RELOCATING AESTHETICS
Goodman's Epistemic Turn
Catherine Z. Elgin

Long a denizen of the realm of value theory, aesthetics emigrates, at Nelson Goodman's invitation, to epistemology. The arts function cognitively, Goodman insists. The job of aesthetics is to explain how. Such a contention would be capricious, if epistemology were construed as the theory of knowledge. The arts are rarely repositories of justified true beliefs. But knowledge, Goodman and I contend, is an unworthy cognitive objective. Far better to set our sights on understanding. And far better for epistemology to treat understanding as the focus of its concern [R, 163].[1]works: LA, for *Languages of Art*, Indianapolis: Hackett, 1976; MM, for *Of Mind and Other Matters*, Cambridge: Harvard, 1984; PP, for *Problems and Projects*, Indianapolis: Hackett, 1972; R, for *Reconceptions in Philosophy and Other Arts and Sciences* (written with Catherine Z. Elgin), Indianapolis: Hackett, 1988; WW, for *Ways of Worldmaking*, Indianapolis: Hackett, 1978.

In making a place for aesthetics in epistemology, Goodman thus reconceives epistemology as well as aesthetics. In so doing, he revitalizes both.

To understand a portrait, a partita, or a pas de deux, Goodman believes, is not to consider it beautiful, appreciate it, ascertain what its author intended by it, or have a so-called `aesthetic experience' of it. Rather, to understand it is to interpret it correctly --to recognize what it symbolizes and how it fits with or reacts against other world versions and visions [WW, 109-140]. Understanding works of art is not a matter of passive absorption, but of active intellectual engagement with symbols whose syntactic and semantic features are often elusive. No more than in science is correct interpretation in the arts assured. Thinking you understand a symbol does not make it so.

Understanding a symbol may be difficult, for there are multiple modes of reference. Two are basic: denotation and exemplification. A symbol denotes what it applies to: a name denotes its bearer; a predicate, the objects in its extension. Goodman extends this familiar construal to accommodate nonverbal symbols. A portrait denotes its subject; a general picture, the members of the class it characterizes. Thus Manet's portrait of Berthe Morisot denotes Morisot, and a picture of a mallard in a bird watcher's guide denotes the members of the class of mallards. Depiction, according to Goodman, is pictorial denotation [LA, 3-6].

Fictive symbols are denoting symbols. But they lack denotations. They derive their significance, Goodman urges, from certain terms that denote them. `Maggie-description' denotes the names and descriptions in *The Mill on the Floss* that conspire to fix Maggie Tulliver's fictive identity. `Unicorn-picture' denotes the portions of paintings, drawings, and tapestries that determine the constitution of the fictive kind, *unicorn*. `Ideal-gas-description' denotes the words and equations that

[1] The following abbreviations will be used throughout the text to refer to Nelson Goodman's

determine the character of the fictive ideal gas [LA, 21-26].

Abstract art does not even pretend to denote. Nor typically does architecture or instrumental music. Dance, too, frequently eschews denotation. Such works refer in other ways --often by means of exemplification. I..M..Pei's addition to the Louvre is a case in point. Because it both is a pyramid and presents itself as such, it exemplifies its shape.[2] Any symbol that at once instantiates and refers to a feature exemplifies that feature [LA, 52-67].

Exemplification, like denotation, is ubiquitous. It links a sample to what it samples and an example, to what it is an example of. Exemplification is thus a staple of commerce, science, and pedagogy, as well as art. A free sample of laundry detergent exemplifies the soap's cleaning power; a blood sample, the presence of antibodies. A theorem exemplifies its logical form, while a sample problem in a textbook exemplifies the reasoning it seeks to inculcate.

