Making Art Explicit: Knowledge, Reason and Art History in the Art and Design Curriculum

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Abstract

Different and competing conceptions of knowledge have recently been the focus of debate in education, especially art education. The cognitive science conception of knowledge as information processing and storage in long-term memory is especially prominent in educational policy. By contrast, within writing that is directly about art education, discussion of knowledge has often been framed in negative, terms, as reductive, as entailing the imposition of rigid subject content and as antithetical to art. Taking issue with both these contrasting views, and using a non-empirical, philosophical approach, this article puts forward a case for the centrality of knowledge and reasoning within the art and design curriculum. Specifically, the article draws on inferentialism, a theory that has not previously been applied to art education. The argument presented understands art as discursive and rational, as concept using and reason sensitive, as essentially a disjunctive set of historical-social practices. Art education is then best thought of as a rational-critical introduction to knowing those practices, as making explicit their proprieties, entailments and contradictions and the choices that are thereby made possible. This view emphasises learning in art and design as developing increasing levels of responsibility and commitment by integrating concepts in practice and theory.

Keywords

art, education, inferentialism, knowledge

In this paper, I am interested in the different conceptions of knowledge that have recently been the focus of debate in education, especially art education. In the past

few years, new and compelling educational theories have been advanced about knowledge and the curriculum. The sociologist Young has written about the powerful knowledge that emerges from a strong relationship between disciplines and school subjects (Young 2008). Derry has drawn on inferential role semantics to show how subject specific-concepts and knowledge depend on distinctively human practices of reasoning (Derry 2020). By contrast, within writing that is directly about art education, discussion of knowledge has long been framed in ambivalent, and often negative, terms, as reductive, as entailing the imposition of rigid subject content, as antithetical to art (Eisner 1996, 34; Atkinson 2018, 2; Wild 2022: 31). In what follows, I make a case for the centrality of knowledge and reasoning within the art and design curriculum, more specifically of art historical knowledge.

This will entail sketching out an approach which is distinct both from an officially mandated cognitive science conception of knowledge on one side (DfE 2019) and on the other from what appears to be a diametrically opposed view coming from within the art education research community, a view which advocates not knowing, unknowing or unlearning as a kind of oppositional pedagogy (Atkinson 2018). I think from this latter side of the debate there is a tendency, through emphasising the affective, sensuous, non-conceptual character of art, to entrench an unhelpful subject-based exceptionalism. I argue conversely that we should not vacate the dialectical ground which understands art as also discursive and rational, as concept using and reason sensitive, as essentially a social–historical practice, or better a disjunctive set of such practices. Art education is then best thought of as a rational-critical introduction to knowing those practices, as making explicit their proprieties, entailments and contradictions and the choices that are thereby made possible.

The hidden connection between such apparently opposing views as the cognitive science view and the knowledge-critical view is that they share a representationalist conception of knowledge. In response, I want to explore an alternative, inferentialist account which provides a particular non-psychological, philosophical understanding of knowledge and which, by highlighting the pragmatic aspect of rationality, reveals continuities between artistic making and reasoning as a skilful practice. In what follows, I have been influenced by Derry's work on inferentialism and education and by Brandom (Brandom 1994; Derry 2018, 2020). The first part closely follows an argument put forward by Derry (2020). Then, I try to hitch this onto what I see as an interestingly related argument about what art is (Levinson 1979; Wollheim 1968, 1973). Finally, I propose a historical, conceptual framework that might underpin a critical, discursive, and dialectical approach to art education.

In the context of recent and ongoing policy reforms to English schools and Initial Teacher Education (e.g. the Early Career Framework, DfE 2019), research from the fields of cognitive science has been heavily mandated in support of emphasising knowledge and explicit instruction. This approach is exemplified by the work of researchers such as Kirschner, Sweller and Clark (Kirschner *et al.* 2006; Sweller 2016). In common with cognitive science approaches generally, this work gives an account of cognition, knowledge and learning in terms of information processing, the interaction of informational elements, the construction of schemas, and of memory types and capacities. The central claim is that the instructional design must take account of human cognitive architecture, especially the well-evidenced limits of working memory when coping with new information (Kirschner *et al.* 2006, 77).

