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# Mental Imagery and Dreams:
# Art Therapy with Visually Impaired Adolescents.

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# ABSTRACT

**Mental imagery and dreams:**
**Art therapy with visually impaired adolescents**

**Jennifer Berbrier**

Vision is considered to be the dominant sense modality in our society. Many of the colloquialisms we use tend to rely upon imagery that privileges sight. This exploratory study investigates visual imagery in relationship to the visually impaired. It questions whether creative expression can facilitate an articulation of mental imagery and dreams with this population. It reviews research in the areas of psychology, art education, art therapy, mental imagery, dreams and perception that has contributed insights into the art abilities of the visually impaired. Some of the primary findings in this literature demonstrate that those without sight have an understanding of perspective, occlusion, depth of field and motion. Additionally, research in the area of mental imagery shows that the visually impaired understand spatial knowledge in similar ways to sighted individuals. The dreams of the early and late blind demonstrate that both groups are able to perceive concrete spatial layouts while dreaming. Furthermore, absence of vision is shown to have no effect on the richness and narrative continuity of dreams. Art therapy is found to offer the visually impaired a space where they can communicate their dreams as well as their unique experiences through concrete visual forms. In turn, it serves as a vehicle through which the visually impaired enter into communication with the sighted world. Overall, this study offers insights into other methods of looking at and perceiving the world.

# ACKNOWLEDGMENTS

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I am especially appreciative to everyone who supported me through this project: Brandee Diner for her unconditional support, Yehudit Silverman and Irene Gericke for insightful suggestions, and Rebecca Murray and Catherine Genest for incessant encouragement. Above all, I wish to thank my family who provided me with all the necessary support and love during the course of this endeavor.

Finally, I wish to thank my husband and best friend, David Rahman, whose confidence and faith allowed me to ground myself and maintain focus throughout this challenging pursuit.

Six wise men of India
An elephant did find
And carefully they felt its shape
(For all of them were blind).

The first he felt towards the tusk,
"It does to me appear,
This marvel of an elephant
Is very like a spear."

The second sensed the creature's side
Extended flat and tall,
"Ahah! He cried and did conclude,
"This animal's a wall."

The third had reached towards the leg
And said, "It's clear to me
What we should all have seen instead
This creature's like a tree."

The fourth had come upon the trunk
Which he did seize and shake,
Quoth he, "This so-called elephant
Is really just a snake."

The fifth had felt the creature's ear
And fingers o'er it ran,
"I have the answer, never fear,
This creature's like a fan!"

The sixth had come upon the tail
As blindly he did grope,
"Let my conviction now prevail
This creature's like a rope."

And so these men of missing sight
Each argued loud and long
Through each was partly in the right
They all were in the wrong.

**-Charles Hampden-Turner**

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## Introduction

This paper will investigate whether creative expression can facilitate an articulation of dreams and mental imagery with the visually impaired[1]. It will also question whether art therapy could serve as a means through which the visually impaired can enter into communication with a society that revolves around sight.

The first chapter will examine how vision is our culture's most dominant sense modality. It is through this sense that we function and perceive the world (Barnard, 1998). It is also the moderation through which we gather impressions of aesthetics and beauty (Sturken & Cartwright, 2001). Cutsforth (1951) explained that the aesthetic experiences of the visually impaired are either neglected or misunderstood. He contended that the non-sighted have limited self-assurance regarding the validity of their own methods of appreciation. The section *Art and the visually impaired* will show that this population can use their tactile and kinesthetic senses to create art (Fukurai; 1974, Lisenko 1972; Kennedy 1987; Rubin 1978). It will examine how various theorists discuss and document the multiple ways in which the visually impaired may engage in artistic production. For instance, Kennedy (1987) showed that the non-sighted possess extraordinary artistic abilities which they can learn to express through a "raised line" drawing technique that stems from one's haptic senses. The raised line drawing method will be discussed in order to suggest that those without sight understand perspective, occlusion, depth of field and motion. However, following Kennedy, the fact that this population is rarely given the tools or encouragement to

[1] See Appendix A for a definition of visual impairment.

pursue such artistic endeavors will be addressed. Furthermore, Lisenco's (1972) work which noted that memories are extremely valuable to the blind, especially since they provide points of reference for art production, will also be explored. Finally, this section will highlight how some recognized artists with visual impairments have overcome their tribulations by proceeding to create art that is, ironically, enriched by their loss of sight.

The section on *Mental imagery* will stress that most of the literature on this topic focuses on its visual dimensions. A general definition of mental imagery, followed by traditional and contemporary views on the topic will be addressed. Finke's (1993) examination of anecdotal accounts of mental imagery, which have been central to creative and scientific discovery, will be highlighted. Moreover, this section will investigate the formation of mental imagery and its multileveled nature from several viewpoints (Kennedy 1993; Finke 1993; Thomas 1987; Kerr 1983). Most importantly, this research will show that blind participants' understanding of spatial knowledge is similar to that of the sighted. In the subsection on *Visible thoughts*, Arnheim's (1967) experiments with "non-mimetic" drawings will demonstrate how thought structures exist in abstract form. Finally, as this paper explores *"Seeing" and consciousness* it will indicate that thinking and language are paramount to the development of consciousness.

In a section on *Dreams*, a brief discussion on the development of dream theory by Jung (1963) and Freud (1980) will illuminate how various theories regarding dreams contributed to the practice of art therapy. There have been very few recent studies done with dreams and the visually impaired. However, the general belief and little evidence seem to

favor the notion that people dream as they live in waking life (Jastrow, 1900; Kerr, Foulkes & Schmidt 1982; Foulkes, 1985). A dream account by Helen Keller will be presented, in which Jastrow noted that her dream imagery is in harmony with her waking existence. Furthermore, studies conducted by Kerr, Foulkes & Schmidt, will be cited in order to examine spatial layouts in the dreams of the blind. The accounts will show that visual imagery is not the only method of characterizing spatial knowledge in a dream. For instance, some late blind participants can use their imagination to create new faces and environments. Finally, Foulkes' work will be used in order to show that lack of visual imagery does not adversely affect the rich content or the narrative in the dreams of the visually impaired. His belief that visual imagination exists independent of visual perception will thus be stressed.

The section on *Art therapy and the visually impaired* will introduce art therapy. It will highlight Rubin (1978) and Benjet's (1993) experience with this population. Both therapists will describe different methods of securing a safe space and creatively engaging this population. Benjet explains that art therapy has the potential to bring this population into communication with a sighted world. Her experience will show that this population certainly has the symbolic repertoire to engage in such communication.

Chapter 2 will translate theoretical applications into practical ones. Two case studies will emphasize how creative expression can facilitate an articulation of dreams and mental imagery with visually impaired adolescents. These studies attempt to answer the following questions: What does the mental imagery and dreams of visually impaired persons look like? How do their other senses effect their perceptions of the environment? The

examples will also reveal that art therapy principals can liberate and promote the expression of mental imagery and dreams. Thus, many of the benefits found in the therapeutic process will appear. In the section *Establishing a framework and creative conditions for the visually impaired,* I will discuss specific methods of establishing a safe and inspiring space for these teens. Following each case study, there will be a *Discussion* section that integrates proceedings from the sessions to the topics of art and the visually impaired, mental imagery and dreams. Finally, a section on *Findings* will offer links found in both case studies to the literature review.

Chapter 3 will offer *Conclusions and implications* concerning this project. It will suggest that perhaps art therapy can facilitate the learning of Braille, map reading and mobility. It will also stress that there are a multiplicity of ways to experience and perceive the world. The conclusion will also highlight how the case studies show that mental imagery and dreams exist as indicators that external vision is but one way of looking at the world.

## Chapter 1

## Literature Review

### 1.1 Western Cultures – Perceptions of Vision

This section begins with a brief discussion concerning how western cultures perceive and privilege vision. The most prominent example that demonstrates the degree to which our society values sight comes from a Gallop poll taken over the past few decades. It showed that "blindness is the second only to cancer as the most feared health problem" (Lampl & Oliver, 1985, p. 297).

Vision is considered our dominant and most important sense. Our culture relies on vision to communicate, to negotiate and to influence. Sight has historically been linked to light and life, whereas loss of sight is associated with darkness, death, evil, shame, fear, and in some cases, castration (Lampl & Oliver, 1985). Vision is also the moderation through which we gather our impressions of aesthetics and beauty.

Barnard (1998) explained that there exist numerous colloquialisms in western culture that depend heavily upon visual images. These images inform how we come to perceive and understand the world. Barnard examined philosophical and religious idioms in our culture. He recognized that vision is connected to meaning and knowledge in intricate and symbolic ways. For instance, notions of daily rituals, mental processes, as well as most unconscious behaviors are highly dependent upon visual metaphors and allegories to describe and explain topics like existence. Thus, light is generally configured as a symbol of God or

knowledge. Enlightenment is evoked in contrast to living in the dark. In other words, western methods of understanding concepts such as good and evil, as well as light and dark tend to honor a sighted experience.

Barnard also argued that the western world is dependent on visual metaphors that hold a dominant place in our society. Vision works to communicate colloquialisms that help us to understand and function within our culture. For example, he mentioned that flirting is often described as "eyeing someone". Similarly, violence can erupt through the simple suggestion that a person is "looking at you the wrong way". In other words, non-verbal methods of communication -- sight and looking -- are associated with power, sex and violence (Barnard, 1998).

Lample & Oliver (1985) discussed the notion of asexuality and visual impairment. They suggested that blindness is frequently construed as a loss of sexuality. They highlighted the importance placed on eye contact in relation to sexual cues and communication. "Blindness interrupts the aspects of sexual communication which depend on eye contact, facial expressions, body language and the appreciation of physical appearance. The interplay of the active and passive sides of each person are often expressed visually or non-verbally" (p.306). These authors wrote that one of the major consequences of loss of vision is the eradication of several forms of communication such as: reading, writing, eye contact and facial expressions. Lample, who lost her sight as an adult, said that with these significant losses also comes the dissolution of privacy, intimacy and self-image.

Sturken & Cartwright (2001) described how our culture is increasingly permeated with visual images. They say that our image-saturated society exists as part of a consumer culture where assumptions about beauty and desire, as well as social and traditional values of good and evil evolve. They explored how and why our culture has become so increasingly dependent on visual images. They stressed the ways in which we construct meaning from and assign importance to pictorialization. These writers asserted that meaning does not exist in images, rather meaning arises through the social circulation and interpretation of visual imagery. Sturken & Cartwright (2001) explained:

> Over the course of the last two centuries, Western culture has come to be dominated by visual rather than oral or textural media...hearing and touching are important means of experience and communication, but our values, opinions, and beliefs have increasingly come to be shaped in powerful ways by the many forms of visual culture that we encounter in our day-today lives. (p.1)

Edwards (1984), a professor of art education questioned whether historically language worked to shape visual structures or if instead such structures helped to constitute language. Through her career as an art educator, Edwards recognized that in an overwhelming number of drawings titled "depression", structures were placed low on the page. She made a correlation between the placements of these structures to expressions in our language. In turn Edwards asked, "Among early human cultures, was language developed to 'tag' preexisting visual structures, or did language come first, with visual structures later fitted to verbal structures?" (p.83).

Lampl & Oliver (1985) mentioned the homophonic relationship between the "eye" and the pronoun the "I". They explained that in the English language these words demonstrate a certain cultural evolution of this relationship. They wrote that symbolically the eyes signify ego consciousness as well as the total self.

Strauch and Meier (1996) noted that dreamers generally have an easier time describing the visual and bodily perceptions of their dreams than they do depicting their auditory elements. These researchers believed that this is due to cultural experiences in our waking state. They suggested that language and cultural colloquialisms provide us with a multitude of expressions that give to rise to the communication of visual rather than other sensory experiences.

James Hillman (1972) discussed how this visual bias infects our culture. He claimed that we suffer from a psychological sickness whereby we are unable to be metaphorical. In turn, our actions are tied to the literal. For example, he perceived suicide as the product of a person's desire for a metaphorical rebirth which she or he confuses with the literal act of self destruction. It is interesting that one of the great interpreters of dreams, the ancient Greek visionary Tiresias, was blind. He played a vital role in many myths such as: Oedipus, Pentheus, Narcissus and Ulysses. His extraordinary function was seeing through life into death. Many sought this prophet's foretelling gift (Iampolski, 1998).

Lampt & Oliver (1985) explained how this mythic character demonstrates a connection between blindness, punition, death and asexuality. They expressed that Oedipus selected blindness to be a sign of suicide, one which analysts interpreted as an association to castration. Furthermore, Lampt pointed out the irony in this myth. For it was Tiresias who possessed true insight and knowledge, while in the myth Oedipus had sight but was blind to the truth. The blind man, as it turns out, saw better than the sighted one.

Jastrow's (1900) early but major study involving visually impaired individuals contended that our culture inculcates us to prize vision in our daily language. He wrote, "Man is predominantly a visual animal. To him seeing is believing – a saying which in canine parlance might readily become smelling is believing" (p. 337). Jastrow stressed that even our acquisition of education and instruction occurs through visuals like illustrations and models. He explained that our everyday language is affluent in metaphors relating to images which vision has conditioned us to value. Our vision, he contended, is the mode through which we obtain our impressions, especially of aesthetics intelligence. In relation to creative expression, Jastrow stated that a significant component of art is absent from those who are non-sighted. Thus, the visually impaired are distanced from the heart of our emotional expressions and our refined variations of fervor and sentiment. He argued that a primary function of the eye is thus absent in the visually impaired.

## 1.2 Aesthetics and Beauty

The criteria used to interpret and judge beauty depends upon our cultural codes and shared ideas. The codes used by the blind and visually impaired are quite different. As one art professor expressed, "their work emphasizes a new tactile dimension in artistic beauty" (Fukurai, 1974, p.52). Aesthetics are generally philosophical ideas about the perception of beauty and ugliness. The mode through which our culture tends to draw its impressions of aesthetics is through vision. Additionally, assumptions are often made about what is beautiful or aesthetically pleasing via specific iconic images and media representations. Television and films usually reinforce cultural ideologies that collectively strengthen our notions of beauty.

Collier (1972) asserted that the word aesthetic pertains to qualities of beauty undisguised in an entire body or form. However, while beauty is connected to aesthetics, a broader definition of the word has evolved. Collier wrote, "consequently, we have tended to extend our understanding of the aesthetic experience to include both our rational awareness of the beautiful and a less rational awareness of the expressively or symbolically powerful" (p.220). Collier believed that in visual arts we should recognize aesthetic insight and will as the driving force behind creation, even though we may view a piece of art to be primitive, tasteless or unpolished.

In relation to the blind, Eaton (as cited in Harris, 1979) emphasized that those without sight are more than able to develop an appreciation for art: He stated:

> I believe that blind persons in the things which they make and in the things which they touch can in many cases convey to others, and experience for themselves, that state of happiness which we call the aesthetic experience of beauty. They reach this, not through touch alone but through the wealth of associations which is awakened when the message from the plastic object is conveyed to the brain through touch. (p. 83)

Yet, he stressed that this population is faced with many obstacles that may hinder their ability to create and share works of art.

