

ENDPOINTS, REPERTOIRES, AND TOOLBOXES: DEVELOPMENT IN ART AS THE ACQUISITION OF TOOLS

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In 1988, Wolf and Perry published a well-known article about the development of children's drawings. It was titled "From endpoints to repertoires,"¹ and it challenged a widespread idea about the development of drawing. It disagreed with the idea that the development of drawing proceeds in a linear manner toward a natural goal. Wolf and Perry argued that there is no single endpoint, no one telos, toward which development naturally leads - 'naturally' meaning determined by the nature of the child. Thus, for example, Lowenfeld was wrong in his belief that children's drawings developed through a series of predictable stages toward an endpoint in which they could represent three dimensions realistically on paper.

The model of development that they were rejecting can be represented with a single line, like this:

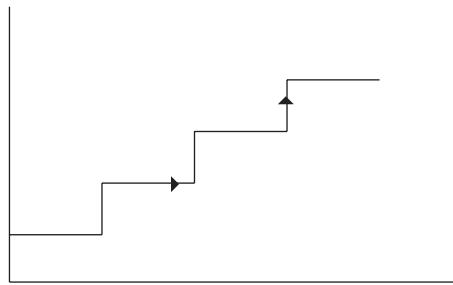


Figure 1
The linear model of development as in, e.g., Lowenfeld, Piaget

Wolf and Perry referred to the prevalence of this linear model of development in the history of development thought, though they discussed only the development of drawing. Many developmental schemes have used the linear model, each choosing a different endpoint toward which development moves. Piaget, for example, thought of development as progress toward formal operational modes of thought; Freud thought of it as the ascendance of secondary over primary thought processes, of civilization over instinct.

Within the domain of art, one could add the example of the U-shape curve from Project Zero.²

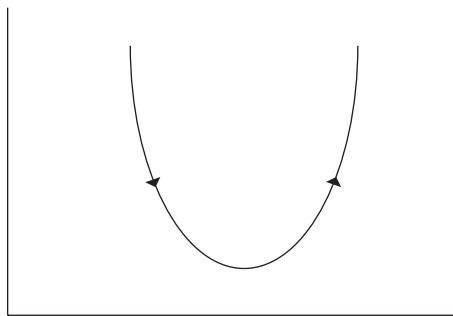


Figure 2
The 'U-shaped curve' (a linear model) as in, e.g., Howard Gardner

In this case, the natural endpoint was conceived as, not realism, but the production of the kind of aesthetic qualities that often characterizes the art of modern, or modernist artists, - expressiveness, spontaneity, charm - the qual-

ties that persuaded us to think of children's paintings as a kind of art. According to Project Zero, development toward this endpoint typically moves, not in a steady upward direction, but in a U shape. That is, the ability to produce expressive qualities is notably present in early childhood, declines with the realistic awkwardness of pre-adolescence, and returns again, if it does return at all, in adulthood.

This model is not a steady upward movement, but it is a linear one; that is, it assumes that there is one endpoint toward which development typically moves, and that there is a standard sequence for the movement. The choice of endpoint can vary - whether it is the production of realism, of modernist aesthetic qualities, or something else - depending on the psychologists' assumptions about art. Wolf and Perry suggested that any linear model is misleading because children typically develop several different ways of drawing rather than just one. And they do not lose the early ones as they discover new. The result is that older children have at their disposal a range of kinds of drawing, what Wolf calls a repertoire of visual languages, and they can choose to produce any one of them, depending on their purpose.

Wolf distinguished different drawing *systems* that young children adopt. An example is where a child hops a pencil across the paper like a rabbit, making marks where it lands, and talking at the same time about a rabbit. This she called a *gestural* system of representation. There is also an *iconic* system of representation, which includes several different drawing *genres* that older children learn, such as maps, diagrams, and realistic pictures. And within these there lie a variety of different drawing *styles*, which children usually learn in adolescence.

More importantly, children learn to use these different kinds of drawing in increasingly sophisticated ways. Wolf does not follow the question of development - of how a particular performance is to be judged developmentally - very far, but she suggests that it is not so much a question of which kind of drawing is produced, but of how sophisticated is its use. One might note that sophistication here might be divided into the sophistication of the meaning conveyed, and of production skill. Wolf argues that children learn, or could learn, to use each of these different kinds of drawing in increasingly sophisticated ways. Adults also can produce these different kinds of drawing for their

own purposes. For example, Wolf argues that "the set of options for translating motion into marks" that is opened by the gestural drawings of young children (recall the rabbit hopping across the page) are "fully realized in Arabic and Chinese calligraphy and again in...Abstract Expressionist painting." (Wolf, 1994, P. 75)

We could represent this idea of the development of a repertoire as a tree rather than as a single line. Note, incidentally, that Darwin's theory of evolution is often associated with the image of an evolutionary tree that has many end-points.

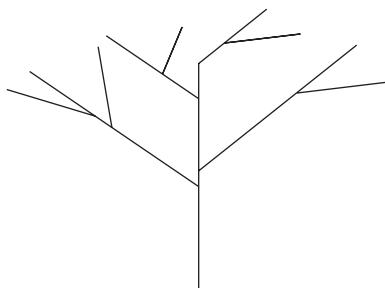


Figure 3
The tree-shaped model of development, as in Wolf & Perry,
Kindler, Darwin.

This figure responds, I think, to our increasing postmodern sense of the diversity of art itself and of the diversity of goals for art education. We can no longer assume that there is only one goal for art education.

A number of people in addition to Wolf and Perry have given us illustrations of the different kinds of drawings that children employ on different occasions³. Kindler⁴ and Kindler and Darras⁵ have provided us with some excellent examples. The title of Kindler's article quotes the title of Wolf and Perry's: "*From endpoints to repertoires: A challenge to art education*". Kindler spends less time on categorizing the kinds of drawings and more on giving examples. She also provides a contextual account of different drawings and the way in which they are shaped by particular purposes. The purposes in each case are communication: that is, the child creates drawings to communicate particular meanings. An example is when Antoni drew a map of an ice-hockey rink, along with some of its markings and with some gesturally produced marks to indicate the moves of players, all to illustrate a new rule of the game

of icehockey concerning face-offs (Kindler, 1999, p.339).