On this cognitive science view of learning, knowledge structures are built up out of discrete representations that are caused by external stimuli and are variously processed, combined, integrated, stored and retrieved. Knowledge equates to informational states in individual learners and learning is defined as measurable changes in long-term memory. Our long-term memory comprises a knowledge base that supports, and is required by, all cognitive activities. New information can only enter it by passing through the narrow gate of working memory. The key pedagogical task, therefore, is to minimise any extraneous cognitive load placed on working memory. The whole drive of the approach stresses the building up of patterns and schemas from simple elements, a general emphasis on simple-to-complex sequencing which carries through to what are taken to be the implications of the theory for instructional design (Kirschner *et al.* 2006).

The foregoing summary, however simplified, picks out the points relevant to my argument. There are ways in which the generalised claims of the cognitive science approach thus outlined can be criticised. For example, most of the supporting research has been carried out in specific, controlled contexts without addressing less tidy practical and pedagogical considerations; thus it may be lacking in ecological validity across age ranges and subjects (Education Endowment Foundation 2021). Breaking learning down into problem-solving steps seems on the face of it most appropriate to subjects such as maths, science and computing, and it is not clear that all subjects have that algorithmic structure. These criticisms could arguably be addressed by just more empirical research in real classrooms and/or by analysing subjects such as English and music to reveal the algorithms underlying interpretive or creative practices. It could be claimed, for example, that in art and design, the principle of using representational algorithms, that is, schemas plus adjustment and elaboration, already has a precedent in Gombrich's classic 1960 study, *Art and Illusion* (Gombrich 1960/1977; Wood 2013, 125).

Cognitive psychology seeks to study the mind by exploring how the higher cognitive abilities that humans actually display are built out of more basic computational ones (Brandom 2009, 198). It is a 'bottom-up' approach that aims to show how complexity emerges on a continuum out of simple representational elements. So, the equation of knowledge with informational states and learning with memorisation is not a merely incidental reduction; it is central to the cognitive science enterprise. But the inferentialist line of argument I want to pursue here, taking my lead from Derry and Brandom (Brandom 2000; Derry 2020), could not be motivated by further empirical work. This is because it addresses conceptual issues that turn on the normativity of knowledge, reason and learning. In the formulation of Wilfred Sellars, when we characterise a state as being one of knowing we are not providing an empirical description of that state; rather, we are placing it in the 'logical space of reasons', of being able to, of it being appropriate to, justify one's belief (McDowall 2018, 1).

Brandom opposes a certain kind of naturalistic approach to showing how human cognition arises. Instead, he emphasises discontinuities between conceptual and non-conceptual mental activities. Moreover, he claims that cognitive scientists have signally failed to recognise the levels of semantic and pragmatic complexity required for distinctively human concept using (Brandom 2009, 198). On Brandom's view what is missing from the account put forward by Kirschner, Sweller and others is the interplay of reflexive consciousness and social action that ought to be considered when we talk of knowledge.

Inferentialism is a theory of meaning and conceptual understanding in which the content of words or sentences is understood holistically, as 'essentially consisting in its inferential relations' (Brandom 2000, 29). On an inferentialist view, anything but the most basic notion of concept possession goes beyond mere labelling of parts of the environment, beyond having a reliable disposition to respond differentially to stimuli. That kind of responsiveness, which could be exercised by animals and even non-organic materials, is at best merely classifying. The example Brandom gives is how a lump of iron might be said in a minimal sense to 'classify' its environment by rusting or not rusting (Brandom 2009, 200). By contrast, to acquire a concept that functions at least *descriptively* is to have some grasp of both its appropriate circumstances of application and its consequences of application, of what follows from it and what would be incompatible with it. To imagine an example, if a young child selects the colour blue when making a painting, she already has a developing, although implicit, understanding of 'blueness' in the context of painting and of what she is committed to by her action. She understands that the brush mark's blueness is compatible with its being either dry or dribbly, thick or thin, but not with its being simultaneously red or invisible. She may also have an emerging sense that it is appropriate to place the brush mark on a sheet of paper but not on the table, that marks placed on paper are given a special sort of joint attention by adults and are discussed and evaluated in certain ways. By contrast, an animal trained to mark a sheet of paper with blue paint could have no such network of related concepts. A child's recognition of blue paint and her intentional markings in this painting context involve and require awareness of many inferential connections and an emerging sense of appropriate norms (Derry 2018, 16).