Cutsforth (1951) contended, "the blind receive such an exaggerated opinion of visual beauty and visual pictorial art that they have no confidence in the validity of their own methods of appreciation" (as cited in Harris, 1979, p.82). As an educator of blind individuals, Cutsforth pointed out that their aesthetic perceptions are often overlooked or misunderstood.

Fukurai (1974) who teaches art to blind children, entered his students' into an art contest for children in western Japan. Prior to the competition, he carefully considered how the work of his class would compare with that of sighted children. He defined blind children's creations as "art without ostentation". Fukurai also felt that their creations conveyed naive and simple characteristics, with a fresh sense of ambition. "Their art can be interpreted as life in its concentrated essence" (p.51). Furthermore, since imitation of style is not a factor with this population, each art piece revealed a unique and individual quality. Critics responses to the art show were beyond Fukurai's expectations. One critic stated that,

"the imposing power expressed in the blind children's art opens a new frontier in the world of art" (p.55). Fukurai found that this art competition not only influenced and excited the children, it also provided them with the self-confidence and hope that they could successfully compete in a sighted world.

A study conducted by Rubin (1978) on the aesthetic responses of blind children's art included blind, partially sighted and sighted child judges. The judges were presented with three-dimensional art creations done by all three populations. Each one was asked to choose what s/he liked and did not like about the artwork and to explain the rationale behind his or her choices. Rubin found qualitative similarities as well as differences in each judges' response. Her research reflects "useful clues to the basis for an equal but different aesthetic for the blind" (p.270). She reported that the visually impaired judges were notably different in their need to label artwork as representations and in their limited response to abstract creations. Additionally, Rubin found that the sighted judges were more objective, while the visually impaired were more subjective in their responses. For instance, one of the visually impaired judges explained that she preferred one sculpture over another because it was more solid and would not be as likely to get knocked down.

In sum, the term aesthetics has traditionally included many concepts of beauty, while contemporary references state that beauty is associated with "what is valid and valuable in the arts" (Sturken, 2001, p.349). This relationship between beauty with institutionalized visual art practices marginalizes the tactile and kinesthetic dimensions of art production. Furthermore, as a culture we are also likely to over-emphasize the importance of

sight as many of the colloquialisms we use rely upon visual imagery. It appears that to experience beauty from the visually impaired artists perspective, we must be open to other modes of aesthetic appreciation. Thus, we must be willing to disrupt our culturally conditioned notions of beauty that are deeply linked to our literal sense of sight. By liberating our standards to include other ways of knowing, sensing and seeing beauty and aesthetic pleasure, we can work towards valuing and utilizing all of our sensory modes. In turn, we can begin to redefine these terms, thereby including new dimensions of beauty present in the art of blind and visually impaired individuals. Perhaps the irony found in the myth of Tiresias reminds us, that the blind can in some ways see better than the sighted.

### 1.3 Art and the visually impaired

Visual arts, namely drawing, painting and sculpture, have been described and defined in many different ways. However, for the purposes of this paper, it is quite apt to suggest that most definitions of the visual arts claim that they collectively produce what is visible. The standard elements by which art work manifests visibility is through line and mark. Unless these elements are in place, no image is erected. This section will identify researchers in the areas of psychology, art, education and perception, who have investigated art abilities in the visually impaired. Kennedy (1993) used a raised line drawing method, which relies on a sense of touch. He stressed that through this haptic approach the blind can produce proficient creations Additionally, such artistic creations show an understanding of perspective, occlusion, depth of field and motion. Lowenfeld (1952) made a distinction

between two creative types he called "haptic" and "visual". He discussed these in relation to sighted and non-sighted children.

Lisenco is a doctor of art education who works with blind and visually impaired individuals. Lisenco (1972) discussed "haptic sensing". He explained that haptic sensing is to those without sight, what vision is for those with sight. Vision is thus replaced with touch.

Fukurai (1974) also referred to the concept of haptic sensing in relation to the blind He described it as seeing with hands. He commented on the ways in which blind children understand the verb "to see". Fukurai wrote, "the verb 'to see' refers not only to the capacity for using ones eyes. It also means the ability to use one's other senses to determine what things are" (p.105). In Fukurai's experience, hands are inquisitive tools for the blind. They use their sense of touch to explore and learn about the world. It is in this sense that the verb "to see" is applied.

Lowenfeld (1952) studied blind and sighted children's artwork. He produced a distinction between two creative types he called "haptic" and "visual". Lowenfeld suggested that art made by the blind generally comes from a haptic expression. He explained that this means that blind artists' who utilize a haptic mode rely on their experiences of touch and movement to form their perceptions. Haptic perception, wrote Lowenfeld, is subjective. Thus, it resides within an individual. It is also where feelings, emotions and experiences are externalized. Haptic perception carries human experience out into the world. Whereas, Lowenfeld posited that visual types rely on the outer and objective parts of perception. Thus,

such types tend to stress the contrast between light and dark in their images. "Visual perception is objective and brings the outside world up to the individual, and into his mind and consciousness" (p.87). However, Lowenfeld explained that despite his generalization that blind children create haptically, those with sight may also create in a haptic mode. Furthermore, those who are blind or visually impaired may use a visual method of expression. In other words, the process of creation can be independent of visual acuity.

Lisenco (1972) found that memories of visual experiences in late blind adults exist long after the commencement of blindness. However, it is often difficult for the blind adult to make an association between how the object feels to the touch and how it once appeared to the eye. Nonetheless, Lisenco noted that these memories are extremely valuable to the late blind, for they function as idea references when producing art.

Kennedy (1993) showed that the visually impaired have extraordinary drawing abilities. He presented some visually impaired individuals with raised line drawings that surfaces that could be touched. Using this method, visually impaired individuals feel the lines, marks, corners and edges rendered on the surface. (Kennedy asserted that since these properties are accessible to touch and vision than perceptual, visual and tactile systems of the blind will use many of the same methods as the sighted to perceive shape in the environment).

Heller (1989) studied raised line pictures given to blind and sighted participants. The participants were instructed to identify the images either via visual or haptic modes. The

pictures varied significantly in terms of their identifiability. Heller pointed out that visual experiences are not completely essential for tactile perception. He concluded, "the sighted did not hold an advantage over the congenitally blind" (p.387). Rather, such advantages are based on familiarity. For instance, those with sight are more likely to recognize candles and flashlights, whereas the blind have an easier time with pictures of a guide dog harness or a Braille typewriter.

According to Kennedy the visually impaired maintain a similar outline system to that of sighted individuals. Such a system guides their identification of haptic images. He illustrated how blind individuals draw lines to represent edges of flat and rounded surfaces (Figure 1). This image of a glass demonstrates perspective, as the roundness of the lines appear thinner on the outer edges. The blind also use patterns of lines to express contours of objects and their parts. In Kennedy's investigation, this population used lines to illustrate how parts of objects are spread out in relation to each other and to the viewer's perspective.

The raised line drawing method further demonstrated that even those with no sight at all understand perspective, occlusion, depth of field and motion (Figures 2 & 3). Kennedy also showed how with a raised line drawing approach blind adults could produce competent representations, some of which strongly resemble the intended image (Figure 4). Furthermore, these drawings demonstrated an excellent manipulation of space.

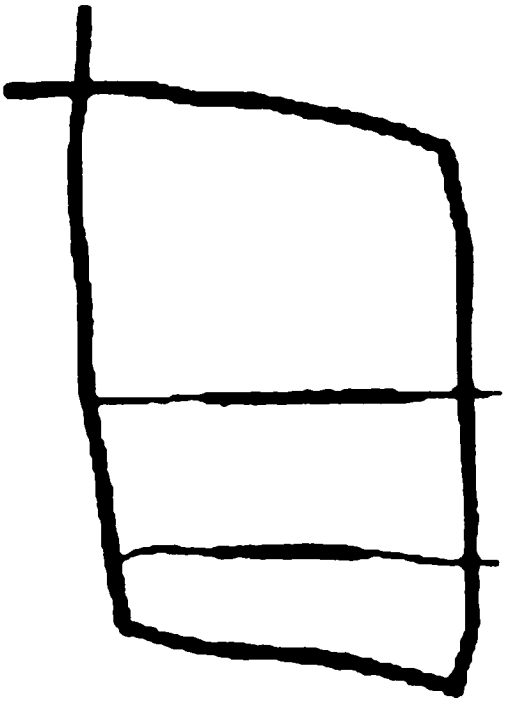

**Figure 1** (Kennedy, 1993, p. 100)

**Figure 2** (Kennedy, 1993, p. 116)

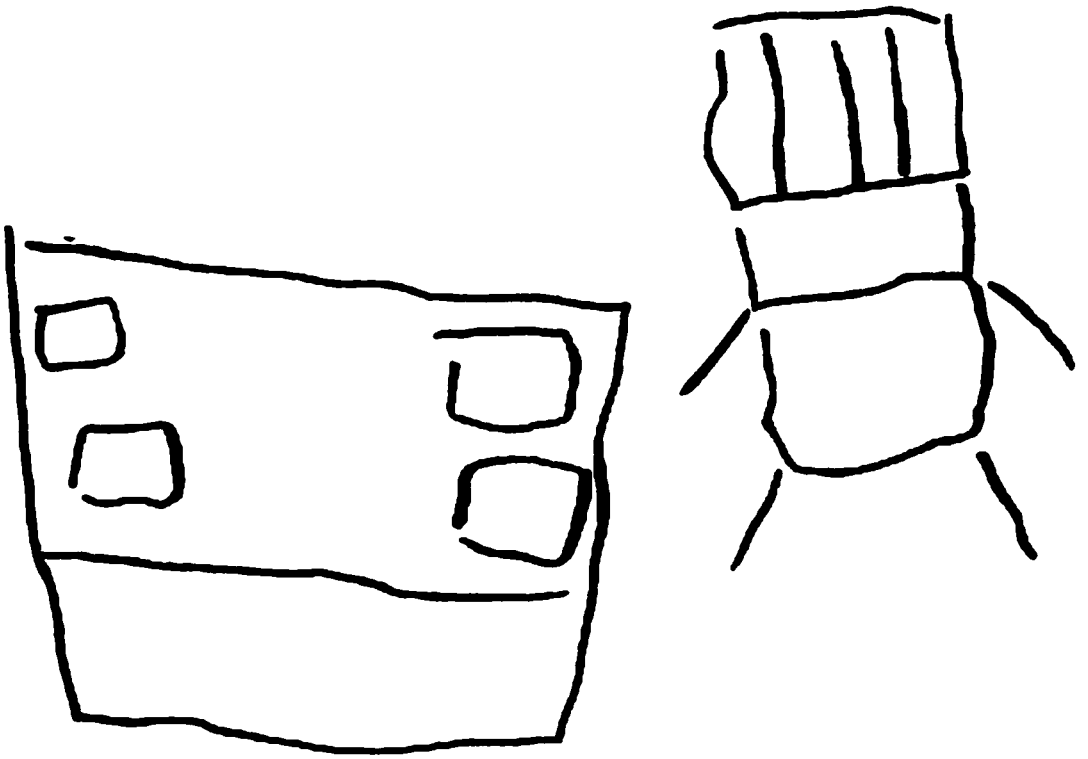

**Figure 3** (Kennedy, 1993, p. 115)

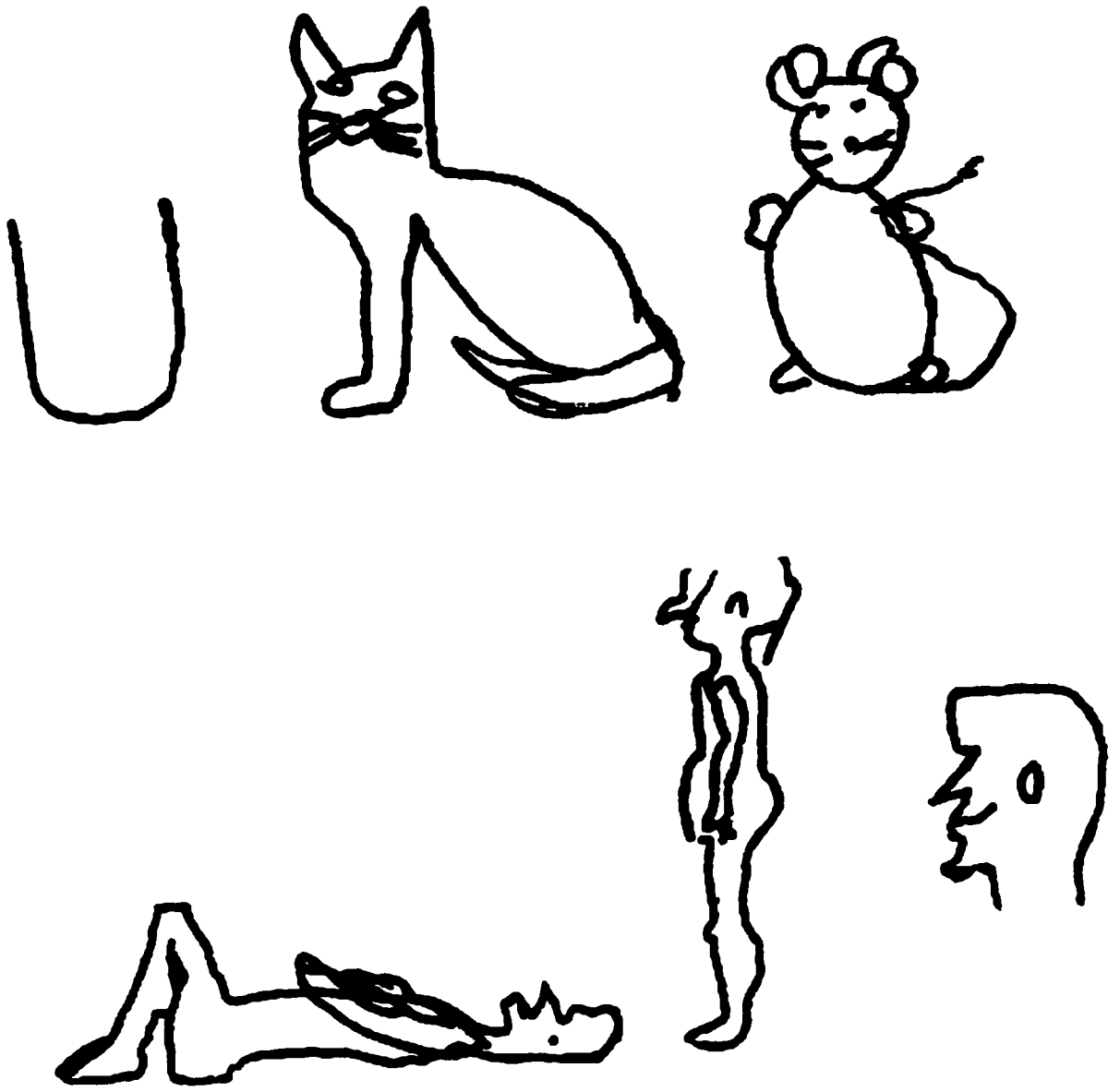

**Figure 4** (Kennedy, 1993, p. 118)

Kennedy asserted that touch is associated with the form and classification of objects in space that are analogous to vision. In the line drawings, he found that non-sighted individuals display similar characteristics to sighted individuals. Kennedy exemplified this notion with Cal, an adult who became blind at the age of two. He notes that Cal cannot ever remember seeing a visual image. Cal drew an outline of a car and a dog (Figure 5). These illustrations exhibit how the blind understand principles of perspective, particularly when they relate to the configuration of parts of an object.