I want to develop these thoughts about the multiple endpoints of artistic development in two ways. The first is to apply them to the understanding of art as well as to the production of drawings. Developmental theory in art, indeed the psychology of art in general, has always been more interested in making art than in its understanding, in the same way that art education has been. But this does not serve the current direction of art education well.

My second intention is to make more explicit what we could call the cultural, or the Vygotskian, or perhaps the pragmatist, overtones of the work of Wolf and of Kindler. I want to develop the thought that both kinds of drawing and ways of talking about art are tools, tools that can be used to communicate different kinds of meanings. The use of tools depends not so much on the nature of the child as on the culture the child is born into. Tools are social creations and are afforded by a society for children for their use. Development then consists in the child's increasing ability to use them. This line of thought - connecting tool use, cognition, and development - has a long history stretching back into the 19th century. I am particularly influenced by the work of Michael Cole in his *Cultural Psychology*.⁶ Nevertheless, this approach has not yet much affected art education, nor the psychology of art. I want to shift the metaphor from that of a repertoire of performances to that of a box of tools, to emphasize both the diversity and the cultural character of development in the arts.

Kindler comes close to, but does not quite articulate, the theme of cultural dependency. For example, she speaks of "the...influence of culture in guiding choices of pictorial repertoires that are favored, valued, and taught." (p.331) In other words, culture will influence which item in the repertoire the child uses on particular occasions. But she does not speak of the role of the culture in shaping the repertoire in the first place or in encouraging or deterring the child to develop its sophisticated uses. Her examples fit well, though, with the tool metaphor. When Antoni draws the map of the hockey field, it is clear that he has seen and noticed the traditional markings on the hockey field and is mastering the rules of the game. He has presumably had the new rule explained to him, perhaps with the aid of diagrams. He reproduces the structure of the hockey field as a tool both to understand a new rule and to explain

it to others.

There are many kinds of tools. Michael Cole suggests a classification of three kinds of tools, or artifacts, as he prefers to call them. The first level is the most concrete. It is exemplified by axes, clubs, words, writing instruments, and telecommunications networks. In art, obvious examples are paintbrushes and palette knives; perhaps computer paint programs also.

Cole's third level is the most general and abstract. He says it includes items where the uses and the outcomes appear not to be directly practical, being more like games we play, activities we engage in as constitutive parts of life. His examples are all sorts of schemas and scripts, processes of perception, and works of art. Going to art museums and watching movies might be examples of scripts.

It is the second level, lying between the first and the third, that is probably of most interest to art educators. It consists, Cole says, of modes of representing and using the artifacts of the primary level. His examples are recipes, traditional beliefs, norms, and constitutions. I think the idea of *Impressionism* would be a good example in the visual arts. The styles we learn about in art history classes - Impressionism, Surrealism, the Renaissance, the Baroque - are ideas that can be used for understanding particular kinds of paintings: a knowledge of them will help us see certain things in these paintings, and to understand them in certain ways. The history of art in general can be regarded as a kind of toolbox, full of tools of this second kind, the source of many sets of expectations that we can use to understand particular kinds of artworks.

Similarly, there are skills and routines that we learn in the studio - ways of handling the different media, the uses of models and lighting, modes of finding inspiration - that belong to another kind of toolbox at this second level. And in the same way, there are the concepts and procedures offered by art critics for our use. One could create a long list of such tools in art if one wished. It seems to me that most of what we want to teach children in art education lies at this level, and there are so many skills and ideas that might be useful, for creating or understanding artworks, that we must choose which one to teach our students. The need to make choices is an obvious consequence of the tree diagram of development, if we consider how many

branches there might be on the tree. If we cannot rely on one natural goal of development, then we must choose which tools are most worth learning.

My colleague Arthur Efland has suggested that the image of an irregular lattice might be more useful than that of a tree.⁷

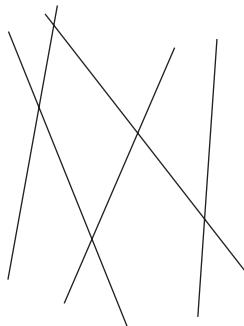


Figure 4
The image of development as an irregular lattice, from Efland

He intended this as an image of the organization of knowledge but it seems also to apply to development. A lattice allows that development may have many endpoints. It also suggests that there are a number of different beginning points and makes it clearer that development may be proceeding simultaneously on several different paths at the same time. And it also suggests that the most creative times are where different paths cross, where, if you like, we use two tools together for one purpose, rather than just one. This has the effect of suggesting that development in art, whether of production or of understanding, is not a completely separate domain of cognition but is connected in various ways to cognitive development in other domains.

I want very briefly to suggest how this might work by talking about two common tools that we use to understand some kinds of art with, and how they affect each other. These two tools are the ideas of *expression* and of *style*.

Expression is, roughly, the notion that an artwork somehow embodies and articulates a feeling or emotion, an idea the West inherited from the 19th century. Often the feeling is thought of as that of the artist, though this is not necessary. The notion of expression makes it possible for us to appreciate a range of emotional qualities and meanings that are central to many artworks.

We know that young children, at the time they begin school, do not have the notion of expression in art. They cannot easily connect feelings with artworks. Most young children focus on the representational character of paintings, on what is pictured. They look first at paintings as representing things in the world, things that may be interesting or uninteresting, beautiful or not. They connect paintings with the things they represent, but not with the artist or with feelings. They understand artists' motives only in an external way. For example, I asked some elementary school children in the United States: "Why do artists paint paintings?" Here are some typical answers:

- **to put it in a place to make it look nicer.**
- **it's their hobby. It's what they do. Maybe they like doing it.**
- **to be happy, to make money.**

If we ask young children questions about feelings in an artwork, they will focus on the feelings of people represented, if there are such people. An example comes from a discussion of Renoir's *Girl with Dog*, which is a detail of *The Luncheon of the Boating Party*. When young children are asked about the feelings of this painting, they speak of the feelings of the girl. E.g.:⁸

What kinds of feeling are in this painting ?