A symbol can denote anything, so long as appropriate conventions are in force. Thus Pei's pyramid can denote my cat, if we establish a convention to that effect. But a symbol can exemplify only features it has. Not being a circle, Pei's pyramid is incapable of exemplifying circularity. Not being a cat, it cannot exemplify felinity. Exemplification, moreover, is selective. A symbol denotes everything it applies to, but exemplifies only some of the features it has. Even if Pei's pyramid was comissioned on a Tuesday, it does not exemplify *commissioned on a Tuesday.* For it does not highlight, exhibit, display, or convey that property.

Everyone uses examples. But few philosophers have appreciated their function. Examples are not merely decorative or heuristic devices, though they are often treated as such. They advance understanding in ways descriptions cannot. They show forth aspects of themselves, making those aspects available for exploration, elaboration, and projection. Wittgenstein and Kuhn extol examples and ground their philosophies in them. Goodman does more. He explains how examples function.

By exemplifying a feature, an example or other symbol affords epistemic access to it. Exemplified features need not be obvious. Often they are remarkably obscure. An intricate experiment may be mounted to exemplify minute differences in electromagnetic radiation. Mondrian's *Traflagar Square* exemplifies astoundingly precise geometrical relations. The insight a work of art or a scientific experiment yields is seldom limited to a single case. Typically, it reverberates, as exemplified features and their kin turn up in other settings. A telling example opens a window on a world. That Goodman's discussions of exemplification occur almost exclusively in his works on aesthetics is perhaps unfortunate. The arts have no monopoly on the device. Although philosophy of science has yet to acknowledge it, without exemplification empirical science would be mute.[3]

Denotation and exemplification to do not preclude each other. Works of art that denote usually exemplify as well. *Arrangement in Black and Gray* exemplifies shades of gray while denoting the Whistler's mother. *War and Peace* denotes the Battle of Borodino while exemplifying Tolstoy's philosophy of history. That a single symbol can perform multiple referential functions is a central tenet of Goodman's aesthetics. Indeed, he takes multiple reference to be symptomatic of aesthetic functioning

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[2] Nothing of philosophical substance turns on the correctness of my interpretation of any particular work of art. The reader who disagrees with my interpretations can easily supply examples of her own.

[3] Cf., Catherine Z. Elgin `Understanding: Art and Science', *Midwest Studies in Philosophy,* 16 (1991), 196-208

[WW, 68].

Reference need not be literal, Goodman maintains. Symbols genuinely refer to the objects they figuratively characterize [LA, 68-85]. An indiscriminately enthusiastic undergraduate is genuinely, because metaphorically, a panting puppy. Brancusi's literally solid *Bird in Space* genuinely, because metaphorically, exemplifies fluidity. For it both refers to and metaphorically instantiates the feature. The grue paradox genuinely, though not literally, pulled the rug out from under advocates of a syntactic solution to the problem of induction.

No more than reference is truth confined to the domain of the literal. If the student is metaphorically a panting puppy, `The student is a panting puppy' is metaphorically true. To be metaphorically true is to be true when interpreted metaphorically, just as to be literally true is to be true when interpreted literally. Non-tautologous sentences are true only under an interpretation. Goodman's point is that when it comes to assigning truth values, whether the interpretation is literal or metaphorical is a matter of indifference. Figurative reference then is no watered down substitute. It performs all the symbolic functions of literal reference, and others besides.

Goodman's discussion of metaphor abounds with metaphors that exemplify the features he describes. In typically Goodmanian fashion he eschews literal characterization and describes metaphor's operation metaphorically. Thus, he contends, metaphor is `an affair between a predicate with a past and an object that yields while protesting' [LA, 69]. His contention does double duty, both describing and exhibiting the interplay of attraction and resistance metaphor requires. Without resistance, a new application is literal; without attraction, it is arbitrary. Where an object both attracts and resists the application of a term, that application is metaphorical. Goodman's characterization needs no literal gloss. As my discussion amply illustrates, the temptation is not to paraphrase, but to elaborate --to see how much insight the description of metaphor as seduction will yield. By practicing what he preaches, Goodman both argues for and illustrates the tenability of his account.

