by any further goods it produces. Evidence for the intrinsic value of art comes from the ubiquity of art. Every culture produces and values art. Unlike commerce and technology, art as such seems to serve no further end. So it is at least plausible to think that art is valuable for its own sake. If this is so, then education that improves the ability to make and appreciate art is valuable because it enables students to achieve an intrinsically valuable end.

I consider this argument sound – in fact, decisive – but it faces a challenge. It is

exceedingly difficult to provide a strong argument that something is intrinsically valuable. The challenger can always ask, ‘But, why should we value *that*?’ Since an end in itself need serve no further end, there is nothing to be said about what intrinsic values are good for. When challenged to show that they really are good, there seems to be no way to mount a defense. So let us consider the idea that art education is good as a means.

A familiar justification appeals to the so-called “Mozart Effect”. Exposure to classical music is held to enhance general intelligence. In a slogan: ‘Music makes you smarter’. So parents are encouraged to expose their young children (even in utero) to classical music and to have them take music lessons from an early age, on the grounds that eventually this will pay off in higher SAT scores. But the research shows no such correlation.⁹ There is a correlation between listening to classical music and a short term improvement in specific spatial skills. This is an interesting neurological finding, but the improvement lasts only about fifteen minutes, and the skills (in paper folding tasks) are of no particular value for anything other than the insights about neurology they afford. The conviction that exposure to classical music enhances mathematical and engineering skills or general reasoning skills appears unfounded. The idea that it is but a short step from Suzuki violin to higher IQs is not supported by the evidence.

Instead of thinking of arts education as a cause of cognitive advances that have virtually nothing to do with art, as advocates of the Mozart Effect do, we do better to notice that skills and abilities acquired and developed through arts education are skills and abilities that figure in the mastery of other disciplines. A student who recognizes the irony in Molière’s *Misanthrope* is apt to recognize irony in Plato’s *Apology* or in Mencken’s news reports on the Scopes trial. And, of course, conversely. A student who recognizes Mencken’s or Plato’s irony is apt to be able to recognize irony in Molière.

Even if this is so, a problem remains: If we want students to understand irony in political commentators, why don’t we just have them study political commentators? What is the point of a detour through the arts?

Although the same symbolic functions are performed by works of art and by symbols of other kinds, the locus of the constraints seems to be different. Maps, charts, and diagrams are standardized. There are external constraints, dictated by the functions these symbols are designed to perform, that determine how the symbols are to be interpreted – what aspects symbolize, and to what degree of specificity. Because works of art set their own constraints, they can serve as laboratories of the mind.¹⁰ A work of art can isolate particular features and present them in a purer or clearer form, or from a more telling angle than we are apt to encounter in daily life.

Because there is less regimentation, to determine whether a particular aspect of a work of art is functioning symbolically, and what if anything it symbolizes, requires interpreting the work as a whole and figuring out what constraints it sets for itself. Because the symbols tend to be dense and replete, the answer to such questions may be indeterminate. Frequently, a work admits of multiple correct interpretations. Whether, for example, a given juxtaposition is significant depends on how it contributes to an interpretation of the work as a whole. Relative to one interpretation, it is significant; relative to another it is not. So to make sense of a work, an interpreter needs to tease out possible interpretations and determine what is to be said for and against each of them. It requires a delicate balance of cognitive firmness and flexibility.

The capacity to strike such a balance is cognitively valuable across disciplines. It

is particularly useful at the cutting edge of inquiry, where things are not nearly so regimented as our stereotypes pretend. How to represent the data, how to distinguish between signal and noise, and what to make of the data may be unclear and how to decide may be controversial. The skills and dispositions one acquires in interpreting works of art may provide a useful platform for interpreting cutting edge results in the sciences.

Epistemologists often focus on cases where the evidence is, or might be, too sparse to warrant a conclusion. But often we face problems of plenty. We have a vast amount of data, but no obvious way to make sense of it. We do not know how to distinguish signal from noise, or relevant from irrelevant likenesses. Fiction can help. A work of fiction can contrive a situation that brings particular patterns or features or possibilities to the fore and makes readers aware of them. A painting with a fictive subject can do the same thing. A fictional symbol may exemplify a pattern that is present in the data, but that is easily missed because it is overlaid by other, salient factors. Once we have learned to discern the pattern, we can recognize it in ordinary life. *Oedipus Rex*, for example, exemplifies Aristotle's point that we should call no man happy until he is dead. Having seen the play, we can readily recognize other, more pedestrian cases of the precariousness of good fortune.

Nor is it only works of fiction that play this role. A work of art, representational or not, can exemplify features or patterns that obtain, but are not discerned in daily life. Once we learn to recognize them, they may be readily found. Douglass's discussion of the slave songs brings this out.

They told a tale of woe which was then beyond my feeble comprehension; they were tones loud, long, and deep; they breathed the prayer and complaint of souls boiling over with the bitterest anguish. Every tone was a testimony against slavery, and a prayer to God for deliverance from chains.¹¹

By expressing the bitter anguish that slavery produced, the songs made manifest what should have been, but was not, obvious anyway. It is worth noting that Douglass does not emphasize the words of these songs. The loud, long, and deep tones convey the slaves' anguish. He says, 'I have often thought that the mere hearing of those songs would do more to impress some minds with the horrible character of slavery than the reading of whole volumes of philosophy.'¹² If he is even nearly right, the power of the arts extends vastly beyond the aesthetic realm. In that case, the capacity to create and interpret symbols such as the slave songs is crucial for reasons that have nothing to do with art.

This example might seem to make things too easy. Since we are firmly convinced that slavery is evil, a device that can move people to share our opinion seems to advance understanding. But songs, however moving, convey no evidence and provide no argument. At most, it seems, the songs get people to change their minds about slavery. They convey no warrant. The danger is that equally moving works could move people to endorse untenable conclusions.