Having lunch.

Can you tell if she's happy or sad ?

Happy.

How can you tell?

Because there aren't any tears. (Girl, 4.5 years)

Or again:

What feelings do you see in the painting?

I think she's happy.

How can you tell?

She's kissing the dog. (Boy, 5 years)

Notice that the question was about the feelings of the painting and the answer was about the feelings of the person represented. For these children, it is people that have feelings, not paintings. The best paintings can do is to represent people as having feelings. And the representation takes place by means of representing activities that can be seen, such as smiling, not having tears, kissing dogs, and having lunch.

Where there are no people represented, as in landscapes, or where feeling is hard to read, as with Paul Klee's highly schematic *Head of a Man*, young children do not easily find feelings in them. E.g.:

What are the feelings in the painting?

There aren't any feelings, just colors.

Just colors?

Yes, and maybe an eyebrow up here. It's neat. I like it.

The idea that artworks can somehow represent the feelings of *the artist* comes later, and it seems in part dependent on a better understanding of the feelings of others in general, including artists. For example, in the following part of a semi-structured interview, Katie, who was twelve years old discussed a work by Ivan Albright, *Into the World Came a Soul Called Ida*. She thought it very ugly. She also disliked Ida, the person represented, but she managed to attribute some feelings to Ida:



INTO THE WORLD THERE CAME A SOUL CALLED IDA

1929-30

Oil on canvas: 139.7 x 116.8 cm (55 x 46 in.)

Ivan Albright

The Art Institute of Chicago, gift of Ivan Albright (1977.34)

There's a lady sitting in a chair, with her legs exposed, they're bare and they're really ugly. They've got bumps all over them and she's sitting there with a powder puff in one hand and a mirror in the other and I guess she's doing her make-up....And she's....I don't know, she's got fabric all over the floor. She's not dressed very nicely. She sort of looks like a witch.

What do you think the theme or subject of the painting is?

A lady doing her make-up, I don't know.

Is she a young woman?

No, she's middle-aged-no, a little older.

What's the feeling in this painting?

I don't like it.

Why not?

I don't know, it's just the legs are getting on my nerves.

But Katie was asked a second time about feelings in the painting.

What's the feeling in the painting ?

"She looks like she's totally bored with everything. And she's sitting there, putting on her make-up. You know, "Who cares?"

This is incidentally an illustration of how an interview can serve as a scaffold, as a way for the child to think a little better with the interviewer than she would by herself. The repeat of the question helps the child to see that she has not focused on the feelings of Ida, the person.

When asked about the *artist's* feelings, Katie had equal difficulty. She said:

Why do you suppose the painter painted it ?

"He was angry with his mother-in-law [laughs]. I don't know...I don't know, he just felt like it. He saw some lady going down the street and he said: "She looks sickening.".... He was angry at her for some reason."

This is an incomplete step forward in understanding expression. In this case Katie sees more of the artist's expressive activity but it is still limited to choosing what subject to represent. In this case, the choice may have been determined by the artist's feeling: he felt angry and so he chose to depict someone ugly. In short, Katie is still using her notions of representation, though in a more sophisticated way, to understand the feelings in the work.

When children first learn to use the **word** expression, they use it in this same way, to connect the artist's state of mind to the subject matter. For instance, Denise, twelve years old, explained it this way:

Why do you think artists paint paintings?

Well, sometimes they do it to express, to let out their feelings, and such.

Can you give me an example?

If they're angry, they do two people fighting, or something.

And Dunstan, also twelve years old, said:

It gets out their feelings.

Gets out their feelings?

Yeah, in a way. If they're feeling sad and unhappy, they could make a picture of a sad and unhappy person. The reason they are unhappy, they will just sort of express it and that will help to get it out...Sometimes if I'm mad and angry, I draw a dragon. If I'm happy, I'll draw a meadow with some flowers.

In another interview, we see a more sophisticated use of expression. Wendy (16 years old), in her struggle to understand the Albright, has the idea that the work is the intentional expression of some thought or feeling of the artist. This idea gets her to consider the details of the painting as being there by the deliberate choice of the artist, rather than for accidental reasons. Consequently she examines them to discover their meaning, regarding them as a kind of metaphor:

Would you describe what you see here?

"I see a woman who is way past her prime of life... She looks like she's mourning for her lost beauty. You can tell when she was younger she was probably fairly pretty...She's not admiring herself at all. It's kind of like: harsh reality dawns. It's pathetic, because she's wearing this pink silk thing and the high heel shoes, and she's just disgusting."

So there's a contrast between the clothes she's wearing and her physical aspect?

"Yeah. But the lingerie and the shoes she's wearing are dumpy too. They're old like she is."

Anything else that points to her oldness?

"Yeah, things seem run down. The top of the table is nice but things seem run down....Is that a piece of paper burned on the floor? The flowers are dead....".

What is the subject of the painting?

"It tries to put across the thing with beauty and it's all so superficial. You get old and it's putting across the pointlessness of the whole looks thing, the obsession with beauty.".

Is that a good subject for a painting?

"I like it because I think that this painting definitely does have a lesson to it. I mean, I can picture her 30 years earlier sitting in the same chair, doing the same thing and being absolutely beautiful, because she has such a woeful expression. I admire the painter, if that's what he was trying to put across, for seeing through that, because it's hard for people to do. I mean they know it but everyone is as guilty as the next person as being vain or concerned about how people look.".