Kennedy (1993) discussed how the visually impaired perceive spatial layouts. Based on the concept that touch is proximal, he reported that "experts have emphasized a patchy quality to touch: we feel only a few parts of some objects at any one time" (p.3). Thus, many theorists maintained that non-sighted individuals have difficulty perceiving the full form of the object that they are in the process of touching. Furthermore, such individuals are unable to "see" from a panoramic perspective. However, Kennedy suggested that touch can indeed be used to discover the impression of complex spatial arrangements. Nonetheless, individuals must have adequate time to explore objects and environments in order to avoid generating "patchy" representations.

A study conducted by Kennedy (1980) found that when a visually impaired individual moves a hand over a motionless object, object recognition improves significantly. A crucial finding in this study was that the hand could not remain stationary, rather it had to be in motion. "If touch can palpate to discover something distal, if, in motion, it can discover

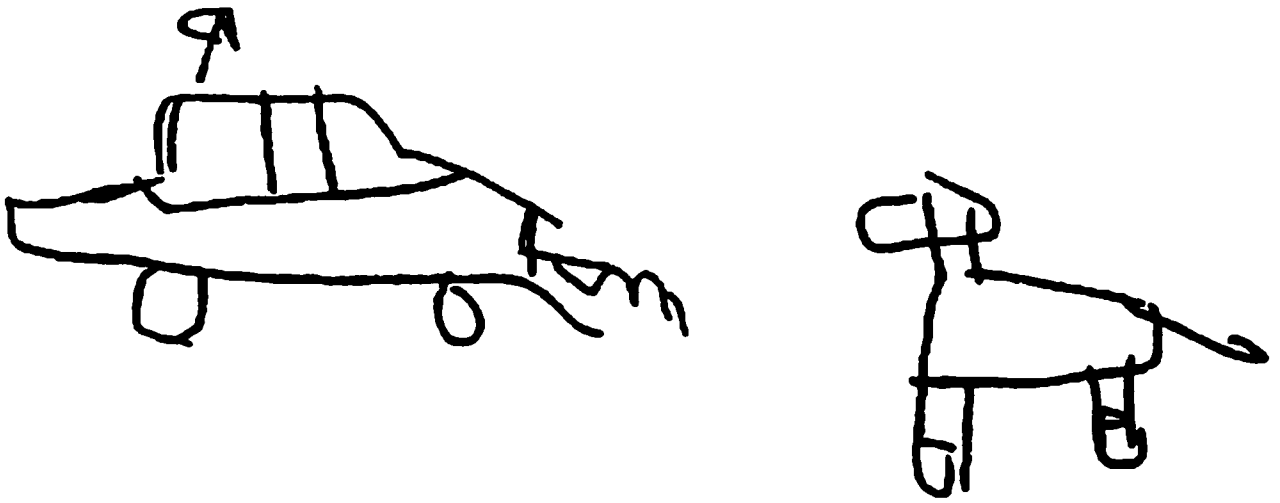

**Figure 5** (Kennedy. 1993. p. 5)

arrangements of objects, and if it can identify patterns that take time to explore, then it is not restricted to discerning only a few impressions of immediate contacts" (p. 5).

Lisenco (1972) also wrote that time becomes a significant factor in perceptual undertakings for the visually impaired. Often the breach or interruption in time, between one sensory imprint to another, is thought to be the essential difference between haptic and visual perception. When considering normal vision, time lapses between impressions may not necessarily be noticeable. Nonetheless, they do transpire. However, "when total blindness occurs, especially if it occurs in later life, vision (in the form of visual memory) can still play a role in perception" (p.31).

Kennedy stated that blind and visually impaired children have the inclination and longing to produce art but are not taught the skills or given the tools to promote their artistic potential. Kennedy discovered that such children come to create images because of an inner resolve. Based on his work with the blind and visually impaired, Kennedy concluded that visually impaired children "seem to be driven by some developing ability that grows and burgeons and unsuspected in all blind children. It only needs tapping to make itself evident" (p. 179).

### 1.2.1 Recognized artists and visual impairment

During the last decade of his life Monet could barely see. He painted everything from memory. This artist pushed the boundaries of impressionism as his cataracts blurred.

"His sight was the characteristic serenity of his canvases" (Farr, 1998, p.1). Another influential artist, Chuck Close, turned his visual tribulation to arts' advantage. He said, "once in a while along comes an event or momentous occasion that somehow changes the way you think or look" (Farr, 1998, p.2).

An Atlanta born artist, Ginny Ruffner, was involved in a life altering car accident that caused severe brain damage. She had to relearn how to walk, to speak as well as create art. As a result of the accident, Ruffner struggles with vision problems. Her past and present artistic focus deals with beauty. Since the accident Ruffner stated that beauty has become more deceptive. Art critics, such as Farr (1998), expressed that somehow her difficulties with vision have enriched her artistic perceptions.

In sum, Kennedy's (1987/1993) insights serve as useful guides to the study of art and the visually impaired. He and other theorists demonstrate that early and late blind individuals can use and understand raised line drawings. Through this process, such individuals show that they possess basic understanding of spatial relations, perspective, motion and depth perception. The early blind appear to be capable of making sense of complex spatial areas, and give the impression that they can draw pictures which involve perspective. The quality of drawing skills among this population is quite diverse. This discrepancy inevitably relates to the differences between those who have been provided with the tools to grow creatively and those who have had less exposure to drawing. However, Kennedy (1993) demonstrated that congenitally blind adults with no past art training can compose competent images by using the raised line technique. Recognized artists with visual

impairment provide concrete examples of how visual tribulations offer unique opportunities to broaden creative perceptions, which in turn work to enrich art expressions.

## 1.3 Mental Imagery

Mental imagery can be viewed from diverse points of view. This section consists of a general definition of mental imagery followed by traditional and contemporary viewpoints concerning this complex phenomenon. Literature on image formation with regard to coding and processing spatial information in relation to the visually impaired will be examined. Furthermore, anecdotal accounts of visual imagery, which have been central to several scientific and other eminent discoveries, will also be mentioned. Finally, the formation of mental imagery and its multileveled nature will be discussed in the context of visual impairment.

According to Thomas (2002), mental imagery (sometimes referred to as visualization, or "seeing in the mind's eye") is defined as an occurrence that is similar to perceptual experience. However, it transpires in the nonexistence of desired perceptual stimuli. The term is often thought to be predominantly related to visual and spatial ways of thinking as well as to creative thought and discovery. Certainly, it has been perceived as vital for all cognitive mechanisms. However, throughout the 20th century such claims have become suspect.

Some theorists debate the nature of mental imagery. Ryle (1949) refuted the notion that mental images are "pictures in the mind" and expressed that it would be more accurate to say that one is pretending to see something. Sartre (1948) also cast doubt on the notion of visual representations. He pointed to the "intentionality" of images. In other words, he believed that an image is an image *of* something. However, he maintained that it is not a "" "thing" in the mind. These challenges led to a decline of interest on the topic. However, in the 1960's and 70's there was a revival of interest in mental imagery which significantly contributed to scientific interest, especially regarding spatial knowledge, mental rotation and mnemonics.

Contemporary imagery theorists like Kosslyn (1994) view mental imagery as a form of cognition, while others depict it as a form of experience. Pictorialists, like Kosslyn, argued that mental imagery is picture-like, while descriptivists view it as language-like. Most of the literature on mental imagery focuses on its visual faculty. However, other modes of "quasi-perceptual" experiences like auditory, kinesthetic, as well as haptic imagery are currently being addressed in psychological literature.

The imagery debate between pictorialists and descriptivist seems intellectually trivial. All mental imagery is anecdotal, thus we can never directly perceive this phenomenon. Is it not possible to contend that some people experience mental imagery as pictures and others see it as language? Why must we debate individual perception?

Galton (1880) first published his "breakfast table" imagery questionnaire in 1883. This was regarded as a seminal study in the field of imagery research. Galton wrote, "I desire to define the different degrees of vividness with which different persons have the faculty of recalling familiar scenes under the form of mental pictures" (p. 318). In his research, Galton asked several individuals to describe in graphic detail their recollection of mornings spent at the breakfast table. He asked them to describe the pictures that formed before their mind's eye. He focused on illumination (clarity of the image), definition of the objects, and the color of the items.

Galton collected around 100 responses. Some participants reported rich images with a wealth of detail. For instance, one subject was able to mentally picture the white cloth, blue china, and a grand coffee pot that lay on the breakfast table. While others reported mediocre imagery describing only select details or colors of particular objects. A third group recounted a nebulous succession of images with poor definition and no color. There were only about 10% who claimed to remember no images at all.

Penfield (1963) said that "we have a natural built-in 'tape recorder' in our heads...EVERY experience — sight, sound, smell, and taste — registers as a particular pattern in the brain and this pattern stays on long after the experience is consciously forgotten" (as cited in Bagley, 1987, p. 25). After conducting thousands of experiments, Penfield found that the human experience is documented in our brain cells in the shape of mental images. Patients expressed the ability to not only experience a past memory, but they also showed that they could relive the occurrence as a present experience.

Ahsen (1999) discussed memory in relation to images. He stated, "memory interprets the ongoing holistic experience through selection of a specific structure which later on appears as the memory of the image" (p.2). Ahsen also stated that the word "idea" derives from the Greek word "idein" which means to see. He expressed fascination with the ways in which western tradition attributes thinking to seeing. He argued that most conscious thought filters into authentic imagery and thus go beyond the visionary sphere. Among the many types of images, Ahsen focused on the "eidetic" as a "normal subjective visual image which is experienced with pronounced vividness, although it is not necessarily evoked at the time of the experience by an actual external object" (p.2). The eidetic image is assumed to be "seen", literally inside the mind. The root of this word derives from the Greek word "eide" or "eidos", which means out of the ordinary images usually containing unplanned inner visions.

In reference to the image, Ahsen referred to the "triple code model" which he argued is in fact "a tripartite ISM phenomenon" (Ahsen, 1999, p.4). (I) involves pictorial details of an image, (S) refers to a somatic expression, usually through the body, and (M) is connected to the meaning. This tripartite theory joins the image, embodied emotion and meaning into a unified whole. Ahsen believed that the image exists as part of the body. For he asked: where else does an image come from if not the body? It is in this association where meaning is found. One cannot exist without the other. However, it is in the progression of time that one begins to forget the visible, the body and emotions, and significance of the image.

Most of the evidence regarding mental imagery is anecdotal. There are few systematic investigations that look at mental imagery, especially in relation to creativity. Finke (1993) expressed surprise regarding the fact that so few studies have addressed the role that visual images play in the creative process. He was especially perplexed by the absence of such literature in disciplines like cognitive psychology and cognitive science. He explained that mental imagery should be significant and attractive to those fields, especially given the countless anecdotal accounts of visual imagery that are central to scientific discovery. For instance, Einstein visualized the consequences of traveling at the speed of light, which led him to the concept of special relativity. After having visualized a snake coiled in a dream, Kekule formulated the molecular structure of benzene (Finke, 1993). There are numerous other reports of mental imagery leading to great achievements in the areas of literature and art.

Piaget (1956) studied mental imagery in children. He concluded that children in the preoperational stage could not picture visual representations, nor could they mentally replicate visual movement. Thus, he proposed that what children could reproduce was determined by what they know rather than what they see. Therefore, mental imaging appears to be a symbolic ability that is independent from perceptual knowledge. In turn, it is one which preoperational children lack. Piaget's findings suggested that a child's independent ability to engage in mental visual coding occurs between 5 and 7 years of age. This finding is consistent with the observation related to mental image recognition in the visually impaired. When individuals become blind after 5 to 7 years of age they maintain the ability to employ symbolic structures.

Thomas (1987) discussed visual imagery and spatial knowledge in relation to the blind. He explained that the visualization of images, made-up sounds, smells and tastes just as easily transpire when knowledge from ones' memory is supplied to the informational current, which is said to flow from our senses to the hub of our consciousness. He contended that:

> In Kosslyn's theory there would be no room on the 'visual buffer' for representing sounds, smells, tastes ect., and likewise, there would be no room in the auditory, olfactory and gustatory 'channels' for the sort of spatial information which, as Kosslyn has been so anxious to prove, seems to be carried in the visual image. (Thomas, 1987, p. 248)

Kerr (1983) investigated congenitally blind adults in order to resolve whether or not vision is a prerequisite for image formation. Early blind individuals inevitably lack visual orientation, however, as Kerr discovered in her study, they are quite able to code and process spatial information. The collected data support all three of Kerr's contentions: (1) early blind and sighted individuals are capable of maintaining metric spatial information, (2) both groups identify large images much faster than small ones., (3) the mnemonic accuracy of image formation by both groups are equal, as are their recall of image scenes. The patterns of performance relating to all tasks were similar for both blind and sighted participants in almost all respects. Despite the general parallels in her results, the most consistent difference between these groups was in the time each took to perform the experiments. The sighted could scan and construct images much more quickly. However, the results support the suggestion that imagery formation is not dependent on vision.

Thomas asked us to consider mnemonic attributes of imagery and pointed to a study done by Paivio (1971) with the early blind. Paivio hypothesized that words would arouse less visual imagery and more auditory imagery — song, laughter, prayer — in congenitally blind individuals. Indeed, his study came to such conclusions. However, Paivio's research also found that words that are expected to stir up supplementary visual images are remembered by blind participants better than abstract words. Additionally, he discovered that the verbal memory performances of the early blind are equal, and in some cases better, than in sighted individuals when instructions to use imagery were provided. "We are not quite sure that the imagery effect is not essentially visual. Frankly, we are quite puzzled as to what it is" (as cited in Thomas, p. 249).

While it may be difficult to appreciate, it is important to note that congenitally blind individuals can correctly and competently grasp instructions to use imagery. Thomas explained how difficult it is "to shake the vestiges of naïve pictorialism from our heads. In fact, it is not only the mnemonic effects associated with imagery which have been reproduced in the blind" (Thomas, 1987, p.250). Thomas found mental manipulations such as rotation and scanning to have also been established in the blind. Shepard and Metzler (1972) showed that a significant percentage of the early blind — 94% — use mental rotation (Thomas, 1987).

Rese, Lockman and Pick (1980) explored the spatial understanding of blind individuals in a familiar space. The participants consisted of sighted, late blind and congenitally blind individuals. They were asked to determine relative distances between

various points in a familiar establishment. These researchers found that the blind participants' understanding of the spatial layouts were more impressive than they had anticipated, especially in relation to Euclidean knowledge. However, this finding is not simply limited to blind adults who have had years to learn how to move around a familiar environment. Another study by Landau, Gleitman and Spelke (1981) revealed that a congenitally blind three-year old demonstrated that she is able to construct a similar "cognitive map" to those of sighted participants (Thomas, 1987).