Symbols do not ordinarily operate in isolation. They belong to, and function as members of families of alternatives that collectively sort the objects in a realm. `Panting puppy' belongs to a scheme that literally sorts dogs. Metaphor, Goodman maintains, exports the scheme to a distant realm, or reapplies it to effect a novel sorting of its native realm. Thus the scheme that sorts dogs transfers to and effects a reorganization of people. Under that transfer, an enthusiastic undergraduate qualifies as a panting puppy; an unusually vicious critic, as a rabid Rottweiler; a trendy, self-promoting aesthete, as a prancing poodle. Novel patterns and distinctions reveal themselves as the metaphorical scheme sorts people into categories no literal scheme recognizes. Much of this is tacit. By calling one person a puppy, we make other dog labels available for characterizing people, whether or not we actually employ those labels.

Goodman's endorsement of metaphorical reference and truth connects with his nominalism. Contemporary realists are prone to think that literal language at its best partitions its domain into natural kinds, or divides nature at the joints, or discloses the true and ultimate structure of reality. Somehow, the world is supposed to dictate its proper description. Goodman denies this. He believes that any order we find is an order we impose. Systems of categories are contrived to impose order. They divide a domain into individuals and group those individuals into kinds. They thereby equip us to describe, predict, explain, and complain about the entities thus recognized. But the success of one category scheme does not preclude the success of others. There is no unique way the world is, hence no priviliged way the world is to be described [PP, 24-32]. A single domain may be organized in multiple ways. And for different purposes, different classifications may be best. Political geography and physical geography, for example, characterize their common domain quite differently, the one delineating the boundaries of cities

and states, the other, the boundaries of forests and swamps. Each yields truths about the entities its terms refer to. Neither invalidates the other [WW, 91-107].

Similarly, Goodman maintains, a literal and a metaphorical scheme may organize a common domain and yield divergent truths about it. No more than the adequacy of the terminology of political geography discredits that of physical geography does the adequacy of a literal scheme discredit that of a metaphorical one. To call a freshman enthusiastic is not to deny that he is a panting puppy.

Metaphor's cognitive utility is plain. A metaphorical application reorganizes a domain, sorting its constituents into hitherto unrecognized kinds, revealing novel kinships and differences. We could, of course, achieve the same reorganization by coining new literal terms. But first we would need to decide where the lines should be drawn. Metaphor saves us the trouble. It redeploys a partition that has already proven its worth. And its new deployment recalls and depends on its previous successes. For a metaphorical application, even if unprecedented, is not arbitrary.

There are, of course, no guarantees. But its prior effectiveness affords some reason to think a scheme will provide an illuminating classification of the constituents of the new domain. That the distinction between puppies and mature dogs is worth drawing in the canine realm suggests that it might mark a useful divide in other realms as well. And when the application of `panting puppy' likens certain students to young dogs, when we come to see both groups as endearing and frustrating in much the same way, the suggestion is reinforced. Because `panting puppy' characterizes a class of students that no literal predicate captures, it enables us to see that those students have something in common that other students --even other enthusiastic students --do not share. Because it applies metaphorically, it likens the students it denotes to the literal referents of the term. Metaphor is a device for breaking through conceptual barriers. It affords epistemic access to novel affinities both within and between domains.

That metaphors can be true and illuminating does not, of course mean that every metaphor is either. Some are simply false. That a lumbering lineman is a gazelle is no more true metaphorically than it is literally. Others, though true, are hackneyed. A knockout blow no longer packs much punch. Metaphor then is no sure-fire source of insight. Neither is literal language. But like literal language, metaphor affords an avenue to understanding.

Being inanimate, works of art cannot literally instantiate emotions. Since exemplification requires instantiation, they cannot literally exemplify emotions either. But they can and often do both instantiate and exemplify emotions metaphorically. And they can and often do instantiate and exemplify other metaphorical features as well. A literally lifeless sculpture may metaphorically exemplify liveliness and joy. A literally colorless, carefully crafted mazurka may metaphorically exemplify spontaneity and color. No more than denotation is exemplification restricted to the literal.