Here we see that interpreting the work in terms of the artist's intentions encourages Wendy to search the details for their significance, the flowers on the table and the burnt paper on the floor (notice, though, that these are still the details of subject matter and not of style). That was something that Katie did not do. Wendy is also able better to reconstruct Ida's state-of-mind, principally by scrutinizing the facial expression and gestures and imagining how she would feel if she had that expression and those gestures. This enables her to empathize with Ida rather than reject her. The result is that Wendy can find an overall message in the work: "the pointlessness of the whole looks thing, the obsession with beauty."

This example suggests that Wendy, in order to understand the Albright as expressive, has had to combine two previously separate ideas. One is the notion of paintings as representations, which children discover early; for Wendy still seems to believe that the Albright represents a real person named Ida. The other idea, a more complicated one, is an understanding of the states of mind of other people. This understanding itself has a developmental history, as we know from the work of psychologists like Henry Wellman.⁹ Wendy has brought together these two rather different ideas - of representation in pictures and of states of mind in other people - to understand the

Albright as expressive.

A second major tool is the idea of *style*. I do not mean here particular historical styles, such as Expressionism, but the idea of style more generally. This idea enables us to analyze artworks in terms of formal elements - the line, shape, color, texture, and so on - and in terms of the relations of these elements - repetition, contrast, balance and so on. It can be a tool for getting younger students to look at the way paintings are painted, rather than at the subject matter. For we know that normally young children look at what is represented in pictures and not at how it is represented.

If we encourage children at an appropriate age to look for the style of a painting, they will begin to attend to its formal aspects. For example, instead of looking for the facial expression in Paul Klee's highly schematic *Head of a Man*, they will notice the colors, the angles, the contrasts and repetitions. An example comes from Connie, a 12 year old girl., who called Klee's style "abstract." She said:

It's abstract, not very real. The eyes are sort of at an angle...This eye-brow is curved and this one is pointed. This eye is up and this eye is down....

The eyes are different?

And there's different colors in different places. The mouth is down here on this side and up here on this side.

Why would he do that?

To make it look abstract.

Connie, like many children, thinks of an abstract style as the opposite of a realistic one. The notion that there is an *abstract* style allowed Connie to accept Klee's painting, even though she didn't much like it nor understand it well. The interview continued:

What does making it look abstract do?

It sort of changes the way it looks.

Is it a good way to paint?

I'd prefer stuff like this (Renoir's *Girl with a Dog*).

So why do artists do that then?

To make it look strange, a little excitement...to surprise you.

There is a later and more sophisticated use of the idea of style, where we

see it as directly connected with emotion. This is a point at which the idea of style is combined with the idea of expression and the result is that both ideas become more sophisticated. The style becomes more than just a recognizable way that other people paint; it becomes a carrier of expression. And the expressiveness of the work is found not only in the subject matter but also in the style.

For example, another graduate student spoke of Klee's ruggedness of feeling. She said:

I like the primitive rugged feeling that he gets, and the child-like quality. It's like it's coming from within and he's just letting it flow...

You spoke of a rugged feeling. What do you mean?

It's the textural looseness. He doesn't define all the forms, and the negative space around here, it's receding, but here you lose that and the gold comes forward and blends with the white. The ruggedness, I think, that has to do with the use of a palette knife. The handling is very direct, there's no going in and being real careful how he controls it. But then, he does, you know. When he comes up here, he does this in such a beautiful way so it doesn't look contrived, but it is.

This more sophisticated use of the idea of style can be represented as another point in the lattice where two lines cross; the point where the use of the idea of style combines with the use of the idea of expression, so that one can see the style itself as expressive.

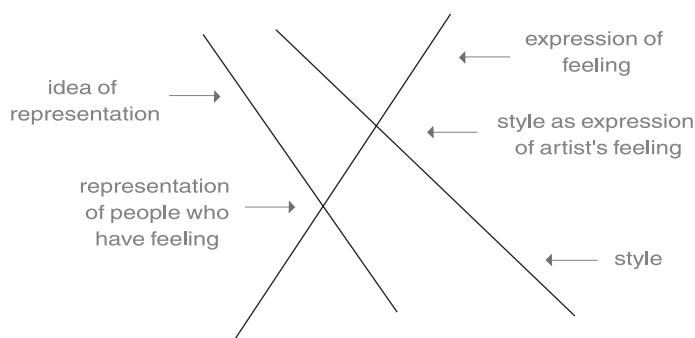


Figure 5
The development of expression and style as discussed above

This final diagram suggests a map of development that refers to a number of abilities, as Wolf and Kindler argued, each having to do with the use of particular tools for making or for understanding art. It also has a number of beginning points. In the course of development, the trajectories of the different abilities interact with each other and make possible understandings of greater sophistication. The diagram suggests, but does not adequately portray, the real complexity of development in the arts. in which several different abilities are developing at the same time. This multi-faceted model removes the sense - a product of the linear model, and with it the sense that there must be a particular sequence to the emergence of different ideas; that, for example, the idea of expression develops before the idea of style or vice-versa; or that the idea of representation precedes an awareness of the mind of the artist. There need not be such a regular sequence because a child may develop abilities to use these at the same time, though each at different levels of sophistication. And they need not all be mastered by the child, since when there are many possible endpoints it is in part an educational choice which will be developed. Nature is no longer to be thought of as responsible for the choice of ends; culture is.

In general, I hope this model helps to bring our notions of children's development closer to our growing sense of the variety of art, the influence of culture on us and on the many ways we might make sense of art.

