CHAPTER 1
INTRODUCTION

Prior to the end of the nineteenth century there were some questionable assumptions in the study of children's artistic development, such as universal and non-universal domains of children's artistic abilities. Primary among these is the assumption that young children's drawings evolve and change in predictable and universal ways regardless of their culture, that no matter where children are born, their pattern of artistic development does not differ in the early stages of artistic activity. Characteristic and universal patterns, such as representational graphic patterns, spatial patterns (how to create depth/space on two-dimensional surfaces), and so on, seem to emerge with cognitive development and physical growth at an early age (See, for example, Arnheim, 1969, 1974; Cox, 1992; Golomb, 1974; Goodman, 1978; Kellogg, 1969; Matthews, 1984). For example, regardless of ethnic and cultural differences, toddlers start to draw scribbles first and there is no referential meaning in the presentation in drawings. Toddlers just enjoy playing with the drawing materials and discovering the emergence of lines. Then the scribble is developed to schematic patterns. Generally the first is a circle due to the limitation of children's motor skills. Right after that, the circle assumes a particular meaning as a person, animal, flower, or sun, even though the circles look like just circles to adults. With the development of children's motor skills and cognitive abilities, the patterns develop to show a concrete schema. Thus, seemingly there is a general direction in children's artistic development. According to Piaget (1952), the universal patterns that exist in children's drawings shift from stage to stage qualitatively equally in all cultures and countries, which means that there is a direction in children's artistic development.

Although children's drawings in their early stages indicate a universal pattern in artistic development, their drawings also show another important characteristic: the influence of culture and society. This means that the universal tendency of artistic development is generally limited to the early years from toddler to about five or six years of age before cultural and educational influences strongly appear. Children have a tendency to be influenced by their cultures and societies and the influences start to emerge in their drawings as a characteristic pattern (See, for example, Alland, 1983; Gardner, 1980; Harris, 1963; Wilson & Wilson, 1982; Wilson, 1996). The influence of culture and technology emerges strongly in children's drawings especially in elementary school, leading them to produce new and different characteristics in their drawing patterns depending upon the cultural and technological context.

Because of this fact, some questions remain in the study of artistic development. One, what kinds of universal patterns do exist in children's drawings and do these patterns develop from one stage to the other qualitatively equally regardless of socio-cultural contexts, as in Piaget's theory? Two, if the pattern in children's drawings is different depending on the particular culture and society, what do the differences reveal, and how and why do they reveal these differences?

In this study, I will focus on examining universality and non-universality (socio-cultural influences) in spatial treatment, which is how to create depth/space on two-dimensional surfaces, based on Japanese children's drawings in elementary schools. What kinds of patterns in spatial treatment do Japanese children show? Which is predominant: either universality or socio-cultural influences in the developmental process of spatial treatment in Japanese children's drawings? If unique patterns appear, I will discuss reasons why Japanese children use particular ways to create space in drawings that U.S. children seldom use.

The Importance of Studying the Spatial Treatment in Children's Drawings

As human abilities of cognition, how infants start to perceive depth and how they experience space as three-dimensional are fascinating subjects in developmental psychology. In the study of artistic development, how children start to draw space/depth on two-dimensional surfaces, such as paper, a wall, the ground, and develop techniques of spatial presentation that allow them to depict relationships in a realistic manner is an important subject in the study of drawing.

We live in a three-dimensional world. We are able to perceive depth, length, and height without learning how to perceive these qualities from others. In addition, with physical growth (motor skills) and mental growth (cognitive abilities), infants start to scribble and eventually create their own pictorial worlds in drawings. In the process of creating a pictorial world, we can see a developmental direction in spatial presentation in children's drawings. How do children know how to create space/depth on flat surfaces by using techniques such as relative size, relative density, relative position, overlapping, and, finally, linear perspective? Do children invent such techniques by themselves or learn from someone else -- parents, teachers, peers, or visual models? Is there a universality in the process of creating space on two-dimensional surfaces? When and how do social and cultural influences appear in spatial presentation in children's drawings? Which is dominant, universality or non-universality (culture specificity), in children's drawings? Does this dominance shift with age?