Expression, Goodman contends, is a type of metaphorical exemplification [LA, 85-95]. A work of art expresses aesthetic features it exemplifies. Thus, Michelangelo's *Moses* expresses barely controlled rage. The combination of opulence and decay in seventeenth century Dutch still lifes expresses ambivalence about worldly success. Goodman denies that expression is restricted to the realm of emotion. Works of art metaphorically exemplify other aesthetic features as well. Bach's *Art of the Fugue*, for example, expresses symmetry and shape. There is evidently no a priori limit on the features art can express.

Nevertheless, art does not express every feature it metaphorically exemplifies. A blocked writer's work in progress may be a perfect example of a metaphorical black hole, in that it absorbs her completely but returns nothing. Still, it would not express *black hole*, for it exemplifies the metaphor qua frustrated

effort, not qua work of art.

The difficulty is to say what it is to exemplify qua work of art. Here Goodman is not as helpful as one might wish. He offers neither a criterion for art in general nor a criterion appropriate to each separate art. He says that a picture expresses only such properties as are constant relative to its literal pictorial properties. That is, it expresses only metaphorical properties that do not vary so long as the literal pictorial properties remain fixed [LA, 86]. But he says distressingly little about which of a picture's myriad properties qualify as literal pictorial properties [LA, 42].

This, I suggest, is no accident. Goodman can give no exhaustive specification of literal pictorial properties, because we're still learning what they are. Moreover, we're learning, not primarily from aesthetics or art criticism, but from art itself. As new works exemplify new ranges of literal properties, we are made mindful of them. We realize that they were present and significant in earlier works as well. Thus we come to appreciate, as our predecessors did not, that the viscosity of paint, the weave of the canvas, the topography of the painted surface are literal pictorial properties. As a result, we acquire the capacity to recognize as expressed metaphorical properties that are constant relative to these. This is a thoroughly Goodmanian conclusion, even though he never explicitly draws it.

Much reference is neither pure denotation nor pure exemplification, but a combination of the two. In allusion, Goodman maintains, a chain of reference consisting of denotational and exemplificational links connects a symbol with its referent. By portraying its subjects in costumes from a variety of historical periods, Rembrandt's *Night Watch* alludes to the proud history of the militia it depicts.[4] It denotes the figures garbed so as to exemplify the militia's history, and thereby refers indirectly to that history.

Artists don't work in a vaccuum. Their works often betray a host of influences. But influence is not the same as allusion. Raphael's *School of Athens*, for example, shows the influence of Michelangelo's Sistine Chapel frescoes. But it does not allude to them. Carravagio's *Calling of Saint Matthew*, on the other hand, makes the allusion. For Christ's gesture to Matthew in the Carravagio harks back to and derives its authority from Michelangelo's portrayal of God reaching out to Adam. [5] The difference is this: Although the Raphael exemplifies features it shares with and takes from Michelangelo's frescoes, it does not use the shared features as a vehicle for referring to the frescoes. The Carravagio uses the features it shares as a bridge to (and from) Michelangelo's work. Allusion and other modes of referential action at a distance require not just the existence of intervening referential links, but that reference be transmitted across those links.

Variation, Goodman urges, is a complex form of indirect reference [R, 66-82]. A variation must resemble its theme in some respects and differ from its theme in others. But every two passages do that. And not every passage is a variation on every other. What makes for variation, Goodman contends, is not just commonality and contrast, or even a specific sort of commonality and contrast, but reference via commonality and contrast. A variation refers to its theme via literal exemplification of shared features and via metaphorical exemplification of contrasting features. Only if reference is transmitted along both chains does a symbol's relation to another qualify as a variation on it. If Goodman's explication is correct, variation is not confined to music. For a symbol's status as a variation turns on its referential function, not

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[4] E. Haverkamp-Begemann, *Rembrandt: The Night Watch* (Princeton:Princeton University Press, 1982), 84-93.