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終點、全套能力與工具箱： 藝術發展乃工具之習得

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1988年沃芙(D. Wolf)與裴瑞(M. Perry)合作發表一篇知名的文章《從終點到全套能力》，探討兒童繪畫能力的發展。文中質疑一個普遍的觀念，也就是繪畫能力是線性的發展，最後會達到一個自然的終極目標，沃、裴兩人則認為，發展沒有自然而然的終點或目的（所謂「自然」是由兒童的本質所決定）。因此，像羅恩菲爾(Lowenfeld)主張兒童的繪畫能力，會歷經一連串可以預期的階段，最終目標是能夠在紙上畫出逼真的三度空間，沃、裴兩人認為這樣的觀念並不正確。

羅恩菲爾一派的發展模式，可以畫成單一的線條，如（圖1）。

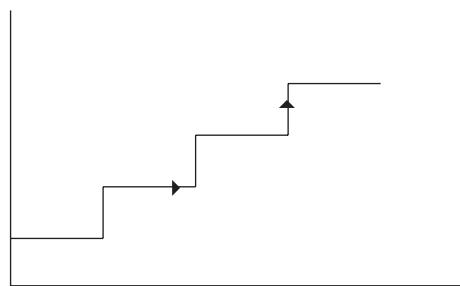


圖1
線性發展模式，例如羅恩菲爾、皮亞傑等人的理論。

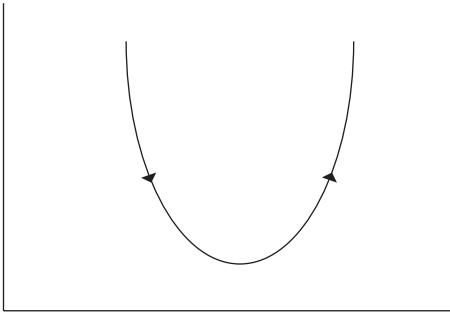


圖2
U形曲線模式，例如葛德納的理論。

沃、裴兩人雖然只探討繪畫的發展，但也提到這種線性發展模式在發展思想史上非常盛行，很多發展理論都採用線性模式，只是各有不同的發展「終點」。例如皮亞傑主張發展的最終目標是抽象的思維運作，佛洛伊德則認為是主要思維過程凌駕次要思維過程，文明勝過本能。

在視覺藝術的領域，還可以加上哈佛教育研究所「零專案」研究計畫 (Project Zero) 的U形曲線，如(圖2)。在這個模式中，自然的終點不在寫實的能力，而是能夠表現出現代藝術或現代主義所注重的風格特質，例如表達想法和情意、自發、吸引力；我們將兒童的圖畫看做一種藝術，正是基於這一類的特質。根據「零專案」，邁向這個終點的發展通常不是沿著穩定向上的方向，而是U形的曲線，也就是說，這些表達的能力在幼兒時期非常明顯，到青春期以前因為顧慮是否寫實，表達能力逐漸下降，然後到成人時期又恢復，但是也有很多人根本沒恢復。

這個模式不是穩定向上的發展，但仍然是線性模式，也就是說，它假設有一個典型的發展終點、有標準的發展進程。終點停在哪裏，各派心理學的藝術理論可能不同，也許是寫實，也許是現代主義的藝術特質，或是其他的目標。沃、裴兩人認為，任何線性模式都會令人產生誤解，因為兒童典型的發展，其實同時具有多種不同的畫圖方式，不是只有一種，也不會因為發現新的畫法就失去原有的能力。因此，孩子逐漸長大，會累積出沃芙所謂的全套的視覺語言，隨時可以根據需要而選擇不同的語言，也就是不同的畫法。

沃芙說明孩童會採用不同的繪畫「系統」，例如有的孩童抓著鉛筆在紙上揮來揮去，像兔子亂跳那樣，鉛筆落到哪裏就畫到哪裏，一邊畫一邊講個不停，她稱之為「手勢」繪畫法。另外還有「圖像」繪畫法，其中包括較大

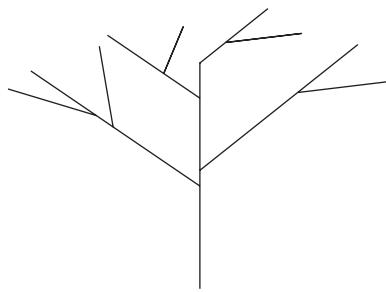


圖3

樹狀發展模式，例如沃芙、裴瑞、金德樂等人的理論，
或達爾文的進化論。

的孩子學到的數種「畫類」，例如地圖、圖表和寫實畫。而在不同的畫圖「系統」中，又有各種不同的「風格」，通常是在青少年時期發展出來的。

更重要的是，兒童這些不同的畫法，在應用上會愈來愈趨成熟複雜。沃芙並未深入探討發展的問題（特定的表現在發展上具有什麼意義），但她指出，重點其實不在畫出來的圖畫是什麼類型，而是成熟程度。這裏的成熟也許可以分成兩部分，一是繪畫所傳達的意義，二是繪圖的技巧。沃芙主張，兒童逐漸學到，或是可能學到以更複雜的方式來應用不同的畫法，成人同樣也能夠依不同的目的，畫出不同類型的繪畫，例如她認為，兒童的「手勢」繪畫法，也就是將動作轉化為符號，最後「完全呈現在阿拉伯文和中文的書法……以及抽象表現派的繪畫。」(Wolf, 1994, P. 75)

全套畫法的發展觀念，可以看做樹狀結構，而不是單線模式（圖3），正如一般認為達爾文的進化論也是樹狀結構，最後有許多的終點。

我認為這樣的圖形反映出後現代的藝術觀，我們愈來愈相信藝術本身非常多元，藝術教育也有多重的目的，而不只是單一的目的。

除了沃、裴兩人，還有許多學者舉證說明兒童在不同場合會應用不同類型的圖畫，金德樂(A. M. Kindler)、達拉斯(B. Darras)等人就提出一些很好的例子。金德樂的文章甚至借用沃、裴兩人的標題，稱為《從終點到全套畫法：對藝術教育的挑戰》，文中重點不在兒童圖畫的分類，而是舉出具體的例子，同時說明不同的圖畫出現的情境與特定的目的。所有的例子當中，共通的目的是溝通，也就是孩童繪畫是為了傳達特定的意義，一個很好的例子是安東尼所畫的冰上曲棍球場地，旁邊還有很多符號，再加上他以肢體語言

表示球員的動作，所有的圖畫和動作，都是為了說明冰上曲棍球開球的新規則。(Kindler, 1999, P. 339)

