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The Speech and Language Characteristics of One Child with Brachmann-de Lange Syndrome

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THE SPEECH AND LANGUAGE CHARACTERISTICS
OF ONE CHILD WITH BRACHMANN-de LANGE SYNDROME

by

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Bachelor of Arts, University of North Dakota, 2000

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This thesis, submitted by Kelli K. Mickelson in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

(Chairperson)

This thesis meets the standards of appearance, conforms the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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# TABLE OF CONTENTS

LIST OF TABLES ........................................................................... vi

ABSTRACT ..................................................................................... vii

CHAPTER

I. INTRODUCTION ........................................................................ 1

II. REVIEW OF LITERATURE ..................................................... 3

   History of the Syndrome ....................................................... 3

   Diagnosis/Cause ..................................................................... 3

   Incidence .............................................................................. 5

   Major Manifestations .......................................................... 5

   Variability of Brachmann-de Lange Phenotype ..................... 10

   Mortality in Patients with BdLS ........................................... 13

   Perceptions of Individuals with BdLS then and now .......... 15

   Speech, Language, and Hearing in BdLS ......................... 16

III. METHODOLOGY ..................................................................... 21

   Participant ........................................................................... 21

   Materials .............................................................................. 21

   Procedure ............................................................................. 26

IV. RESULTS AND DISCUSSION ............................................... 30

   Participant Biography ......................................................... 30
LIST OF TABLES

Table
Page

1. Standard Scores for PPVT, ROWPVT, and EOWPVT ................. 37

2. Age Equivalency Scores for the PI-VP, ROWPVT, and EOWPVT .... 37
Abstract

Brachmann-de Lange syndrome is a dysmorphogenic disorder that has been characterized by multiple congenital abnormalities. Individuals with this syndrome commonly have mild to severe cognitive involvement. Commonly, speech and language presents a challenge to this population.

One individual diagnosed with Brachmann-de Lange syndrome has been administered a battery of speech, language, and hearing assessments to determine his communicative understanding, intent, and ability. The parents of this individual volunteered and willingly agreed to participate in the study.

Results of this study help to provide some common speech and language characteristics of one child with Brachmann de Lange syndrome. Expressive and receptive language skills were obtained and compared. This information is useful to speech-language pathologists, audiologists, teachers, parents, and caregivers to better understand the disorder and its communicative ramifications. In addition, this project helps contribute to the limited information currently existing on Brachmann-de Lange syndrome and communication.
CHAPTER I

Introduction

Brachmann-de Lange syndrome (BdLS) is a rare genetic disorder that causes morphologic abnormalities of the head, face, and body. The cause of this rare disorder is unknown as there have been no biochemical or chromosomal markers to assist with a definite diagnosis for Brachmann-de Lange syndrome (Opitz, 1985). As a result, determining incidence has become a difficult task. It is estimated that one in every 10,000 births result in a BdLS diagnosis (Opitz, 1985). Current literature describes individuals with this disorder as having distinct facial characteristics consisting of long eyelashes, a long philtrum, a thin upper lip, and down turned lips. Physical manifestations of this disorder include anomalies of the hands and feet, growth failure, multiple congenital abnormalities, and excessive hair growth. Intelligence Quotient (IQ) rarely exceeds 50; however, it is believed that the developmental potential of individuals with BdLS is higher than previously thought. Commonly associated physical problems with this particular syndrome include gastrointestinal complications and heart lesions. These individuals are typically shy and less adapted than normal individuals and prefer rigid routines.

The diagnosis for this disorder was first made in 1933 when Dr. Cornelia de Lange described the syndrome in its full clinical presentation. The first description of
a child with this disorder occurred in 1916 when Dr. W. Brachmann described a child at autopsy with the syndrome.

Major physical and cognitive manifestations of this disorder are well-documented in journals of genetics. What is of particular interest in this project are the communication, speech, language, and hearing disabilities within this rare disorder. The literature has suggested an absence of speech or the development of only minimal speech but documents little about expressive and receptive language skills or articulation.

This project presents a broader understanding of the communication ramifications of this syndrome. In particular, it is hoped this project will provide useful information to speech-language pathologists, audiologists, teachers, parents and caregivers as well as others who may come into contact with individuals with BdLS. The information from this case study will also provide professionals with useful intervention strategies and serve as an educational device for the general public.
CHAPTER II

Review of Literature

History of the Syndrome

The first reported case of this syndrome was identified in 1916 by a young physician named Dr. W. Brachmann. Brachmann (1916) described a child at autopsy with features including limb deficiencies, various malformations, growth retardation, and neurodevelopmental delay. According to Opitz (1985), Brachmann’s study was terminated early as he received orders to report for active duty in the German army.

The first full clinical identification of what is now known as Brachmann-de Lange syndrome (BdLS) was described by Dr. Cornelia de Lange in 1933. de Lange (1933) described two infant girls with mental deficiency and other features with a less severe form of the same syndrome described by Brachmann. de Lange was a professor of pediatrics in Amsterdam.

Diagnosis/Cause

The Brachmann-de Lange Syndrome (BdLS) is a disorder of growth, mental retardation, abnormal shortness of the fingers and toes, and excessive hair growth. Diagnosis for this syndrome is made solely on clinical grounds as there are no biochemical or chromosomal markers for BdLS (Hawley, Jackson, & Kurnit, 1985). The criteria for diagnosis have been examined in detail over time since the syndrome was first identified. Some cases (Preus & Rex, 1983) suggest no chromosomal...
abnormalities where others (Beck and Mikkelsen, 1981) have found some chromosomal defects. With a syndrome as variable as this, diagnosis becomes a difficult task. According to Opitz (1985), rarity and inconsistency of these chromosomal abnormalities make it unlikely that they are the cause of this syndrome; however, it may not be possible to rule out the occurrence of structural chromosome abnormalities. Today, the basis for diagnosis is made through the use of significant medical history, delayed growth parameters, and physical examination criteria.

Research has revealed evidence assigning autosomal dominant inheritance in BdLS. A study done by Robinson et al. (1985) investigated four relatives in which three were affected and one was not. High variability in expression of the syndrome was present across the subjects. These researchers elucidated evidence in support of a hypothesis that BdLS is caused by a dominant mutation Conversely, a study done on 310 individuals diagnosed with BdLS (Jackson et al., 1993) determined that almost all cases were single sporadic occurrences within families. “Most are apparently sporadic cases, and, if the minor abnormalities in the close relatives are a coincidental finding, then there must be an extremely high mutation rate at the putative BdLS locus” (Opitz, 1985, p. 98). It is important to note that there are still numerous instances of familial transmission with no mode of inheritance ever determined (Robinson et al., 1985; Halal & Silver, 1992).

Since there seems to be no detectable genetic cause, professionals must rely on information other than genetic factors to decide whether the syndrome is absent or present. A variety of physical, psychomotor, cognitive, social-emotional, growth and development, and communication characteristics can be factors helpful in
determining whether this syndrome is expressed. These factors will be further discussed later in the paper.

Incidence

The lack of a biological marker makes incidence difficult to report. The earliest available statistics came from an extensive investigation in Denmark (Beck & Fenger, 1985). This figure yielded a ratio of 1:50,000 babies born with Brachmann-de Lange syndrome. Later reports suggest a higher birth prevalence of 1:10,000 (Opitz 1985).

Major Manifestations

There are a number of characteristics that may be displayed in an individual with Brachmann-de Lange syndrome. In a study including 310 individuals (Jackson et al., 1993) with this rare syndrome, many physical expressions of the syndrome were discussed. It is important for us to be aware of these physical manifestations as it is often the only means to determine diagnosis.

Manifestations of body hair have been noted as characteristics within the syndrome. These manifestations include the excessive growth of body hair evident at the time of birth. They commonly display a low posterior hairline, confluent eyebrows, and long eyelashes. Jackson et al. (1993) noted this characteristic appearing in over 78% of their participants.

Individuals with BdLS also exhibit some distinct facial features. Over 50% of the participants in the 1993 study displayed ocular anomalies, a short neck, and a bluish tinge around their eyes, nose, and/or mouth. The following facial characteristics occurred with a frequency greater than 70%: broad and/or depressed
nasal bridge, anteverted nostrils, prominent philtrum, thin lips, down-turned angles of the mouth, widely spaced teeth, high arched palate, low set ears, and an underdeveloped jaw.

According to Jackson et al. (1993), limb abnormalities are usually associated with BdLS. The most frequently occurring limb characteristics are small hands and feet with short digits. Other abnormalities include grossly malformed upper limb(s), limitation of extension at elbow(s), proximally placed thumbs, deviation or deflection of 5th finger(s), single transverse palmar crease, and webbing of 2-3 toes.

Other characteristics not falling under the above categories include undescended testes and underdeveloped genitalia in males with BdLS. Small umbilicus, low pitch cry, and small nipples have also noted.

Individuals with BdLS often have many associated medical problems. The most common vision problems noted by Jackson et al. (1993) include nearsightedness, paralytic drooping of the upper eye lid, and involuntary rapid movement of the eyeball. “Eye problems undoubtedly contribute to a significant reduction of the child’s appreciation of the environment but are not necessarily important in the early care of the child” (Jackson et al., 1993, p.943). Glasses are not commonly tolerated by children with this syndrome; therefore, limitations in management of vision problems in this population are evident.

One medical problem has been overlooked as a serious manifestation is gastrointestinal malformation. Gastrointestinal abnormalities include: gastroesophageal (GE) reflux, cleft palate, failure of normal rotation of the gastrointestinal organs during embryological development, abnormal narrowing of
the pyloric structure, obstruction of the first portion of the small intestine, duplications, hiatal hernia, groin and umbilical hernia, and abnormal narrowing of the esophagus (Beck and Fenger, 1985; Jackson et al., 1993). "Gastroesophageal reflux frequently occurred following a meal. Behaviors resulting from this included back arching, hyperactive behavior and other manifestations of distress" (Jackson et al., 1993, p. 943). These medical problems can directly affect weight gain and cause esophageal damage and irritation. Two other gastrointestinal-related problems include malrotation with volvulus (twisting of the intestine), and congenital diaphragmatic hernia.

Jackson et al (1993) found that heart problems were indicated in 25% of the 310 individuals surveyed with BdLS. Congenital heart lesions that were diagnosed in these patients ranged from minor to severe. The following specifications include ventricular and atrial septal defects, pulmonary stenoses, tetralogy of Fallot, mitral atresia, aortic stenosis, aortopulmonary window, atrioventricular canal, patent ductus arteriosus, and single ventricle. These related problems contribute to the higher mortality rate of infants with BdLS as compared to normal infants. Other factors that negatively impact heart function are a child’s general weight, size, and nutritional status. Other existing medical problems include ureteral reflux, skin problems, respiratory problems, and seizures.

In addition to physical and medical manifestations present within this rare syndrome, early infant problems can help to identify whether a child has received a proper diagnosis. According to Sarimski (1997), feeding and sleeping problems occurred in the majority of participants surveyed in a study of 27 individuals with
Extreme feeding difficulties often lead to placement of a nasogastric tube. Jackson et al. (1993) suggest that in many cases major gastrointestinal problems can evolve into feeding difficulties such as pyloric stenosis, severe gastrointestinal reflux, or malrotation of the bowel with obstruction.

It is suggested by Stefanatos and Musikoff (1994) that a clinical picture evolves from slow prenatal development into a pattern. This pattern is suggestive of specific developmental disabilities. The cognitive abilities and disabilities are another important manifestation to be addressed when discussing Brachmann-de Lange syndrome. One study demonstrated that circumscribed nonverbal developmental difficulties, impaired psychomotor skills, poor visual memory, deficient visual-spatial abilities, specific mathematic disability, and anomalies in aspects of interpersonal behavior were apparent and remained evident into adolescence (Stefanatos and Musikoff, 1994). Intelligence quotient (IQ) testing has also been evaluated and reported within this population. Although intelligence is variable, Jackson et al. (1993) have grossly estimated IQ as below 60 in 87% of the individuals surveyed. In general, although a high percentage of the children are seriously impaired, a substantial number have higher developmental potential than the older literature would suggest (Jackson et al., 1993). Kline et al. (1993) revealed an IQ range of 30 to 85, with 30 being in the moderate range of mental retardation and 85 depicting mild mental retardation.

Individuals with Brachmann-de Lange syndrome commonly exhibit various social-emotional characteristics and maladaptive behaviors. Sarimski (1997) discussed a range of social behaviors documented in a study of 27 children. Some
participants were isolated as if in their own world, while others were overly friendly with strangers. Abnormal eye contact was noted in 50% of the participants, while abnormal mimicry and gesturing was present in over 70% of individuals. Activity level ranged from overactive to very passive. Self injurious behaviors were reported in 40.7% of participants. This was found to be more prominent in older children (Sarimski, 1997). Self injurious behaviors typically included self biting, scratching, and head-banging. Individuals with BdLS experience frequent mood swings, but are often noted as being frequently happy without reason (Sarimski, 1997). Mildly affected patients often manifest common behavioral characteristics with a strong preference for a structured environment. They frequently experience marked behavioral and psychosomatic reactions to disturbance of their normal daily routines (Jackson et al., 1992).

In individuals with BdLS, characteristic growth manifestations have been studied and documented (Kline et al., 1993). Serial growth records of 150 patients with BdLS were analyzed. Factors including birth weight, head circumference, weight, and height were all calculated. Birth weights were found to be below the 5th percentile in 68% of cases. Average birth weight was 2,284 g for males and 2,274 g for females. Head circumferences at birth were smaller than those of normal neonates (Kline et al., 1993). Evidence has suggested that lower birth weight is associated with a more severe phenotype in BdLS (Hawley et al., 1985). Weight and height measurements for adults with BdLS fell below the normal 5th percentile by 6 months and remained below this level through adulthood. It is important to note that less than 20% of males with BdLS have a height above the 5th percentile by adulthood,
however, 35% weigh from the 5th to above the 50th percentiles. During puberty, growth patterns for height appear to be slower for both males and females with BdLS. Puberty occurs at the normal time for these patients (Kline et al., 1993). In select cases, thin body physique has been a major manifestation of the syndrome along with small stature. Obesity, defined as more than 20 pounds above expected weight, has been observed in 5% of the individuals (Kline et al., 1993). This occurrence is more common in males, especially after the age of 12 years. Gastrointestinal disturbances, which can have a marked effect on growth, particularly weight gain, and are common in this disorder (Jackson et al., 1993).

**Variability of Brachmann-de Lange Phenotype**

Over the last 20 years, investigators have attempted to devise a classification system for Brachmann-de Lange syndrome phenotype (Van Allen et al., 1993; Baraitser & Papavasilou, 1993; Opitz, 1985; Preus & Rex, 1983). With increasing frequency, professionals are becoming aware of rather mildly affected BdLS children with borderline IQ or, at worst, mild mental retardation. These children have more normal height and limbs, but almost invariably have mild spastic diplegia of the lower limbs (Opitz, 1985). The existence of mildly affected individuals with BdLS is debatable. The question has been posed as to whether mild Brachmann-de Lange syndrome really exists (Baraitser & Papavasilou, 1993). If, in fact, mild Brachmann-de Lange syndrome does exist, characteristics and classifications have been suggested.