[5] H. W. Janson, *History of Art*, 2nd edn., (Englewood Cliffs: Prentice Hall, 1982), 484.

on its aesthetic medium. And the requisite functions can be performed in any art. Picasso's take-offs on *Las Meninas* and on *Le D jeuner sur l'Herbe* then qualify as genuine variations.

Goodman's account provokes and provides resources for rethinking works of art we do not typically consider variations, for seeking out hitherto neglected relations within and between them. The variation form may be more prevalent than we know. The account also suggests further avenues for exploration. It invites us to investigate whether other aesthetic categories admit of explication in terms of indirect reference. It would be surprising if variation were unique.

Scientific symbols typically symbolize along comparatively few dimensions; aesthetic symbols, along comparatively many. The same configuration could serve as a symbol of either kind. A wavy line might function as an electrocardiogram, Goodman suggests, or as a Hokusai drawing [LA, 229]. Only its shape matters when it functions as an EKG. But when it functions as a drawing, the precise color and breadth of the line at each point, each particular shade in the background, the exact position and dimensions of the line on the paper, the paper's weight, composition, and texture --all are potentially significant.

Like other scientific symbols, the electrocardiogram is referentially austere. It denotes a series of heartbeats and exemplifies a range of symptoms. That's all. The drawing, on the other hand, performs multiple complex and interanimating referential functions. Through denotation, exemplification, expression, and allusion, it affords epistemic access to diverse referents by a variety of routes. Scientific symbols are comparatively attenuated, Goodman maintains. Aesthetic symbols are relatively replete [LA, 229-230].

Moreover, the dimensions along which a scientific symbol symbolizes are ordinarily settled in advance. A cardiologist could discover that small irregularities in the cardiogram's curve are indicative of a subtle coronary malfunction. But she's unlikely to find that the line's intensity has any cardiological significance. That the once black line fades off to a pale gray indicates that the printer needs more toner, not that the heartbeat is weakening.

The drawing is more open ended. Despite its familiarity, we might easily discover that hitherto unacknowledged aspects function symbolically. A sensitive critic could come to realize that an almost indiscernible asymmetry in the paper's weave contributes to the picture's flow. This is another reason why works of art merit and reward repeated reading.

A portrait portrays Virginia Woolf, her head jauntily cocked. It can capture the exact tilt of her head, the exact line of her brow, for pictorial precision admits of no limit. Pictures are, in Goodman's terms, semantically dense. They belong to symbol systems that can reflect the finest differences in their referential fields. Does the picture simply depict Woolf? Or does it depict her looking relieved but

slightly perplexed, or happy but mildly surprised, or bewildered but on the whole, content, or what? There may be no telling, for the referents of these and kindred characterizations may differ beyond the threshold of discrimination. To determine firmly and finally just what a given work depicts can be impossible. For pictures are semantically non-disjoint. It is not always possible to distinguish divergent referents.

Words too are semantically dense and non-disjoint. Language has the resources to describe an item with any degree of precision, and linguistic descriptions are so related that it is sometimes impossible to tell their referents apart. The difference between verbal and pictorial symbols, Goodman contends, lies in their syntax. Languages have alphabets --distinct and discriminable characters that compose their symbols. As a result, language admits of a criterion of syntactic equivalence --sameness of spelling. Inscriptions in a language that are spelled the same are interchangeable without syntactic effect.

Pictorial systems lack alphabets. They are syntactically dense. The exact color, thickness, position, and shading of each line in a drawing is critical to its identity as a pictorial symbol. Any two marks display some difference in these respects. So none are syntactically equivalent. No pictorial mark can replace any other without altering the symbol's identity [LA, 130-154].