關於藝術發展具有多重終點的觀念，我要從兩方面做進一步的探討，首先是從這個角度來理解藝術，以及圖畫的產生。藝術的發展理論，或說整個藝術心理學，一向重視藝術的創作，不在藝術的了解，藝術教育同樣也是重創作而輕了解，這種偏見無法符合藝術教育的新方向。

其次，我希望更具體說明沃芙和金德樂的研究，在文化上、思想語言上，或甚至在實用上，有什麼含意。我認為，兩人提出的圖畫類型和藝術觀，都是溝通、傳達不同意義的工具。「工具」之應用主要受文化的影響，而不是孩子的本質，工具是社會的產物，由社會提供給孩子去應用，因此，兒童的發展乃是培養應用這些工具的能力。這樣的發展觀（結合工具應用、認知與發展），由來已久，可以上溯至19世紀，邁克·柯爾(Michael Cole)所著的《文化心理學》對我的影響尤深。然而，這樣的發展觀對藝術教育或藝術心理學，卻一直沒有多大的影響。我想把全套畫法的比喻，改成工具箱的比喻，藉此強調藝術發展的多樣性和文化特質。

金德樂提出兒童的繪畫主題非常依賴於其文化，但並沒有明白剖析。例如她談到「……哪些圖畫類型較受歡迎重視、較會教給兒童，在選擇的時候會受到文化的影響。」也就是說，孩童在特定情境下，選擇全套畫法中的哪個項目，會受到文化的影響。不過金德樂並未說明，對於一開始形成全套畫法，或是鼓勵或打消孩童做更成熟的應用方面，文化具有多大的影響。但她所舉的例子，非常適合「工具箱」的比喻，安東尼所畫的曲棍球場地，可以明顯看出他已經注意到傳統曲棍球場的種種記號，也相當熟悉球賽的規則。他應該聽過別人向他說明新的規則，也許對方也畫了圖表給他看。他重新畫出曲棍球場的結構，做為溝通的工具，一方面讓自己更了解新的規則，同時也可以解釋給別人聽。

工具有很多種，柯爾將之分成三類，他將工具稱為「人為產物」，第一類是最具體的，例如斧頭、木棒、文字、紙筆、電訊網路等。在視覺藝術方面，最明顯的例子是畫筆、畫刀，甚至電腦繪圖軟體。

柯爾的第三類最為概括性、抽象，包括各種沒有直接實用價值的應用與結果，比較像是我們所玩的遊戲，或日常生活的一些基本活動，他所舉的例子包括所有的圖式和「行動計畫」、知覺過程和藝術作品。參觀美術館或看

電影，可以算是他所謂的「行動計畫」。

介於第一類和第三類之間的第二類，大概是藝術教育人士最關切的部分，柯爾認為包括各種呈現模式以及第一類「人為產物」的應用。他所舉的例子有各種方法、傳統信念、規範、社會機制。我認為，「印象派」這個觀念應該是視覺藝術一個很好的例子；藝術史課程中學到的各種風格—印象派、超現實主義、文藝復興、巴洛克等等，這些概念都有助於我們了解特定的繪畫，具備這樣的知識，可以幫助我們從這些作品中看出特定的東西，對作品產生特定的理解。藝術史整體而言可以視為一種工具箱，其中盡是這些第二類的工具，也就是許多成套成套的期望的資源，用以了解特定類別的藝術作品。

同樣的，藝術創作課程所學到的技巧和慣例（如何處理不同的媒材、應用模式和光線、尋求靈感的模式），屬於第二類的另外一種工具箱，藝評家所提出的概念和程序也是一樣。視覺藝術的領域要找這一類的工具，實在太多了，我認為藝術教育的內容，絕大部分似乎都是屬於第二類，不論藝術創作或了解藝術作品，有用的技巧觀念非常多，所以教學上必須有所取捨。之所以必須取捨，乃是樹狀發展結構必然的結果，試想樹狀結構中可能的分枝何其多，如果不能依賴單一的發展目標，就必須選擇哪些工具最值得學習。

我的同事艾弗蘭(Arthur Efland)提出不規則的斜格結構，可能比樹狀結構更理想，如（圖4）。

艾弗蘭提出的斜格結構，原是用於知識的組織，但似乎也適用於發展。格狀結構同樣有許多不同的終點，此外還有不同的起點，更可看出發展可能沿著數條不同的路徑同時進行。另方面，格狀結構可以顯示出創意最大的時

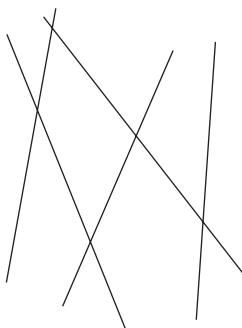


圖4
套用艾弗蘭的不規則斜格發展模式。

候，是在兩條路徑的交會點，也就是同時應用兩個工具以達成一個目的，而不只是應用單一的工具。從這個模式來看，可以說藝術的發展（不論創作或了解）並不是一個完全獨立的認知領域，而是與其他認知領域都有所關聯。

以下我要簡短說明斜格模式為什麼可能成立，我舉的例子是了解特定藝術時常用的兩個工具，以及這兩個工具彼此的影響，也就是「表達」與「風格」兩個觀念。「表達」廣義而言，是指藝術作品具體呈現、傳達出某種感覺或情緒，西方這個觀念源於19世紀，一般認為作品所表達的是創作者的感受，但不必然是如此。「表達」的觀念讓我們得以欣賞各種不同的情緒特質和意義，而這正是許多作品最重要的東西。

我們知道學齡前後的兒童，對於藝術還沒有「表達」的觀念，不太會將感受與藝術作品聯想在一起。多數幼童注意的是作品的「呈現」特質，畫的是什麼東西；兒童看到一幅畫，首先想到的是所呈現的東西，也許是有意思的東西，也許不是，也許好看，也許不好看，畫作使他們聯想到具體的事物，而不是畫家或感受。對於畫家的動機，他們只了解外表，例如我問美國的小學生畫家為什麼作畫，典型的回答有：