Although we take for granted the possibility of creating convincing illusions of space on two-dimensional surfaces, the technique commonly used to create pictorial space was just invented after the Renaissance period, in the fifteenth century. Until the Renaissance period, even adults who were artists did not have such particular techniques to create space on two-dimensional surfaces. Did children living in the fifteenth century know the techniques, although adults did not know? It seems unlikely. It is easy to imagine that there should be some differences between the drawings of children in the twentieth century and children in the fifteenth century and in the ways children create space, although we have few records of children's drawings in the fifteenth century. Furthermore, the new methods of creating space developed in the Renaissance period were just spread over the Western world of Europe in those days. In Asia, Africa, and Australia, artists invented and used other techniques to create space on two-dimensional surfaces. For example, it is well known that Japanese artists created a new technique in the fourteenth century called "a bird-eye's view (looking obliquely down from sky like

birds when they are flying)" to express space/depth on two-dimensional surfaces such as screens, hanging scrolls, and sliding doors.

Likewise, in spite of the fact that each culture has its own particular way to create space on two-dimensional surfaces, why do children show a universal pattern in the pictorial presentation at the early age regardless of their cultures and how do they start to show their own particular ways depending on their culture? How and when universality and non-universality are interwoven in the process of creating space in children's drawings is an interesting and important subject in the study of artistic development.

The Importance of Cross-Cultural Analysis of Artistic Development

Cross-cultural and multicultural studies have become a very popular method to determine universality and non-universality (culture specificity) since the early twentieth century. By comparing more than two cultures, researchers can, with relative ease, find differences and similarities in particular research regardless of the field. However, just as any type of methodology has its weaknesses, cross-cultural studies also tend to lead to misconceptions if not implemented under correct conditions. While many researchers (especially in humanities) use this method with quantitative (statistical analysis) and qualitative (observation, interviews, case study) methodologies, depending on the purpose of study, there were few successful studies due to the lack of principles of cross-cultural study. In the study of artistic development, there have been many cross-cultural studies to determine the universality or non-universality in pictorial presentation in drawings (See, for example, Alland, 1983; Harris, 1971; Wilson & Wilson, 1982; Wilson, 1996). However, Cole (1996) warns that using the cross-cultural method easily and simply tends to lead to the wrong conclusion. Not many researchers show carefulness and attention to the usage of cross-cultural study and they tend to use the method to judge the superiority of the particular culture in the field (Cole, 1996). Whether cross-cultural research is successful or not depends on the researcher using the method correctly.

Based on Cole's article (1996), I created the principles of the cross-cultural method as follows:
1. The researcher either should have both perspectives as an insider and an outsider or should collaborate with one who knows the background of the particular culture.
2. The researcher should have a standard (baseline) of judgment in the particular study to compare those cultures.
3. The researcher should collect data from diverse regions in the particular culture to draw conclusions in the field.
4. Cross-cultural/ multi-cultural studies should not be used to judge the superiority of the particular culture in the field.

As long as researchers know not only the strengths of cross-cultural study, but also the weaknesses of it, they will be able to implement the study successfully. No one doubts that the methodology of cross-cultural study is still strong and useful for comparative studies since it is the only practical method for comparative research.

In a pilot study using methods of cross-cultural analysis (Toku, 1997), comparing two populations in the U.S. and Japan, some unique patterns and tendencies in spatial treatment in Japanese children's drawings were found. If I had just observed one culture, the unique patterns which appeared only in Japanese children's drawings could never be confirmed. In addition, cross-cultural studies which examine the product or documents such as letters or drawings are relatively more useful than looking at and observing people themselves, since cultural biases may be minimized as long as the products are the objects to be examined for the particular purposes. For example, in the pilot study, I examined children's drawings collected from two populations under the exact same conditions of limited time, materials, and the same subject matter. As long as the examination of the tendency of usage of spatial treatment in drawings was based on the standard of spatial categories, there was no room for particular cultural biases. The important thing in using the cross-cultural study correctly is for the researcher to be careful not to misuse the method before starting the research, which requires an understanding of both the weaknesses and the strengths of the cross-cultural study method.