Computer graphics, television images, mosaics, and the like might seem to present counterexamples to Goodman's claim. Television images and computer graphics are generated by arrays of digitally encoded dots. The dots are close together. But it is not the case that between any two there is a third. A mosaic consists of discrete tiles in a limited number of colors, sizes, and shapes that, like the computer's dots, seem to serve as an `alphabet' --a system of repeatable basic units that make up the picture. That computer pictures, television images, and mosaics are genuine pictures is beyond dispute. That they consist of discrete, discriminable syntactic elements is not.

Syntax is determined not by physical constitution, but by what constitutes an item as a symbol. To construe an item as a particular symbol is to classify it against a background of alternatives. The symbol together with its alternatives constitutes a symbol scheme. Each element obtains its syntactic character from its place in the scheme. The same mark may belong to several schemes, hence constitute several symbols. A mosaic pattern or a dot matrix design easily fits into a digital scheme --one whose characters are discrete and discriminable. But to construe them as pictures is to read them differently.

When we read a computer printout as a picture, we treat the array of grays that compose it as drawn from the full range of possibilities. Any shade of gray, it seems, could have been used. When we read a mosaic as a nativity scene, we treat its colors, sizes, and shapes as elements of a dense field of alternatives. Even if the artist was in fact limited in the choices available to him, we read the work as part of a scheme that provides unlimited options. Evidence for this can be found in our critical appraisals. When, for instance, we recognize the mosaics at Ravenna as masterpieces, when we say that the mosaicists got them exactly right, we mean that no conceivable alternative would have been better, not just that they are as good as can be expected given the limited options available. The schemes that

constitute symbols as pictures thus provide for alternatives that discrete, discriminable characters cannot comprise. So when computer printouts, television images, or mosaic designs are construed as pictures, their material atoms --individual dots or tiles --do not function as their syntactic primitives. As much as paintings or drawings, such pictures are syntactically dense symbols.

Density and repleteness are not necessary for art; nor are articulation and attenuation required by science. But, Goodman contends, density and repleteness are symptomatic of art [WW, 67-68]. And, I would add, articulation and attenuation, symptomatic of science. The reason, I suggest, lies in the cognitive values science and art embrace.[6]

Science values reproducible results and intersubjective accord. It structures itself and its subject matter to achieve these ends. If its findings belonged to a dense, non-disjoint field of alternatives, there would be no way to tell precisely what they were, hence no way to tell whether they had been reproduced. If, for instance, every difference in temperature constituted a different finding, we could never claim that the temperatures of two samples were the same. For identical readings might mask divergences beyond the threshold of measurement. Science then has an incentive to partition its domain into discrete and disjoint alternatives. It restricts its parameters and counts its measurements accurate only to a specifiable number of significant figures. Science also has reason to reject repleteness. For if scientific symbols were replete, there would be no way to tell whether differences in some seemingly irrelevant respect were in fact significant. In reading a thermometer, for example, we could not safely ignore such features as the thickness of the column of mercury, the shape of the tube that contains it, or its distance from the magnetic north pole. We could then never settle what the instrument reveals. To be sure, science retains the option of increasing its precision, refining its categories, and increasing the range of factors it considers. But it cannot opt for absolute precision and unlimited range without abandoning hope of agreement among investigators and reproduction of results.

Art has different aims. It values sensitivity more highly than accord, and aspires to results that cannot be reproduced. And it considers apparently interminable disagreements in interpretation a fair price to pay.

> Where we can never determine precisely just which symbol of a system we have or whether we have the same one on a second occasion, where the referent is so elusive that properly fitting a symbol to it requires endless care, where more rather than fewer features of the symbol count, where the symbol is an instance of the properties it symbolizes and may perform many interrelated simple and complex referential functions, we cannot merely look through the symbol to what it refers to . . . but must attend constantly to the symbol itself. [WW, 69]

Ambiguity, vagueness, and equivocality are scientific vices. They are often aesthetic virtues.

That the mind is mostly passive in the reception of sensations Goodman emphatically denies.