Van Allen et al. (1993) proposed a three type classification system outlining various expressions of the disorder. Type I is described as “Classic” Brachmann-de
Lange. Criteria for this diagnosis include: (1) growth retardation with a birth weight usually <2.5 standard deviations below the mean for gestation which becomes more severe postnatally (<3.5 standard deviations below the mean for chronological age); (2) moderate to profound psychomotor retardation; (3) the presence of minor facial anomalies, skeletal and other components of the disorder giving a positive score using the diagnostic index of Preus and Rex (1983); and (4) the presence of malformations, previously described in BdLS, which are lethal or associated with severe disability. Type II is described as “Mild” Brachmann-de Lange. Individuals with this type typically exhibit a presence of facial changes and other distinct minor anomalies characteristic of BdLS. Criteria for this phenotype include: (1) less severe psychomotor retardation; (2) milder pre- and postnatal growth deficiency; and (3) absence of major malformations or if present, the malformations are surgically correctable or do not cause severe disability. Minimal criteria for this type is debatable. “In general, clinical geneticists rely on the presence of characteristic facial findings of a disorder in order to consider a specific diagnosis” (Van Allen et al., 1993, p. 954). Further investigation is required to provide specific diagnostic criteria for this type. Type III is known as “Phenocopies” Brachmann-de Lange. Criteria for this classification include patients who have some of the diagnostic criteria for BdLS, but have known teratogen exposures or chromosomal aneuploidies (any deviations from the normal number of chromosomes) which would account for their anomalies. Chromosomal aneuploidies have been reported in patients with BdLS with the most likely being the 3q26.3 chromosome region (Opitz, 1985).
Preus and Rex (1983) use techniques of numerical taxonomy to provide a more objective method of classifying patients. Their diagnostic index encompasses a large number of characteristics that may vary within individuals. The main objective for this classification is to assist in excluding individuals who have some BdLS characteristics but do not actually have the syndrome. “A character state that is relatively more frequent in the syndrome group receives a positive score, and its alternative state receives a negative score,” (Preus & Rex, 1983). Based on scoring, a classification procedure is sorted into two groups. Preus and Rex (1983) discuss BdLS as homogeneous in “type” but variable in “amount.” They reveal that the occasional occurrence of the syndrome in family members without chromosomal abnormalities suggest a submicroscopic deletion or duplication with a low risk of transmission from a balanced carrier. It is suggested that some patients with chromosomal defects are very likely not examples of BdLS (Dodge, 1965). Therefore, professionals must carefully evaluate those who have the typical facial appearance. They may provide clues as to which chromosomes should be examined further in these individuals.

Hawely et al. (1985) have indicated a presence of a more severe phenotype in BdLS. Significant differences have been noted between subjects whose birth weight was over 2,268 g with those who were lighter at birth. In addition, differences in the presence of upper limb malformations, later age of onset of walking, and increased frequency of hearing loss requiring a hearing aid are all major indicators of this more severe phenotype.
It has not been determined which classification system is most favored or widely accepted in the field of genetics. What is known is the importance of examining all the characteristics of an individual suspected of having BdLS. Opitz (1985) indicates that infants with fetal alcohol syndrome can be misdiagnosed as having BdLS.

**Mortality in Patients with Brachmann-de Lange syndrome**

“Although several authors presume an elevated mortality in the [Brachmann-de Lange syndrome], no proper mortality calculations appear to have been published” (Beck & Fenger, 1985, p. 767). A study by Beck and Fenger (1985) addressed this mortality issue when they discussed pathological findings, and causes of death in Brachmann-de Lange syndrome. The mortality of 48 de Lange patients born between 1917-1982 were found to be slightly raised when compared with the normal population. Beck and Fenger (1985) found that when cumulative rates of survival were calculated, no sex differences were observed. Through death certificates, and hospital and autopsy records it was found that pneumonia was mentioned as the direct cause of death in 6 of the 48 individuals. A possible cause of death related to pneumonia has been suggested to be caused by immunodeficiencies similar to those discussed in individuals with Down syndrome. However, Beck and Fenger (1985) found that plasma immunoglobulins were normal in 16 of the 48 BdLS patients age 3-46 years and no clinical signs of immune-deficiency were found in their study.

This study also revealed that severe cardiac malformations may have been a contributor cause of death in 3 patients. Jackson et al. (1993) claim that each of the three cardiac-related deaths documented in their study were due to a severe congenital
lesion complicated. One of these children had a single ventricle, one an undefined lesion, and the third had combination of several complex congenital heart defects.

Gastroesophageal problems have also been blamed for high mortality rates in this population (Jackson et al, 1993; Beck & Fenger, 1985). Jackson et al. (1993) described 2 gastroesophageal-related deaths that were widely different in their timing. One occurred in an infant who experienced severe gastroesophageal reflux followed by an apparently unrelated intestinal problem. At the time of death, this individual was diagnosed as having intestinal obstruction, esophageal ulceration and perforation. In another death described by Jackson et al. (1993), a severely affected child with upper limb malformations and serious developmental delay developed acute distress. Diagnosis at the time of death was acute volvulus (twisting of the intestine) and intestinal obstruction.

Other causes of death discussed by Jackson et al (1993) include apnea, respiratory aspiration events, bowel problems, surgery, bronchopulmonary abnormalities, and feeding difficulties. Their comparison of observed and expected deaths showed elevated numbers of deaths in the BdLS population. A definite increase in mortality was found among boys who are 0-4 years of age. It is important to note that these mortality rates are uncertain because of the limited number of patients and the unknown cause and diagnosis of the disorder.

Rosenbach et al. (1992) contend that surgical treatment to resolve gastroesophageal dysfunction can have a dramatic effect when performed. They also suggest that early recognition and treatment with undelayed surgical correction may reduce mortality and probably prolong life expectancy in this population.
Perceptions of Individuals with BdLS then and now

Perceptions of the BdLS diagnosis today differ from information previously provided. A grim developmental outlook has been the general rule during counseling for many years, based on previous testing (Barr et al., 1971). In fact, Jackson et al. (1993) state that BdLS was most likely diagnosed in the most severely affected individuals. Today, the spectrum has broadened and now includes individuals with a range of developmental abilities.

More recent literature differs from earlier literature when addressing the abilities and skills these individuals possess. Today, a general consensus indicates their daily living skills exceed what authors have thought in the past. Reasons for this realization may come from a variety of different areas. Jackson et al. (1993) found a higher proportion of patients mildly affected with the syndrome. They also state that it is increasingly common to see children with good self-help skills, reasonable communicative skills, and children who demonstrate intellectual development above the former upper limit of IQ testing for this population. Individuals with BdLS, however, are not without challenges. Jackson et al. (1993) indicate that these same skills are restricted to those necessary for daily living. With limited communication abilities, it is suggested that most children will continue to need supervision throughout their lives.

What seems to be making a difference in these patients is early intervention programs. Appropriate early intervention can dramatically improve the chances of good developmental outcomes. Kline et al. (1993) suggest that developmental testing can help professionals and parents monitor specific trends and therapies. They also
report that early intervention and methods of instruction are beneficial, especially in those individuals who are mildly affected. These early invention programs may include therapies such as occupational therapy, speech and language therapy, and physical therapy. Specialists may include behavioral specialists, special education teachers, and psychologists. Any program offering extra assistance usually results in a desirable response from the individual and his or her family.

Speech, Language, and Hearing in Brachmann-de Lange syndrome

Communicative abilities appear to be variable for in this population. Absence of speech or the development of only minimal speech has been well documented (Barr et al. 1971; Hawley et al., 1985; Nyhan & Sakati, 1976). Individuals with BdLS experience variations in language skills and development, speech ability and development, and voice quality. Hearing loss is also a common problem that must be addressed with this population. Literature addressing these issues is limited and often results in variable or inconclusive findings.

The absence of speech or the development of only minimal speech seems to appear in the literature frequently (Barr et al., 1971; Hawley et al., 1985; Nyhan & Sakati, 1976). For the individuals who exhibit a complete absence of speech, nonverbal and gestural communication is often a primary means to convey messages. In many cases, researchers have attempted to evaluate the child’s language comprehension. They have attempted to determine whether a child with BdLS can understand communicative purpose. Sarimski (1997) has suggested that individuals with this disorder communicate by using gestures, pointing, pushing, pulling, looking, and using occasional vocalizations to manipulate other people’s emotions.
with this disorder may approach and touch another person to get attention or push another person’s hand away when they do not want help or do not want interference. Sarimski (1997) notes that communication through pointing was rarely achieved with subjects included in her study of 27 children with this syndrome.

The ability to produce speech varies to a great degree. Typically in those mildly affected with the syndrome, errors in articulation occur while consonants are either distorted or missing (Goodban, 1993).

When only minimal speech has developed, researchers have observed a distinct voice quality evident at the time of birth. Jackson et al (1993) found that a low-pitch cry was frequently noted during the newborn period or early infancy. Ptacek et al. (1963) described voice quality while crying as feeble, growling, guttural, deep and raucous. This quality disappears by about 12 months. Goodban (1993) suggests that some children with BdLS have voices that are normal in quality and notes that there does not seem to be a relationship between vocal quality and the ability to combine words into sentences.

It has been suggested by some researchers that the receptive language skills of these individuals is significantly higher than their expressive language skills (Kline et al, 1993; Goodban, 1993). In a study containing 122 subjects with BdLS, a common test known as the Peabody Picture Vocabulary Test (PPVT) was administered to evaluate the vocabulary and receptive language (Kline et al., 1993). The scores generated were determined as being low when compared to normal individuals.

Sarimski (1997) suggested that less than 70% of the sample collected were able to produce language and only 15% were able to produce meaningful language.
Conversely, Goodban’s (1993) findings indicate that 53% of the children surveyed were able to meaningfully combine 1-2 words into sentences. Goodban (1993) noted that only 4% were judged to have language skills within normal to low-normal limits. Sarimski’s study consisted of 27 subjects where Goodban’s consisted of 116 subjects.

This study performed by Goodban (1993) took an extensive look at the speech and language skills of 116 patients with BdLS. Several comparisons were made between the speech and language skills and a variety of other prognostic indicators within the syndrome. Comparisons were made between birth weight, gender, hearing impairment, upper limb malformations, social skills, and motor skills. It is important to note that the patients included in this study may not have been as severely affected as those in earlier studies.

Through this study, it was reported that there is an apparent relationship between birth weight and the eventual ability to combine at least two words into sentences. It was found that only 20% of the children with birth weights under five pounds had acquired this skill by the age of four.

Goodban (1993) did not find a significant difference in language skills between genders. It was found that in the 28 males and 34 females four years and older were able to combine at least two words into sentences. The ability to combine at least two words into sentences was accomplished by 41% of females and 54% of males.

In terms of hearing ability, it was found that only 21% of the children with a moderate-to-severe hearing loss were able to combine at least two words into
sentences. This is compared to the 70% of the children with no loss to a mild hearing loss who were able to achieve this language skill.

Goodban (1993) also compared the speech and language abilities to malformation of the upper limbs. It was found that of the 37 children four years or older who had no upper limb malformations, 65% combined at least two words into utterances. Of the 11 children with upper limb malformations, only one demonstrated two word utterances.

According to Goodban (1993), children exhibiting social skills including eye contact, alertness, general appearance, and ability to relate to people also demonstrated better speech and language abilities. It was found that children exhibiting these characteristics were more successful at acquiring the ability to combine words into utterances. Those with poor social relatedness were less likely to have acquired these skills.

This study revealed a relationship between speech and language abilities and motor skills. For children who were four years or older on whom there was a reported age of sitting as well as information on expressive vocabulary, 29 children were reported to be sitting unassisted by 18 months. Of these 29, 76% had an expressive vocabulary of at least six words. Ten children who were reported as sitting unassisted sat after the age of 18 months. Of these ten, only 50% had an expressive vocabulary of six words or more.

The results of this study indicate that a higher percentage of the BdLS population have better speech and language capabilities than previous authors have suggested (Beck, 1987; Barr et al., 1971; Hawley et al., 1985). Goodban (1993)
suggests that these slightly higher figures may be related to a lower incidence of institutionalization and the support provided by foundational organizations. In addition, parents now have higher expectations for their children and demonstrate a stronger involvement within the Cornelia de Lange Syndrome Foundation. Goodban (1993) also notes that parents are more likely to learn about the importance of early intervention and the correction of deficits such as hearing and vision.

"It is probable that hearing loss is a manifestation of this syndrome" (Goodban, 1993, p. 1059). A study by Sataloff et al. (1990) revealed that virtually all of the 45 patients examined were identified as having a hearing loss. Fifty-nine percent of these individuals had a cleft or abnormal palate, 30% had stenotic external auditory canals, and all had mild (24%), to severe (52%) hearing loss. Sataloff et al. (1990) noted that approximately 20% of the children examined had noticeable hearing loss or used hearing aids. Sixty percent of parents reported problems usually related to the insertion of tubes. It is recommended that because of the high incidence of hearing difficulty, a thorough hearing evaluation on all affected children be performed as early as reasonable. Goodban (1993) suggests that hearing loss is frequently related to the significant speech delay experienced by many of these children.
CHAPTER III

Methodology

Participant

The participant included one 12 year-old Caucasian male child who was diagnosed with Brachmann-de Lange syndrome six months after birth. The researcher personally knows the parents of the child with this disorder. Participation in this study was strictly voluntary and was granted via parental consent. There were no penalties or loss of benefits with refusal to participate and the subject and parents were instructed that they could withdraw at any time. There were no additional costs for participating. Results of this study were promptly provided to the participant and family upon completion of the project.

Materials

Multiple tests were used to analyze the subject's communication skills in this project. Testing took place between the dates of July 12 and August 11, 2001. Total testing time was approximately 5 hours. The purpose was to obtain a broad picture of this child's communication knowledge, intent, and abilities. These tests aimed specifically to survey the speech and language skills of the single participant with the previously mentioned syndrome. There is not much known about the speech and language characteristics present with this rare disorder. The literature commonly refers to difficulties with communication, but fails to specifically address these issues.
To evaluate the speech, language, and hearing, the following battery of commonly used clinical tests were administered.

**Peabody Picture Vocabulary Test.**

The purpose of giving the *Peabody Picture Vocabulary Test Third Edition* (PPVT-III) (Dunn & Dunn, 1997) was to determine the child’s vocabulary acquisition, linguistic development, and cognitive development. The PPVT-III is a test of listening comprehension for the spoken words in standard English. It is designed to measure an examinee’s receptive (listening) vocabulary. In this sense, it is an achievement test of the level of a person’s vocabulary acquisition. It can serve as a screening test of verbal ability, or as one element in a comprehensive test battery of cognitive processes. This test was the first test administered on the initial day of evaluation. This assessment took approximately 40 minutes to administer. Due to the subject’s limited attention, the administration of this test was divided into two 20-minute testing periods given on different days.

**Receptive One Word Picture Vocabulary Test.**

The purpose of the Receptive One Word Picture Vocabulary Test (ROWPVT) (Gardner, 1985) was to obtain an estimate of this child’s one-word hearing vocabulary based on what he has learned from home and formal education. This test provided an effective means of evaluating the receptive vocabulary of individuals with expressive difficulties, such as bilingual, speech impaired, immature and withdrawn, and emotionally and physically impaired children. This test was the third test to be administered and was performed on the fourth day of evaluation. It took
approximately 30 minutes to administer and provided information about a child’s understanding of language.

**Expressive One Word Picture Vocabulary Test-Revised**

The purpose of the Expressive One Word Picture Vocabulary Test (EOWPVT) (Gardener, 1990) was to estimate the subject’s verbal intelligence by means of his acquired one word expressive vocabulary. It indicated how well the subject was able to articulate verbally what he has learned. It examined a higher level of language functioning comparable to normally developing peers and assessed the subject’s ability to utilize language. When this test is used with the ROWPVT, a comparison of the results from the two tests provides information about differences in language skills that could be due to specific language impairment, language delay, bilingualism, a non-stimulating home environment, cultural differences, learning difficulties, and a variety of other emotional, educational, or physiological factors that may warrant further investigation. This test was the fourth to be administered. It was performed and completed on the fifth day of evaluation and took approximately 30 minutes to administer.

**Mean Length of Utterance**

A mean length of utterance (MLU) was calculated from a conversation sample provided by the subject. This sample will be elicited through the use and interaction with manipulative objects. The purpose of a MLU was to obtain information about patterns in language, specifically morphology, syntax, and phonology. It provided detailed information about which rules the subject applied during the course of his language development. An MLU is obtained when a count of morphemes are
counted. A morpheme is the smallest unit that possesses meaning. For example, the sentence “I cannot run with the boys,” contains eight morphemes. The word “cannot” is counted as two because it can be separated into two distinct words. The word “boys” is also counted as two due to the plural “s.” Owens (1996) states that an MLU is a moderately reliable predictor of the complexity of language in young English-speaking children.

Within this analysis, it was determined which of Brown’s 14 grammatical morphemes have developed. These fourteen grammatical morphemes are (listed in developmental order): present progressive (-ing), in, on, regular plural (-s), irregular past, possessive (‘s), uncontractible copula, articles, regular past (-ed), regular third-person (-s), irregular third person, uncontractible auxiliary, contractible copula, and contractible auxiliary. The amount of time to collect this sample was 2 hours.

Type Token Ratio

A type token ratio was calculated using the same conversation sample obtained for the mean length of utterance. The purpose of this technique was to determine which grammatical structures and word categories were present within this subject’s language system. Words were categorized into the following categories: nouns, verbs, adjectives, adverbs, prepositions, pronouns, conjunctions, negatives, articles, and wh-words.

