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ABSTRACT

The problem of "stages" in the development of artistic ability is addressed by reviewing the cases of a gifted autistic child, Nadia, who drew realistically at a very young age, and of a normal child, Eytan, who rapidly taught himself the principles of isometric perspective and of foreshortening. A review of scholarly opinion about Nadia's remarkably realistic drawings leads to the conclusion that the child probably did not skip over the early stages of drawing development, but passed through them very rapidly. Close attention to drawings Nadia made when she was between 3 years and 6 or 7 years of age reveal increasing sophistication in the ability to depict her favorite subject, although some childish schematic remnants are still visible. In other words, Nadia's ability developed. The case of Eytan is briefly discussed to support this view. Eytan's early drawing development suggests that in some uniquely gifted children with a special interest in naturalistic depiction, the developmental process can be greatly accelerated. It is concluded that evidence of a precocious talent should not be confused with pathology. (RH)

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The Graphic Development of Two Artistically Gifted Children  
The Drawings of Nadia and Eytan

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THE GRAPHIC DEVELOPMENT OF TWO ARTISTICALLY GIFTED  
CHILDREN: THE DRAWINGS OF NADIA AND EYTAN

Claire Golomb

Children's drawings have become an integral part of the battery of tests administered by the clinical or school psychologist, who is called upon to assess a child's cognitive performance and to evaluate his or her emotional status.

The assessment of the human figure drawing as a measure of intellectual maturity, has been with us for a long time, although standardization and quantification of drawings can best be dated to Florence Goodenough's work (1926). The studies of Karen Machover (1949, 1953), Elisabeth Koppitz (1968, 1984), Robert Burns & Harvard Kaufman (1970, 1972) extend the scope of their inquiry beyond cognition, and focus on the psychodynamic aspects of a drawing, for example, the child's status in the family, and his relations with siblings and peers. In recent times, drawings have also served as evidence of sex abuse, and the search for the deeper significance of drawings has not abated. To some extent, we might say that clinicians have engaged in the pathologizing of drawings, without seriously questioning their data base and the status of their underlying assumptions.

One of the more interesting questions that arise in the study of the drawings of normal and developmentally atypical children, concerns the nature and course of this development: is it atypical in the case of emotionally disturbed children, does it deviate from the normal sequence of stages, or is the development of drawing essentially similar, perhaps somewhat delayed in the case of emotionally disturbed

children?

In order to answer this kind of question, we need to consider more information than is commonly provided in the single drawing of the human figure. For an adequate assessment, we need a set of thematically different drawings which can be analyzed in terms of the formal characteristics of a drawing as well as its content. In terms of formal characteristics, we might examine compositional strategies, spatial drawing systems, figural and size differentiation, and color use. In terms of the content, we might examine the themes and their elaboration, and the child's associations to his drawing. Considering the above stated criteria, a review of the relevant literature reveals that the study of the representational development of emotionally disturbed children is still in its infancy, and that research into the variables I have listed has barely begun. A recent study indicates that the compositional strategies of severely emotionally disturbed children do not differ from those of their normal counterparts, a finding that challenges many assumptions we have held, either implicitly or explicitly (Anath Golomb, 1986, 1987).

While we cannot as yet provide a comprehensive answer to the question we have posed, we can turn to the case study method and see whether we can shed some light on the problem of "stages" in drawing development. The most important theorists on representational development have emphasized a stage-like progression from simple global forms to more differentiated ones, a process that unfolds quite autonomously and, in its early phases, is relatively independent of culture, race, and social class (Arnheim, 1974; Schaefer-Simern, 1948). The concept of stages suggests that there are laws that

underlie the orderly progression of drawing development, and that the sequence of stages is an invariant one. By and large, psychologists and educators have subscribed to a stage theory of drawing development, that is, to the gradual transformation of the early global and schematic figures until, with training and talent, the drawings of the adolescent become more naturalistic. To what extent the goal of "realism" is or can be achieved, is a subject of considerable disagreement. However, on the early phases of representational development in drawing there is widespread consensus. There is also agreement about the decline and eventual disappearance of child art as we commonly know it, namely, the drawing of flat-two-dimensional forms, of disproportionate figures, and bold colors.