In relation to art production, Kennedy (1993) provided strong evidence to support the notion that drawing development in the blind is connected to a proficiency in space. He examined how those who are congenitally blind perceive and create images. According to Kennedy, spatial perception is conceivable through touch and sight. Kennedy pointed out that both groups share the capacity to mentally picture images and that both have difficulty turning those mental pictures into concrete images. He wrote, "although we may be able to call to our minds a tolerable image of a horse, that does not mean we can access the knowledge in the image to correct the drawing" (p.114). He mentioned that both sighted – visual – and non-sighted persons – haptic – can "see" that the physical drawing does not match their mental picture.

Carpenter and Eisenberg (1978) looked at components of spatial knowledge used in mental rotation in early blind and blindfolded sighted individuals. They suggested that if mental rotation performance is similar in both groups, then visual representation would not be a necessary component for spatial knowledge. These researchers assumed that the early

blind do not have the visual representation abilities available to sighted individuals, especially with regard to brightness, color and visual texture. However, it was discovered that early blind can represent spatial knowledge. Thus, if an early blind individual is asked to mentally picture a red car she or he inevitably codes information about the automobile. However, the color representation that she or he makes is one of "lexical relations and connotative meanings associated with red, without any representation of the related sensory correlates" (p. 120). The results for the early blind indicate that mental rotation can function based on a spatial representation void of any visual components.

In a study conducted by Kennedy & Heller (1990), subjects identified the "points of view" on cubes, cones and balls using raised line drawings. Kennedy and Heller's inquiry featured early and late blind, as well as blindfolded sighted participants. The study used raised-line drawings to confirm that one's visual status does not play a significant role in relationship to one's ability to make accurate "point of view" identification. However, Kennedy and Heller reported that the early blind require more time than the sighted participants to complete the task. Overall, the results demonstrated that vision is not a requirement for haptic perception. Additionally, the late blind scored significantly higher than congenitally blind and sighted participants with regards to their ability to identify raised-line drawings through tactile sense modalities.

### 1.3.1 Visible thoughts

Max Bill an art theorist, believed that "thought itself does not as yet seem to be directly expressible to the senses except through the medium of art. I therefore maintain that art can convey thought in such a way as to make it directly perceptible" (Bill as cited in Edwards, 1986, p.66).

Arnheim (1967) experimented with thinking by drawing. He theorized, "the kind of mental image needed for thought is unlikely to be a complete, colorful, and faithful replica of some visible scene" (p.67). He explained that thinking occurs through a sphere of images. Since our mind works at great levels of abstraction many of those images will thus appear in abstract form. He performed memory experiments which used abstract drawings as data. In these studies, he found that visual descriptions are not exact replicas of the mental pictures. However, the two share common elements.

The experiment was deployed using drawings Arnheim called "non-mimetic", which signifies images that are non-representational of objects or events. For the drawings the participants were instructed to use only marks and lines. The use of symbols and recognizable forms was prohibited. Arnheim reasoned that thinking is not necessarily linked to pure matter or substratum, rather it revolves around structure. In other words, he believed that perceptual elements that are available to thought are constructed via structural configurations.

Arnheim used concepts such as: "past, present and future", and "good and bad marriage" in his study. In relationship to the latter, he posited that in our language the concept of marriage is described by one word, and does not imply two units. However, the concept refers to two persons. In the non-mimetic drawings Arnheim found that the participants portrayed the term in relationship to a twosome. In the drawings of "past, present and future", which represents a triad, several of the drawings depicted three separate ideas, while others presented this concept in a continuous line.

Arnheim explained that in a visual representation a simple gesture is significant. The line or mark emphasizes one particular feature that works to create its essence. "The gesture limits itself intelligently to emphasizing what matters" (p.117). Arnheim noted that this is even more apparent in a portrayal where action is communicated.

Arnheim elucidated that the participants of the non-mimetic drawing experiment related each concept to their own experience. He posited that due to the non-mimetic nature of the exercise, there was little given to define the concepts, and thus the drawings represented the purest structures of the given concepts. The images were thus unique to each participant.

According to Arnheim, this exercise was designed to provide a visual record of a concept and was thus entirely cognitive. He explained that using metaphors in spontaneous and non-mimetic ways help us to understand that humans are naturally perceptive of the common structures which unify the physical and non-physical. Additionally, Arnheim

asserted that a further investigation of this idea should bring forth the notion that within the act of thinking, perceptual elements of shape are discovered in gesture and are in fact the place where thinking occurs. He concluded:

> ...perceptual and pictorial shapes are not only translations of thought products but the very flesh and blood of thinking itself and that an unbroken range of visual interpretation leads from the humble gestures of daily communication to the statements of great art. (p.134)

Edwards (1984) also experimented with the language of line in what she called "analog drawings". She explained that these types of drawings refer to an "inner life" which she described as revolving around feelings or thoughts that are either too complex or difficult to put into words. Edwards focused on human characteristics and emotional states such as: anger, joy, peacefulness, femininity and illness. She did not deploy symbols or representational images, rather she only used the language of line. The goal was to "make visual images that are analogous to — can stand for — those thoughts" (p. 68). Edwards pointed out that the analog drawings communicate their messages through other faculties than visual symbols. She believed that these types of drawings represent a visual inner subjective language. Edwards said that the analog exercise demonstrated that "there is a 'vocabulary' of the visual language of drawing, a vocabulary that includes line, form and structure — all of which can be 'read' for meaning" (p.95). In other words, art can render feelings visible.

According to Collier (1972), it is possible to recognize an artists' work by their signature and to differentiate between art works based on their individual lines and marks. Collier explained that no two images can bear identical resemblances, "for the completed image surely reflects the man's attitude to an event or events; but also, each line or mark reveals his creative 'touch' — which in itself is dictated by the intellectual or emotional emphasis present in his attitude" (p.2). Collier noted that the artist creates a visual expression which directly communicates his or her individual experience. The artwork is thus the corporeal creation of his or her consciousnes.

Collier (1972) also explored the concept of "creative vision". In so doing, he highlighted his attempts to discover some governing principals and criteria to examine the phenomenon he called "visual imagination". He wrote, "the visual arts do not replicate the visible world, but seek to make their own plastic reality" (p.233). He stated, that personal thoughts and feelings reside in each of us. They come from our consciousness which is not completely regulated by vision, reason and sound intellect.

Collier referred to Eric Newton who coined the term "la vie interieure", which signified an inner existence of feeling and an awareness that forms the foundation of the imaginative experience. Collier believed that we can draw upon these inner reserves in order to gain a greater knowledge and understanding of our existence. Thus, imagination is not solely linked to the realm of fantasy, rather "imagination is simply the presence in consciousness of images. That we can, through inner mental and emotional processes, bring images into consciousness from our own resources" (p.234). Furthermore, Collier explained

that these images may or may not be a part of our visual experience. Thus, the urge to create is often an expression of individual inner expressions and experiences that cannot be reduced to the desire to simply depict that which we can actually see. Art exists as an avenue for the expression of our subjective and unique experiences.

### 1.3.2 "Seeing" and consciousness

The term consciousness is often seen as mysterious. In the literature it has proved notoriously difficult to define. In fact there have been intense debates over what exactly consciousness is and whether it could be studied. The term includes experiences of awareness. It also involved states such as sensations, moods, emotions, dreams, propositional thought and self-awareness (Honderich, 1995). From Descartes'.perspective, all thought is conscious. (as cited in Honderich ,1995). However, the modern viewpoint states that only some mental processes are conscious

Helen Keller lost her sight and hearing at the age of 19 months. She published 14 books and became the first blind-deaf person to effectively communicate with the sighted world. Keller (1955) stated, "when I learned the meaning of 'I' and 'me' and found that I was something I began to think. Then consciousness first existed for me" (p. 1). In Keller's case it appears that consciousness existed in tandem with the human acquisition of language. The development of language brought her self-awareness. Of the most significant developments to evolve out of language, thinking is perhaps the most essential. Keller's experience shows that thinking provided her with the ability to reflect upon her conscious

experience. She was aware of the fact that she was conscious. Furthermore, she was aware that she was aware. In other words, she was conscious of the faculty of consciousness.

Davies and Humphreys (1993) studied individuals with blindsight The condition called blindsight actually embodies the paradoxical characteristics of the term.. The blindsighted suffer from lesions in the visual cortex and as a consequence there is a specific field within their range of vision that they both can and cannot "see." Thus in Davies and Humphrey's study, participants responded to visual stimuli that they claimed they could not truly see. These researchers explained that there were differences in the degree to which these individuals saw forms in their blind area. These studies proved that there are some types of visual responses that exist in the absence of awareness or consciousness. Research demonstrated that although subjects reported seeing nothing, when a stimulus was presented and they are asked to guess what it was, they were often found to be correct. (Taylor, 1999). Thus, it appears that these individuals see without their eyes.

In sum, mental imagery is essentially a subjective experience. In other words, mental images cannot be directly observed. This means that scientific inquiry into this concept mainly depends upon anecdotal reports from individual experiences. Galton (1880) produced the earliest research on the topic illustrating mental imagery elicited from memories at the "breakfast table". Only about 10% of the study's participants claimed that they could not recall any detail from the scene. Furthermore, this section shows that mental imagery inspired inventions as well as eminent accomplishments in literature and art. On a daily level, sighted as well as non-sighted individuals use mental pictures in order to

anticipate spatial relations. However, there is still some controversy on spatial cognition in the early blind, despite convincing data to prove otherwise. The most common view in the literature to date expresses the notion that vision is the greatest sense modality for acquiring knowledge of spatial associations. Research confirms this view. Indeed, the sighted can distinguish and identify forms more rapidly than those with visual impairments. However, this does not prove that the blind have no sense of space. Furthermore, Arnheim (1967) showed that our thoughts operate through abstract structures that were revealed through non-mimetic drawings. Edwards (1984) also experimented with the language of drawing and found that there exists a visual vocabulary that includes line, form and structure. Collier (1972) explored the term "visual imagination" and expressed that the imagination is merely the manifestation of consciousness in images. Research on the subject of consciousness indicates that thinking and language are paramount to developing consciousness. As Keller pointed out, the onset of her consciousness manifested when she finally understood the meaning of "I" and "me".

### 1.4 Dreams

It is commonly assumed that dreams speak in visual images. Yet, dreams are said never to simply be reproductions of seeing, they are said to imitate living experiences. (Kerr, Foulkes & Schmidt, 1982). Thus, the visual sense is but one element of a dream experience that integrates sound, smell, touch, feelings and thought. In the visually impaired, the dream experience is said to be in no way impeded. Furthermore, research demonstrated that blind

dreamers saw visual representations of persons and environments they had never encountered visually.

Although sense perception in dreams has been noted since 1893, it appears that in the literature to date, a focus on vision predominates. The following section will examine how dream imagery is experienced in early and late blind individuals. A general discussion on dream theory will be addressed, especially as it has informed the practice of art therapy. The merits found in spontaneously generated imagery, especially by Jung (1963) shall be explored. Dream research on spatial relationships in dream experiences, conducted with the visually impaired will also be highlighted. Studies conducted by Jastrow (1900) and Foulkes (1985) identified that the ages between 5 and 7 are the critical interlude whereby higher sense centers develop. The upcoming discussion will address this vital period.

Jung was a pioneer of dream research. He explored the dream world extensively and stressed that one must dialogue with this unconscious sphere if one is to benefit and heal from it. Von Franz (1988), Jung's most notable scholar, wrote, "a dream reveals the unconscious in the form of image, metaphor and symbol, a language closely associated with the language of the arts" (p. 24). It is in this way that Jungian thought has significantly contributed to the practice of art therapy.

Over the course of his life, Jung (1875-1961) expressed his inner experiences through drawing, painting and sculpture. He was a talented artist who was inspired by inner visual experiences. He explained that the creative method helped him to observe and understand a situation. In *Memories, Dreams, and Reflections* (1963), he cited accounts of

his personal dreams and he described their translation into images. Jung not only informed the development of dream theory, but he also had first hand experience with the merits found in spontaneously generated imagery.

Freud (1980) also recognized the value of imagery, especially in dreams. He wrote, "the manifest content of dreams consists for the most part in pictorial situations; and the dream thoughts must accordingly be submitted to a treatment which will make them suitable for a representation of this kind" (p. 39). There are, however, significant differences between Freud and Jung in relation to dreams. Freud viewed the dream as an enigma to be explained purely through psychoanalytic theory. On the other hand, Jung made efforts to observe images from both cultural as well as psychological points of view. Another significant contrast between the two thinkers relates to symbolism. "Jung attempted to understand symbolic images in their own terms, in a strongly empathetic way, rather than simply as secondary process revisions, disguising primary process impulses" (Edwards, as cited in Rubin, 1987, p.97).

A pioneer art therapist, Naumburg, was extremely receptive to Jungian theories. In fact her writings clearly assimilated Jungian ideas into theories of art therapy. In relation to dreams, Naumburg referred to a patient account:

> ...we experience it (a dream) predominantly in visual images...part of the difficulty of giving an account of dreams is due to our having to translate these images into

> words. 'I could draw it,' a dreamer often says to us, 'but I don't know how to say it'. (as cited in Rubin, p.8)

Willams (1985), a Jungian therapist-analyst, discussed translating the dream into art forms. He said that the image is the first language of the unconscious "that primordial ocean out of which emerge all thought forms to manifest a language of symbol which all peoples can understand" (p. 121).

It is generally accepted that the basis of our dreams lie in what we know. Thus specific dream imagery is rooted in the memories and information we have acquired via our life experiences. Although it is constructed in our minds, the dream is experienced as a form of life rather than as thought. Since dreams are so vivid and realistic, they are generally construed as a product of visual perception rather than imagination. However, the multidimensional quality found in dreams; our ability to hear, smell, move around in space, initiate dialogue and so forth, does not merely rely on visual content. As Foulkes (1985) stated, the dreams of congenitally blind persons are described to be as rich as those of sighted individuals. The environment, objects, characters and drama in such dreams are said to seem quite real.

Foulkes made the distinction between dreamers who had lost their sight after the age of 7 and those who lost their vision before the age of 5. He found that individuals preserve the ability to generate visual mental imagery long after they have become visually impaired. Based on a study, in which he examined dream reports in blind and sighted

participants, Foulkes stated that visual imagination exists independent of visual perception. In these reports, he discovered that blind dreamers saw visual representations of persons and environments they had never encountered visually. In other words, those who become blind after they turn 7-years-old are able to construct a dream world as far as the eye and imagination can see. "people who are congenitally blind, or who become blind before the age of 5, do not experience visual dream imagery, but that those who become blind after the age of 7 generally do" (Foulkes & Schmidt, 1982, p.287).

The dream research conducted by Foulkes and Scmidt (1982) revealed that although congenitally blind subjects were only able to visualize in their dreams to the extent that they had been able to see in wakefulness, there was "no adverse effect on either the momentary richness or the narrative continuity of dreaming" (p.286). They reported that auditory imagery exceeds visual imagery. This point demonstrates the dominant role that vision plays in our culture. In short, it is one which marginalizes the entire spectrum of our sensory abilities.