Hodson Test of Phonological Processes.

The Hodson Test of Phonological Processes (Hodson, 1986) is a picture test designed to identify sounds and sound errors in speech. It provided a clear understanding of which sounds are absent or present within the child’s
communication system. The test’s primary goal is to provide information as quickly as possible that can serve as a foundation for designing more efficient and more effective individualized remediation programs for children with severe/profound speech disorders. It can also assist in determining whether the subject exhibits any phonological patterns. This test was the second test to be administered. It was administered on the third day of evaluation and took approximately 25 minutes to administer.

**Hearing and Middle Ear Screening**

A hearing screening was administered as a means to rule out any pathology that might have effected the testing situation. A pure tone screening was administered to determine hearing ability by having the subject evaluated for the frequencies of 1000 Hz, 2000 Hz, and 4000 Hz presented at 20 decibels. Tympanometry was administered to evaluate the status and function of the middle ear mechanism using changes in air pressure through a small probe.

**The Bracken Basic Concept Scale-Revised.**

The Bracken Basic Concept Scale-Revised (Bracken, 1998) is typically used as a means to access basic concept development of children in the age range of 2 years 6 months through 7 years 11 months. It provides a measure of comprehension of 308 foundational and functionally relevant educational concepts in 11 subtests. Some of these categories included: colors, letters, numbers/counting, sizes, comparisons, shapes, direction/position, self-/social awareness, texture/material, quantity, and time/sequence. The items in this test were presented orally within the context of complete sentences and visually in a multiple-choice format.
Bracken (1998) suggests that concept development is closely related to academic achievement, but that many basic concepts are typically acquired incidentally rather than intentionally. Concepts are an important part of overall language development, but few concept curricula are available to teach children these important functional terms (Bracken, 1998). Due to attentional difficulties and poor situational reliability, only the initial portion of this tool was administered. The time to complete this portion was approximately one hour.

Procedure

Each test was conducted in a quiet, well-lit, and properly ventilated room removed from distractions and disruptions. The subject was comfortably and safely seated in an appropriately sized chair. The child was seated next to the examiner so that both could easily see the stimulus items. Testing was completed at the subject’s home with the investigator, subject, and one research assistant present.

Peabody Picture Vocabulary Test-III

Procedures for administration of the Peabody Picture Vocabulary Test-III (Dunn & Dunn, 1996) are explained in the paragraph that follows. The examiner administered training items A and B, which was the starting point for children under 8. Since the subject’s developmental age was not known, it was thought that this starting point may yield useful data. The examiner introduced the test by saying: “I have some pictures to show you. See all the pictures on the page. I will say something, then I want you to put your finger on the picture of what I have said. Let’s try one — put your finger on the ball.” All 12 items were administered in order. Responses were recorded in the response column as either right or wrong.
Receptive One-Word Picture Vocabulary Test

The examiner explained to the child that pictures would be presented to him and he would be asked to point to one of the pictures that was the same as the word said by the examiner. The examiner explained that a word could be repeated only one time and that the words would become more and more difficult. Three examples were provided as a means to demonstrated the testing procedure. In administering the ROWPVT, the examiner determined a critical range of items that began with a series of eight consecutive correct responses (basal) and ended when a series of six incorrect responses out of eight consecutive items were obtained (ceiling). Responses were recorded as either right or wrong. This test format is similar to that of the PPVT-III in that it is a receptive vocabulary test requiring the individual to point to a group of four pictures to indicate the correct answer. A distinct difference between the norms for the ROWPVT and the PPVT-III is the age of the normative sample. The PPVT-III can be administered to individuals ranging in age from to 2 years 6 months to 90 years 11 months while the ROWPVT has an age sample ranging from 2 years 0 months to 11 years 11 months. Although this subject’s chronological age was older than the normative sample, it was determined by the researcher that administration of this test would yield useful information since the subject’s language age would likely fall in a range lower than that of his chronological age. This test was used closely with the EOWPVT-R in comparing receptive and expressive language skills.

Expressive One-Word Picture Vocabulary Test-Revised

The testing format for the Expressive One-Word Picture Vocabulary Test-Revised required the child to verbally identify individual pictorial representations of
objects or groups of objects. The subject was instructed to look at the pictures provided by the researcher and indicate the name of each of the picture(s). The researcher indicated that the level of difficulty would increase as more pictures were presented. As with the ROWPVT, the norms for this test included individuals ranging in age from 2 years 0 months to 11 years 11 months. Again, it was determined by the researcher that the administration of this test would yield useful information in the area of language even though the test does not include norms including with the subject's chronological age.

**Bracken Basic Concept Scale-Revised**

The testing format for the Bracken Basic Concept Scale-Revised (Bracken, 1998) required the child to be comfortably seated with all distractions removed. When this was accomplished, the examiner began the first subtest. Trial items were administered to familiarize the subject to the desired response. Subtests 1-6 were administered in their entirety. The Bracken Basic Concept Scale-Revised was the last assessment administered in the battery of tests used in this study. This test was a receptive test, similar to the PPVT-III and the ROWPVT that required the subject to point to the correct stimulus item. During the administration of subtest 7, the results became unreliable. The subject would no longer attend to the stimulus item and would randomly point without careful consideration of all item choices. The researcher discontinued testing for that session and when testing on the same test was resumed the following day the results were still unreliable. Due to the subject's attention and behavior, it was decided that only subtests 1-6 would be administered.
and reported. It was also determined that enough information concerning receptive
language and vocabulary had been obtained through the other assessment tools.

**Mean Utterance Length**

A spontaneous conversation sample was obtained through interaction with
manipulative objects. A mean length of utterance was calculated using Brown’s rules
for counting morphemes (Owens, 1996). Approximately 87 utterances were obtained
and analyzed. The mean length of utterance was computed by taking the total
number of morphemes and dividing by the total number of utterances.

**Type Token Ratio**

Using the same conversation sample obtained for the mean length of
utterance, a type token ratio was performed. This procedure helped to determine
which grammatical structures were present in a given individual’s language (Templin,
1957). Specific word categories included: nouns, adjectives, adverbs, prepositions,
pronouns, conjunctions, negatives, articles, and wh-words.

**Hearing Screening and Tympanometry**

Hearing and middle ear screening procedures were performed and evaluated.
Pure tone screening began with the placement of headphones. The subject was
informed to respond when tone presentations were heard. The frequencies of 1000
Hz, 2000 Hz, and 4000 Hz were presented at 20 decibels. The use of tympanometry
was used to screen the status of the middle ear. During this procedure, a small probe
was placed in the ear canal. This test evaluated the function of the middle ear
mechanism using changes in air pressure through a small probe.
CHAPTER IV
Results and Discussion

Participant Biography

The information is this section has been provided by this subject’s parents.
Information outlined in this section will cover diagnosis times, growth development,
individualized family service plan and individualized education plan goals, individual
behavior characteristics, and education mainstreaming.

The mother of this subject reported a full-term pregnancy, but noted that
pregnancy growth did not progress normally between the seventh and ninth months.
The infant’s birth weight was 6 pounds 1 oz. He was born with a smaller than average
head circumference (exact measurements were not reported). His APGAR scores
were average. The infant was placed in the neonatal intensive care unit six hours
after birth when it became apparent that he was experiencing breathing difficulties.
During this time, many tests were performed but physicians were unable to determine
the source of his problems. Breathing irregularities continued for several weeks and
the family was sent home with an apnea monitor. As a newborn, this subject was
very sickly. He exhibited a very weak cry and experienced eating difficulties.

This subject, whom we will call T., was diagnosed in October of 1989 as
having Cornelia de Lange syndrome when he was six months old. The diagnosis was
made by a physician specializing in syndromes who, at the time, practiced in Minneapolis, Minnesota. The characteristics that assisted in making the diagnosis were small stature, low birth weight, prominent eyebrows, and small hands, small feet, unusual chest and nipples often observed in infants with BdLS. In addition, chromosomal testing was completed, revealing no abnormalities or differences.

At six months, he had not achieved any milestones such as rolling over or babbling. Other than growth and development, he had no other reported medical problems. Solid foods were started much later than normal developing children. When they were started, digestive difficulties were observed with mild reflux.

The subject’s family became involved in early intervention when T. was about 8 months old. At one year, the family became active in early intervention as well as private physical therapy, occupational therapy, and speech therapy. Goals at this time focused on feeding, fine motor skills, rolling, sitting, walking, and work on strength, and balance. Speech therapy worked on getting verbal output of any kind. Parents report that T. exhibited a great deal of frustration with his inability to convey his needs. T. was taught some basic sign language (eat, drink, more, play, sleep, help, out). T. first walked at 2 years 10 months.

Early speech patterns were reported as being very irregular. His first sounds were made around 3 ½ to 4 years of age, however first words were really not said until he was about 7 years old. His parents reported that his first words included no, go, mama, and daddy. Beyond that, his words were unintelligible.

At present, T. communicates his needs easily, but it is difficult for unfamiliar listeners to comprehend what he is saying. In addition, due to his cognitive delays,
the information he conveys is not always accurate. For example, if someone asks him his age he may say that he is “7” or “3” because he is unsure.

T. was placed on a drug called Clonidine at the age of 5 years for behavior concerns. His parents report that he desperately needed something, although they were reluctant to resort to medication to solve behavior problems. Both parents feel that this decision to use medication made a significant difference, when type and dosage were finally determined.

Sleep difficulties continued to be a problem issue. This continues to be a concern for his parents. Hyperactivity is a major side effect when his medication is not administered. His family observes great improvements in his learning with the use of Clonidine.

T.’s social behaviors are becoming less age-appropriate as he gets older. He is learning, but the gap between his peer’s behavior and his behavior is getting larger. His public behavior as a small child was not appropriate, however at the time it was socially acceptable. At age twelve, these behaviors are more evident and less socially acceptable. T. exhibits some “autistic-like” behaviors that include a preference for routine. His mother states that he has become more flexible in adapting to changes as he has gotten older. He collects magazines, books, and church directories. His mother reports that these behavior obsessions sometimes result in completely eliminating whichever ones he is into at that time (i.e. magazines). He seems to have an obsession with men driving.

His parents report that he does not have any peers at this point who want to spend time with him as opposed to when he was younger. T. has exhibited some self-
injurious behaviors (these were not specified), however these only occur when he is very frustrated.

T.’s parents report his most interesting behaviors are in his speech. These include questions and making comments repetitively. For example, when he exhibits an obsession with men driving, he may demonstrate patterns such as, “Daddy drive?” If his dad is not going to drive, he will repeat “When daddy drive?” “Daddy drive next time?”, “Next time daddy drive.” If he sees cars driven by a woman, he will comment by saying “Next time daddy drive.” He may make this comment six or seven times.

His speech started very late. In the past two years, speech therapy has been extremely helpful in correcting and developing more advanced speech patterns. His parents report his speech errors as difficult to identify, since they are familiar listeners. His phrases are often abbreviated and he tends to leave out words that aren’t necessary, although his parents report an improvement over the past year. For example, now instead of saying “Done now,” he might say “I’m done now.” His parents observe that he leaves out pronouns, adverbs, and many adjectives. If he is tired or frustrated, his language is minimal and difficult to comprehend.

In the classroom, T. does very well. He receives both resource and regular classroom services. He gets along well with his classmates. His regular education classmates have been with him for several years and enjoy helping him with his work. He requires a great deal of assistance in direction and focusing on the tasks at hand.

This subject’s activities revolve around his family member’s activities. He attended a camp for one week and was involved in a soccer league for kids with
special needs. He enjoys going places where lots of people he knows are present. His interests include music and anything dealing with cars. These include toy cars, car magazines, and seeing and riding in new vehicles. His family feels they would like T. to get involved in as many activities as possible, since that makes him happy. His mother currently works on a committee of family members and professionals who develop activities for “transition age” kids who have special needs.

At this time, self-care is a challenge. These self-care items include keeping himself clean, bathroom use, and dressing. His parents express a great concern for this area. His “autistic-like” behaviors are a challenge for his parents and even more so with others. His parents report that it is difficult to find caregivers and this leads to limited independence for his parents and family.

T. is very social. This is a distinct strength and motivates him to try things that are difficult. His parents aspire for T. to become increasingly independent and active. They want him to function well and as appropriately as possible so that he can continue to be involved in fun social activities. His family describes him as a “people person.”

The Cornelia de Lange Foundation has been a source of a wealth of information and assistance for this family. The family has attended one family conference approximately 4 years ago. They were able to meet other families as a result of attending.
Results

Peabody Picture Vocabulary Test-III

Scores for the PPVT-III will be reported in this section. The subject received a raw score of 71. The raw score was obtained by subtracting the individual’s total number of errors over his or her critical range from the ceiling item. This score was based on the assumption that all items below the basal set were correct and all items above the ceiling item were incorrect. These raw scores were then converted to normative scores. The subject received a standard score of 56 with a percentile rank of 0.2 with a stanine of 1. Based on the data for this receptive vocabulary test, his age equivalent was calculated at 5 years 5 months.

Receptive One-Word Picture Vocabulary Test

The scores for the ROWPVT will be reported in this section. When calculating the results of both the ROWPVT and the EOWPVT-R, the child’s raw score is the correct number of responses counting all responses below the basal level and ceiling levels.

Raw scores were statistically derived into standard errors of measurement, language ages, language standard scores, and percentile ranks. In addition, comparisons were made between the receptive and expressive vocabulary performances. These results are addressed in the discussion section. As Gardener (1985) states, the ROWPVT has been standardized so that the norms can be equivalent to those of the EOWPVT-R, therefore performance from one test can be compared directly to performance on the other test.
The subject received a raw score of 65. This score was obtained by calculating the number of correct responses. All responses below the basal level were counted as correct and added to the number of correct responses between the basal and ceiling levels. The raw score was then converted to a derived score. These derived scores are designed to indicate the individual’s relative standing in the normative sample and permit an assessment of his performance in reference to others. They also provide comparable measures that allow for comparison of the individual’s performance to other children of the same chronological age. The four types of derived scores are language age, language standard score, stanine, and percentile rank. This subject received a language age of 7 years 10 months, a language standard score of 70, a stanine of 1, and a percentile of 2. Again, these scores must be interpreted with caution. This is a test of general vocabulary and not of the child’s general abilities. These derived scores provide a means of comparing an individual’s performance to the specified normative group.

**Expressive One-Word Picture Vocabulary Test-Revised**

Scores for the EOWPVT-R are reported in this section. The subject received a raw score of 35. The raw score was obtained by determining the number of correct responses, counting all responses below the basal level as correct and adding this to the number of correct responses between the basal and ceiling levels. Since the raw score alone provides little information about the subject’s language expression, the raw score is converted to a derived score. These derived scores include an age equivalent score, a standard score, a scaled score, a percentile rank, and a stanine. For this particular test, the subject received scores well below average range in
comparison to his same age peers. The subject received an age equivalent of 4 years 7 months, a standard score <55, a scaled score of 1, a percentile rank of 0, and a stanine of 1. Again, these scores must be interpreted with caution. A more detailed interpretation of the differences in receptive and expressive language as well as the use of derived scores are further addressed in the discussion portion of this analysis.

Table 1. Standard Scores for the PPVT, ROWPVT, and EOWPVT-R

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Table 2. Age Equivalency Scores for the PPVT, ROWPVT, and EOWPVT-R

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Tests: PPVT, ROWPVT, EOWPVT-R
Bracken Basic Concept Scale-Revised

Results of the Bracken Basic Concept Scale-Revised were calculated in the following manner. These results are reported only for subtests 1-6. Subtests 1-6 are also identified as the School Readiness Scale (SRS). A total raw score of 60 was obtained for subtests 1-6. The SRS helps to determine the starting point for administration of subtests 7-11. Total derived scores cannot be determined without administration of the full test, however, this does not mean that useful information was not obtained. Subtests 1-6 yield specific information about the following concepts: colors, letters, numbers/counting, sizes, comparisons, and shapes. These items will be addressed further in the discussion section.

Mean Length of Utterance

Results for the MLU are presented in a full language transcription. This transcription depicted utterance length, the context of recorded utterances, and turn-taking skills with the examiner. A total of 87 utterances containing 248 morphemes were collected over a two-day period. The utterances contained a variety of word types. Collection of this sample took place within a play interaction where those present included the primary researcher, a research assistant, and the subject. Most of the utterances were collected as the child played with toy automobiles. The mean length of utterance has been computed by dividing the total number of morphemes by the total number of utterances. The child obtained an MLU of 2.9. It is important to note that this calculation is an average. This subject’s shortest utterance contained 2 morphemes while his longest contained 7. An MLU is considered by professionals in
the field to be a reliable predictor of the complexity of language expression in young English-speaking children.