Inferentialism claims that conceptual awareness is a capacity that is only achievable by creatures capable of inferential activity within a wider matrix of cultural norms and practices. The child's growing understanding of blue in painting is not best thought of as an individual's possession of data items that represent properties in the world. It is rather the adaptive development of ways of responding, judging and acting, both practically and linguistically, within a socially shared form of life (Brandom 2011, 7). Knowledge is not acquired in particles, or even in defined chunks, but holistically, as part of socially situated, inferential practices. As Brandom puts it, 'one cannot possess any concept unless one has many concepts' (Brandom 2000, 15).

To develop the imagined example a little further, the child may later extend her understanding of blue within the particular knowledge domain of art, with its specialised norms and terminology. She might learn that a commitment to painting monochromatically with blue rules out simultaneously exploring optical mixing with spots of complementary colour. Perhaps, as an older learner, she might engage with how Frankenthaler's proto-colour-field technique of staining the canvas negated aspects of Pollock's handling of the painted surface; or with how Goncharova's use of blue to symbolise cleanliness in her 1913 painting *Linen* signalled a critique of bourgeois academicism. All this would be an elaboration of those initial adaptive and inferential activities, exploring which thematized aspects of painting follow on from or contradict existing norms, integrating increasingly interconnected and finely differentiated concepts, and thus bringing her into some or other specialised community of designers, curators, artists and art historians.

It should be clear from this that there are sharp differences between the inferentialist understanding of learning I am advocating, and the cognitive science approach outlined above. Instead of the atomistic model entailed by the latter, in which all learning is shaped by the limitations of working memory, an inferentialist

view takes a holistic, pragmatist, top-down approach. Certainly, there is a place for the focused, deliberate rehearsal and memorization of discrete items of knowledge and skill, and perhaps this alone offers a vindication of attention to cognitive load theory. But such episodes are best regarded as special cases that require a broader background of learning, and this, I argue, should concern us more. As Derry has put it, in order properly speaking to educate, we must bring learners into

> a rich domain in which they can begin to make sense of what follows from what – in which their responsiveness to the relevant reasons and relations that constitute concepts can develop (Derry 2018)

An inferentialist view of knowledge and learning emphasises the learner's practical sorting of concepts and knowledge through judging and acting within a shared culture of such rational integrative practices. This process articulates the implicit task facing every learner: to make sense of – to receive, revise and extend – inherited knowledge. The sorting could entail rejecting some concepts, as well as extrapolating new or related concepts out of existing ones. This view requires us to conceive of the learner as an agent, a doer, and a subject who is responsible for, and is reflexively formed by, this ongoing activity of integration. As Brandom writes, the process is:

> structured by the rhythm of inhalation or amplification by acknowledging new commitments and extracting new consequences, and exhalation or criticism by rejecting or adjusting old commitments in the light of their rational relations to the new ones (Brandom 2011, 2)

I now want to sketch out how an inferentialist account of learning might be used within art and design education. I will start by showing how what I have called knowledge-critical views in art and design education share some unexpected features with cognitive load theory because of their empiricist-representationalist orientation.

It has been argued that what is important about and defining of the arts is their sensory and affective character (Eisner 1996, 22; Wild 2022, 31), and that the arts, therefore, provide a vital counterbalance to the dominant focus in education on a narrow conception of knowledge and understanding, an overly rational and discursive way of thinking that has long been privileged in schools. Eisner, for instance, places great emphasis on the richness of direct sensory experience that is only ever partially captured by concepts in language. Although this line of argument may seem far removed from the information processing approach of the cognitive science view I outlined earlier, I want to argue that there is an underlying connection. At base, Eisner's account is an empiricist, representationalist one, a sophisticated version of a common sense or pre-theoretical understanding of concept formation in which each individual's unique perceptual experience comes first. This unique experience is, on Eisner's view, a direct personal knowledge, which is only subsequently communicable through various forms of representation (Eisner 1996, 39). Eisner puts it like this,