- 可以掛起來，美化一個地方。
- 那是他們的嗜好，他們就是一直畫，也許他們喜歡畫。
- 因為畫畫他們很開心，可以賺錢。

問到關於作品的感受，如果作品中有人物的話，兒童會注意畫中人物的情緒。一個例子是雷諾瓦的《女孩與狗》，這幅畫是《船上的午宴》的局部，問孩童這幅畫有什麼感覺，他們都是談到畫中女孩的情緒，例如：

這幅畫有什麼樣的感覺？

- 吃午餐。

你能不能看出她是開心還是難過？

- 開心。

你怎麼知道？

- 因為她沒有掉眼淚。（女孩，4.5歲）

或是這幅畫給你什麼感覺？

- 我覺得她很開心。

你怎麼知道？

- 她在親那隻狗。（男孩，5歲）

請注意，問題問的是作品的感受，孩童的回答卻是畫中人物的情緒。這些孩童認為人物才有感覺，作品沒有，作品最多只能呈現出人物的感受，而且是透過具體可見的活動，例如微笑、不掉眼淚、親小狗、吃午餐等等。

如果作品中沒有人物，例如風景畫，或是人物的情緒比較難以判斷，例如克利極為圖式風格的《一個男人的頭》，小孩子就很難看出作品的感受。例如：

這幅畫有什麼樣的感覺？

- 沒有感覺，只有顏色。

只有顏色？

- 對，還有一個眉毛揚起來，很好玩，我喜歡。

作品也能夠呈現「畫家」的感覺，是後來才發展出來的觀念，而且似乎必須對他人的感受整體而言有更深入的了解，其中包括畫家。例如下面這個例子，是半引導式訪問的一部分，12歲的凱蒂討論艾文·歐布萊特(Ivan Albright)的一幅畫，《叫做艾達的靈魂來到世間》，凱蒂覺得這幅畫很難看，也不喜歡畫中的艾達，不過她還是找出艾達的一些感覺。她說：

· 有個女人坐在椅子上，兩條腿露出來，光溜溜的很難看，腿上腫得一塊一塊的，她坐在那邊，一手拿著粉撲，一手拿著鏡子，我猜她是在化妝……還有她……我不知道，她把布丟了一地，衣服也穿得很難看，看起來有點像巫婆。

你覺得這幅畫的主題是什麼？

- 一個女人在化妝，我不知道。

是個年輕的小姐嗎？

- 不是，是中年女人，不對，更老一點。

這幅畫有什麼感覺？

- 我不喜歡。

為什麼？

- 不知道，我覺得她的腿真的讓人看起來很不舒服。

然後訪問者再問凱蒂一次畫中的感覺。

這幅畫有什麼感覺？

- 她看起來好像對什麼事都覺得很無聊，她就坐在那邊化妝，好像說「管他的」。

這個例子剛好也可以說明，訪問可以做為一個支架，引導孩童更深入去思考。重覆的問題可以讓孩童了解，她沒有著重在畫中人物艾達的感受。

再問到「畫家」的感覺，凱蒂同樣不太說得出來。

你認為畫家為什麼畫這幅畫？

· 他在生他岳母的氣（笑）。我不知道……不知道，他高興吧，他看到一個女人走在路上，覺得她很討人厭……不知道在生她什麼氣。

這是了解「表達」的一小步，雖然並不完整，凱蒂看出畫家一些表達活動，但還是只限於所呈現的主題，就這幅畫來說，主題可能已經由畫家的感受決定了，他覺得生氣，所以選了難看的人來畫，也就是說凱蒂還是運用「呈現」的觀念來了解作品的感受，只是已經做了比較複雜的運用。

孩童最初學到「表達」這兩個字的時候，應用起來也是同樣的情形，把畫家的心境跟作品主題聯想在一起，例如12歲的丹尼這樣回答：

你認為畫家為什麼作畫？

· 有時候他們是要表達，表現他們的感覺那些的。

你能不能舉一個例子？

· 如果畫家在生氣，他會畫兩個人打架什麼的。

同樣12歲的唐斯頓說：

· 作畫可以發洩他們的感覺。

發洩他們的感覺？

· 對呀，可以這麼說，如果覺得難過、不高興，他們可以畫一個難過傷心的人，他為什麼難過，他們可以表達出來，就可以把心情發洩出來……有時候我生氣的時候，我會畫龍，高興的時候我就畫草地和花。

另一個訪問中，我們看到「表達」比較成熟的運用，16歲的溫蒂討論歐布萊特的作品時，談到畫家特意透過作品表達自己的想法或感受，基於這樣的想法，她特別注意到畫面上的細節，認為這些東西不是隨意亂畫的，而是畫家有意的安排。因此，她認真考慮這些細節的意義，視之為一種比喻。

請你說一說你在畫面上看到什麼？

· 我看到一個人老珠黃的女人……好像在感嘆她逝去的年華，可以看得出來她年輕的時候可能滿漂亮的……她對自己現在的模樣一點也不滿意，就好像是突然意識到殘酷的現實，很可悲，因為她穿著粉紅色的薄紗、高跟鞋，可是卻那麼難看。

所以她的衣著和容貌形成了對比？

· 對，可是衣服和鞋子也很難看，都舊了，跟她一樣。

還有什麼地方可以看出她老了？

· 有，東西看起來都很破舊，桌面還不錯，可是東西都舊舊的……地板上燒了一張紙嗎？花也謝了……。

這幅畫的主題是什麼？

· 是想要表達美麗非常膚淺，人都會老，他是要告訴我們只知道注重外表、注重美貌是沒有意義的。

這樣的繪畫主題好不好？

· 我很喜歡，因為我覺得這幅畫確實給人一些啓示，我可以想見她30年前也坐在同一張椅子上，同樣在化妝，而且非常的漂亮，因為她臉上的表情那麼傷感。我很欣賞這個畫家傳達這樣的訊息，能夠看透外表，很不容易。大家都知道美貌很膚淺，可是誰都免不了虛榮，或是注意別人的外表。