According to Owens (1996), the MLU can estimate the stage in which the individual performs in terms of their language development. An MLU of 2.9 indicates that this subject functions at stage III of Brown's stages of language development. A typical child at stage III would be anywhere from 31 to 34 months of age. The primary language characteristic at stage II is sentence-form development. Since this subject's MLU is almost 3.0, function at stage IV is likely. A typical child at stage IV ranges in age from 35 to 40 months. The primary language characteristic at this stage is embedding of sentence elements. Specific word categories and sentence types found at this stage will be further discussed in the type token ratio analysis.

Type Token Ratio

A type token ratio reports word categories that include nouns, verbs, adjectives, adverbs, prepositions, pronouns, conjunctions, negatives, articles, and wh-words. A type token was calculated using 10 phrases extracted from the larger language sample of 87. All type token utterances were spoken and recorded consecutively. A calculation of vocabulary diversity defined which word classes the subject used frequently and which word classes he did not.

Brown's Grammatical Morphemes

An analysis of the conversation sample provided by the subject revealed which of Brown's 14 grammatical morphemes had developed and which had not. Of the 14 grammatical morphemes, this subject has developed 6. This evaluation
determines which grammatical morphemes the subject uses, the obligatory contexts, and the percentage of use. These include present progressive, in, regular plural, uncontractible copula, articles, and contractible copula.

**Hodson Test of Phonological Processes**

The Hodson Test of Phonological Processes revealed some errors in speech the subject produces. These processes include consonant sequence reduction errors, liquid /r/ and /l/ errors, gliding deficiencies, and some miscellaneous error patterns consisting of various substitutions and additions.

**Hearing and Middle Ear Screen**

Pure tone screening results reveal hearing within the normal range. This subject was able to hear frequencies at 1000 Hz, 2000 Hz, and 4000 Hz when presented at 20 decibels recorded. Results from tympanometry demonstrate a peak of .2, an ear canal volume of .5, and width of 175. These scores demonstrate a lack of concern for middle ear pathology or fluid. If concerns were present, this would have been documented in the interpretation of these test scores.

**Discussion**

**Peabody Picture Vocabulary Test-III**

The PPVT-III aims to evaluate the listening comprehension for the spoken word in standard English. This assessment tool was selected for it’s wide use in predicting this comprehension. The PPVT-III was also chosen because of the national standardization it has that was developed on a stratified sample of 2,725 persons. This sample consisted of 2,000 children and adolescents and 725 persons.
be interpreted as being a distinct strength for the individual. The subject was able to understand the testing procedures and accurately demonstrated his understanding of the test items.

The PPVT-III has an optional reliability confidence band that is worthy of discussion. This test is only an estimate of a person's true score or ability in the trait being measured. An individual's true score is never actually known because there is always some degree of measurement error. These errors occur because all human behavior varies from time to time. The standard error of measurement (SEM) is a statistic used to account for error effects in the interpretation of the individual's test scores. With a confidence band of 68%, the standard score units are calculated to be ±4. Therefore, his standard score ranges from 67 to 75, his percentile rank ranges from 1 to 5, his normal curve equivalent ranges from 4 to 15, and his age equivalent ranges from 5 years 1 month to 5 years 10 months.

It is important to consider these ranges. During the administration of this test, and the tests that follow, attention and distractibility were evident. It is not known whether this attention and distractibility factors are a characteristic of the syndrome, a characteristic of the subject's personality, characteristics of the testing environment, or the researcher. It is unlikely that distraction played a major role as the assessment was performed in a quiet room with few distractions.

Receptive One Word Picture Vocabulary Test

This test proved to be the highest indicator of performance in terms of the vocabulary skills of this subject. His behavior did not have to be modified during the
administration of this test. The subject was attentive and required no redirection.

Redirection played a large role in the other assessments administered.

Gardner (1985) notes that the user of the ROWPVT must understand the meaning of various derived scores. It is important to know that the behavior measured by this assessment tool is *receptive vocabulary*. It does not indicate or define the child’s general ability. Gardner (1985) also states that derived scores provide a way of comparing an individual’s performance to a defined norm group. Test performance is high or low depending on the scores of the norm group. In this case, a factor of a specified diagnosis is present, therefore, this particular individual’s performance is evaluated in a specified context and not in the context of a set standard. Tests such as these really act as a starting point for clinicians and professionals. They are interpreted more readily as a comparison of their own skills over time and over re-evaluation periods.

As in the PPVT-III, the SEM should also be considered for this test. For the raw scores obtained in the ROWPVT, a SEM of 3 is used. For standard scores an SEM of 5 is used. In consideration of SEM, this subject obtained a raw score range of 62 to 68 and a standard score range of 65 to 75 (68% confidence interval). According to the SEM, this subject’s language age ranges from 7 years 4 months to 8 years 4 months.

Expressive One Word Picture Vocabulary Test-Revised

The results of this test indicate that the subject has demonstrated lower expressive language abilities than his normal developing peers of the same chronological age. Although little has been documented, professionals who work
with this population suggest that expressive language skills of these individuals with BdLS are lower than their receptive skills. It is evident in this investigation.

Attention and distractibility may have interfered with the results of this test. Gardner suggests that behavior issues can have some effect of the test results. He notes the following behavioral characteristics to account for during testing sessions: distractibility, short attention span, difficulty in concentration, fear of failure, hyperactivity, hypoactivity, impulsivity, difficulty in understanding the direction and instructions, mannerisms peculiar to test taking, and being withdrawn.

An interesting factor noted by the researcher was the child’s ability to name specific items, but not groups or categories of items. For example, when a picture of fruit was presented, the subject pointed to each individual fruit item and named it. The same response was noted for clothing items. Due to this specific area of difficulty, a ceiling was obtained early in the evaluation.

Comparison of Receptive and Expressive Skills According to Formal Testing

With the use of both the Receptive and Expressive One Word assessments, it is important for the administrator to understand the meaning of derived scores. When comparing the results of these two testing instruments, a close comparison of standard scores and age equivalent scores can be made. The standard score obtained on the ROWPVT was 65 where the standard score on the EOWPVT-R was 35. A discrepancy is noted in the performance on these tests. Based on the scores of these tests, it is clear that his receptive language and vocabulary skills are higher than his expressive language and vocabulary skills.

Bracken Basic Concept Scale-Revised
The Bracken Basic Concept Scale-Revised would have yielded some worthwhile discussion with regard in which concepts this child has developed. Unfortunately, without reliability, a discussion of results is not beneficial.

**Hodson Test of Phonological Processes**

The researcher further evaluated the subject’s performance on the Hodson Test of Phonological Processes. Errors in the subject’s speech were at times both consistent and inconsistent.

This subject experienced some specific difficulties in the area of syllable reduction. All words sampled contained the appropriate presence of syllables, however some cluster reductions were noted. Hodson (1986) refers to this as consonant sequence reduction. This occurs when any consonant in a sequence is omitted. These sequences include all clusters/blends that are within syllable boundaries. For example, this subject’s response to the word *toothbrush* was documented with an omission of the /θ/ for the cluster /θbr/ his type of reduction is commonly evidenced by very young, phonologically normal children. Hodson (1986) also suggests that it is an extremely common phenomenon in utterances of highly unintelligible children of all ages. These reductions and difficulties with sequencing can affect phonemes that cross word boundaries. Assessment of this area demonstrated 7 instances where syllable reduction was evident for this child. This test contains 40 opportunities for reduction of consonant sequences.

This test also probes specific phoneme class deficiencies. Hodson (1986) claims that class deficiencies are scored whenever the class of phonemes being assessed is lacking in the child’s production either due to an omission or because of a
substitution from another class of phonemes. She notes that substitutions within a class are not designated as class deficiencies. One of these classes that was determined by the researcher to be in error was the liquid /l/ phoneme. Hodson (1986) suggests that when /l/ is omitted in a child’s production or when some other phoneme is substituted, the phoneme class is considered to be in error. This test evaluates 11 /l/ phonemes in the 50 assessment words. Three of these are prevocalic singletons, one as a word ending, and seven /l/-clusters. Of these 11 /l/ phonemes, the researcher determined 11 of the 11 to be in error. The phoneme /l/ was replaced by the /l/ in word ending positions (as in the word candle), /w/ in cluster positions (such as in the word slide), and /j/ (as in the word leaf) in prevocalic singleton positions.

Hodson (1986) states that most phonologically normal children produce prevocalic /l/ by age of 3 years, but that it is not uncommon for normally developing 4-year-olds to substitute a glide (i.e. /w/ or /j/). In addition, she notes that it is extremely common for normal children to vowelize postvocalic/syllabic /l/ (i.e. /ou/).

Another class deficiency is the liquid /r/. This subject consistently substituted /ou/ for /r/ in postvocalic positions (such as in the word star) and substituted /w/ for /r/ in prevocalic positions (as in the word rock).

Hodson (1986), typically considers /r/ to be one of the latest developing phonemes. She suggests that developmental phonology research indicates that most phonologically normal children begin producing the /r/ between 2 and 3 years of age. However, it is not uncommon to find that normally developing 4-year-olds to substitute glides for prevocalic /r/ and to substituting vowels for postvocalic/syllabic
"r/". Such is the case with the subject in this study. Typically, if a child exhibits multiple speech production errors, remediation of this phoneme will be targeted last.

The next category of deficiencies falls under miscellaneous error patterns. One of these such patterns is termed migration. Migration occurs when a phoneme has been transposed. This phenomenon is not a frequent occurrence, however, one episode of migration was noted during the collection of this sample (e.g. mask->/mæsk/). Hodson (1986) notes that the migration process sometimes overlaps with assimilation (when child produces a phoneme that is more like another phoneme target). This categorization is only used to determine error when that is the only way that a deviation can be explained. In this subject’s case, there are no other errors in the sample that can classify this transposition as a phonological process.

Only one incident of deaffrication occurred with the response of /ser/ in place of chair. Deaffrication occurs when an affricate target is changed to a continuant or a stop. Again, just one incident is not enough to classify this error as a phonological process. With a single administration of this test, it is difficult to determine whether the occurrence of this error is present all the time or just some of the time.

Palatalization refers to adding a palatal component to a non-palatal target phoneme. This error pattern is often confused with fronting (productions occurring at a more forward place of articulation). This was demonstrated only once when the subject said /soup/ for soup.

Voicing alterations are scored on this assessment when voicing is added to or deleted from the target phoneme. Hodson (1986) defines two types of voicing.
Prevocalic voicing (e.g. *page-* /beɪdʒ/) is more common than prevocalic devoicing (e.g., *boats-* /pəʊts/). This error factor does not typically affect intelligibility. In this assessment, the subject exhibited voice alteration error on three items. All trials were errors in prevocalic devoicing. Two of the trials included /p/ for /b/ substitutions, and one trial included an /f/ for /v/ substitution.

Another type of error discussed by Hodson (1986) is minimal places of articulation shifts. These shifts by themselves do not greatly reduce intelligibility or seem to affect a child’s academics. The analysis performed on this subject’s speech at the word level revealed substitutions of anterior stridents for interdental phonemes (e.g., /f/ for /θ/) on 4 of 4 trials.

Mean Length of Utterance

Owens (1996) suggests that language development and average utterance length correspond. Mean length of utterance is determined through an estimate of the average number of morphemes contained in given utterance sample. A morpheme is the smallest unit of meaning. A morpheme can be as large a word (i.e. *elephant*) or as small as the plural */s/* (i.e. *elephants*). He suggests that mean length of utterance is a reliable predictor of language development and relates well to age. It is important to note that Owens (1996) classifies MLU as a crude measure that is sensitive only to those language developments that increase utterance length. He suggests that beyond 4.0 morphemes per utterance, children typically increase their complexity as opposed to their length. He also suggests that major developments occur that characterize certain MLU phrases or stages. Brown (1973) has presented 5 stages that address characteristics of language development to the approximate age of children.
Stage I is typically characterized by single-word utterances and by the word-order rules of early multiword combinations. An average child at stage I is approximately 12-26 months old and has a MLU of 1.0-2.0. Stage II is characterized by the appearance of grammatical morphemes. An average child at this stage is approximately 27-30 months and has a MLU of 2.0-2.5. In stage III, the child exhibits simple sentence forms and begins to modify them to mirror more adult-like forms. An average child at this stage is approximately 31-34 months old with a MLU of 2.5-3.0. At stage IV, the child begins embedding phrases and clauses within a sentence. An average child at this stage is approximately 35-40 months with a MLU of 3.0-3.75. Stage V is characterized by conjoining or by compound sentences. An average child at this stage is approximately 41-46 months and has a MLU of 3.75-4.5.

According to the information discussed by Brown (1973), the subject in this investigation falls into Brown’s stage III with a MLU of 2.9. It is important to address stage II-IV in this case, since many of the subject’s language characteristics vary across stages. At stage II, Brown discusses the fourteen morphemes that develop. These morphemes are phonetically minimal forms and include phonemic additions or changes, such as the addition of an $s$. They receive only light vocal emphasis and belong to a limited class of constructions, as opposed to the larger number of nouns and verbs. These morphemes possess multiple phonological forms and can vary with the grammatical and phonetic properties of the words to which they are attached. For example is the $s$ in *cats* is voiceless where the $s$ dogs is pronounced with a /z/. In addition, the development of these morphemes is gradual. All fourteen morphemes typically emerge at stage II, but do not fully developed until later. These fourteen
morphemes include the present progressive –ing, the words *in* and *on*, regular plural (s), irregular past, possessives, uncontractible copula, articles, regular past (-ed), regular third person, irregular third-person, uncontractible auxiliary, contractible copula, and contractible auxiliary.

Morpheme analysis for this study revealed interesting findings. Based on the language sample collected, some of Brown's fourteen grammatical morphemes were found to be present, while others were completely absent. This subject was 100% effective in using both the plural (s) and the word *in*. Both of these morpheme groups develop between 27-33 months in an average developing child. This subject used articles correctly 11% of the time. Articles typically develop at 28-46 months in average children. Uncontractible copula was observed with correct usage with an accuracy of 7%. Brown notes this as appearing anywhere from 29-49 months. Uncontractible auxiliary morphemes were observed to be used correctly with an accuracy of 25%. According to Brown (1973) uncontractible auxiliary morphemes are one of the last fourteen to appear around 29-49 months. Present progressive and contractible auxiliary were observed as being present in some cases, but not used in the correct context.

This information is particularly interesting when considering that the remaining morphemes were not observed in the subject's language sample. These absent morphemes include the word *on*, irregular past, (i.e. *went*), possessive (i.e. Sara's), regular past (i.e. walked) and regular third-person (i.e. She *likes* me). In a comparison of this subject's morpheme development and that of average developing children, it would seem that this subject did not acquire these morphemes in the
typical order. Typical acquisition of these fourteen morphemes begin with present
progressive (-ing), In, on, and regular plural (-s) and are followed by the irregular past
(come, fell), possessive (‘s), uncontractible copula (verb to be as main verb), articles
(a, an, the), regular pas (-ed), regular third person (i.e. She hits.), and irregular third
person (i.e. does, has). The last of the fourteen to emerge are typically the
uncontractible auxiliary (i.e. He is.), contractible copula (i.e. the man’s big), and the
contractible auxiliary (i.e. Daddy’s drinking juice) In the sample collected from this
subject, not all morphemes have developed. Whether these morphemes will develop
on their own, develop with remediation, or develop at all is unknown.

Type Token Ratio

The type token ratio was developed by Templin (1957). The use of this type
of analysis is to determine vocabulary diversity and allows for the examination of the
relationship between the total number of different words used and the total number of
words used by this subject. The normative data for this analysis included children
between the ages of 3 and 8 years. An analysis was performed on 10 utterances
obtained from the entire language sample. A number was calculated by taking the
total number of words divided by the total number of different words. The raw score
received by this subject totaled .81. Templin (1957), suggests that a child obtaining a
raw score greater than .50 indicates a greater number of different words than is
typical for the total number of words. He suggests that a type-token ratio
significantly below .50 reflects a lack of vocabulary diversity.
This subject's type-token ratio alone indicates diverse vocabulary within his lexicon. However, when comparisons were made regarding means and standard deviations of different and total words, the results reveal some interesting findings.