> One's experience of the world is basically qualitative. Concepts initiate in the forms of experience that the senses make possible. When they are rendered into discourse, a transformation takes place: there is always a reduction (Eisner 1996, 33)

Eisner argues that education is impoverished because the richness of sensory and affective experience is not conveyed by standard linguistic conceptual frameworks (for an interesting recent version of this view, see Atkinson 2021, 65). On this way of thinking, it makes sense to teach art by providing learners with direct experiences of the unconstrained perceptual and material elements of art, to facilitate situations in which learners can experiment and discover unanticipated possibilities for expression and meaning making, prior to the application of particular rules and conventions. An array of discovery and creativity emphasising pedagogies can arise out of this constellation of ideas, notably formalist and new materialist varieties (Leslie 2021; Wild 2022). There are strengths and problems with each of these and they may not be consonant with each other, but I will not elaborate that comparison here.

For the sake of brevity, I will refer to a formalist example that is commonly used as an introductory scheme of work in secondary schools called the formal elements project. This typically consists of a series of exercises to explore in turn some or all of the following: line, tone, shape, colour, pattern and texture. Students might fill sheets of paper with varied lines and marks, using pencil, ink or charcoal. Or they might create graded sequences of tones in different media or paint charts to compare primary, secondary, complementary colours and so on. The idea of these exercises is that they provide a foundation for the whole field of art and design, an analysis of the raw matter of visual phenomena. There is an assumption of direct experiential learning at work, the idea that students are gaining unmediated knowledge by acquaintance of separate elements which can later be combined in complex products.

That this is implausible should be clear from my earlier example of a young child using the colour blue in making a painting. I highlighted there how even basic human awareness goes beyond reliable differential responsiveness to features of the sensed environment by involving a network of inferential connections. For such exercises to be learning, and more specifically learning art and design, they require a context of action. The student must already possess some emerging conception of art, functioning as a background to the use of line, tone, colour and so on, as functional elements of some specific artistic practice, even if that practice is in the process of being invented (Wollheim 1973, 150). It is only within the context of a specific practice with the norms, rules and constraints it affords that elements can be formed and become bearers of meaning (Derry 2018, 7).

In fact, introductory form-based exercises do have a historically specific context of practice, a significant provenance in the elementalist theories of modernist movements such as de Stijl and Constructivism, and especially the Bauhaus with the teachings of Johannes Itten and others. (There is a story to be told, though it is not possible here, about how modern art emerges out of, and alongside, modern reform pedagogies from Rousseau through Pestalozzi and Froebel, and in another, psychological, strand, through Herbart, Lotze and Lipps – see Podro 1966). The formal elements project makes pedagogical sense within the local paradigm of the modernist practices and theories which provide its justification. To apprehend tone, colour and shape as separate elements is already to impose a sophisticated convention.

The formal elements project rests implicitly on a paradigmatically modernist view of art, but I want to claim that all such classroom practices can be seen to depend on some underlying conception of art with its defining set of norms, proprieties, entailments and incompatibilities. Insofar as these conceptions remain in

the background, they do not show up for students as available to be endorsed or challenged, integrated or rejected. It is not enough that students merely encounter the materials of art in experience; they should be able to choose them and understand the consequences of their choices within practical contexts. The contention I want to develop now is that knowledge in art and design should be seen pragmatically, in terms of explicitly engaging learners with such decisions, commitments and responsibilities, justifications and criticisms. In teaching our subject, we can support this by making contrasting conceptions of art explicit.

I have claimed above that for learning to occur in art and design, even the most rudimentary handling of materials must be situated within the context of some specific artistic practice. This inevitably involves us with thinking historically. To quote Levinson, 'artworks are essentially historically embedded objects' (Levinson 2007, 4), indeed, art itself is essentially historical, is something that is intended to be seen as earlier artworks have been seen (Wollheim 1968, 167; Levinson 1979). This is to say that art as such has no essence other than what is offered by historical precedent variously reconstructed in the present. Art does not have a nature, only an open set of interpretable histories (Brandom 2000, 26).