這段訪問可以看到，從畫家的用意來討論作品，促使溫蒂留意細節，找出背後的含意，桌上的花、地上燒掉的紙（不過，這些細節仍然是主題，而非風格），凱蒂就沒有做到這一步。溫蒂也比較能夠說出艾達的心境，主要是觀察她臉上的表情和姿勢，設想她自己如果是同樣的表情動作，會是什麼樣的心情，因此她能夠以同理心去了解艾達，而不是排斥。結果是溫蒂能夠找出作品所要傳達的訊息，也就是「只知道注重外表、注重美貌是沒有意義的」。

這個例子也可以看出，溫蒂要了解歐布萊特的「表達」特質，必須同時運用兩個本來沒有關聯的觀念，一個是以繪畫為寫實的呈現，這個觀念兒童很早就具備了，因為溫蒂似乎仍然認為，作品畫的是一個名叫艾達的真實人物；另一個觀念比較複雜，也就是了解別人的心境，這樣的了解本身也是逐漸發展而來的，魏爾曼(Henry Wellman)等心理學家已經多所研究。溫蒂結合了這兩個非常不同的觀念，來了解歐布萊特所要表達的訊息。

第二個重要的工具是「風格」的觀念。我不是指歷史上的畫派，而是比較一般的風格，這個觀念讓我們能夠從形式上的要素來分析藝術作品，諸如線條、形狀、色彩和質感，同時也探討這些要素之間的關係，例如重複、對比、平衡。利用這個工具，可以促使年紀比較小的學生注意到作品是「怎麼畫」的，而不只是看主題。因為我們知道，孩童一般只看作品中畫的是什

麼，不太會注意到它怎麼畫。孩童適當年紀的時候引導他留意作品的風格問題，他們會開始注意形式上的細節，例如克利的《一個男人的頭》，除了看他臉上的表情之外，也會留意到畫中的色彩、角度、對比和重複。有一個例子是12歲的康妮，她說克利的風格是「抽象」的。

· 抽象的，不是很寫實，眼睛好像成了直角……眉毛一邊彎一邊尖，一個眼睛往上，一個眼睛往下……

兩個眼睛不一樣？

· 還有不同的地方顏色也不一樣，嘴巴這一邊往下，這邊又往上。

他為什麼這樣畫呢？

· 看起來比較抽象。

康妮跟許多孩子一樣，認為抽象就是寫實的相反，她有「抽象風格」的觀念，所以能接受克利的作品，雖然她並不是很喜歡，也看不懂。訪問中她還說到：

· 這樣作品看起來就不太一樣了。

這樣的畫法好不好？

· 我比較喜歡這樣的（雷諾瓦的《女孩與狗》）。

那畫家為什麼這樣畫？

· 作品會變得比較奇怪，實驗吧……出人意表。「風格」的觀念最後會發展出更成熟的應用，直接與情緒相關聯，也就是「風格」與「表達」兩相結合，結果兩個觀念都更趨成熟。「風格」不僅是別人特定的畫法，更是「表達」的手段，而作品所表達的訊息不僅在其主題，同時也在其風格。

例如另一位研究生談到克利「粗獷的感覺」。她說：

· 我喜歡他那種原始粗獷的感覺，還有一種童趣，好像是發自內心，自然的流露。

你所謂「粗獷的感覺」是指什麼？

· 他的質感很粗糙，形狀都不是畫得很細緻，還有這邊的陰影，愈來愈模糊，到這裏就沒有了，然後金色跑出來，跟白色混在一起。我想這種粗獷的感覺是因為他用畫刀，而且筆法很直接，不是細描細畫的那種。可是有的地方他也畫得很細，像上面這裏他就畫得非常漂亮，讓人不覺得它不自然，可是其實是很不自然的。

「風格」觀念這種成熟複雜的應用，可以視為斜格結構中兩條線的交叉

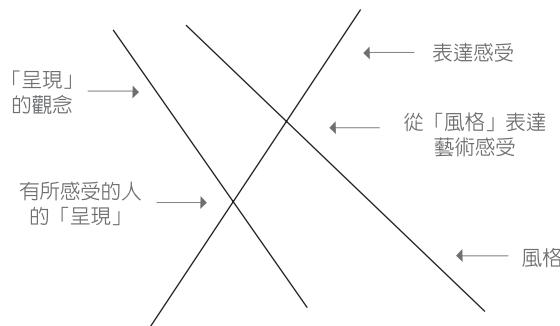


圖5
「表達」與「風格」的發展。

點，也就是「風格」觀念的應用與「表達」觀念的應用兩相結合的時候，所以風格本身就成了表達。（圖5）

圖5可以顯示一種多重能力的發展模式，誠如沃芙和金德樂所指出，每一種能力各會應用特定的工具以進行藝術創作或了解藝術。這個模式也有許多的起點，在發展的過程中，各種能力可能交錯結合，促成更成熟複雜的理解。從這樣的圖形可以窺見藝術的發展確實無比複雜，多種不同的能力同時發展，所以線性模式已經不適用，各種觀念的形成也沒有特定的先後順序，例如「表達」的觀念必然先於或後於「風格」的觀念，或是「呈現」的觀念必然先於對作品動機的了解。發展不一定會有固定的順序，孩子可能同時發展多種能力、同時運用，只是每一種能力的成熟程度可能不同。此外，也不是所有的能力都必須學會，因為終點既然不只一個，應該發展什麼能力，有一部分就是教育上的取捨了，終點的選擇不再是孩子本質的問題，而是受文化的影響。

整體而言，我希望這個模式有助於使我們對兒童發展的觀念，更能符合目前的多元藝術觀、文化對我們的影響，以及文化如何影響我們對藝術的看法。