Normative data for a type token ratio reveals a mean of 166.5 (standard deviation of 29.5) different words for a typical child whose chronological age is 8.0. Recorded verbal output of different words for the subject in this study was 23. This number is significantly low. It seems possible that this is due to his limited mean length of utterance. Normative data also reveals a mean of 378.8 (standard deviation of 80.9) total words for a typical child whose chronological age is 8.0. The recorded verbal output of total words for the subject in this study was 26.

One should interpret these scores with caution. Previous assessments have revealed age-equivalent scores lower than that of his same-age peers. However, when viewing the normative data for children whose chronological age is 3.0, the mean score for different words is 92.5 (standard deviation of 26.1) and a mean score for total words is 204.9 (standard deviation of 61.3). These scores demonstrate that his verbal word output number is lower than those sampled for the normative data.

The type token analysis divides words into ten function categories. These categories include nouns, verbs, adjectives, adverbs, prepositions, pronouns, conjunctions, negatives/affirmatives, articles, and wh-words. Although the subject in this investigation used a variety of word types, he used only one preposition, one negative/affirmative, and no conjunctions or articles in the 10-utterance sample collected. His speech seems to contain words having more concrete meaning. Words
that are more abstract in nature are deleted. These results suggest that the participant's speech might be classified as telegraphic in nature.
CHAPTER V

Summary

As research on Brachmann-de Lange syndrome continues, more information about cause and manifestations have the potential to be discovered. As this research is performed, more may be discovered in the area of speech and language. As more speech clinicians are able to work with this population, assessment procedures and therapy techniques and alternatives will become more clearly defined.

The assessment procedures used for this study did not provide an accurate comparison. It is difficult to provide these comparisons since the assessments used were standardized and used normative samples. As one may assume, when evaluating specific skills and/or abilities (specifically in the area of speech and language) with a population requiring special needs and services, it is difficult to get results that confirm comparative scores with other children with special needs. An alternative approach to assessment for these children is often utilized. Interpretation usually requires a comparison to the individual’s own abilities. Which this in careful consideration, the results of this study indicate the speech and language abilities of one child with Brachmann-de Lange syndrome. This is not to say that these results do not yield useful information with regard to speech and language abilities with Brachmann-de Lange syndrome. Instead, it offers a broad picture of these specific skills in one individual who may be mildly affected with BdLS.
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AY CARUMBA!: THE SIMPSONS. A TRANSNATIONAL TEXT TO A TRANSNATIONAL AUDIENCE.

by

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(Chairperson)

[Signature]

This thesis meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

Dean of the Graduate School

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TABLE OF CONTENTS

ABSTRACT...............................................................................................................vi

CHAPTER

I INTRODUCTION......................................................................................................1

II WHO ARE THE SIMPSONS?..............................................................................7
    The Characters.................................................................................................9
    The Message...................................................................................................12
    Why A Transnational Audience?.................................................................15

III TRANSNATIONAL INTERPRETIVE COMMUNITIES............................................19
    Interpretive Communities.............................................................................20
    Transnational Interpretation......................................................................22
    The Transnational Message.......................................................................25
    The Non-English Speaking World.............................................................30
    Christianity.................................................................................................31

IV CYBERSPACE COMMUNITIES............................................................................37
    No Time or Place..........................................................................................38
    Internet Communities..................................................................................41
ABSTRACT

This paper discusses the popular U.S. cartoon-sitcom *The Simpsons* and the vast global audience the show has reached in its 12 years on air. First, it clarifies the message the creator, Matt Groening, and the writers are conveying: a left wing American ideology. This message is sent to a variety of communities around the globe. To understand the relationship between the show as a media text and its audience, it needs to be studied in terms of transnational interpretive communities. Studying the audience as transnational, allows all communities, on a large and a small-scale, to be analyzed. By using the concept of interpretive communities to discover how several existing groups have interpreted the show, the paper then explores an established Internet community, alt.tv.simpsons. The newsgroup is compared and contrasted to the fundamentals of interpretive communities established earlier in the paper. The paper concludes by stating that when interpreting a media text, a transnational Internet community uses a hybridization process. Further discussion about the relatively new concept of online culture, and other Simpsons Internet groups in particular, is suggested for further research.
CHAPTER I
INTRODUCTION

Matt Groening’s cartoon, The Simpsons, started its life on The Tracy Ullman Show in 1987 as a series of crudely drawn thirty-second shorts. The current incarnation of the program was commissioned by The Twentieth Century Fox Network and launched in December of 1989. It was the first prime time cartoon since the sixties. The Simpsons at first was compared with animation like The Flintstones and The Jetsons, but soon the critics could find no clear comparison and the show was described as "truly original" (Rhodes, 1990, p.38). More than 12 years later The Simpsons has proved to be just as popular now as it was at its inception. It is set in Springfield “Anytown USA” and over time the five members of the Simpson family have helped Rupert Murdoch’s Fox grow into one of the largest networks in America. While the show is very entertaining, and Groening himself has said he felt "entertainment was the key" (Angell, 1993, p.14), it also challenges the diverse social, political, sexual and aesthetic norms of American culture.

The Simpsons success does not stop in America; the fast paced ironic humor appeals to a worldwide audience and has now transcended physical time and space to find a global fan base in cyberspace. Academic scholars, media critics and worldwide fans have themselves dissected the message the writers and creators are attempting to send. However, in this thesis I am concerned with the audience itself -- how the fans have taken the show and given it their own interpretation and created their own communities around
the show. In order to do this, I will need to explore the intent of the writers to some extent, but the emphasis will be to understand this new breed of transnational audience and what new interpretations it brings to the text. I will draw on literature about interpretive communities, the ideas of transnational borders and global effect, and finally analyze the audiences found on Internet fan sites.

In the second chapter I will introduce the show and attempt to explore what the writers strive to convey through the text and images. The ideology of The Simpsons stems back to the creator himself, Matt Groening, whose left-wing views were clearly delineated in his work as a cartoonist with the Life in Hell rabbits he drew for many years. The writers have subsequently kept up this tradition and attempt to challenge and find fault with many American institutions. Anthony Giddens (1990) describes these institutions as "expert systems" and suggests that as a society these are the things we put our faith into without fully understanding how they work (p. 211). In The Simpsons, these institutions include the medical system, education, religion and even television itself. John Tomlinson (1999) suggests that when a show questions these systems it will then become radical and political in the eyes of the viewer.

The Simpsons is broadcast to more than 60 countries. Defining community borders has become a virtually impossible task with the advances in satellite technology. To a broadcast satellite a human border is non-existent, meaning that many countries receive programming freely. The Murdoch Empire controls a large percentage of broadcast satellites worldwide, which makes it very easy to distribute its programs. Rupert Murdoch himself is a transnational phenomenon holding multiple citizenships and several passports. During the making of one episode, the show passes through six
counties before finally returning to the United States, meaning the creation process is also multi-national.

In chapter three, I examine what it means to be an audience member and look at how an audience interprets the show's text and imagery from within its own community setting. Stanley Fish (1980) showed how different communities interpret a text according to their common understanding. To reinforce this notion, Fry and Fry (1983) suggested "Texts are made meaningful through a process of audience signification" (p. 448). By analyzing The Simpsons from the perspective of different established communities we can get a sense of how the message is interpreted. I will look at established audience groups and how they have received the show. Another aspect explored in chapter three is "language" and the interpretation of signs. In chapter two, I discuss how The Simpsons has become transnational, and this will be taken one step further by examining how an audience can be transnational. This chapter will illustrate how it is possible to define our own borders and assess the audience within.

Taking a nation as a specific audience is one way of analyzing a community's reaction. It is beneficial to analyze a set of nations because it will also help establish why the show is popular in so many nations worldwide. I am limited to studying the reactions in the English-speaking world and to studying English literature about the experiences of non-English speaking nations. However, studying such countries as Canada, England, and Australia can shed some light on the effect at a national level. To analyze the effect I refer to Imagined Communities: Reflections on the Origin and Spread of Nationalism, by Benedict Anderson (1991), which suggests that the three main aspects in the making of a community are language and religion, patriotism (often made up of patriotic symbols
such as the flag), and technology. Anderson also suggests that the notion of a community
is imagined and that it is a human one.

Another way to distinguish an audience group is by its religion. I look at the
Christian audience group to demonstrate how a community with a specific focus assesses
the show's text and imagery. These analyses illustrate the existing research on
interpretive communities identified at the start of the chapter.

At this juncture, I have established three important aspects of The Simpsons'
audience: the intent of the writers and creators through the text and images, how an
interpretive community will understand a message by drawing on their experiences, and
how to look at The Simpsons from the perspective of a nation. With these points in mind
I then assess the transnational fan base of the show.

Viewers of The Simpsons' include a wide range of interpretive communities,
some of which interact in cyberspace. The Internet has given us a multi-user
communication device which, unlike a two-way device (such as the telephone) or a one-
way device (such as television), is a form of media that allows a group of individuals to
interact. In the world of cyberspace there is an opportunity to build and develop many
new communities. These groups are constructed primarily of dedicated fans. Their love
of the show and desire to discuss it is the only reason this array of people comes together.
That a nation is built on principles, finding unity in patriotism, language and technology
has been argued in chapter three. The task is to see whether the basic principles that exist
in real world interpretive communities are also apparent in cyberspace.

The Internet news group I used to explore the similarities to a real world
interpretive community is alt.tv.simpsons. This group gets over one hundred messages a
day and was established shortly after Usenet came into being. The group is available to most Internet users and English is dominant, but not the sole language. The news group uses a bulletin board system known as threads, which means conversations can occur over several days. I examined a month's worth of data from the online archives, as this is a sufficient amount of time to get complete conversations. I then analyzed the newsgroup using existing research on Internet groups as a foundation. These included the works of Turkle (1996), Giese (1998), and Lull (1982).

The findings from the study of this Internet group show that it has a strong sense of community, which involves a hierarchical structure, dedication from members, and a sense of acceptance in the group. Although posting messages is a simple process, becoming a member is not an easy task in this news group. The sense of a community is clear. Even though there is considerable evidence to suggest that there are posters from more than ten countries, the American ideology portrayed in The Simpsons itself is still evident, that of a left-wing radical approach. In this newsgroup an individual member's nationality is, for the most part, irrelevant, but their knowledge about The Simpsons cannot be. A member's knowledge of U.S. culture, in which the show's characters live, is tested often in this community, and those who do not pass such tests are ostracized from the group.

There are many questions still unanswered in this thesis. For further research I suggest that other web sites be explored to determine if there is a possibility that a web community can survive without needing to assume a national culture. Perhaps in other cartoon sitcoms where the subject matter is less critical of U.S. culture there can be a milieu that doesn't demand such rigid structures. Exploring other cartoon sitcom texts
and communities, such as King of the Hill, or even Matt Groening’s most recent creation Futurama would help to compare and contrast the rules found in alt.tv.simpsons, and to determine if these rules only apply to The Simpsons fan world. Further studies on The Simpsons and non-English speaking fan sites may help determine if the culture reflected in alt.tv.simpsons is due to the similarity in culture between English speaking countries.

This thesis gives good grounding for further transnational audience studies. It also establishes the various aspects needed to fully understand the process when looking at an interpretive community. In the conclusion I draw on literature about interpretive communities, the ideas of transnational borders and global effect, and analyze the transnational audiences found on Internet fan sites.
CHAPTER II

WHO ARE THE SIMPSONS?

Matt Groening, a well-established comic strip writer was challenged to create a series of short cartoons for The Tracy Ullman Show in 1987. He was widely recognized for his Life in Hell comic strip, which was perceived to have a left wing, sinister approach. In December of 1989, Twentieth Century Fox Network launched The Simpsons as a fully animated prime-time sitcom. No network had succeeded with a prime-time cartoon since the Flintstones in the 1960's (Rhodes, 1990, p. 38). The show has now been running for more than 12 years and remains popular in over 60 countries.

Although seemingly original in its ideas, different elements of the show could be compared to other successful TV shows and structures in society. The Flintstones and The Jetsons are two of the more obvious comparisons. Yet, conversely, the show is similar to that of other live-action sitcoms, such as Roseanne, and more importantly The Cosby Show. The Cosby Show was once the most successful sitcom on American television and it has a well-established ethos, promoting middle-class family values; it had saved the sitcom genre from collapse in the United States (Rosenkoetter, 1999; Jordan, 1995).

The Simpsons creators, Matt Groening in particular, followed very different social and narrative conventions than those of The Cosby Show. The characters in The Simpsons live in a recognizable setting that, although it doesn’t exactly reproduce reality, does reproduce the dominant social view of our sense of reality. The Simpsons is an
anarchic animated cartoon that celebrates a dysfunctional family. It shows an ideology that is in direct contradiction with, and critical of The Cosby Show's more conservative position (T. O'Sullivan, lecture September, 1999). Since the birth of the show Fox and other networks have launched similar shows in the hope of following The Simpsons' success. Futurama, and more recently Malcolm in the Middle, have been sold to the English-speaking world as Simpsons-like programs. Malcolm in the Middle is directly based on The Simpsons and many similarities can be seen when looking at the individual characters (Martin, 2000; McDowell, 2000). In Brandweek, in an interview with the show's executive producer the similarities are stated.

Malcolm's ties to The Simpsons extend far beyond the surface. The Simpsons takes a very bizarre cartoon world and makes it more emotionally real. Malcolm turns that equation on its head. The world is pretty normal, but emotionally things get a bit surreal.

(Frutkin, 2000, p.54)

The fact that The Simpsons are YASPs (Yellow Anglo-Saxon Protestants) is hardly coincidental. The Simpsons was used to launch many of Murdoch's new channels worldwide, but mainly to help increase the popularity of his U.S. network, Fox. The characters on The Simpsons were designed to reflect potential U.S. Fox viewers.

It must be noted again that the show reflects Groening's ideology. Because the word ideology is itself a controversial notion, for the purpose of this paper it is provisionally defined as sets of ideals, beliefs, attitudes, language and rituals. As Kellner (1987) explains:

I propose that we view ideology as a synthesis of concepts, images, theories, stories and myths that can take rational systematic form. (Kellner, 1987, np)
The Simpsons has a strong left-wing bent. When conservative causes are presented, they are done so in a tongue-in-cheek fashion. For example, in one episode a cash register freezes briefly, displaying the ironic message "NRA4EVER" (The Simpsons 138th Episode Spectacular, 1995, December 3, Fox). Several major figures and organizations in society have criticized The Simpsons. Joseph Pitts, a conservative Pennsylvania Republican, recently blamed Homer (the father in The Simpsons) and his ilk for contributing to the decline of fatherhood in America. One of the most noted critics was U.S. president George Bush senior, who lambasted The Simpsons in a speech to religious broadcasters and repeated this in his 1992 State of the Union Address, where he said that what was needed was a nation closer to The Waltons than The Simpsons. Groening had his characters respond to this attack two days later by saying "Hey, we’re just like the Waltons. We’re praying for an end to the depression too" (1992, January 30, Fox).

The Characters

At the center of the show is the Simpson family, who embrace a particular white ideological position. (Groening designed them in yellow so they would stand out when Americans are surfing the dozens of channels on their TV’s.) All the debates and discourses that are placed between the characters serve to highlight this position. The support characters, like a Greek chorus, are again an embodiment of the cosmopolitan American culture and hierarchy of American society. The Simpsons hometown reflects the American class system that marginalizes and decides who can be successful on the basis of well-established conservative principles. Groening modeled the various Simpson family members on his own parents and his sisters (Olsen, 2000, para. 5).
Marge Simpson, (wife, gossiper, shopper, the more intelligent parent in the Simpson household) is devoted in all her roles. She is the "perfect model" of the housewife and can be compared to people such as Ma from The Waltons or Mrs. Cunningham from Happy Days. On the other hand she is a clever, inventive woman who has been an artist, police officer, leader of a boycott against TV violence and a pretzel franchisee. She has to think for the family, organize their lives and her own, and remarkably, she seldom cracks under pressure.

Lisa Simpson, (saxophone playing, highly intelligent elder daughter of the family) once summed up her ambitions and goals this way:

Well, I'm going to be a famous jazz musician. I've got it all figured out. I'll be unappreciated in my own country, but my gutsy blues stylings will electrify the French. I'll avoid the horrors of drug abuse, but I do plan to have several torrid love affairs. And I may or may not die young, I haven't decided. (Moaning Lisa, 1990, February 11). Fox

Sadly it is obvious that this remarkably intelligent girl will eventually become her mother. This is the world The Simpsons live in, a male dominated world where the woman's place is in the home as wife and mother. Lisa has had many adventures and acts as the thought provoker for important issues during family crises in countless episodes.