The assumed universality of the stages of drawing development was challenged with the publication of Lorna Selfe's book on Nadia, a highly gifted child artist who was also a severely retarded autistic child (Self, 1977). At an early age, when ordinary children merely scribble or draw crude global figures, Nadia drew horses of extraordinary vitality, in motion, foreshortened and in three quarter view. Some have likened her drawings of horses to those by Leonardo da Vinci, and many have expressed their conviction that her drawings reveal great artistry. Almost all of her drawings are inspired by picture books of animals, but as far as we know, they are not copies from the original, they are made from memory, without the model being present, and with considerable variation in the quality of line, as well as the posture and orientation of the animal. The picture book original is dull and conventional by comparison with

Nadia's productions. Almost everyone who has written about the mystery that Nadia presents has stressed the lack of "development." Her talent seems to come from nowhere, it bursts upon the scene, and it seems to lack progression. Authors have stressed how little change they can see in Nadia's drawings over a two year period during which she makes a large number of drawings. With few exceptions, a distinguished roster of experts declares Nadia's drawings as the work of a defective intelligence, her talent reduced to a symptom of her cognitive defects (Arnheim, 1980; Pariser, 1981; Self, 1977, 1983; Winner, 1982).

Selfe who tested Nadia at the age of six years, became intrigued by her extraordinary graphic performance, which she considers linked to her failure to formulate concepts verbally. Selfe bases her analysis of drawing development on Karl Buehler's thesis (1930) that drawings are graphic accounts of essentially verbal processes. She sees verbal mediation as a necessary condition for the symbolic and schematic stages in normal drawing development. Anomalous or atypical children, instead of depicting the dynamic visual experience of the normal child, attend to lines, edges, contours and angles from a frozen, fixed viewpoint. Their drawing is far less symbolic, their view is fixed, special, asocial, autistic. According to Selfe, these drawings are detached, objective, a symptom of the cognitive deficit of autistic children (1977, 1983).

Arnheim and Pariser acknowledge the unique gift of Nadia and the aesthetic quality of her drawings, but they too see her achievement as a symptom of autism. In Arnheim's words: "Given this barrier between herself and her surroundings one can imagine that many things of this

world appeared to her not as challenges and tasks but as mere images, to be passively explored rather than actively responded to. Therefore she recorded what she saw with something like the faithfulness of a photographic lense-- an ability that was bound to invite the admiration of anybody for whom skillful realism represents the highest accomplishment of art. At the same time the biological deficiency of this attitude is equally evident" (1980, p. 81). Arnheim comments on the lack of development in her drawings, and looks on Nadia's work as "the result of a partial mental faculty running out of gear and attaining its spectacular virtuosity at the price of losing its principle cognitive function" (p. 84). But Arnheim is too sensitive and informed an observer to reduce Nadia's extraordinary drawings to mere pathology. He comments on Nadia's style of draftsmanship which has a character of its own, quite different from the neutrality of the picture book illustrations, and he remarks on the self-assured bravura of her graphic strokes, a facility known only from seasoned professionals. One feels Arnheim's ambivalence toward this unique, perhaps "freakish" phenomenon that Nadia's drawings present in his final statement about a perceived "...detachment of vision and action from the functionality of the perceived world that endows the drawings of the estranged child with an aesthetic charm acquired at so high a price" (p. 85):

A similar position is espoused by Pariser who speculates that Nadia "inhabited a ...nameless, unlabelled universe, one which she saw and was able to render with phenomenal clarity without truly 'knowing'". He argues "...that Nadia's capacity for representational realism was, in part, the result of her inability or refusal to

conceptualize what she drew" (1981, p. 20). Pariser remarks that her achievement at ages three to four years does not indicate that she passed, earlier on, through the typical preschool stages in drawing. He notes that from then on there is very little further development. He considers Nadia's achievements in terms of an inability on her part to go beyond the immediately given visual world. Pariser speculates that since she seems to lack even rudimentary conceptual categories, she may have been free to see objects as purely perceptual/optical manifestations. If, in fact, Nadia's imagery matches outline to contour, her work might be seen as the result of an exceptional technical and observational skill, without, however, inferring analytical or anatomical insights. These statements imply that Nadia's presumed inability to form visual concepts or to make abstractions, and her failure to categorize objects and events, may have prevented her from going beyond the information given in the optical array.

Let us consider the main reasons for the above mentioned interpretations and identify three sources: (a) the knowledge that Nadia is an autistic child, severely retarded and non-communicative; (b) the presumed absence of precursors to the astonishing realism of her drawings at age three, but mostly ages four to six years; (c) the lack of further development or its rapid leveling off. Let us consider the two last points.

The collection of drawings provided by Nadia's mother begins with drawings made at the age of three and a half years. From this period, there are only few samples, but they are astonishing for a child of such a young age (see Selfe's illustrations, No. 6, 8-14, 15 bottom.)