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[6] Catherine Z. Elgin, *With Reference to Reference*, (Indianapolis: Hackett, 1983), 120.

The mind, he insists is always active --ceaselessly searching, discriminating, integrating, and organizing. Nor, he insists are our perceptual capacities invariant. To the oft put allegation that for anyone who can't distinguish an original from a forgery, the distinction makes no difference, Goodman replies: What you can't distinguish today, you may learn to distinguish tomorrow. Further exposure to art can remedy even longstanding aesthetic incapacities [LA, 99-112].

Refinement of the sensibilities is not just a matter of making ever more delicate sensory discriminations. It also involves developing new recognitional capacities, and new ways of structuring the perceptual field. Learning to see an equivalence between a vivid red and a vivid green is as much a perceptual advance as learning to see the difference between scarlet and vermilion. Nor does refinement of visual perception restrict itself to the realm of colors. We learn to recognize patterns, styles, treatments, subjects, and much more. Just by looking, a connoisseur can tell that a painting is a Raphael, that it was painted before the artist encountered Michelangelo's work, that it achieves a harmonious balance of color and shade, that it expresses serenity. The novice, surveying the same work from the same vantage point, cannot yet see these things. What we see depends on more than where we stand. Features that elude the casual viewer leap immediately to the expert's eye. Experience, habit, interests and expectations inform perception. So over time, with effort and education, we develop an ability to see what we once could not.

Although Goodman recognizes no distinctively aesthetic emotion, he appreciates the role of emotions in the arts. Many works, we've seen, express emotions. We could hardly begin to understand such works were we oblivious to the emotions they express. This is fairly uncontroversial. More radical is Goodman's view that one's own emotional responses are vehicles for understanding. That a work amuses me is some reason to think it funny; that it bores me, some reason to think it banal. To be sure, my reaction doesn't entail that the work is funny or banal. Neither does its seeming blue entail that it is blue. But insofar as I am a good judge of color and conditions for judging color are propitious, something's seeming blue to me is a good, albeit defeasible, reason to believe that it is blue. Likewise, insofar as I have a good sense of humor and conditions are propitious, something's seeming funny to me is a good, albeit defeasible, reason to believe that it is funny.

Where the arts arouse emotions, conditions tend to be propitious. Overpowering emotions like abject terror, blind rage, or rapt infatuation do not typically present themselves as occasions for inquiry. Ordinarily they call for action, not contemplation. No one in the grip of genuine terror is likely to use her emotion as a scalpel for dissecting fear and its object. But emotions excited by the arts are muted and displaced. It is possible and may be informative to use the terror a Hitchcock film excites as a source of insight. We may find that modulations in our fear correlate with significant features of the film --features we would otherwise have overlooked. And we may learn to detect in ourselves subtle emotional nuances that we had previously lumped indiscriminately together under the label `fear'. The insights we thus glean typically project beyond the aesthetic realm. We recognize the newfound nuances in our emotional responses and use those nuances as detectors of hitherto unrecognized aspects of the objects that occasion them. If Goodman is right, emotion is not the end of aesthetics, but a powerful means by which art advances understanding [LA, 245-255].

Merit too converts from end to means. Rather than understanding art in order to evaluate it, we should, Goodman maintains, evaluate in order to understand. An unexpected assessment kindles curiosity, prompting us to attend more carefully to a work --to seek out and perhaps to find aesthetically significant features we had missed [PP, 120-121].

But what makes for merit? Not beauty. Many great works of art are ugly. Not truth. Fictions are literally false, and works in the nonverbal arts neither true nor false. Rather, Goodman believes, aesthetic merit depends on rightness of symbolization. And rightness in turn depends on fit --`fit to what is referred

to in one way or another, or to other renderings or to modes and manners of organization' [WW, 138]. A work that easily fits is readily intelligible. We can tell what it refers to, how it characterizes its referents, and how it relates to other works. But fit alone is not enough. A mundane representation of a routine subject in a popular style fits all too well with other renderings and with familiar modes and manners of organization. That's what wrong with it. It discloses nothing new. By its difficulty fitting in, a revolutionary work challenges familiar modes and manners of organization. It provokes a reconception of matters we thought were settled, perhaps by extending or reconfiguring the referential field, or by employing novel symbols or familiar symbols in novel ways. Such works are not so readily intelligible.