Maggie Simpson, the baby who's name Homer can never remember, has a bright future. At the age of one she can already spell out E=MC2 with toy building blocks. She has led revolutions in search of her pacifier and already has an archenemy in the form of Gerald, the baby with one continuous eyebrow.

The Simpsons is trying to quietly subvert and yet use the traditional models of motherhood and other feminine archetypes common in American
sitcoms. The female characters are critiquing the role of women in the home and women’s aspirations to a social position. The writers do this by examining Lisa and Marge’s neglected and marginalized gifts and qualities, but always return these outstanding women to a subservient role. It is Homer-like buffoons who are at the center of events, or the attention is given to dysfunctional children like Bart. The females are strong characters who have been forced into traditional roles, satirizing previous American programming which has not included and embraced women in its power relations and social constructs.

Bart Simpson was included in Time magazine’s “List of the top 100 key cultural and influential figures of the twentieth century,” side by side with such outstanding people as Picasso, T.S. Eliot, James Joyce, Frank Sinatra, Bob Dylan and The Beatles (List of the top, 1999, para. 1). Bart was the main focus of the show originally; he is someone who is not interested in education and refuses to try it; he is intrinsically a failure who claims to be an underachiever and proud of it. It was this disobedient prankster who appealed to early audiences. His disregard for authority figures, questioning all things grown-up, and his general sense of fun was the show’s original recipe. However, as the seasons passed, Homer has become the more popular character, giving an element of comedy that is key to the workings of the Simpson household.

Homer J. Simpson is the loveable buffoon and head of the Simpson household. He is a father to three, a husband, an employee of the nuclear power plant, and a friend to many unusual Springfielders. Homer is resigned to his unfulfilling job as a safety inspector in the comically unsafe power plant. He sees it as his stereotypical role in his
stereotypical family. Homer has broken away from his mundane life more than once, spending time as an astronaut, a monorail conductor, university student and night schoolteacher along with many other vocations. Yet, he always returns to his job and only occasionally complains. Ed Bishop made this comment on the characters in the show:

Homer and Marge will never get beyond their debts and the middle-class values they actually hate. Lisa will grow up and marry someone like her father, never opening up the poet inside her. Bart will likely die in a drag-racing accident. Yet, though there's angst and even self-pity in these characters, they are not defeated. Their awareness of their limitations and their struggle against them are a rare combination for television sit-coms.

(Bishop, 1992, para. 3)

Bishop firmly believes and eloquently makes the point that The Simpsons is revolutionary, mostly due to the struggle of the characters with their average lives to which there will be no happy ending.

The Message

In addition to Matt Groening's input, the show's American broadcaster, the Fox Television Network, shares responsibility for twisting the traditional narrative style. The network is often thought to be aiming at the lowest common denominator in terms of the country's viewers (to say nothing of the rest of Rupert Murdoch's empire, including its UK broadcaster Sky One). The relatively new channel has had to broadcast conflicting programs from the conservative and liberal perspectives so as to appear different and original when competing with the other networks. John T. Caldwell (1995) describes this marketing strategy as "counter-programming." In his book Televisuality: Styles, Crisis, and Authority in American Television, he describes Fox's strategy of attack on the other networks.
Having successfully used The Simpsons to counter-program the nationally dominant Cosby Show in the late 1980s, Fox premised its entire 1993 – 1994 season on a systematic strategy of stylistic counter-programming against many of television’s dominant shows such as America’s Most Wanted against Roseanne, and In Living Color against Seinfeld. (Caldwell, 1995, p.123)

The creators felt that the impact and popularity of the program would not be as great if average Americans did not feel that it reflected their own lives (Cadwell, 1995). The fact that The Simpsons rivaled The Cosby Show also reflects people’s perceptions of sitcoms’ realism. The perfection of the Cosby family’s lives was certainly envied by the American people who in some cases strived to be like that family, but what Fox wanted was to devise a show that gave a more realistic message about American life.

In chapter three’s analysis of The Simpsons’ appeal to audiences in other countries, it becomes clear that the show’s global success is also due to this resonance of the characters’ lives with the audiences’. The people of Springfield are faced with problems that are relevant to most societies and could be classified as universal. Therefore, the globalization of abstract systems creates opportunities for individuals, as well as crises in which they constantly have to remake their own lives and identities (Giddens, 1990, p. 112).

The issues on the show are typically global, but they are viewed from an American perspective. There is little doubt that other countries, when viewing the show, will interpret the messages differently. However, for an individual audience member, the more one’s knowledge of Western popular culture grows, the more jokes and scenarios one is likely to understand.
Giddens (1990) states that there has to be a sense of trust in a modern society. He explains in his book, The Consequences of Modernity, about the prior knowledge a passenger would require in order to fulfill the task of getting on a plane.

A large amount of "surrounding" knowledge is required to be able to get on the plane, and this is the knowledge that has been filtered back from expert systems to lay discourse and action. (Giddens, 1990, p. 112)

John Tomlinson (1999), in his book Globalization and Culture, explored this aspect of trust, stating that "we are only able to operate socially, to 'take things for granted' without apprehension about the most routine activity" (p. 57).

The surrounding knowledge an individual needs to exist in society is also culturally specific. Globalization and technology have created a new sense of trust in society. Historically, people put their trust in nature; they trusted the sun to rise and set without knowledge of how this occurred. Currently, people now trust social systems, such as medicine, without understanding why the systems are effective (Giddens, 1990, p. 25-27). The Simpsons not only requires its audiences to have this prior knowledge but also demands a high standard of esoteric knowledge in order to understand every concept in a show. The writers frequently challenge these expert systems in which we put our trust. To understand how a transnational audience receives these messages one must first understand the text and the intended message, and one can then look to interpretations by individual communities.

Why A Transnational Audience?

The term “transnational” was conceived to give more freedom when describing an area or market (Martin-Barbero, 1993, pp. 163-171). During the last century media and mass communication made defining a border increasingly problematic. Traditionally,
when a commercial enterprise crossed an established nation's border it became international. This is still true for many ventures. However, technology has made it more difficult to define those national borders. For example, satellite broadcasts cannot be restricted by physical borders. In addition, many communities today exist across borders, or outside of any borders at all. The term "transnational" addresses such issues; it allows you to set and define your own parameters, whether you are a small group or a large multi-national corporation (Sreberney-Mohammadi, Winseck, McKenna, & Boyd-Barrett, 1997; Hannerz, 1989, p. 212).

The proliferation of mass media in the last century has stimulated research on the effect of the messages sent to the mass audience. Broadcasting a show can often be multinational, international, or on a smaller local level, community specific. When studying a show such as The Simpsons, which can be viewed on each of these levels, it is important to define an audience in a transnational way. The term no longer simply pertains to commercial concerns, but can be a good way of studying the message and the reception of the message by the defined audience.

Transnational communicative interactions are not limited to commercial concerns. Politics and actions by non-governmental organizations (NGO's) and governments alike are increasingly shaped by the use of communication technologies and a transnational flow of information. (Sreberney-Mohammadi, Winseck, McKenna, & Boyd-Barrett, 1997, p. xv)

One can therefore use the idea of transnational borders (self defined parameters between which information can flow) to define communities when analyzing The Simpsons' audience. This will be examined further in chapter three.
The making of the show is transnational in nature. The media empire created by Rupert Murdoch has quickly become one of the most powerful the modern world has seen. He was born in Australia and currently holds U.S., British and Australian citizenship, making him an international phenomenon. His media empire has expanded further than Fox, which broadcasts in the U.S. and Canada. (The Simpsons was a key factor in the growth of the network). Sky TV, launched in the early 90’s has become the market leader in satellite home entertainment in the U.K. Sky is also leading the current market in the new generation of digital TV in the form of Sky Digital. Murdoch bought large shares of B-SKY-B in the mid-90s, giving him a large percentage of total broadcasting in the UK. Another branch of Sky, known as Foxtel in Australia and New Zealand, has made him the market leader in satellite communication in Oceania (T. O’Sullivan, lecture September, 1999).

Clearly, there is good reason that all programs produced by Fox be produced for a transnational market. It is easy to transfer shows within the existing Murdoch Empire; this is why such a diverse market has been exposed to The Simpsons. Therefore the Murdoch Empire has to be defined using transnational borders. Not only does the empire encompass whole nations, but it also has the capability to accommodate local scheduling in its network. Murdoch has satellite technology that broadcasts to a number of countries that have enacted laws that make viewing his programming illegal. Therefore there is an additional audience group in his empire, those who watch illegally.

The show’s vast, diverse audience is not the only reason that The Simpsons can be classified as truly transnational. The animation for the original shorts (on The Tracy Ullman Show) were drawn and colored in the United States, mainly by Groening. When
the decision was made to make the show into a fully animated series, the animation was subcontracted to a company in Japan, which currently produces many of the Japanese cartoons airing in the United States, (e.g., Pokemon). As the popularity of Japanese cartoons increased so did the price, thus a new location was found in South Korea (Rhodes, 1990). The show has experienced a total of five major locality changes in animation, and is currently being drawn in the Philippines. Fans are able to spot the changes in animation, which have become less crude with each locality change.

Completing an episode of The Simpsons is a process that takes four months, during which it is passed to six different countries before finally returning to the United States. Clearly, this is a transnational process.

Since societies were formed, exchanges of culture have occurred through wars, trade and migration. Today we recognize that through the advances in technology and media, globalization is enhanced and exposure to other ways of life is more common and less complex. The United States is the biggest exporter of television programming worldwide, and many studies have looked into the effect of the exposure to American culture through this medium on other communities. The Simpsons is one of the most successful transnational shows produced over the last decade and its impact thus far has been vast.

It has been established that The Simpsons is parodying American life, and the writers hope that U.S. citizens can empathize with this. The show has found a worldwide following in more than 60 countries. A question is then raised: if the American parody and ideology is a factor in the shows' success in the U.S., does this mean all other countries where The Simpsons has achieved high ratings have subsequently adopted a
similar culture? The idea that a country will change into the culture it is exposed to is a simplistic one, as will be discussed in chapter three.

There are many elements to take into consideration as a television program becomes transnational and defines its own borders. The creation of the show can be explained as transnational; however, the audience also has indefinable boundaries due to technological advances. Ulf Hannerz (1989) suggests in his book, *Public Culture*, that defining the community can be difficult but "at least as problematic is the sense that people make of the transnational culture flow" (p. 71). Although it is becoming progressively easier to broadcast outside of a nation’s borders, thanks to advancements in satellite and digital communication and in the world of cyberspace, the meaning any audience member makes is becoming harder to interpret.

To fully comprehend the transnational audience's interpretation of *The Simpsons* one must first define the audience by establishing what community they belong to. There could be several communities for any one audience member, as it is a transnational show. However, exploring the audience as members of an interpretive community will help us develop an understanding of how the final interpretation is formed. We have touched on what Groening and the writers are trying to achieve; in the next chapter we will explore how some individual communities have interpreted the show as text.
CHAPTER III

TRANSNATIONAL INTERPRETIVE COMMUNITIES

The Simpsons is designed by Matt Groening, whose liberal view is demonstrable in his works, including the Life in Hell comic strip. The Simpsons is also influenced by its current writers and producers: the Fox network. Having establishing that The Simpsons is a transnational text, with the show seen in more than 60 countries, we will now explore the idea of interpretive communities, and examine what is involved in the interpretation of transnational communities.

When studying the interpretation of any media text it is important to understand the audience that is doing the interpreting. Generalizations about an audience are unacceptable when studying any aspect of the communication of a media message. No culture is made up of one isolated code. Even the most painstakingly defined rules of a community can be interpreted differently by individual members of the group. When looking at cultural codes within a society the basic categories of food, clothing, language, and objects are evident, but interpreting these categories is more complex (Uspensky et al., 1973). However, even when we refer to interpretation as a "flow of meaning," we must keep in mind the uncertainties built into the communicative process (Hannerz, 1989, p. 71). Therefore, when studying texts or messages, communication scholars often look at a specific interpretive community.

The audience for The Simpsons is vast, and hundreds of separate communities exist globally. Understanding the audience is important in many areas of communication,
broadcasting is one of the most researched. However, all communicators of media messages, no matter what form or how complex, must aim to get the desired message to fit into the common experience of the intended interpreters (Houson, Childers, & Heckler, 1987). Chapter two explored some of the motivation behind the writers and creators of the show, in particular Matt Groening. However, a writer who is attempting to convey a message to such a huge audience tries to make it fit it into the common experience of all viewers. This is an impossible task that leaves individual fans and the communities they belong to responsible for the interpretation of the message.

Interpretive Communities

Timothy Graeff (1997) researched interpretive communities from an advertising perspective. He proposes "a more subjective view... Within this view, consumers comprehend product information by inferring personal relevant meanings about product information" (p. 64). The research of Stanley Fish (1980) shows how an audience member interprets a given text. His work concluded that the meaning is found in the reader or receiver of the text. Fry and Fry (1983) suggested, "Texts are made meaningful through a process of audience signification" (p. 448).

However, Fish (1980) also noted that interpretive communities interact and find their own common realities and meanings that they then apply to the text. So it is not necessarily solely the individual's interpretation but rather a mix of the personal and socially imprinted conclusions that produce the final understanding. Glassie (1991) explained that although "personal relevant meanings" are important, there is a greater concept of the community as one united interpretive audience. "The collection is our key
expressive mode. Others make up the parts, but we make the whole" (Glassie, 1991, p. 264).

Fiske and Hartly (1978) suggested that television is simply an extension of language spoken within the community, which "is itself subject to many of the rules that have been shown to apply to language" (p. 16). It is commonly believed that communication can be primarily defined as text-based (Moriarty, 1996). However, when analyzing an audience's interpretation of media, this belief does not take into consideration the requirement for visual interpretation. The Simpsons is a cartoon and so the visual imagery involved is equally as important in viewing, and many messages are found in the drawings and not in the spoken words. Media in general is becoming more reliant on visual aids to convey a message; I will refer to these visual and aesthetic interpretations as signs.

Relationships between signs and their meanings are equally as important as those in written or spoken text (Anderson, 1993). A sign by definition is "something that is interpreted" (Eco, 1986, p. 15). Peirce (1991) explained that interpretation occurs when a word or image stands for (in the mind of the interpreter) something else, and that the process is difficult to analyze. If a researcher is not part of an interpretive community it becomes impossible to fully understand its interpretation of a sign or text. Peirce (1991) also believed strongly in social learning, offering this as an explanation to most social structures and beliefs (pp. 255-257). A researcher must either belong to the community or at least do sufficient historical research to understand the origin of its beliefs. As a researcher, I am also an audience member and fan of The Simpsons; this should not be ignored in any analysis but instead is required for a thorough analysis of any data.
Transnational Interpretation

Benedict Anderson (1991) explains in his book *Imagined Communities: Reflections on the Origin and Spread of Nationalism* that a community is entirely artificial. He explains that "imagined communities" are created of basic elements, language and religion, technology, and patriotism (Anderson, 1991, p3-7, 37-46). This not only pertains to large, formal groups such as nations, but to all communities, even those with no real sense of place such as those found on the Internet or a teleconferencing board of directors (Seton-Watson, 1977; Anderson, 1991). Each example can be defined as a community but each is very differently constructed.

When an exchange of information through media text and signs occurs from community to community, the borders of that community are not easily defined by such familiar terms as societies or nations. Instead of an international exchange of message (from one nation to another) or a societal exchange (from one society to another), the exchange is transnational, from one defined community to another. In *The Simpsons*, the exchange of information is transnational in many ways. It is programming that originates in the United States, but it is sent to many other nations. It is produced by Fox, which can be classified as a large corporate community, but which is made up of many smaller broadcasters and in some cases governmental distributors. Fox distributes the program to hundreds of U.S. affiliates, each of which holds its own community group. These are only some examples of how the exchange of programs such as *The Simpsons* is more correctly viewed as transnational.
Martin Shaw (1994) explains that there is a misconception about how audiences receive text that originates from a different culture. Such audiences do not simply copy the text.