Foulkes' (1985) continued to explore dreams in greater detail. His objective was to understand how the unconscious realm differs when we are asleep. His premise was that the bizarre nature of dreams can be understood via a reconstruction of similar mental processes and structures that we use in awakened acuity and thought. He stated, "the sleeping mind is not functionally distinct from the waking mind; hence dreaming does not depend on mental processes or systems that are in any way unique to sleep" (p.1).

Strauch and Meier's (1996) experimental dream research showed that dreams consist primarily of visual imagery, followed by auditory perceptions. Touch, smell and taste are less likely to appear. They stated, "we keep hearing that dreams speak in visual images...while quite accurate, this does not do justice to the range of perceptions that manifest in dreams, as all senses are capable of being involved" (p. 78).

Strauch and Meier further noted that dreamers generally find visual and bodily perceptions easier to describe than auditory elements. These researchers believed this was due to cultural experiences in our waking state. They suggested that language and cultural colloquialisms provide us with a multitude of expressions that enable us to communicate such visual experience with greater ease.

Vedfelt (1999) mentioned "picture therapy" as a method of working with dreams. He pointed out that during such therapy, a lapse of time occurs when the dream is transferred to a new medium. In the process of rendering the dream into a visual medium, the unconscious has a new opportunity to further reveal itself. This provides an enhancement of the dream content. It also allows for individuals to highlight the significant personal factors that they find in their dreams,

Jastrow (1900) wrote an early but major study on the dreams of the blind. Like Foulkes' (1985), he found that those who loose their sight between the ages of 5 and 7 will not have visual dreams. He explained that their dreams appear as they do in waking life -- without visual images.

There have been very few recent studies done on dreams and the visually impaired. However, the general belief and scant evidence seems to favor the notion that people dream as they live in waking life and represent situations to themselves and others in similar ways when they are both awake and asleep (Jastrow, 1900; Kerr, Foulkes & Schmidt 1982; Foulkes, 1985).

Jastrow (1900) suggested that in instances where one becomes visually impaired later in life, a sudden loss of sight will cause an individual to live completely through past images. In relation to dream imagery, Jastrow distinguished between the time before the impairment and the time after. He stated that dream accounts from individuals who become impaired in their later years will include residual pre-blindness. Such individuals will translate their present experience to their memories of past events, surroundings and encounters. However, when impairment occurs close to the critical age, between 5 and 7, the intensity of lifelike dream images is far more restricted. Jastrow added that those who become blind during that crucial interlude are not as likely to retain a sense of color in their dreams as those who loose their sight later on in life. He added that those who are partially sighted with the ability to see some color will inevitably dream in color.

Jastrow also asked those who lost their sight after the age of 7 if they create faces for individuals they meet. He also inquired if they see such faces in their dream life. He reported that several of these persons often visualize the appearance of others. He described the practice as being similar to how a sighted person might envision a character they have read or heard about. Jastrow cited an example of a musician who became blind at the age of

18. This man possessed a significant ability to visualize in both waking and dream states. Upon the mere mention of an eminent individual, a companion or a familiar environment, this man could generally perceive a strong and complete visual image.

According to Jastrow, the visually impaired are equipped with a faculty which allows them to identify the presence and nature of objects in their environment. However, this depends on the refinement of the irradiation sense that is also found in sighted individuals. Jastrow explained that visually impaired people usually determine whether an object is within a few inches of their hand because they feel adjustments in air fluctuations and temperature radiations. This is especially true if the room temperature differs from that of the object. Jastrow also identified another sense that the visually impaired cultivate called "facial perception". This is determined by heightened facial sensitivity.

Jastrow's investigation into the dreams of the blind, specifically in relation to cortical centers of the human brain (pursuit of knowledge, inspection, exploration), revealed that "the power of apperceiving sight-images is in no true sense innate, but is the product of slow development and long training" (p.369). However, Jastrow clarified that the vital period he identified, between 5 and 7 years of age, should not be interpreted as the point where the visual center is born. Certainly this is not the case. Nor is it the case that that a child who has vision in their second or third year retains no vestige of images. He explained that the vital period is one when higher-sense centers develop and form. It is also a time when imagination and abstraction have acquired adequate visual stimulus and can continue to mature.

Keller presented a dream account to Jastrow, which demonstrated the profundity of her imagination. Keller's education commenced when she was 7 years and she learned to speak orally at the age of 11. The following dream account was written in August 1900 when Keller was 20 years of age:

> My dreams have strangely changed during the past twelve years. Before and after my teacher first came to me, they were devoid of sound, of thought or emotion of any kind, except fear, and only came in the form of sensations...I obtain information in a very curious manner, which it is difficult to describe. My mind acts as a sort of mirror, in which faces and landscapes are reflected, and thoughts, which throng unbidden in my brain, describe the conversation and the events going on around me. One night I dreamed that I was in a lovely mansion, all built of leaves and flowers. My thoughts declared the floor was of green twigs, and the ceiling of pink and white roses. The walls were of roses, pinks, hyacinths, and many other flowers, loosely arranged so as to make the whole structure wavy and graceful. Here and there I saw an opening between the leaves, which admitted the purest air, I learned that the flowers were imperishable, and with such a wonderful discovery thrilling my spirit I awoke. (p. 353)

Jastrow explained that Keller's intimate knowledge of individuals and literature along with her lively imagination allowed her to understand, formulate and communicate her experiences via her emotions. In other words, Jastrow contended that Keller's dreams are in

absolute harmony with her waking existence, in spite of the fact that her imagistic account seems inconceivable in keeping with her visual and auditory impairments. Jastrow noted, "The dreams of seeing and hearing probably reflect far more of a conceptual interpretation and imaginative inference than of true sensation; yet they are in part built up on a sensory basis" (p. 359).

The distinction between Keller's dream accounts before and after her educational instruction is consistent with similar results in other studies. Jastrow explained that prior to the time Keller was in school her dream accounts were rarely remembered. However, after she began instruction, her dreams occurred with more frequency and intensity. When Keller started to speak orally, verbal communication also started to appear in her dream life. Additionally, the finger alphabet, which Keller used to communicate before she started speaking, became obsolete in her waking life and in her dreams.

More recently, Kerr, Foulkes and Schmidt (1982) studied 10 young adults (four sighted, four early blind and two late blind) in a sleep laboratory one night a week for eight weeks. They collected dream reports which show that the sighted, the congenitally blind, and late blind, share similar knowledge regarding spatial layouts in their dreams. Furthermore, they reported that all the subjects are able to draw images that demonstrate an awareness of space. The following dream report best describes their understanding of spatiality:

> S: I was in a room that looked similar to my instant banker at work,
> but it was a big machine with lots of buttons, like a car machine...

E: Was this visual, could you see anything?

S: I couldn't, but I stood by the screen and I knew that others could see what was going on through all the little panels. I guess I imagined the board with the bottons. Maybe because I imagined it in my mind, it was not that I could really see them with my eyes, but I know what that board looks like, and the only reason that I know what it looks like is by touch, and I could remember where the buttons were without touching them on the boards.

E: O.K Where did the events in this experience seem to be taking place? What were the settings?

S: It seemed to be a large room that was oblong in shape, and there seemed to be an x-ray machine. I felt like it was in an office building where I worked.

E: And you mentioned something before about the bank?

S: Uh huh, it looked like the bank where I do my instant banking

E: O.K., except it was larger and more oblong And is that more like where you worked?

S: No, where I do work, the room is smaller, just large enough for that little instant banker machine. (p. 292)

This dream account shows that visual imagery is not the only way of characterizing spatial knowledge in dreams. In fact, such information does not need to rely on image formation in any sense modality. Indeed, the dreamer is conscious of the shape and size of

the room, however, she does not need to either touch or walk through it. She is also aware of the panels and buttons on the machine without having touched them. It is also worth noting that she uses visual language to convey non-visual perceptions such as, "a room that looked similar" and "I know what the board looks like". This study comprised of people and environments that the late blind participants encountered only after the onset of their impairment.

In general, Kerr, Foulkes & Schmidt found that the participants in their study who became blind later in life reported sensing similar visual imagery as did sighted individuals. Two of the early blind subjects confirmed that their dream imagery resembles their waking life. Nonetheless, all of the participants appear to have spatial recognition of layouts in their dreams. The late blind individuals do not merely conceive of life as they currently experience it, rather they use creative imagination to represent their surroundings. In other words, rather than being limited to reproducing images of what they once envisioned, they are able to create new faces and environments in their dreams. .

In sum, the studies cited above tend to suggest that the dream is a constructive cognitive process, rather than a reproductive perceptual one. Furthermore, integrative cognitive systems are responsible for both the momentary and the sequential organization of the dream. Such systems need not depend upon the presence of either contemporaneous visual-perceptual experience or of well-developed visual cognitive codes. Thus, rather than saying that visually impaired individuals have limited dream imagery, it would be more useful to say that imagery is inspired and carried by visual components, that are not

particularly dependent upon visual elements. Imagery is a cognitive conveyance. It is a way of seeing rather than something seen. Imagery is not a visual perception, but rather a psychological apperception (Wilkerson, 1995).

## 1.5 Art Therapy with the Blind and Visually Impaired

Art therapy is a modality that uses art as a non-verbal language which can be utilized for personal growth, insight and transformation. It can also be used as a way to connect us to our thoughts, feelings and perceptions. This treatment service is based on the belief that images can help us to understand who we are. It is not limited to those who have artistic skills, rather it exists for all individuals regardless of their age or capabilities.

Art is the central element in art therapy. This is what distinguishes such therapy from other forms of therapeutic processes. This service encourages individuals to creatively express themselves. At the outset of therapy, the art therapist sets the stage so as to stimulate the clients use of art media. By enabling individuals to engage in creative activities this form of therapy can facilitate the expression of mental imagery and dreams with the visually impaired population.

Rubin (1978), an art therapist who works closely with the visually impaired population, explained that the art process provides a protective container which upholds the division between reality and fantasy. This quality allows participants the opportunity to test

themselves more daringly and to openly express their fantasies. Rubin believes that it is the protected experience, which art therapy offers, that allows her clients to liberate themselves. Rubin explained that the use of physical boundaries is particularly important to this population. She pointed out that since such boundaries work to contain experience, clients can feel a sense of controlled freedom. As one child expressed, "it helps you stop" (p. 26). In other words, clients become liberated through the protected experience that is inherent to art therapy practices.

Rubin worked with a partially sighted teenage girl who would sit with her eyes closed and draw personality figures, as well as visually explore pictures from her mind. This girl articulated a distinction between drawing without any sight and drawing with partial sight. Upon drawing with her eyes shut, she expressed feeling more relaxed, and less worried about trying to represent specific objects or events. She felt less pressure to represent the visual world. "I'm more free, I feel more like myself when I draw something indirect" (Rubin, 1978, p.26).

In an exploratory art program, Rubin and another art therapist worked with several blind and partially sighted children. Rubin expressed having her eyes opened for the first time. Not only did her experience enlighten her to the creative possibilities of these children, but it also broadened the worlds of those children who participated in the program. The surprising capacity of the children to grow, and to work and choose materials independently, caused Rubin to revise her perception of the handicap population in general. Rubin pointed out that sighted individuals may be missing out on great beauty due to their diminished

kinesthetic perception. Those without any sight taught Rubin about tactile awareness. In turn, they provided her with a new approach to shape, texture and form. This revelation inspired Rubin to question whether "tactile thinking" is equivalent to "visual thinking". "In yet another way, the art program revealed to us the values, the uniqueness and the beauty in different ways of perceiving and knowing" (p.230).

Benjet (1993), an art therapist who also works with the blind and visually impaired, demonstrated that art not only exists as a mode of self expression with therapeutic value, but it is also a medium which brings the visually impaired into communication with individuals who have vision. Her experience reflected that this population is able to create symbols in their artwork. Her clients often needed to be encouraged through a variety of tactile aids to create such symbols – yet they showed that a definitive symbolic repertoire resides within visually impaired individuals. In other words, Benjet confirmed that art contains an informative language; one that is able to provide knowledge and insight about this population.

In sum, art therapy offers opportunities for growth, transformation and wellness. In Rubin's (1978) experience with the visually impaired she found that art therapy is helpful in its ability to secure a contained space. In turn, this allowed her clients to feel a sense of controlled liberation. Benjet (1993) demonstrated that art therapy has tremendous value, as it has the capacity to enable communication between the blind and the sighted.

## Chapter 2

## Practical Application

The following case studies help link theory to practice by uncovering how creative expression can facilitate an articulation of dreams and mental imagery with the visually impaired. It also highlights how art therapy acts as an informative language that communicates the mental pictures and dreams experienced by visually impaired persons. The focus of this investigation is directed by the primary question: Can creative expression facilitate an articulation of dreams and mental imagery with the visually impaired? This inquiry also wonders whether art therapy could serve as the vehicle through which the visually impaired enter into communication with a sighted world.

### 2.1 Introduction to Case Studies

The following sections include a description of my experience with two visually impaired adolescents. The therapeutic framework, as well as alternative methods of creating a space that inspires creativity in these adolescents is described. The *Case study* sections include a brief background on each case. They also list the reasons why each adolescent was referred to art therapy. Pertinent sessions are featured, especially those that refer to mental imagery, dreams, and benefits found in art therapy. Following each case is a *Discussion* that links issues from specific sessions to the topics of art and the visually impaired, mental imagery and dreams. To conclude this chapter, a section on *Findings* shall compare and

contrast results from both studies and identify connections with theory from in the literature review.

## 2.2 Establishing a framework and creative conditions for the visually impaired

Setting the stage for art therapy with the visually impaired population demands creative deviations from and/or alternatives to the standard methods of organizing the therapeutic space and frame. The physical and psychological setting, which fosters personal and creative growth commands considerable attention. To begin, I described the layout of our therapy space to the adolescents. I also provided a clear explanation of the tools and materials that were available for their use. Each teen was then encouraged to touch the space around them and to feel the art materials. The idea of facilitating free and unstructured creations was initially attempted, however, it was discovered that many of the adolescents with whom I had worked never had the opportunity to explore with drawing, painting or sculpting supplies. This presented an additional challenge in setting the stage for creative growth Thus, many required verbal explanations and an introduction to some basic artistic techniques before idiosyncratic expression was possible. For instance, when presenting the paintbrushes to them, I had each client touch all of the brushes. This allowed them to feel the difference between stiff and soft bristles. It also enabled them to learn that paintbrushes come in different shapes and sizes. While most people are able to differentiate these things with their sight, I quickly learnt how important it was to offer as much haptic and verbal explanation as is possible to this population. Furthermore, I discovered that it was vital to give them as much time as necessary to explore their new environment and the artistic

objects contained within it in order to foster their creative potential and unprompted expression.

