

Making Sense of Children's Mark-Making: Children's Artwork as Marking to Make Meaning Vs. Marking that Expresses Style

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About the middle of the preschool years children's mark-making embodies dual functions. Children make meaning by marking marks; these marks carry out a symbolic function. If we "look through" the meaning (Winner, 1980) we see there the formal style to their mark-making. This duality within mark making is evident in four children's drawings in Figures 1 & 2.

Style and meaning emerge from the same graphic resources, we conceptualize these as **Aspects of Reasoning** (Table 1). There is a dynamic, reciprocal relation between the stability and variation of these resources. Aspects are varied to communicate different meaning, and those aspects that are not varied express a child's formal style. We hypothesize that each aspect is anchored within a range of variation; and, style is variation at anchor. When children make meaning they shift the anchor exploring aspects as resources of representation. Within this metaphor about the relation of meaning making and personal style does not disappear if there is any variation, but rather it becomes less vivid as more variation occurs. In previous research we have discovered that some aspects are more stable than others, they may be more difficult to change or when varied they may not convey meaning.

Two independent groups of grade school children participated in one of two studies: a Content Study in which they drew three separate images (dog, tree and house), and a Genre Study in which children drew images of a house within three visual genre. They were asked to draw a house as it might appear on a sign, or in a book of magazine about houses, or in a piece of art in a museum (Wolf & Perry, 1989).

Four Predictions

- Children will draw in distinctive styles in each study, i.e., for some Aspects of Drawing Similarity ratings will be significantly higher than those for Different per se.
- Aspects of Drawing that are varied in the service of the symbolic function will not be identical across studies, e.g., differences in shape are central to representation in the Content but not the Genre Study, hence OS may be more varied in the former than the latter.
- It follows from the second prediction that the Aspects of Drawing specifying style will not overlap completely across studies.
- In the absence of explicit rules of drawing each Genre child may vary resources more than in the Content Study where variation may focus on OS and DN.

Methods

Content Study

Participants: Sixteen 2nd-, 10-, and 16th-grade children who attended a private day school

Procedure: Children were tested in groups of 10 to 15 classmates. They drew three pictures on pages of a workbook labeled dog, tree or house in a random order.

Rating System: College-age female judges rated the drawings of each child. One third rated the extent to which each Aspect of Drawing was similar across drawings (Similarity or Style), one third rated their variation in terms of their symbolic value (Meaningful Differences), and the last third rated their variations variations per se (Differences per se). They used a four-point scale with 0.0 assigned if there was no Similarity, Meaningful Difference or Difference per se while 3.0 was assigned if there was significant Similarity, Meaningful Difference or Difference per se.

Figure 1: Content Study. Top row contains drawings of a 2nd and bottom of a 6th grade child.

Genre Study

Participants: Twenty 2nd-, 4th-, and 6th-grade children who attended the same private day school as the children in the Content study but did not participate in that study.

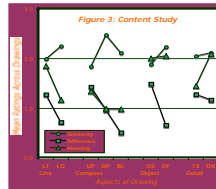
Procedure: The children were in groups of about 10 children. They drew 3 pictures of a house, with the instructions to draw them in different genre: "signage" (as it would appear on a sign advertising a house for sale), "illustration" (as it would appear in a book or magazine about houses), and "museum" (as it would appear in a piece of art displayed in a museum or on a wall in a house). As in the Content study they created their drawings in a workbook.

Rating System: College-age female judges used the same rating system used in the Content Study.

Figure 2: Genre Study. The top row drawings by a 2nd and the bottom by 6th grade child. The drawings represent Genre of Signage, Illustration & Museum left to right.

Results

An analyses for each study compared the adult ratings of Aspects of Drawing as the within subjects variable and Grade Level and Genre as between subjects variables. The interactions of Aspects, Instructions and Grade Level (32.704 ± 2.02 , $p < .00$) in the Content Study and Instructions and Grade Level ($F(11,79) = 20.19$, $p < .00$) in the Genre Study take precedence over significant main effects. The mean ratings for Aspects for each instruction and Study, averaged over Grade Levels, are reported in Figures 3 and 4.

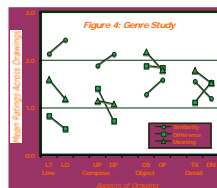


Content Study

- Similarity ratings** are close to or higher than 2.0 for all Aspects.
- Difference per se ratings** are from less than 1.0 to 1.5. Similarity-Difference per se ratios are reciprocally related. Some ratios are substantially higher than others, e.g., ratios for LQ, DP, BL, OF and DN and LT are two-to-one, those for LQ and TX are approximately one and a half-to-one and UP and OS ratios are about one-to-one. The one-to-one ratio for OS is in the direction of our prediction, but Difference per se is not perceived to be greater than Similarity.
 - Meaningful Difference ratings** of Aspects of Line and Composition track the Difference per se ratings, they are reciprocally related to Similarity, but the ratios are smaller for Aspect of Line. By contrast, Meaningful Differences are higher than those for Difference per se on Aspects of Objects and Detail, they track but are not reciprocally related to Similarity ratings.