Prior to that time, Nadia scribbled for a short period, but there is no record of this earlier work. It would not be surprising, if there had been some earlier attempts which were not deemed worthy of preservation. Once Nadia began to draw in a recognizable and realistic style, however, the drawings were preserved, an indication that the mother valued them. Indeed, when Nadia came to the university clinic for a psychological assessment of her condition, the mother brought along the collection of Nadia's drawings. Thus, the evidence for the antecedents of Nadia's drawings rests on the mother's assertion that she scribbled for only a short time, and that this appeared in conjunction with an intense interest in an illustration. She would study a picture book model with great interest and at times scribble over its contours. She also scribbled on walls, but once she was given sufficient access to paper, she began to draw representationally. It is quite probable, that Nadia did not really skip over the early stage of drawing development, but that she passed very rapidly through them. The drawings of Eytan, a highly gifted normally developing child are quite suggestive in this regard (see Figures 1-16).

Furthermore, the argument that Nadia's drawings do not show any development between the ages of three to six-seven years is overstated. Careful inspection reveals increasing sophistication in the drawing of her favorite subject, the horse and its rider, although some childish schematic remnants remain, for example, the round, large sized Pop-eye (Wilson & Wilson, 1981) which serves for humans as well as animals. Also - the animal figures show much greater sophistication than the human, and amongst the various animal figures

we find considerable variation in her drawing achievements. The notion that Nadia reached the heights of her graphic achievements in one giant leap is not convincing, and it is worth remembering that she repeated the same or similar themes over and over again, indicating her interest, fascination and love for drawing her favorite subjects, and gaining with this practice the remarkable skill for which she is genuinely admired. The extent to which the collection can be said to be representative of all her efforts remains unclear. Of particular importance is Nadia's selection of themes, her evident delight and joy in drawing, and there is no good reason to assume that she did not understand what it was that she had chosen to draw. A comparison with some of the picture book originals clearly reveals that Nadia does not simply copy the models; that her rendering is more dynamic, vital, fluid in outline, and aesthetic in its appeal. Her variations from the model are somewhat reminiscent of a case described by Oliver Sachs (1985) who studied an autistic artist name Jose. His inclination to draw could be stimulated or elicited by a graphic model, but his versions deviated in significant ways, achieving a dramatic quality not found in the model. According to Sachs, these drawings indicate the artist's grasp of the thing portrayed, and a feel for the particularity of the object.

While artistically gifted autistic individuals are fairly rare (Selfe's extensive search in the institutions of Great Britain yielded only six!), they do exist, and they call attention to themselves since the gap between their artistic talent and their generally low level of intellectual functioning, specifically in the verbal domain, makes the gift even more remarkable. However, to attribute their unique talent

for naturalistic representation to the autistic syndrome, seems to go beyond the data at hand. A brief look at the drawings of Eytan, at the rapidity with which this normal child taught himself the principles of isometric perspective and of foreshortening provides us with a timely warning not to pathologize extraordinary talent even in the case of an artist. A search for advanced representational realism and its attainment cannot serve as an index of pathology. We are fortunate to have access to a complete longitudinal account of Eytan's development, from the early tadpole figure drawn at age two years to the sophisticated trucks, cars, helicopters, airplanes, compressors and combines at age four to seven years (see Figures 17-22). If his parents had begun their collection only at age three years, we would have concluded, quite erroneously, that this gifted child had skipped the early "normal" stages of development. It seems, therefore, that, as Howard Gardner has suggested (1982), drawing ability might also depend on a hypothetical neural graphic-output-device, not yet anatomically identified, that in the case of the uniquely gifted permits them such rapid and extraordinary achievements. In the case of Nadia and Eytan, these children activated their hypothetical computing device to the fullest. Gardner in his book Art, Mind and Brain states that Nadia "...may well have passed through the earliest stages of drawing just as every other child, but with unparalleled rapidity--perhaps in a matter of weeks or days. Her natural talent (in my terms, possession of a computer) combined with an uncanny capacity to analyze the pictures and the tenacity to drill for hours on end enabled her to achieve, by age of five, the level of a skilled adolescent."

In summary, the study of Eytan's early drawing development suggests that in some uniquely gifted children, with a special interest in naturalistic depiction, the process can be tremendously accelerated, and that this evidence of a precocious talent should not be confused with pathology. Cases like Nadia and Eytan do not violate the stage progression described for normal development; they merely race through it, at times achieving within days of intensive practice what others cannot master in years. In this context, it is interesting to note a new perspective on language acquisition in autistic children which indicates that they too follow a stage-like progression in their acquisition of language (Helen Tager-Flusberg 1987, in press). Moreover, coming back to our original discussion of the use of drawings for the psychological assesement of intelligence and emotional well-being, if in the case of a severely autistic child a drawing can reach a high level of representational competence, we surely ought to exercise caution when we attempt diagnoses on the basis of the drawings of less severely disturbed children.

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