If the songs or other works of art were supposed to make the entire case for a conclusion, the worry would be apt. At best, works of art highlight features, point up patterns, show or suggest unsuspected aspects of things that enable us to frame hypotheses. Except in rare, self-referential cases, a song or a story or a painting by itself does not demonstrate or provide evidence that things are as it intimates that they are. Still, framing hypotheses that are worth investigating is itself cognitively valuable. For

we are unlikely to test hypotheses we have never framed. So even if art did no more than enable people to frame such hypotheses, it would be cognitively valuable. But sometimes it does more. By exemplifying particular features or patterns, works of art prompt us to formulate hypotheses for which we have ample evidence but might, without the works never have framed.¹³ In such cases they enable us to bring familiar facts together so that we can see what follows from them.

To insist that works of art are symbols that figure in the advancement of understanding might seem to underrate the subjective and emotional aspects of art. It might seem to make looking at the *Mona Lisa* like peering at a problematic x-ray. Is a line or shadow significant? What, if anything, does it represent? What, if anything, does it portend? Do others see the same things when looking at it as I do? If not, what should we make of that? But, one wants to insist, looking at the *Mona Lisa* is *not* like looking at a problematic x-ray. In the case of the x-ray, each radiologist should be as objective as possible. Each should attempt to draw conclusions for which he can give reasons that would be acceptable to other experts in the field. Consensus in interpretation is strongly desired. But in looking at the *Mona Lisa*, the viewer should not leave her subjectivity behind. Consensus is not necessary. The felt quality of her experience is important.

Can a theory that construes works of art as symbols do justice to this difference? I think it can. I earlier denied that art is purely subjective, for it is possible to misinterpret works of art. But this is not to say that subjectivity has no place in the interpretation of art. Encounters with the arts are reflective. We attend to the work, and to our reactions to the work. And we take it that our subjective reactions may be indicative of aspects of the work. If the *Mona Lisa* strikes us as mysterious, we consider why we are reacting that way. Our responses are Janus faced: they reveal something about the work and something about ourselves. And each of these reflects back on the other. The more we understand our responses, the more resources we have for understanding the works that evoke them; and the more we understand the works, the more sensitive and focused our responses can be. So subjective reactions are not the end of an aesthetic encounter, but they are a means to advance understanding of and through the encounter. Our feelings, like our sensations, are resources for interpretation. They indicate what and how a work symbolizes. Like other indicators, they can be misleading. So the sensibilities need to be educated. We need to learn when and how feelings are apt to mislead, and how to recognize when we are being misled. And we need to learn how to deduce what is actually the case from the misleading appearances. We do the same thing in perceptual cases. We have learned that the apparent shape of a coin tilted coin is not its real shape; and we have learned how to figure out its real shape from the apparent shape. The crucial point is that educating the sensibilities is not a matter of moving away from subjective responses; it is refining them so that, while they remain subjective, they become increasingly valuable cognitive resources. A connoisseur, like a good judge of character, is someone whose subjective responses are finely tuned to relevant features of their targets.

We have seen that a symbol-theoretic conception of art readily explains how art education is possible and why it is valuable. Dewey's conception of a means-ends continuum is useful here.¹⁴ Rather than conceiving of the arts as mere means to some utterly independent end, as the advocates of the Mozart Effect do, we should see that they are at once both ends and means. Understanding works of art is worthwhile for its own

sake. But it also provides a platform for further understanding, both of art and of other matters. We develop resources, perspectives, and motivations that enable us to ask questions and find answers that, without them, we could not have done. The end then becomes a means to formulating and pursuing further ends, both in the arts and elsewhere. Education for the arts facilitates this process.

- ¹ Booker T. Washington, 'Industrial Education for the Negro', *The Negro Problem: A Series of Articles by Representative Negroes of Today*, New York: AMS press, 1970 (first published, 1903), p. 17.
- ² Frederick Douglass, 'Narrative of the life of Frederick Douglass,' *Douglass Autobiographies*, Library of America, 1994, p. 8.
- ³ Mary Mothersill, *Beauty Restored* (Oxford: Clarendon, 1984), p. 8.
- ⁴ Suzanne Langer, *Philosophy in a New Key*, Cambridge: Harvard University Press, 1976, pp. 79-102.
- ⁵ Immanuel Kant, *Critique of Judgment*, Indianapolis: Hackett, 1987, pp. 209-220.
- ⁶ Nelson Goodman, *Languages of Art*, Indianapolis: Hackett, 1976.
- ⁷ Density in this sense has nothing to do with obscurity. It has to do with the relation of symbols to one another. The real numbers are dense in this sense in that between any two there is a third.
- ⁸ Sam Glucksburg and Boas Keyser, 'Understanding Metaphorical Comparisons: Beyond Similarity'. *Psychological Review* 97 (1990), pp. 3-18.
- ⁹ F. H. Raucher, G. L. Shaw, and K. N. Ky, 'Music and Spacial Task Performance' *Nature* 365 (1993), 611.
- ¹⁰ Catherine Z. Elgin, 'The Laboratory of the Mind,' *A sense of the World: Essays on Fiction, Narrative, and Knowledge*, ed. Wolfgang Huemer, John Gibson, Lucca Pocci. London: Routledge, 2007, pp. 43-54.
- ¹¹ Douglass, *op. cit.*, p. 24
- ¹² *Ibid.*
- ¹³ David K. Lewis. 'Truth in Fiction, Postscript,' in *Philosophical Papers* (Oxford: Oxford University Press, 1983), vol. 1, p. 279.
- ¹⁴ John Dewey, *Democracy and Education*, New York: The Free Press, 1916, pp. 100-124.