Preparing the space for this population involved creating a calculated container. These preparations also operated as an unconscious opening ritual and thus they were a part of the therapeutic framework. This pre-planned frame was implemented to hold the space together. Milner (1969) explained that the drive to spontaneously create "comes about not by planned action, but only by a planned framework, within which the free play of unplanned expressive movement can come about" (as cited in Rubin, 1978, p.24). The adolescents listened and waited until they heard the sounds of the paper being strategically placed down onto the table. Thick cardboard paper with borders folded up on each side provided a contained space for the children to work. As Rubin (1978) found in her experience with this population, these borders helped them identify the edges of the page as well as to contain their artwork. The systematic placement of the art materials where the children were accustomed to finding them was also a fundamental part of providing a safe, reliable and inspirational space. Furthermore, when expressive media were in reach and were located in consistent and predictable places, intervention was unnecessary. In turn, independent creative expression was promoted. Furthermore, limits helped to protect the adolescents. They provided a safety net whereby they were free to creatively express themselves

Additionally, these clients were provided with the freedom to choose and to creatively develop at their own pace. This became an essential part of establishing the therapeutic alliance. Supporting and patiently sensing when each child was ready to

independently creatively explore, required genuine listening and availability. Each adolescent demonstrated their capacity to symbolically communicate as well as to express untapped artistic abilities. In time, each discovered and developed their distinctive preferences, method of creating, as well as unique marks, lines and forms.

## 2.3 Case study 1 -- Kevin

Kevin is a 15-year-old boy who suffers from a fatal disorder. He was diagnosed with this condition when he was 9-years-old. Kevin was transferred from a regular high school to a school for the blind shortly after he lost his vision at the age of 11. He was referred to art therapy due to unresolved issues surrounding his fatal disease, as well as numerous other losses and transitions he has had to face in the interim. Ideally, this service would be able to help him cope and deal with the potential fatality of his illness.

Kevin is a very positive, enthusiastic and energetic boy, who is known for his sense of humor. He often used this humor in a symbolic way, in order to deny his feelings and as a way of coping with his illness. Although Kevin's feelings about his disorder initially appeared to be difficult for him to express, it was through the use of a symbolic language that he sublimated and communicated his feelings into acceptable forms of expression.

It did not take long for Kevin to express his remarkable imagination. According to Thomas (1999) imagination is "the mental capacity for experiencing, constructing, or manipulating mental imagery" (p.36). In one session, Kevin described the prehistoric ages

and depicted a journey across the country with dinosaurs. He discussed their life and their demise. Kevin provided detailed accounts about how the sun grew strong and killed all the animals of the world. He described how barren and desolate the world became after their death. Indeed as Levine (1999) suggests, "Imagination...refers to the capacity of the mind which creates images, manifests them and shapes reality according to them" (p.259). Kevin also associated his family with the Flintstones. He took on the role of Bambam, "the strongest baby in the world". Kevin stated that as Bambam he could lift up the school, the earth, and the whole universe.

Kevin described his disease in a "matter of fact manner" that revealed little emotion. He seemed unwilling or unable to express his feelings about his medical condition. He revealed that he met a boy in summer camp who suffered from the same illness. Kevin expressed the unpleasant and harsh treatments necessary to treat the boy's condition. He explained that this boy underwent chemotherapy, radiation treatments and a bone marrow operation. I suggested to Kevin that such treatment and surgery must have been quite frightening. He replied, "it's not scary at all". Out of clay Kevin constructed "Flatbrain" (Figure 6). He said little about the form, yet he easily concocted a title for his creation.

Kevin often said that it was his birthday. Usually, he pretended that he was over 100 years old. He replayed this need to age several times in therapy. Kevin also explained that he was an alien from Mars. Through this continual symbolic metaphor, it became apparent that Kevin felt like a solitary foreigner, estranged and distant from those around him.

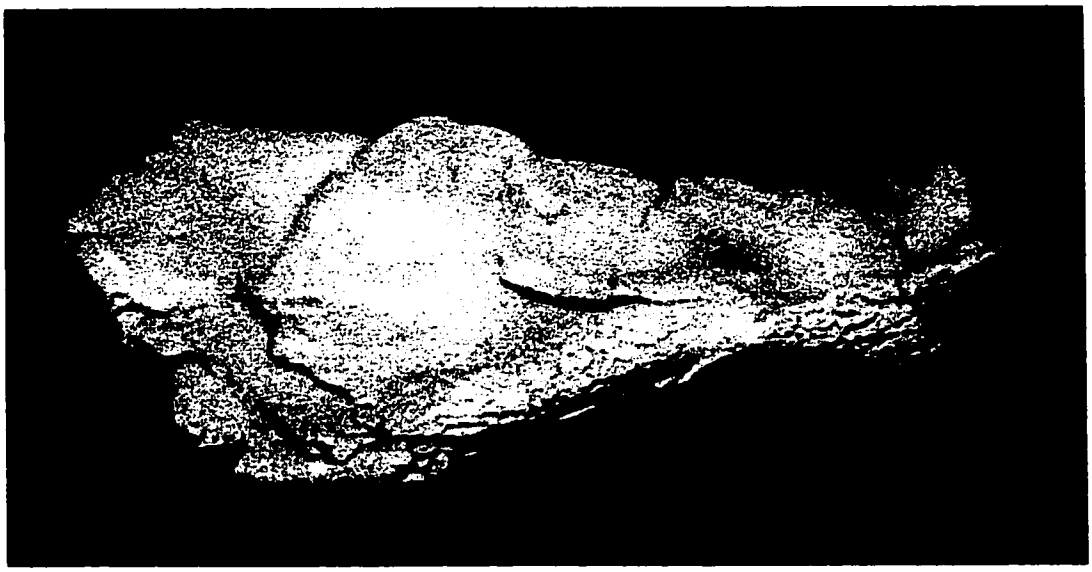

**Figure 6**

Kevin explored a mental picture he called "catdog" (Figure 7). According to Kevin this was Dino's baby (drawn in green). In this image he also drew the planet "Mars", drawn in red. According to Rubin (1978), Kevin was "forming" and "naming" as he drew his images In other words, he created lines and marks that were not recognizable, but were indeed intentional.

The "raised line drawing" technique demonstrated by Kennedy (1993) was attempted with Kevin. This technique allows pictures to be created in a raised form which can thus be deciphered haptically by the artist. Kevin experimented with this method and decided to draw something he called "a headless horse man with a head". It was at this juncture in therapy that I noted a pattern emerging that revolved around several constructions of heads or brains in Kevin's artwork. Furthermore, despite all the positive research found on raised line drawings by Kennedy and Heller, it appeared that Kevin was not completely impressed with this method of expressing himself. It seemed that while the raised line drawing technique is a good tool to represent recognizable images and demonstrate spatial abilities, Kevin was not inspired about this type of expression. He seemed more inclined to use abstract gestures in his artwork in order to represent his imagination.

Kevin said he wanted to draw the inner core of the planet Mars. He stated that his family were all Martian (Figure 8) who had transformed into earthlings in order to live on earth. He also provided some information about the planet. He revealed that from a distance one could see a face in the planet. Kevin proceeded in detail to describe the holidays that are

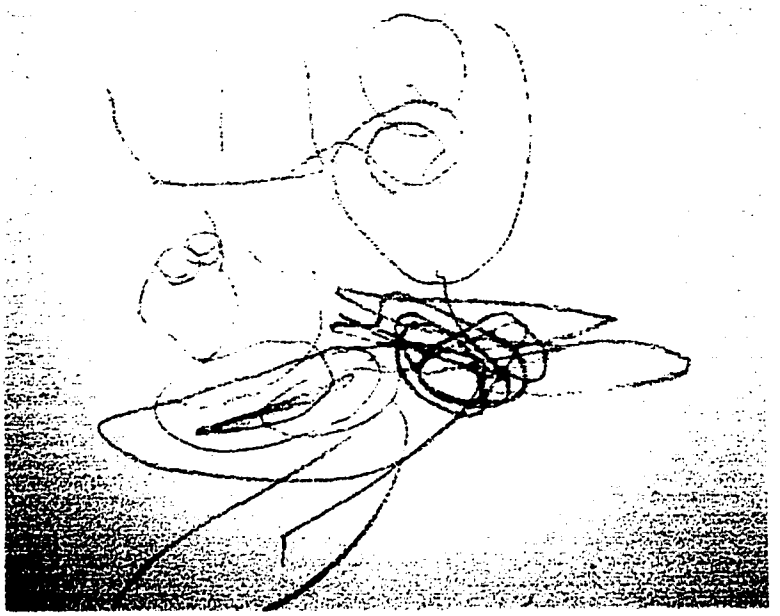

**Figure 7**

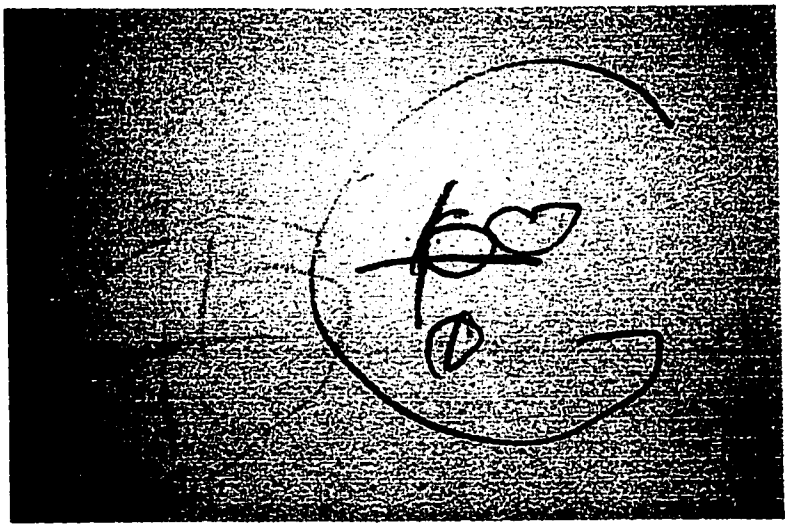

**Figure 8**

celebrated on the planet. Next to Mars, in figure 8, Kevin drew his means of transportation to the planet. It was a yellow spaceship. It had windows but no doors. Kevin said that if you concentrate hard enough you could materialize onto the ship. He added that it was a distinct technique rooted in Martian culture. I asked Kevin if it would be possible for me to visit him on Mars. He said it would take some practice but that it was possible. I felt that at some point in the future there was a chance that Kevin would not only feel comfortable describing his foreign world to me, but that he might actually invite me into that world. Kevin concluded the session with a drawing of what he called a "human/alien mixed baby" (Figure 9). He used the color orange and began with the head. Kevin described this baby as possessing two heads. He then drew circular motions to form the body.

In another session Kevin asked for some clay. He said he wanted to construct his brain. Although Kevin made previous references to his brain and gave several visual accounts of heads, his creations and descriptions were generally less literal.

Kevin invested a lot of energy into creating "his brain" and he held onto it very cautiously. He handed it to me, which signified that he had a tremendous amount of trust in me. I took it and held it with caution and care. At one point he attempted to balance his brain on his head. It almost fell to the ground. As I watched Kevin frantically and desperately capture his brain before it could hit the floor, I sensed something new about Kevin. It seemed that he actually felt something for his brain, and thus metaphorically for himself. It was as though he literally held his brain in his hands.

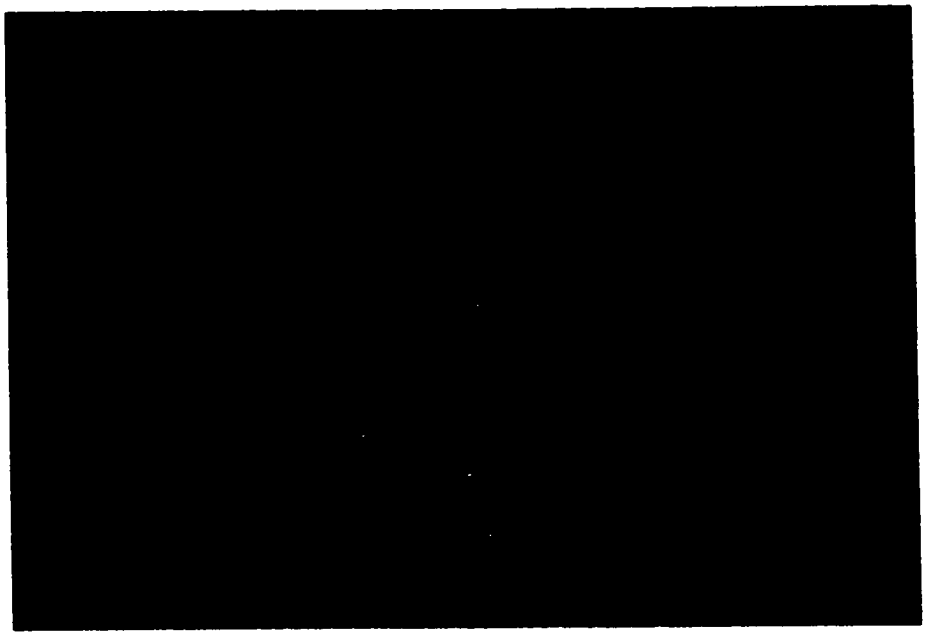

**Figure 9**

Kevin attempted this risky balancing act again, but this time his brain fell to the ground. Kevin got up from his chair and lay down beside it "playing dead". I immediately got up and asked Kevin if he was all right. I played along with his scenario and stated, "I have your brain in my hands and am trying to fix it". When I told Kevin that the damage was just about repaired, he got up and grasped his brain out of my hands. His behavior became aggressive and rough. He began pounding his clay brain to the ground expressing a lot of anger. I reflected back his angry feelings and stood by allowing him to play them out. He pounded it on the ground until it started to crack and then he picked it up. He kissed it and said, "I love you and hate you".

Kevin said he wanted to make a roof with clay. Upon its' completion, Kevin threw his roof to the ground. According to Ogden (1984), the roof is associated with fantasy satisfactions as well as a concern about one's ability to control one's fantasies. A roof that has fallen down is said to be an expression of "feeling overwhelmed by forces obviously beyond one's control" (p. 94). The patterns relating to Kevin's head and brain throughout therapy were now beginning to connect. Kevin placed the roof on his head where his fantasy world prevailed.

In the beginning of treatment Kevin stated that he did not want to draw and was adamant that he was allergic to paint. Kramer (1983) explained that paint "raises the emotional key and invites the expression of affects and moods. This may lead to a loosening of control and/or flooding of the ego with affect" (p.13). Thus, Kevin's denial or his inability

express his feelings toward his condition, seemed to come out not only verbally, but also in an unconscious reaction to paint.

Four months after his insistence that he was allergic to paint, Kevin gradually opened himself up to the medium. In the section on *Dreams*, Von Franz (1988) revealed that the dream is closely linked with the language of art. This was confirmed in one session with Kevin where he recalled a dream and asked for drawing materials as well as some paint to visually articulate his dream imagery. He explained that he played centre position on a hockey team. He drew this scene in great detail. In fact, for the first time since therapy began, Kevin asked for my assistance. He wanted to make sure that he drew the players proportionately and in the right position (Figure 10). He used blue paint to render the winning hockey puck in motion and on course toward the net (Figure 11).