Table 1: Aspects of D drawing

	Line
Line Type (LT): Are lines broken or continuous, straight, jagged or wavy?	
Line Quality (LQ): Are lines thick or thin, bold or faint?	
	Composition
View of page (VP): Is the page filled or are the drawings clustered in the center, to the left or right side of the page?	
Balance and (BL): Are the balance of/unbalanced color? (Content Study)	
Depth (DP): Are there linear devices such as height in the picture plane, interposition of objects or perspective?	
	Object
Object Shape (OS): Are the shapes of the focal objects relatively similar?	
Object Color (OC): Are the colors of the focal objects similar or different?	
	Detail
Detail (DT): Are all details and small details included? (Content Study)	
Object Detail (OD): Are the details of the focal objects filled with details, e.g., windows, doors, doorknobs, island, or shingles?	
Texture and shadows (TS): Are the surface textures, e.g., lines or dots to create the impression of grainy surface; slanted or angled lines to create a sense of depth or texture?	



Genre Study

- Similarity ratings** are higher than or approximately equal to 2.0 on Aspects of Line and Composition; however, ratings of Aspects of Objects and Detail average about 1.5.
- Difference per se ratings** are generally less than 1.0 for Aspects of Line and Composition, approximately 2.0 for Object, and about 1.25 for Detail. There is a Similarity-Difference reciprocally across all Aspects. The ratios are greater than two-to-one for Aspects of Line and DP but less than 1.0 for both Aspects Object and DN.
 - Meaningful Difference ratings** of Aspects of Line, Composition and Object, in general, are higher than and track the Difference per se ratings. They are reciprocally related to ratings of Similarity. Meaningful Difference and Difference per se converge for Aspects of Detail and parallel to those for Similarity.

Content and Genre Studies

Commonalities

- In both studies Similarity ratings are generally higher than ratings of either index of variation.
- Similarity and Differences per se are reciprocally related.
- Similarity-Difference per se ratios vary across Aspects of Drawing. In both studies they are greater than 1.0 for Aspects of Line and Composition.
- Meaningful Difference tracks Differences per se and for some aspects is higher than Difference per se.

Differences

- In the Content Study similarity ratings are higher than either index of variation, but in the Genre Study they are higher only for Aspects of Line and Composition. In the Genre Study difference is greater than similarity for Aspects of Object and Detail.
- The reciprocal relation between Similarity and Difference per se is expressed differently on Aspects of Object and Detail. In the Content Study that ratio is greater than 1.0 whereas in the Genre Study it is less than 1.0. That is, Similarity dominates Differences per se across all Aspects of Drawing in the Content Study, by contrast for Aspects of Object and Detail, the ratio is reversed in the Genre Study where Difference per se dominates Similarity.

Summary

Concerning our four predictions:

- As predicted, children at all grade levels drew with distinctive formal styles whether their goal was to create representations of different content or create different renditions of the same content
- As predicted, children varied different Aspects of Drawing to achieve their symbolic goals in the Content as compared to the Genre Study. In the former variations were moderate and they were never rated less than Similarity across all aspects. This pattern was repeated for Aspects of Line and Composition in the Genre Study. In this study the reciprocal relation of Similarity and Difference per se was reversed; children's varied aspects of Object and Detail more than they held them constant.

However, our specific prediction about OS was not confirmed. Children varied OS as much or more than any other aspect in its Content study, but they did not vary it more than they preserved its relation to the anchor of OS. Children apparently assumed that drawing houses in different genre meant creating dramatically different renditions. They varied both shape and form to achieve this effect.

As predicted, Aspects of Drawing specifying style overlapped but were not identical across studies. Aspects of Line and Composition anchor style in both studies, however, Aspects of Object and Detail anchor style along with Line and Composition in the Content but not in the Genre Study.

This suggests that variations of line and

do not carry as much representational as variations of aspects of object

Children change the meaning of drawings,

is, what they represent, by altering the of the focal subject matter an the details

within those boundaries.

Hence, children approach the symbolic function of

as a figurative transformation. They alter of objects to preserve a representation-relation.

The fact that meaningful differences were often

Conclusion

we look through their symbolic value, as

are assessed in terms of their contribution

making meaning; they are more vivid, more easily

As predicted, when children invert ways of communicating, as they did in the Genre Study, they vary