Revolutionary works, of course, are not entirely alien. They draw on as well as violate established conventions. For all its novelty, cubism owes a great deal to C zanne. Revolutionary works too strive to fit, Goodman maintains. But lacking the luxury of nestling comfortably into a preestablished niche, they must adjust the background assumptions to create a space for themselves. The task is more difficult, the rewards make it worth our while. For such works advance understanding by disclosing features their predecessors masked, by revealing new ways to see, and new things to find in our worlds. Merit derives then not just from fitting, but from fitting and working: fitting with what we already understand and working to advance understanding. That is, `achieving a firmer and more comprehensive grasp, removing anomalies, making significant discriminations and connections, gaining new insights' [R, 158]. Of course, revolutionary works are not the only ones that advance understanding. Works that are firmly grounded in an entrenched tradition can wring new insights from it. To say that Mozart's late quartets exemplify established classical forms is hardly to fault them. Such works advance understanding by uncovering a tradition's previously untapped (and often unsuspected) powers, making novel and effective applications of its symbolic resources, deploying its devices with sensitivity and courage to illuminate what had been obscure.

Our cognitive objectives themselves evolve as new opportunities arise. Each new level of understanding provokes new questions, poses new problems, pushes inquiry in directions its predecessors could not have imagined. Picasso solved aesthetic problems Rubens lacked the resources even to pose. Understanding, as Goodman and I conceive it, is not a repository of fixed and final epistemic achievements, but a springboard for further inquiry. This is so in the arts as much as in the sciences.

A problem remains. Advancement of understanding is a standard of cognitive merit in general. If, as Goodman contends, the arts function cognitively, it applies to works of art. But are all works of art that advance understanding *aesthetically* valuable? Robert Nozick thinks not.[7] Had Newton expressed his laws in doggerel, the poem would have advanced understanding considerably. It would then have been cognitively valuable. But doggerel --even in the service of science --lacks aesthetic merit. Thus, Nozick concludes, aesthetic merit is not cognitive merit. For despite its contribution to physics, Newton's poem, as Nozick imagines it, would have been lousy art.

What Nozick's criticism overlooks is that a symbol can function in several ways at once, and can function well in one way while functioning badly in another. Newton's doggerel would function well as science, badly as art. And only insofar as a symbol is functioning aesthetically, does its contribution to the advancement of understanding qualify as aesthetic merit [MM 138-139]. The crucial question for Goodman then is not `What is art?' but `When is art?' [WW, 57-70].

Goodman ventures no real definition of art, no set of necessary and sufficient conditions on the aesthetic. This omission stems, I think, not so much from his qualms about analyticity as from his conception of aesthetics as a branch of epistemology. Goodman has always been less interested in closing the borders of the aesthetic to interlopers than in discovering epistemically significant affinities that cut

[7] Robert Nozick, `Goodman, Nelson on Merit, Aesthetic', *The Journal of Philosophy*, 69 (1972), 783-785.

across realms. Determining whether political cartoons, Navaho blankets, or handmade quilts qualify as art is not so important as understanding what and how they contribute to cognition, and how their functioning resembles and differs from that of related symbols in the arts and elsewhere. The demand for a demarcation criterion no longer seems pressing.

Goodman does not, of course seek to reduce art to science or science to art. Rather he sees both as contributing to a general project of advancing and deepening understanding.[8]paper

Catherine Z. Elgin

[8] I am grateful to Carmo d'Orey for years of correspondence concerning issues raised in this