In the last month of therapy Kevin requested paint on a regular basis. He also inquired about color mixing, which he said he might have done as a child. I suggested he do a color wheel with my assistance. Kevin's request for paint and his interest in color mixing were metaphoric signs of his ability to better cope with his condition. In fact, it was brought to my attention that after we terminated our sessions, Kevin began to discuss his illness with his classmates. This was a big step for Kevin. While his creations, especially at the beginning of therapy were not completely discernable, the process he engaged in was vital to his acceptance of his disease and ultimately of himself. Furthermore, Kevin's drawing and painting progress as well as his enjoyment with the art materials became quite evident in his last few sessions.

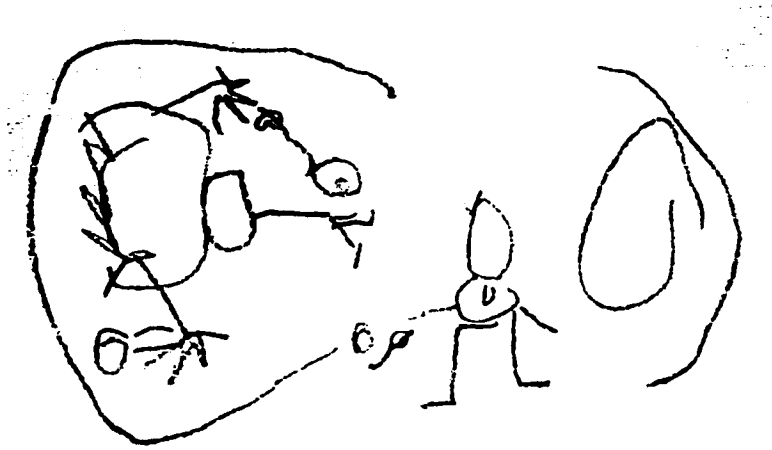

**Figure 10**

**Figure 11**

## 2.4 Discussion

Overall, what was especially evident in Kevin's artistic development was that he appeared to span all stages. Kevin created with regression and progression. A form of cyclical movement developmentally identified his visual images. The lines and marks in Kevin's artwork were not completely recognizable, but did in fact refer to and describe something intentional.

Wet clay, which has anal connotations, is considered to be a regressive medium. This material seemed to induce Kevin's most disturbed -- yet paradoxically -- most mature behavior. The material's tactile quality and regressive nature seemed to encourage Kevin to express his feelings toward his medical condition. He was able to symbolically demonstrate his anger toward his disorder by attacking his brain. By placing himself in a position whereby he had control over his brain, Kevin may have given himself the strength and permission to express feelings. The invitation to enact his anger in symbolic play, rather than through his typical methods of denial or humor, allowed Kevin to ventilate his anger and to obtain reassurance by remaining in the metaphor.

Kevin's disease carried the threat that he could die at a young age. "In the process of evolving symbols, the ego provides a language to disguise the unacceptable" (Levick, 1983 p.129). The multitude of birthdays that Kevin permitted himself might have been a suggestion of an unconscious wish to grow old. Alternatively, Kevin's association to Bambam disclosed his identification with a child who possesses superhuman strength.

Perhaps he fantasized about both growing old and becoming physically as well as mentally strong. Metaphor allowed distancing to occur. It enabled Kevin to protect vulnerable parts of himself. "Playing and living in the metaphor, most importantly provides shelter and safety in order for the child to take some risks" (Levine, 1999, p.272). Clearly, by "holding"[2] the framework, Kevin was able to work through his feelings of anger toward his condition. Furthermore, his interest and request for paint in the last few weeks of therapy were certainly signs that Kevin would soon be able to discuss his illness and begin to deal with the harsh realities of his condition.

Levine (1999) believed that imagination is essential to the understanding of artistic expression in therapy. "It is the imaginative capacity that takes us beyond and behind everyday life...Images are the primary material of the imagination" (p.259). As was demonstrated through Kevin's representations of his imagination, one can use, visual expression to bring out that which was buried. Furthermore, Levine believed that imagination exists in relation to creative expression which can produce personal transformation. She explained that imagination is often constrained, yet it is the job of the therapist to help unshackle the imagination. In other words, Levine believed that a child's progression and growth are partially contingent upon the transformation in imaginative expression. Kevin's session with the sculpture of "his brain" mirrored Levine's convictions. In short, his imagination allowed him to express his anger which acted as a catalyst for his self-transformation.

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[2] In art therapy a "holding environment" does not imply rigidity, rather it refers to offering the client what is perceived as most needed at a specific moment in therapy.

Kevin's use of a symbolic language allowed him to sublimate his feelings into acceptable forms of expression. His references to Bambam, living on the planet Mars, speaking another language, and being an alien all exemplified a symbolic portrayal of his defensive retreat into fantasy. Through his creation of a new world, Kevin also appeared to have provided himself with a safe space to express his feelings of living like an estranged alien on earth. His inner visions were rendered into artistic visions. Moreover, these concrete records often worked to clarify the descriptions of his imaginary worlds.

Kevin also explained that his preferences for color were inspired and influenced by past recollections of people, objects and familiar environments. Thus as Lisenco (1972) suggested, the memories of late blind individuals do indeed provide valuable points of reference. I believe Kevin often used memory references when producing his images.

As a late blind individual, Kevin had preconceived notions of beauty and ideas about what our society deems "good art" and "bad art". He often expressed that he was not skilled in art and did not know how to express himself creatively. Furthermore, Kevin mentioned that when he did have sight he had no interest in art. Consequently, I believe his understanding of what was aesthetically pleasing had constrained his initial creative expressions. As discussed in the section on *Aesthetics & beauty*, a need to redefine and expand these notions to include tactile and kinesthetic perceptions of beauty are necessary. Our narrow, mainly visual perceptions, inevitably led to Kevin's lack of self-confidence regarding his ability to procure aesthetically pleasing artwork.

Kevin demonstrated an awareness of perspective and a proficiency in space and motion, especially in the drawing of his dream. In Kevin's drawing of the ball motion is demonstrated with the light brush marks which emanate from the ball. This confirms studies conducted by Kerr, Foulkes and Schmidt (1982), Kennedy (1993) Thomas 1987, and Rese, Lockman and Pick (1980).

In Kevin's drawings of planets, aliens, and spaceships, he appeared to use a visual language to clarify his mental imagery. By recounting his visualizations and simultaneously rendering them into concrete and tangible forms, Kevin appeared secure and confident that I understood his inner world. Thus, art expression worked to legitimize his unique perception and experiences. Furthermore, the symbolic language found through art therapy enabled Kevin to free his feelings, especially with regard to his disease.

## 2.5 Case Study 2– Celia

Celia is a 14-year-old visually impaired girl. She was born prematurely and required intensive oxygen. As a result she developed retinopathy of prematurity (ROP). This caused damage to the retina and consequently lead to a loss of sight. Celia had some vision before the age of two, but because of increased pressure on her eye she was completely blind by the age of 3. Celia was placed in a school for the blind at the age of 6. She is currently being integrated into a regular high school.

Celia's itinerant teacher recommended her for art therapy. She expressed that Celia would be a good candidate due to her recent transfer into a regular high school, which had been significantly stressful for Celia. Additionally, it was revealed that Celia exhibited a great interest and enthusiasm in creative expression.

The art therapy took place in Celia's home, mainly due to space and transportation issues. The apartment was small and was inhabited by five family members. Our sessions were conducted in the kitchen, which was located in the middle of the apartment. Celia's family often came and left during our sessions. Thus, maintaining a therapeutic framework was challenging as ideally each client should be entitled to privacy, confidentiality and to work in a space whereby interruptions are kept to a minimum. However, these ideals are not always possible to come by. As Wadeson (1987) explained, it is important for the therapist to be adaptable and to discover creative methods of working, as clients' needs and conditions are so diverse.

A year ago, Celia existed in a protected environment that catered to and respected her visual impairment. Presently, she must brave a new school environment that is free from the familiar and secure harbor she had recently left. Cameron said, "The latency child must first of all move out among comparative strangers and learn to survive and enjoy himself without protection or guidance to which he is accustomed" (Cameron, 1963, p. 83). In Celia's case it appeared this challenge was heightened. While she had technically surpassed the phase of latency, in many ways she still had to deal with the stresses characteristic of this stage.

In our first session Celia dove right into the art materials. She demonstrated right away that she had had previous experiences producing art. She also gave the impression that she was not afraid to explore or to experiment with the art materials. She conveyed no interest in verbalizing her thoughts. The language of line, shape and form were her primary methods of communication.

To begin, Celia selected a paper and some pastels (Figure 12). Her creative initiative and the joy she took in making art was apparent in the way she applied the pastels. She experimented with various mediums throughout our time together. In one session she created a body out of clay (Figure 13). This person, she said, was a rebel. She made her a "belly ring" with some excess clay. Celia added, "I couldn't do that, or get a tattoo".

Celia also shared a dream in one of our sessions (Figure 14). After carefully selecting her art media and colors, she explained that her dream took place in warm water that surrounded her whole being. In her dream she was swimming with many fish. Celia chose blue for the water and red for the fish. She explained that there was a dolphin among the fish. Celia explained that two mermaids with long soft hair surrounded her. She said they were beautiful creatures. She added, "I'm swimming with my head above the water with the mermaids". Celia also placed a beach near the bottom of the page. She was extremely selective about which colors she chose to represent the characters and the atmosphere in her dream. The experience of rendering her dream into concrete form appeared to excite Celia. She expressed an enthusiastic desire to show the image to her mother after its' completion. She invested a lot of time in the image. It appeared that she was pleased to have a tangible

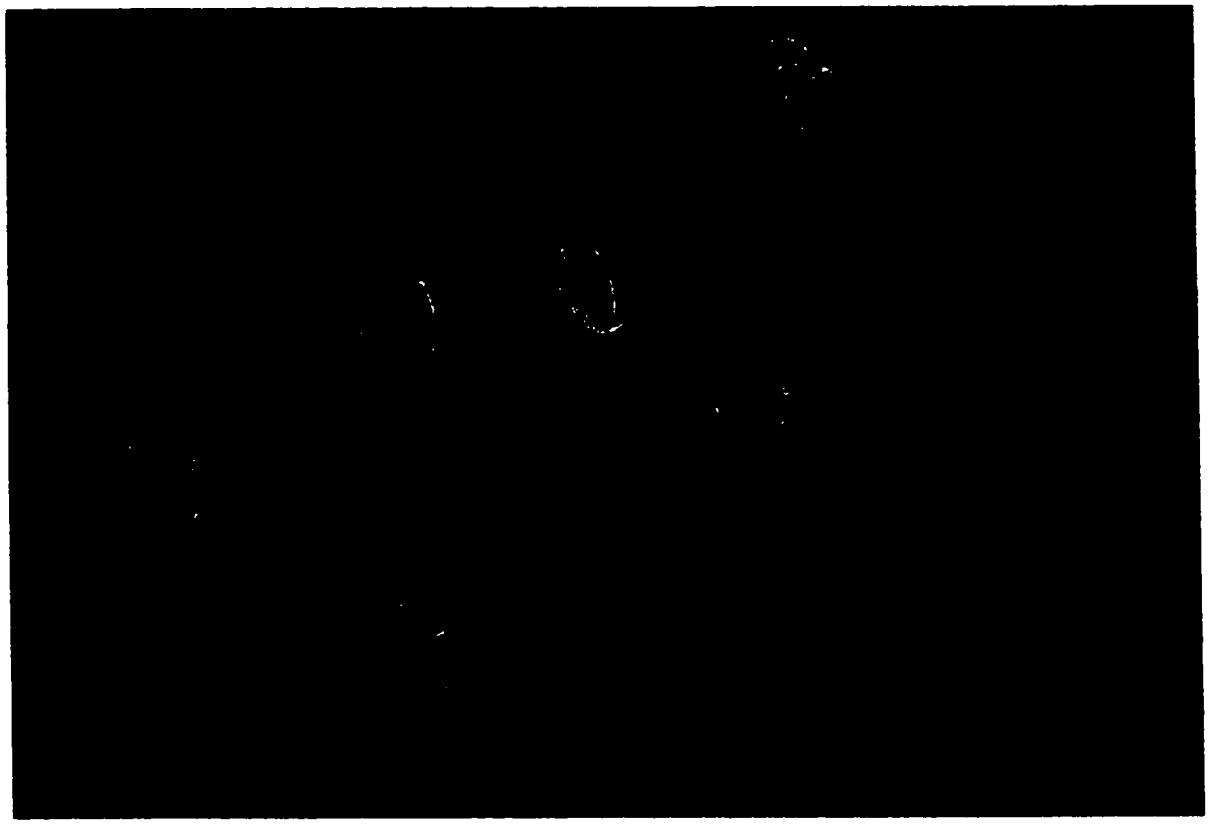

**Figure 12**

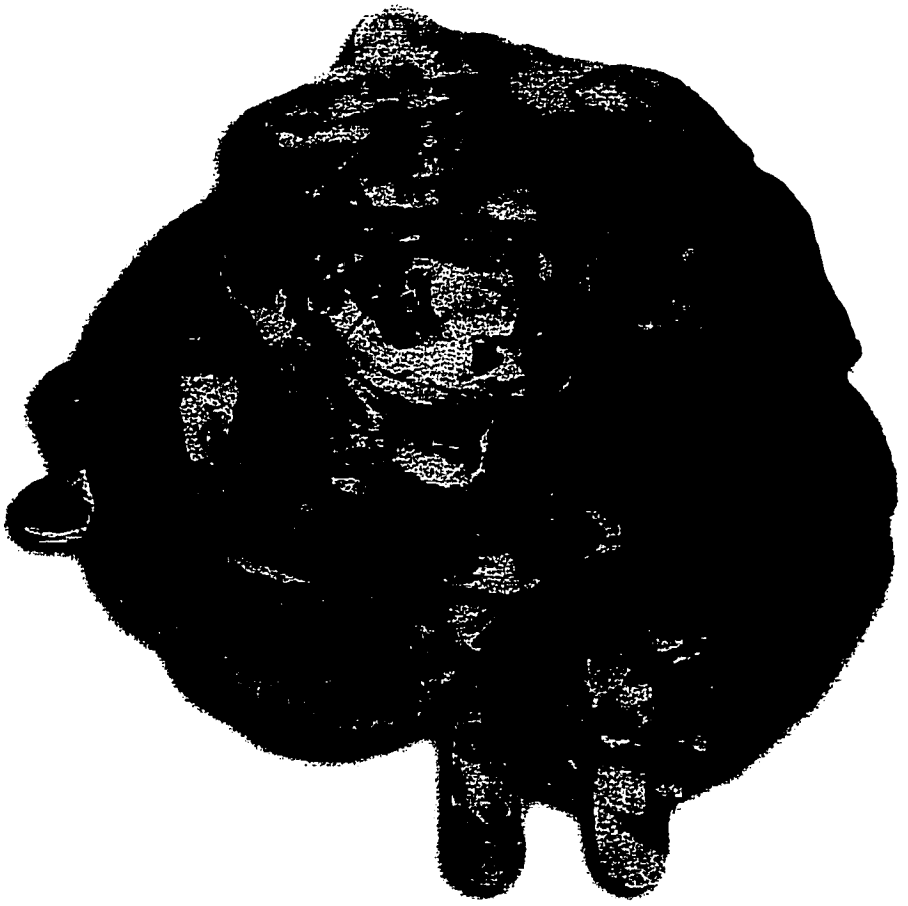

**Figure 13**

**Figure 14**

record of her experience. Her dream seemed to be heightened because she had the opportunity to creatively recreate her experience in the water with the fish as well as her encounter with mermaids.