Global society should be understood not as a social system but as a field of social relations in which many specific systems have formed – some of them genuinely global, others incipiently so, and others still restricted to national or local contexts. (Shaw, 1994, p. 10)

There is a degree to which people's lives will be affected, but the new information will be integrated at a number of levels and at different rates. A researcher must ask many questions when studying a transnational exchange of media text, including whether the new or local community appreciates the culture portrayed in the imported media, and whether there is a real understanding of the language and symbols used (Worth, 1981).

Intertextuality is one way of looking at a transnational text. It suggests a layering effect, where one interpretation is added to another to make up a new combined meaning (Merriam, 1975; Sherzer & Sherzer, 1979). Thomas (1991) gives three words that help categorize the effect of a transnational text's interpretation: assimilation, appropriation, and syncretism (p. 67).

Assimilation refers to the basic passing of a sign or text from one culture to another. In this case the sign or textual meaning is totally foreign to the receiving community and therefore the meaning is taken literally from the original culture. Often when a media message is given to a huge audience there will be small communities who have never been exposed to the culture portrayed within it and so will accept the given meaning as the final definition. Appropriation occurs when a sign that is familiar to one community is given to a new community that finds a new and different interpretation from the original. Finally syncretism is the integration of a sign, or a joint creation of a
new set of meanings. This is similar to the concept of hybridization, the combination of two or more elements to create a new mixture (Giddens, 1990).

A researcher who uses these categories to analyze a community’s interpretation of a text or sign must bear in mind the following: The understanding of a text may not necessarily have a direct effect on a community and any media message may be disregarded as irrelevant to a particular community. Although many scholars have suggested that interpretation is a process of association with learned behavior, Schudson (1989) points out that retrievability does not mean incorporation (p. 98). In the case of The Simpsons this could mean a complete understanding of the text by a new community but a disregard for it because it is so far from its own culture.

A transnational audience is one where community boundaries are crossed. In the case of new media this becomes more apparent. The Internet has given us the ability to create a community in cyberspace. In cyberspace, communities exist without a sense of time or space (Giddens, 1990). It becomes impossible to place any boundary or border on the virtual place in cyberspace where the community meets. Mitchell (1995) emphasized this point about the new fundamentals of such communities by saying "The foundation ritual is not one of marking boundaries and making obeisance to the gods, but of allocating disk space and going online" (p. 211).

The Simpsons' fans have formed many Internet groups and sites on the web, which will be studied in chapter four. On the Internet, communities are made up of members from many nationalities and cultures. However, Anderson's (1991) fundamentals are usually still true, as these communities share language, technology (the means to get onto the Internet) and sentiment for a common topic, which fills the role of
patriotism. For example, members may come together to share their love for a show such as The Simpsons. Subsequently, signs from the show become as meaningful to the community as a flag is to a nation.

Transnational communities can be analyzed using the methods that would be applied to any other interpretive community. An understanding of how a community is formed can be gained by looking at the rules that define such a community. Then, once these points are established, a method such as Thomas' (1991) can be used to analyze any data.

The Transnational Message

The media message, transnational or otherwise, is what a community interprets. We will look at three larger audience groups and their responses to The Simpsons in order to prepare a more in-depth investigation in chapter four. These audience groups are the English-speaking world, the non-English speaking world, and a less-easily defined group, the Christian audience.

The series has been a big hit in English-language territories such as Australia, New Zealand, Canada and the United Kingdom, all countries where the Murdoch Empire has a broadcast presence. Britain’s Sky Television, a Fox sister company, has shown the series since the network began broadcasting, and had exclusive rights to the show in the U.K. for some time. For many years in Britain it has been one of the top five shows on cable and satellite television as well as one of the top twenty on publicly broadcast TV (Swart, 1998, para. 12). James Baker, Sky’s head of programming in the U.K. made this statement in a recent interview.
It took a while for audiences to realize it's incredibly good stuff. Right now it is our most consistent show. It gets astonishing ratings week after week and hasn't been out of the top five for four years. (Swart, 1999, p. 29)

As with several other U.S. series, Sky shares the show with the British Broadcasting Corporation, which has second-run rights. The BBC has recognized the popularity of the program by holding several events, the most recent in July 2000, dedicated a whole night of programming (4 hours) to facts and episodes of The Simpsons, Simpsons Night (2000, June 23). BBC2. This degree of attention to a syndicated program is almost unique in the history of the BBC.

Australia, on the other hand, has strict guidelines when it comes to public broadcasting. For example, advertisements during programs intended for pre-school children are not allowed (Key, 1999, para. 1-9). The censorship rates are very high and this has been reflected in many U.S. shows imported to Australia, including The Simpsons. Due to Australia's strict policies on television censorship, many scenes from The Simpsons have never been seen on Australian public broadcast television. For a long time three episodes from Season Six could were not shown at all on Australian public television, one of them containing the infamous death of Bleeding Gums Murphy (Lisa's saxophone playing idol). When Network Ten, an Australian public television station, purchased the rights to Season Six, these episodes were inexplicably not included in the package (although Foxtel, the Australian branch of Murdoch's empire, had no trouble acquiring them, along with the rest of Season Six) (Swart, 1999, para. 8). In March of 1998, when Network Ten finally showed these missing episodes, their advertisers claimed that they had not been shown earlier due to a nameless Hollywood distributor, not Australia's overly strict censorship guidelines.
Of course The Simpsons is actually intended for a mature audience, but because it screens in prime time, younger viewers are also exposed to the show. The end result is a larger fan base, counteracted by the imposition of censorship. (Censorship, 2000, para. 6)

In both Britain and Australia, The Simpsons has been a big hit and the show has a large fan base. This is reflected in the web sites and fan conventions held in both countries. Due to its many similarities, Canada offers even better opportunities to compare and contrast an American and foreign audience group.

Canada could arguably be closest in culture to the United States, partly because of its proximity, and The Simpsons' popularity is reflected in this. Again, it has achieved some of the highest ratings for an American import and countless fan based Internet sites reflect this popularity (Simpsons eh?, 2001, para. 14). The most recognized is that of "The Proud to Be Canadian Web Group", which has won countless awards for its Canadian Simpsons fan site. The editor of the site said, "For some odd reason we Canadians get a kick out of hearing mention of our fair land on American TV" (Simpsons eh?, 2001, para 2).

Many of the comments on the Canadian Web Group site refer directly to the text of the show, especially where The Simpsons makes references to Canada. One of the most popular features Bart shouting from the Statue of Liberty "Hey, immigrants! Beat It! Country's full!" The boat captain responds "Okay, folks. You heard the lady. Back into the hold. We'll try Canada" (The City of New York Vs. Homer Simpson, 1997, September 21, Fox). Another shows Marge (in her brief stint as a substitute teacher) complaining to Homer "It took the children 40 minutes to locate Canada on the map." Homer responds, "Marge, anyone could miss Canada. All tucked away down there." (The PTA disbands, 1995, April 16, Fox). Canada as a second-rate reflection of the United
States is one satirical subtext that seems to run through many episodes of the show. However, the interpretation given by the fans is very different. Due to the nature of The Simpsons, the fans on the “The Proud to Be Canadian Web Group” (2000) seem to regard the jokes as an acknowledgement of the attitudes held by the Americans. In that interpretation, the show is derogatory not towards Canadians, but to Americans who are portrayed as arrogant.

Not all Canadian critics are as enthusiastic as “The Proud to Be Canadian Web Group” fans when it comes to barbs directed against their country or against other nations outside of the United States. In Marjorie Ferguson’s (2000) paper entitled “Invisible Divides: Communication and Identity in Canada and the U.S.,” she looks at the significant differences between the two counties’ culture and beliefs.

The invisible divide between Canada and the U.S. span one of the longest and most porous electronic frontiers in the world. Nevertheless, the broadcasting environments of both nations offer contrasting policies and practices. (Ferguson, 2000, p. 49)

She accepts Benedict Anderson’s idea that language can play a major role in the shaping of a community, but argues that there are many more underlying principles to take into consideration. Therefore, countries like Canada and the United States, which can appear very similar, have many fundamental differences.

Such scales of demography and culture changes raise questions about the degree of congruence between culture, polity, and shared language as a prior condition of national identity, as well as questions about the extent of television or other media for own-language or minority cultures. (Ferguson, 2000, p. 54)

Ferguson is opposed to the way Fox, in particular, handles this fragile topic. She states “Fox TV is keeping up with its upstart fourth-network image, claiming path breaking leadership in minority programming” (p. 54). Referring specifically to The Simpsons, she
argues that this comical form of stereotype reinforcement can be as harmful as showing no Canadian reference at all. Many believe U.S. citizens already have an undereducated view of the Canadian way of life, and, according to Ferguson, making a point of this does not help solve the problem.

What is true for Canada is true for other countries. Despite the widespread popularity of The Simpsons in Australia, an episode where the Simpson family traveled to Australia aroused considerable uproar among Australians, who resented their country’s portrayal as a home to backwards bumpkins and barbaric practices. No matter how ironically the writers may have originally intended the show to be, a great many Australians were offended. A great many were also amused (Bart vs. Australia, 1995, February 19, Fox).

When examining how Anderson’s (1991) rules are applied to these different English-speaking audience groups, there is no unanimity. The first two requirements of language – in this case English – and technology – here represented by television and the ubiquitous Murdoch Empire – are clearly present. However, the third fundamental, that of patriotism, presents a disjunct. Within each audience group, the text of The Simpsons has been interpreted in both positive and negative ways, depending on the viewer’s notion of patriotism.

Earlier, Thomas’ (1991) three words that helped categorize the methods of interpretation for transnational texts were introduced. The international audience groups of The Simpsons are appropriating the text. Appropriation suggests that the interpretation a community gives a foreign text is different from the original intent or meaning. Since there are two distinct interpretations, one stating that The Simpsons is a positive message
for these audiences and the other stating it is not, the true meaning must have been changed in at least one of these interpretations. These differing views illustrate Fish's (1980) point that interpretive communities interact and find their own common realities and meanings that they then apply to the text.

The Non-English Speaking World

To contrast these findings we will now look at the non-English speaking world and analyze two countries where English is not the predominant language, Japan and India. *The Simpsons* has distinct advantages over other U.S. sitcoms; it is a cartoon and therefore can be translated into other languages without appearing as if it had been dubbed. Anderson (1993) explained that visual communication is equally as important as aural communication when analyzing a text as a whole. The images in *The Simpsons* are made more deliberate by their cartoon nature. Therefore, there are still parts of the message that may be foreign to some audience groups, even when the words are dubbed perfectly.

The show has had unique problems in each of the non-English speaking countries where it has been launched. In traditional Japanese culture, having fewer than five digits signals a lower-class status. Cartoons in western animation often have fewer digits; four is standard (McCloud, 1993). Thus, the four-fingered Simpsons were a tough-sell to glamour-loving Japanese audiences. The animation was also a problem in that it was very different from Japanese animation and therefore was not as successful, although, paradoxically, the show was animated in Japan during its first series. Japan has a cartoon with very similar characters to *The Simpsons*; Crayon Shin Chan is Japan's version of
Bart Simpson (Napier, 2001). Clearly, it is the small semiotic element that were a hurdle for *The Simpsons* in Japan, not resistance to the foreign ideological content.

India found Bart's disobedience and insolence a problem; it took Fox several attempts to successfully market the program. Eventually, it found that by concentrating on Lisa Simpson in its sales tactics, Fox could present a role model for children and the program was a success. Most episodes where Bart is the main character have never been shown as a result.

In both cases we see that cultural differences in these communities are magnified by the text and symbols within the show. Once again, the effect is one of appropriation as the receivers change the message to fit within their communities. For example, the four digits of the Simpson characters were interpreted in a Japanese context and in a way unforeseen by the American creators: the Simpson family was lower class because of the missing digit.

Anderson's (1991) fundamentals suggest that the greater the cultural difference that exists between the community from which a text originates and the community in which it is received, the further the interpretation will stray from the original intent. In other words, the less technology, language and patriotism two communities have in common the further the message may be from its initial meaning.

**Christianity**

Having looked at audiences defined by nationality and language, it is now time to look at an audience that defines itself by less rigid and arbitrary criteria. Few individuals choose their nationality or their native language, but they have much more flexibility in determining many of their other associations. Voluntary groupings, by profession or religion or interest, for example, form different types of communities then those already
studied, but they can be examined using the same methods. The reception given to *The Simpsons* by audience groups that define themselves as Christian is a useful example in the discussion of such groups. Before studying this audience, it will be instructive to examine the way Christianity is portrayed on *The Simpsons*.

The institution that is Christianity in America controls many businesses, schools, and media outlets; taken as a whole it is in one of the richest and most powerful forces in the country (Sillars, 1996). As such it receives the same attention that the writers of *The Simpsons* give to all other expert systems.

The most prominent Christian denomination on *The Simpsons* is represented by the First Church of Springfield, a middle-of-the-road Protestant church. This is faithful to the portrayal of the Simpsons as a typical white, Anglo-Saxon, Protestant family. This is not the only genus of Christianity the Simpsons encounter, however. For example, the show often uses the image of the American TV evangelist, most notably in a episode in which Bart becomes an evangelical preacher, believing he has a gift from God (Faith off, 2000, January 16, Fox).

Ned Flanders is a regular character on the show and seems to represent a stereotypical image of the perfect American Christian. He has dedicated his life to the church and follows the bible to the letter. Over the course of the show, his wife has died and he is now a single father with two perfect children, seemingly holding no grudges or anger towards anything or anyone. This upstanding man is mocked by many of the people of Springfield, including the resident pastor at the First Church of Springfield, the Reverend Timothy Lovejoy, but his neighbor Homer despises him the most. On at least one occasion, when the show’s creators wished to portray the physical incarnation of the
Devil, they used the form and voice of Flanders (Treehouse of Horror IV, 1993, October 28, Fox). By creating this blameless Christian, who is at the same time such an unpopular figure, the writers are making a statement about the institution of the Church (Bowler, 1996; Sillars 1996). Whether this message should be interpreted positively or negatively is a subject of some debate.

As Les Sillars (1996) explains in “The last Christian TV family in America,” The Simpsons is the only prime time show on American TV that features a primary character with such an explicitly Christian moral and ethical foundation.

What do we know about the spiritual life of Roseanne or Frasier? Are the doctors on ER or Chicago Hope ever moved to pray or consider God? Religion's invisibility in prime-time programming speaks volumes about how the entertainment industry views its place on the scale of human activity and until that changes we may have to make do with Ned Flanders as our televised spiritual mentor. (p. 12)

Depending in part on their religious perspective, different communities are divided on whether Ned Flanders' character is a positive or negative one. Gerry Bowler (1996) observed many Christian and atheist groups on the web. The newsgroup alt.religion agreed strongly that the image of Christianity portrayed on The Simpsons was very negative and the effect on audiences could be detrimental. On the other hand, the newsgroup soc.atheism found the show to be overly favorable towards religion, one participant claiming, "the Simpsons is becoming more of a Sunday school program than ever. The central message of that show, I've noticed, is that the only good people are religious and that those who are not are immoral" (Bowler, 1996, ¶ 55).

The Simpsons' stereotypical Christian portrayal of church life raises feminist concerns as well. The women of the church have very specific roles, such as Helen
Lovejoy, the gossipy wife of the reverend, and Maude Flanders, who went away to church camp to learn to be less judgmental. Marge is also normally defined by the traditional expectations of the Christian wife. She is a stay at home mom who obeys her husband and bakes for church events. Groups of scholars who study feminist hermeneutics have used Fish's (1980) work with interpretive communities to examine Christian roles in the church and feminist interpretations of the Bible (McClintock Fulkerson, 1998; Saye, 1996). They agree that such stereotypes can be harmful in the fight to change the image of women's roles in the church.

It is important to emphasize that any Christian stereotyping is based on both the writers' and network's ideas, and they often do not agree. Fox criticized its own writers when The Simpsons used the Catholic Church in its parody of Super Bowl commercials during an episode that ran immediately after the Super Bowl (Sunday, Cruddy Sunday, 1999, January 21, Fox). Mike Scully, the show's executive producer, said in an interview that aired the same month that he was told by a Fox executive to get rid of the reference to Catholicism (Rosenberg, 1999, para. 19). He said Fox wants Catholics treated differently from other religious faiths and not designated as punch lines by the show's writers. Scully went on to say "People can say hurtful things to each other about their weight, their race, their intelligence, their sexual preference, and that all seems up for grabs, but when you get into religion, some people get very nervous" (Rosenberg, 1999, para. 12).