Art's essential historicity is itself a historical matter, something that has come to be the case relatively recently. The sheer breadth and diversity of things which are taken as art now, makes identifying, categorising and defining art a difficult though not impossible task. There has also been a complex, fluctuating relationship between the ideas of 'art', 'craft' and 'design' (Shiner 2001). I claim that as educators we should engage with these issues of definition and categorisation and make them relevant to our teaching.

Most art teaching uses a familiar range of materials, techniques and themes, but art today might be many things. It could be a warehouse-sized installation or a marble statue, a pen and ink drawing or a pile of blankets, and many other modest or spectacular items. To highlight art's complex and contested character and to ensure that its scope and plurality is represented in the curriculum, I propose using a schematic historical conceptual scheme. Using this framework to inform the art and design curriculum not only ensures that a wide range of work is featured but it can also offer a powerful means of acknowledging and encouraging students' pragmatic engagement in their learning.

The contention of this proposed historical conceptual framework is that several notions of art have currency. New conceptions have emerged over time to challenge the old, complicating though not erasing what has gone before. Some key ingredients of these different conceptions are set out in the table given here (see Figure 1; also see de Duve 1994 for the blueprint of this taxonomy). The purpose of this layout is to highlight that the components of each view of art are frequently incompatible. These conceptions emerged over time and each builds logically on its predecessor. They are all still available today. The purpose of introducing this framework to learners is to encourage a critical, questioning attitude in students as they look at and practically draw upon a range of artworks and other cultural items, and as they reflect on the way that they are engaging with various practices. It should encourage learners to position themselves, drawing on their own emerging ideas, rationally synthesising and integrating those intuitions, exploring and becoming responsive to the entailments and contradictions embedded within competing ideas of art.

Using this approach draws students into engaging with different kinds of authority and responsibility. In viewing and responding to art there is the authority

A R T	C O N C E P T S	
TRADITIONAL	**MODERN**	**CONTEMPORARY**
CONVENTION Artists use forms, genres, themes and meanings that are passed on from generation to generation	ORIGINALITY An artist is an individual who creates something new and personal without relying on previous work	COLLABORATION Art is a social process in which people work together, sharing ideas and allowing new forms to emerge
CRAFT Art uses skilful techniques that can be taught and which produce reliable, already known outcomes	MEDIUM Art uses media like painting, drawing and sculpture. A medium combines materials and conventions. It can be discovered and explored	PRACTICE Art can't be confined to established forms, media and materials. Anything can become art. Art and life are blurred
IMITATION Artists copy the work of their predecessors. Copying is a way of showing respect and approval	EXPERIMENTATION Artists try out unexpected moves and test them directly against experience, finding new standards of success	DECONSTRUCTION Art breaks down familiar boundaries. It raises questions and challenges all established ideas and conventions

Figure 1

Contrasting Ideas of Art.

of individual works and cultural artefacts, which demand commitment and fidelity to their presence and specificity. And, in making claims about artworks, perhaps incorporating their features into their own practice, the student is experimenting with, trying out, taking on a kind of responsibility and authority, in that she now becomes responsible for those judgements and actions, those sayings and makings, and is open to being asked for reasons for them.

It has been argued (Atkinson 2018, 6) that there is an inherent contradiction or antinomy in art education between art as a force of disruption and disobedience, on one side, and its various established frameworks and normative structures, on the other. I don't think that is right as a general claim. Art can take up, and historically has taken up, different stances towards its own essentially normative character. These stances – which can be glossed, albeit schematically, as traditional, modern and contemporary – form the background against which all our aesthetic perceivings, claimings and doings show up as determinately contentful.

A common saying is that there are no rules in art. That saying is at odds with the view expressed here: the view that art is constituted by responses to rules, norms and concepts. It is just that there are no rules about which rules to follow, which we should normatively bind ourselves to as artist or viewer of art. Such rules live in, and are inconceivable without, the historically embedded, recognitive communities that we bring our students into when we educate them (Brandom 2009, 81). One way of thinking about the purpose of art and design education is to say that we would like students to become authoritative about aspects of the field, to take on commitments to the inferential integration of concepts and practice that constitute knowledge in the subject. This acquired authority and ownership can be manifested in a variety of roles. One, but only one, version of this might be the authority of the artist over, responsibility for and responsibility to, her own work.

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