In the last session before the Christmas break, Celia decided to create an abstract drawing (Figure 15). She described the picture as she drew it, "this is water, earth, air, and wind". Celia titled the image "Universe". She concentrated her efforts on the center portion of the page and then contained the picture using a black pastel. I took her "frame" as a positive sign. In other words, Celia demonstrated that she had found her confidential and private space within her own creations. She was able to creatively express herself in a therapeutic situation despite the numerous disruptions surrounding us.

Celia constructed her dream house in one of our sessions (Figure 16). She began by creating a base for her piece. She explained that she was constructing "land". She worked hard to flatten out the clay and explained "on my land there are to be no bumps, it should be as flat as possible". I believe that this represented Celia's dream world, where there would be no bumps for her to worry about or trip over. Celia then created a fence around her land and added what she called a "drum". She described it as a container that held water. As she molded the clay, the fence and drum became integrated. Celia expressed that she absolutely needed trees on her land. She then broke a popsicle stick in two and used each half to build branches for her trees. Celia also formed leaves, but they would not attach to her trees. However, she was able to add grass to her piece. For this construction, Celia also wanted to have a silo and barn on her land so that the animals had a place to eat and sleep.

**Figure 15**

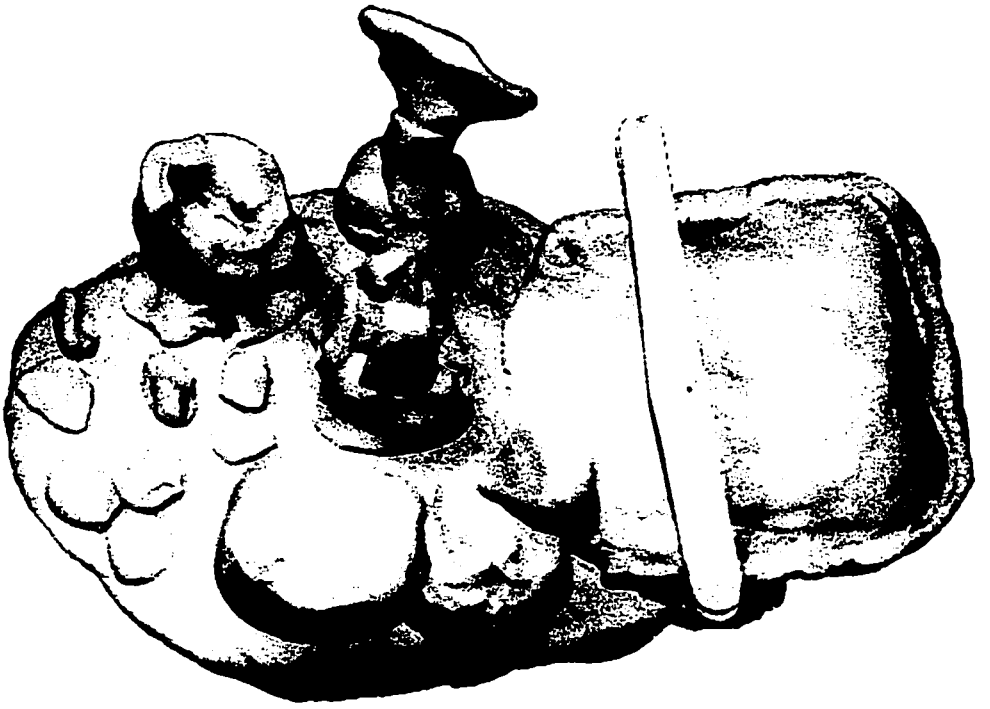

**Figure 16**

## 2.6 Discussion

Overall, I felt that it was fundamental for Celia to express the images she saw in her mind into a form she could visually articulate to the sighted world. During her transition into a regular school system and at her stage of adolescent development, I believe that art therapy provided Celia with the autonomy and independence to make decisions, appraise and evaluate, as well as provide her with an opportunity to learn from past mistakes. One of the benefits of creating through an artistic modality is that with each problem-solving task there lays an opportunity for success.

As Celia had been visually impaired most of her life, it seems inevitable that she has had few opportunities to develop leadership skills. Art therapy enabled her to initiate and take charge. It is my impression that art therapy has contributed to facilitating her transition towards healthy integration into a regular high school.

The "rebel" that Celia represented may have reflected characteristics of adolescence in which rebellion often plays a primary role. Cameron (1963), who works closely with adolescents expressed, "although the young adolescent badly needs adult guidance and protection, he hates his dependent needs" (p.103). In Celia's case, dependency or separation from prime caretakers is essential. She is not yet free to express this adolescent rebellion in the same way that her friends could at this stage. This clay "self" representation may have been a projection of certain rebellious fantasies. It was, perhaps, also an unconscious

manifestation of her awareness that such rebellious expression was not possible for her at that time.

Certain elements in Celia's dream world, specifically the trees in her clay piece (Figure 16) corresponded well with Celia's present situation of being integrated into a regular high school and a sighted world. They were constructed with branches which generally "represent modes of environmental interaction...a reaching out" (Ogden,1984, p.97). This extension of herself into this world may also be linked to the weather elements she continually portrayed in her artwork. She provided visual representations of how she experienced the external world and the elements in her environment. She was quite articulate in her visual depictions, especially regarding qualities of texture and fineness. It was interesting to note that while these elements are often ignored in a visually dominated culture, they appear to be quite present in Celia's world. Furthermore, the elements of air, wind, earth and water, frequently represented in her creations, emphasize new tactile dimensions in creative beauty. Thus in keeping with Fukurai's (1974) insight's into the extraordinary abilities that many visually impaired people may possess, Celia exquisite' constructions prove that some blind individuals can create art that surpasses ordinary expectations, particularly in relation to beauty and aesthetics.

In the section on *dreams,* Jastrow (1900) described the "irradation sense" as often being refined in non-sighted individuals. This sense allows one to identify the presence and nature of the environment. I believe Celia's artwork consistently showed this refinement, especially in her inclusion of weather elements.

Celia insisted on choosing the colors to re-create her dream experience. She mentally envisioned the characters and environment in her dream and was able to articulate her experience into a visual language. Her descriptions of the two mermaids demonstrated notions of beauty drawn from kinesthetic and haptic perceptions "they were soft and beautiful". They also corroborated Jastrow (1900) and Kerr's (1982) findings that dreams from the visually impaired appear as they do in waking life. In that study Kerr pointed out that richness and narrative continuity are not lacking in the dreams of early and late blind individuals. This was confirmed in the case of Celia.

Celia communicated her unique experience in abstract as well as figurative representations. Art therapy seemed to liberate her inner visions, whereby a confidential language and frame promoted an expression of dreams and mental imagery that manifested into physical forms. Unforeseen benefits emerged as a result of working with Celia in her home. This opportunity allowed me to experience what it was like to exist in a frame that was not optimal or standard. During my encounters with Celia, two fundamental insights were highlighted. It became apparent that space and privacy were very relative concepts. What I viewed as privacy, especially in terms of building a therapeutic relationship, was very different for Celia. The second was discovering first hand that art itself possessed a certain kind of protective framework. I witnessed my client discovering her own private structures in the art making process itself. In other words, the lines, marks and forms created in our therapeutic frame possessed their own silence. An additional and unexpected benefit was brought into being within the art process and its' capacity to operate as a self contained and confidential language within itself.

## 2.7 Findings

Most of the literature on mental imagery focused on its visual characteristics. However, as was shown in some of the literature and throughout the case studies, such imagery can be the product of one's auditory, tactile and kinesthetic senses. Furthermore, the case illustrations established that one need not possess sight in order to apprehend spatial relations or motion. The raised-line drawing method showed that perceptual, visual and tactile systems produce methods of perceiving form and spatial relations in the environment. The case studies further demonstrated Kennedy's (1993) belief that the non-sighted have the will and the ability to create competent artistic images.

Kevin, who lost his sight after the critical age of 7, was found to be influenced by cultural notions of aesthetic beauty. As a sighted person he had developed a perception of beauty that as a visually impaired boy, limited the validity of his aesthetic appreciation. On the other hand, Celia who has been blind since the age of 2, appeared to be immune to ideologies regarding aesthetics. Thus, she creatively explored and experimented with abandon and inventiveness. Furthermore, Kevin and Celia both produced visible artistic expressions that related to their personal knowledge and life experience. Since imitation of style was not a factor, each piece of art revealed the unique and individual character of the artist.

An in-depth perusal of the descriptions of dreams by visually impaired individuals uncovered an intricate assortment of visual imagery. However, in the investigation of Kevin

and Celia's dreams, I did not obtain enough verbal narrative to corroborate or establish a link with the literature which could confirm that their dream life imitated their waking life experience. Jastrow's (1900) point regarding the notion that the dreams of the visually impaired are informed by knowledge that they obtain by communicating with others and by reading books proved pertinent. Both Kevin and Celia's dreams contained elements of such outside knowledge.

In the process of this exploration other unexpected findings were revealed. Just as dream imagery was found to be inherent in sighted individuals, other types of mental pictures such as memory pictures or "imagination imagery" appeared to be innate to non-sighted populations. In the case studies it was clear that Kevin demonstrated a significant amount of "imagination imagery". This type of unstructured and spontaneous imagery enabled him to create and control unprompted imaginative "alien" characters. Bagley (1987) said, "once people begin to trust and successfully explore the possibilities of imagination imagery, they will experience increasing pleasures and considerable insight into vast potentials" (p. 26). Perhaps this explained why art therapy had proven to be so beneficial for Kevin. It was through his tremendous ability to create this type of imagery that he had eventually came to terms with his potentially fatal disease.

As Kevin created products that rendered his inner world visible, he provided himself with a safe space to express his feelings of living as an estranged alien on earth. Furthermore, as his inner visions were rendered into artistic visions it became easier to understand and interpret his imaginary worlds. By verbally recounting and visually

representing his inner visions in concrete forms, Kevin remained confident that I understood his world. For Celia, art therapy was a place to learn from past mistakes without any consequences and to benefit from each problem-solving task. Through Celia I discovered that the creative process itself operated as a self contained and confidential language. In both cases, art expression worked to unveil a unique perception and fantasy world. In short, the confidential language inherent in art therapy was found to promote the expression of inner visions, especially with regard to mental imagery and dreams.

## Chapter 3

## Conclusions and Implications

Vision may be our cultures most salient sense, nonetheless the sighted world may be missing out on great beauty, due to the lack of societal value placed on auditory, tactile and kinesthetic perception. What was evident in this exploratory study is that imagery is not a visual perception, but rather a psychological apperception. It is a way of seeing, rather than a means through which something is seen. What was also highlighted was that every individual, regardless of their physical, intellectual, or sensory handicaps has untapped potential for symbolic communication. As one adolescent expressed, "I draw for you who can see, to show you our world".

This study helped to reveal that the world of the blind is not one of darkness, but rather one of subjective and unique color. Furthermore, it showed the multiplicity of ways to experience and perceive the world. It was discovered that our inner visions and dreams exist as indicators that external vision is but one way of looking at the world. In other words, it is simply one of the many means through which we can perceive the multidimensional experiences that make up life's essence.

Many schools for the blind question whether art appreciation and art-making should be part of a visually impaired curriculum. Yet this paper has argued that we all have intrinsic qualities to create. No person should have the right to separate those who should receive art instruction from those who are not worthy. As Lowenfeld (1982) expressed "every human

being is endowed with a creative spirit" (p. 430). Furthermore, as Kennedy stated and as my case studies have shown, the visually impaired have the inclination to create and construct art. It is clear that when this population is given the proper tools and support they can creatively express their conscious and unconscious experiences. Such individuals can also develop an impressive symbolic repertoire using a variety of art media.

One important implication for future investigation is how the use of art can facilitate the learning of Braille, map reading and mobility with this population. Some teachers at the school for the blind commented that since the onset of art therapy, some of their students had further developed their spatial and mobility skills.

It is also important to remember that Kennedy (1993) stressed that touch can be used to discover the impression of complex spatial arrangements across time. It is only when this population is not given adequate time to explore particular objects or spaces that their reconstructions are "patchy". By rendering spatial arrangements into visual form, the non-sighted are offered a chance to position complex spatial patterns together in order to build and develop their spatial intuition and manipulation.

Yet another point of significance revolves around our dreams. Although our dreams are alive with scents, textures and movement, we are so focused on images that we often fail to notice their non-visual characteristics. Throughout this process I have learned to treasure the ways I was sensitized to distinct and different forms of sensory awareness. Some of the clients remarked "the clay that smells like strawberries" and "the squeaky loud

markers". Perhaps by listening to and observing the visual records of the dreams and imagery of the visually impaired, we may, like those who encountered Tiresias, come to see our own blindness.

This exploratory study ends on a speculative note. Thus, it has indulged in the investigation of understanding mental imagery and dreams of visually impaired individuals because of their potential to uncover opportunities for future research on important and uncharted territory. This paper suggested that current definitions of imagery and aesthetics must be enlarged and expanded in order to accommodate the kinds of abilities found in the art of the visually impaired. This inquiry also illuminated that spatial recognition and motion exists in the drawings and dreams of this population. It also allowed many of the participants involved in this project to open their eyes to the creative potential, hidden capacities and the ability to grow through the creative process. Furthermore, providing art therapy to this population revealed the values, uniqueness and beauty that give rise to various ways of perceiving and knowing. This paper has touched upon and clarified these points to some degree and has uncovered new questions in the process. Further exploration and research along these lines will continue to enrich our understanding of these domains and this population.

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# APPENDIXES

**Appendix A**

According to the Canadian government (2002) "visually impaired" is defined as a medically verified visual impairment associated with limitations in sight that inhibit the acquisition of information or interaction with the environment to the point that special education, instruction and related services are required.

There are few people who are identified as completely blind from birth. Thus, throughout this paper I will treat the terms "early blind" and "congenitally blind" as synonymous.

**Appendix B**

Request for Consent

Authorization for photography, video, and audio recordings related to art therapy.

I, the undersigned _____

Authorize _____

| To take; | YES | NO |
|---|---|---|
| *Photographs* | _____ | _____ |
| **Video* | _____ | _____ |
| **Audio-Recordings* | _____ | _____ |

I understand that both my child's identity and the setting where the art therapy sessions take place will be kept strictly confidential and that no identifying information will be given. I understand that agreement to this request is voluntary and that I can refuse to allow my child's art to be photographed, or sessions to be recorded, with no effect on the art therapy being provided. I also understand that I may withdraw my consent at any time, without explanation, by simply contacting Jennifer Berbrier at:

I have read the contents of this form and I give my consent as described above.

Signature of Parent/Guardian: _____

Signature of Child: _____

Date: _____

Witness: _____

Date: _____

**Audio* and *Video* recordings will be used as educational tools. The tape will only be heard and/or viewed by Jennifer Berbrier and her supervisor, and will be destroyed after learning from these tools is achieved.