There are certainly mixed interpretations of whether or not The Simpsons portrayal of religious life is good or bad. Jeff Shalda (2000) believes that the mere presence of such strong Christian ideals in a popular program is positive.
they are not only able to offer up hilarious criticisms of religion in America, but they are also able to give incredible insights into spiritual areas that are very crucial to many viewers. (Shalda, 2000, para.1)

The show has demonstrated that Springfield possesses a rich religious life and that it takes religion's place in society seriously enough to give it a permanent slot on the show.

The analysis of Christian audience groups is more complex than the analysis of national audience groups. These groups may have very little else in common, but most members would say that their religious convictions are a major part of their lives. As Les Sillars (1996) stated, the Christian influence in a television program is a new concept to American audiences. As Fox's experience has demonstrated, religion is a very difficult subject to approach, especially for American audiences. Fry and Fry (1983) said interpretation is a process involving audience signification. When these signs have a religious context, they can be especially volatile. This is in part due to the fact the religion as it is presented on The Simpsons is of a variety familiar to most Americans, and therefore resonates more strongly with them than with audiences from other countries.

There is evidence of both assimilation and appropriation in the interpretation of the Christian message in The Simpsons. When a community, such as the alt.religion newsgroup previously mentioned, takes the stereotypes literally and reacts to them that way, it is assimilating the text. When the soc.atheism community takes the same text, analyzes it, and concludes that it presents a positive message about Christianity, it is appropriating.

Community analysis has proved fruitful when examining how different audiences interpret The Simpsons. Anderson (1991) provides the fundamentals that are needed to
understand how a community defines itself. Using Thomas’ (1991) levels of interpretation, the different ways that a transnational community interprets non-indigenous text become apparent. By analyzing three different classifications of audiences – non-English speaking, English speaking, and Christian – we have already seen how some groups have reacted to the show. Will a transnational community that has been created from the fan base have the same interpretations as other communities? The next chapter examines a diverse transnational community based on the Internet, which has been created by fans who wish to discuss *The Simpsons*. 
CHAPTER IV

CYBERSPACE COMMUNITIES

Thus far, beginning with chapter two, we have explored the history of The Simpsons, the creator and writers' motivations, and defined the show as transnational. It has been established that in order to have an understanding of an audience's interpretation of the message one must look at an audience as an interpretive community. The show's vast transnational audience can be divided up into various self-defined communities. In exploring communities defined by nationality, language, and religion, we have seen how different groups interpret the same message to fit within their diverse community settings. This brings us to the extended fan based world of The Simpsons.

Viewers of The Simpsons have created an extended fan-based world that is made up of many media within a larger fan universe. These range from news letters and comics created by the fans themselves to a variety of cyberspace outlets such as bulletin boards, chat rooms and fan web sites. Every year, there are Simpsons conventions worldwide where a mix of fans from different races and cultures share their love for the show. Abercrombie (1997), in his book Television and Society, describes the confluence of fans of a worldwide program such as The Simpsons as follows:

Fans will meet with others on line to view the series concerned, to attend meetings and full-scale conventions, and, above all, to engage with the medium in a variety of ways.

(Abercrombie, 1997, p. 163)
This meeting of viewers is a daily occurrence in cyberspace where there are fewer restrictions in place as far as time and space. Cyberspace is a forum where fans can talk to, quiz, and question other people to determine how intense their passions for the program are (Harrington & Bielby, 1995 p. 68).

Studying an Internet community can be problematic because there is a range of cultures and nationalities in a non-time and space specific setting. A group on the Internet is truly transnational in nature. However, it is still a community in its own right and therefore should be studied as an interpretive community. It is vital to any successful research in this area to understand that "the collection is our key expressive mode. Others make up the parts, but we make the whole" (Glassie, 1991, p. 264). The researcher's knowledge or participation will also become increasingly important in understanding the interpretations of this community.

Peirce (1991) argued that the process of interpretation is made more difficult if the researcher does not belong to the community. Therefore, in this chapter I will evaluate a group that I have been a part of for several years, alt.tv.simpsons. I will evaluate the group as an interpretive community, first by establishing what it means to be an interpretive community, and then using a process of textual analysis to assess the group's interpretation of the show.

No Time or Place

Thus far we have explored communities in the real world. When in cyberspace one's computer is a gateway to a world of information that allows one to transcend the real world limitations of time and space (Markley, 1996). The Internet provides an opportunity to create communities and these new communities are, by their nature,
selective about their membership and the topics they discuss. One recurring topic is the foundation of the community, which can be a popular show like *The Simpsons*. This is, to an extent, a reflection of real world communities where people come together when they have common interests. It is the lack of a defined time and space in cyberspace that allows the community to span the world, finding fans from disparate backgrounds who would previously never have come together (Stone, 1991; Bailey, 1996; Carey, 1998).

Humanity's perceptions of both time and space are continually modified by technological and social advances (Webster, 1994; Nakamura, 2000; Jacson, 2001). It is hard to define what we mean by real time and space. In his book *The Consequences of Modernity*, Giddens (1990) states that inventions in history, starting with the sundial and later the watch, have allowed us to measure the time of day. This has made us less reliant on nature, and the sun in particular. Greenwich Mean Time has been the accepted standard of time since the nineteenth century. However, calendars may vary from one culture to another; the Western world may date events based on the birth of Christ, but many other cultures use calendars that date from different historic events. This is one reason why the established norms are only established in a single community and may vary greatly from one to another.

Modernity shows us that the definitions we are comfortable with are questioned when new technologies are launched. The question how far is it to London from New York would have once been answered by the weeks it would have taken to make the trip by boat. However, now the answer could be justified as hours by plane or seconds by e-mail. Martin Wolf (2001) addresses this issue in his paper "Will the Nation-State Survive Globalization?"
Over the past five centuries, technological change has progressively reduced the barriers to international integration. Transatlantic communication, for example, has evolved from sail power to steam, to the telegraph, the telephone, commercial aircraft, and now to the Internet. (Wolf, 2001, p. 178)

Clearly, because the rules of time and space are constantly changing our world, and because they are different for each community, time and space cannot be easily defined.

The Simpsons itself also has no real sense of time or space. For example, although the show debuted in 1989 featuring a 10-year-old Bart, an eight-year-old Lisa and an infant Maggie, 12 years later, Bart is still in the fourth grade, Lisa is still in second grade, and Maggie has yet to learn to walk. This timelessness would not be possible if The Simpsons was a live-action show. Springfield, although it has no physical existence, is readily identifiable as Anytown, U.S.A. It is simultaneously everywhere and nowhere in America. The Simpsons’ definition of time and space, although untraditional, has remained consistent for 12 years and is easily followed by viewers from all corners of the globe.

To keep a sense of reality the viewer of The Simpsons often witnesses projections of the future and past, which then establishes that there has been a degree of thought put into each of the family member’s total life. However, there is a definite sense of time when looking at the issues explored over the show’s 12 year history. The show has been current with technological, social and political developments throughout the world. Often the show’s content will reflect the popular issues in world and local news, or be centered on a popular topical issue of the time.
Not having a defined time and space gives the show a larger universal appeal, as it can be easily adapted to fit into a community's idea of time and space. Having the updated view of larger worldly issues gives the show appeal as a modern entity. The balance of these two factors contributes to the show's success transnationally. The Simpsons is an animated program, and while the characters have not changed physically they have embodied the changes that have taken place in society over the course of the show.

Internet Communities

Unlike other media such as television, which is a one-way communication process, or the telephone, which allows for a two-way exchange, cyberspace allows multiple users to interact and thereby form a community (Giese, 1998). A common Internet term for these users is “cyborgs.” This term is applicable to a person’s Internet persona, whether that persona is real or make-believe. Cyborg is an abbreviation for cybernetic organism and the concept has been a reality since the first implanted pacemakers and prosthetic limbs (Hayles, 1993).

Two studies of cyberspace and communities on the web, “Constructing a virtual geography: narratives of space in a text-based environment” (Giese, 1998) and “Identity in the age of the Internet” (Turkle, 1996) form similar conclusions about communities online. Giese looks at a web group called Cyberpunks and Turkle is concerned with two MUD’s (Multi-User Dungeons) LambdaMOO and TrekMUSE. Web groups are usually created when there is a common interest and people want to develop a community around it. In the case of Cyberpunks this interest was in storytelling, and all users are a part of an ongoing story about a ranch. MUD’s, on the other hand, are fantasy games where players
take on a new role or create a character with which to play. LambdaMOO is based on the real world and TrekMUSE on the Star Trek universe.

The two studies concluded that the communities on the Internet are direct reflections of real world communities. One of Benedict Anderson's (1991) fundamentals, that a community is dependent on the technology that is available to it, is clearly present. As all members of an Internet group require basic computer equipment to access cyberspace, this is something they have in common.

Another common trait that the Internet community seems to share with our reality is that of acceptance. Joining a web group is simple in practical terms, but belonging to such a community is not as easy. In the Cyberpunk world a new member would only be accepted if they could display full knowledge of the history of the community and use the adapted language appropriately. This requirement suggests a tightly knit group of people who feel a sense of another of Anderson's (1991) principles of community, a sense of patriotism. This is the idea that a group creates symbols and signs that are meaningful to those in the community, and creates rules for acceptance into their structure.

Anderson (1991) suggests language is also one of the primary characteristics in defining a community, and, in most cases, it is personalized to prevent outsiders from penetrating borders and joining easily. Numerous examples of this can be found in real world communities. Regions of England have their own unique words or phrases that identify the user as a member of that community. Similarly, nations such as the U.S. and Australia have adapted the English language over time and created their own dictionaries. On the web this adaptation is especially visible in the proliferation of abbreviations of the English language, such as LOL (laugh out loud) or FAQ (frequently asked questions). To
personalize a language for an individual community, members will make these abbreviations topic specific. If one is unfamiliar with the code, communication becomes impossible. This process is apparent in the studies of Turkel (1996) and Giese (1998) who reported that in the cyber communities they studied many abbreviations and slang terms had been formed in order to keep intruders out.

Lurkers are people who can access the community but choose not to participate in the group. Giese (1998) found that often individuals had to spend many months lurking and observing before they could be accepted into the community. Giese and Turkle (1996) both found that an individual with an academic address was always going to encounter more resistance than one with a universal addresses like Yahoo and Hotmail. Researchers have done many studies on these groups in recent years and the communities are aware of these studies. Consequently, they show hostility to academic visitors because it is assumed they do not truly want to be a regular member of the community.

Turkle (1996) observed the bonding and maintenance of relationships between community members, another reflection of real communities. Although most members of MUD's are playing fictional characters it is possible to become attached to others in the group. Activities such as weddings and Internet sex are common on these types of sites. Although very few of these sites adopt a real sense of time and space, and despite the fact that the Internet itself still is a fairly new medium, relationships have developed over time. Both Turkle (1996) and Giese (1998) observed friendships that had been established for many years.

Both studies found that the communities possessed hierarchical systems. Giese (1998) found that to be accepted in the Cyberpunk world he would have to face and
impress the leaders of the group. Turkle (1996) also found that when things in the world of cyberspace go wrong, authority figures are in place to step in and take control like the police do in the real world. The authority of these individuals is accepted by all in the community, and they are looked up to by many members.

James Lull (1982), in an attempt to understand the process of consumed meaning and social interaction, categorized the relationships with different media forms and within media created community into four headings. The first is dominance, which refers to the enhancement and reinforcement of social positions, such as leadership in these groups. Both Turkle (1996) and Giese (1998) found a hierarchical system in the communities they studied. The second heading is relational, when a community discusses media because it is something each member has in common. The third heading, avoidance, refers to the desire to avoid physical and verbal contact with others, a feature than can be found in these cyberspace communities. A group that exists only in cyberspace can also decrease social tensions because there are no aesthetics, and therefore race and gender can be irradiated or changed. Lull's final category, social learning, refers to the processes involved in socialization. These categories, along with those of Anderson (1991) and Thomas (1991) form the basis for my analysis of communities devoted to The Simpsons.

Method - alt.tv.simpsons

Usenet orders different newsgroups into a clearly defined system of nested classification. The initial categorization of groups is by general abbreviation. Rec. (recreation) and alt. (alternative) are the two most popular categories for fan newsgroups, but there are other more specific groupings such as bio. (medical) and comp. (computers). The alt. and rec. headings are also thematically close to each other within the Usenet
structure, and each contains groups that cross-reference each other with relevant links that provide quick access to similar newsgroups. The alt. groups are often the most popular newsgroups for television program interests. These have been subcategorized as alt.tv. Alt.tv is program specific for hundreds of popular television programs (Giese, 1998; Rheongold, 1993).

People post messages on alt.tv.simpsons each day. These “postings” are organized into a system known as threads. A question or comment is made and other members respond, forming a conversational thread (Giese, 1998; Rheongold, 1993). This specific newsgroup is known to be more fanatic then most others, and many members take their comments very seriously. An archive of conversations from different newsgroups dating back to 1995 can be found at http://groups.google.com/. It is important to capture a full conversation when analyzing a thread. Because conversations can last for several days, if not weeks, this study analyzed all the postings from the month of July 2001.

Peirce (1991) suggested that to fully understand the interpretation of a community you must belong to it and be a part of that interpretation. I have been a member of alt.tv.simpsons for two years and have joined in on many conversational threads. For the purpose of this analysis I did not contribute to any of the conversational threads in the month of July 2001. However, my familiarity with the group and the prior experiences I had had participating in this community aided me in my textual analysis.

When examining alt.tv.simpsons the results will initially be compared to the findings of Turkle (1996) and Giese (1998) and then subject to the following forms of analysis: Anderson's (1991) three principles of imagined communities, patriotism,
language and religion, and technology will be explored; because this is a transnational newsgroup (as all Usenet newsgroups are) I will refer back to Thomas (1991), who gave three words that helped categorize the different ways a transnational text could be interpreted – assimilation, appropriation, and syncretism; finally, I will also compare the results to the four categories Lull (1982) used to define the phenomena of media formed communities, dominance, relational, avoidance and social learning.

Results

In the month of July 2001, 3813 messages were recorded in alt.tv.simpsons from 224 different users. Many of the users were one-time posters either starting a conversational thread or joining a pre-existing one. There were 13 members of the community who played a large role in the month of July. Each of these members contributed several times a day and joined in on all of the popular conversations.

Posters on alt.tv.simpsons claim to be from many different countries. (Obviously, the anonymous nature of the newsgroup means that any demographic data cannot be independently confirmed. For my study, I relied on veracity of the posters.) There are many direct references to the countries the individual members are from. Here is one from an Australian member.

(First Poster) - Being from AUSTRALIA, when Bart made the hundred dollar fone call to a shep shereing sehd, I cant remember what the title :-(, and the WHOLE episode was based "down-under" I actually have to laugh, cause it was like it was based in England or U.K.... NOT and pisode like that would have happended in OZ!

The ONLY thing AUSSIE was the sheep, koala, and the outback.

ANY COMMENTS FROM THE YANKS ????

The Rack - Nothing yet from Mariano Rivera, Chuck Noblock , or El Duque
A majority of posters are from English speaking countries, Canada, the U.S., Britain and Australia in particular. However there are others whose first language is not English, including members from France, Norway and India.

When reading the archives, I realized that a researcher would normally have difficulty understanding the language of this particular community. However, my experience as a fan and community member aided me in this part of my analysis. There are many abbreviations and coded words frequently used on this newsgroup. Often individual episodes were spoken about in code, partially to test a reader's knowledge and also to shorten responses. In one thread about the quality of old episodes and how the quality will last forever, a member wrote:

Unless they'll be crushed by an army of flat "show me your boobs" episodes.

Yep. Also the Homer^3 segment from THOH with all the formulas in the background.

The first sentence refers to a recent discussion about an episode from the eleventh series that was not as popular with the group as earlier episodes. This discussion had taken place several days before this response. This is an example of how, to be fully aware of the meanings of a thread, one must not only have a great knowledge of the show itself, but also knowledge of past discussion among the members. The second sentence gives an example of abbreviation and codes. The THOH (Tree House of Horror, episodes made for Halloween) episode in question is one involving Homer as a computer animated cartoon, or three-dimensional character. THOH is a common abbreviation, but several other recurring examples exist. Once one is familiar with the way members post their responses, and the
language adopted for this newsgroup, it is then possible to analyze the text and subtext.

The hierarchical system mentioned by both Turkle (1996) and Giese (1998) is firmly in place in the alt.tv.simpsons community. Out of the 13 strong community members mentioned earlier, there are two members who seem to have the greatest authority on the newsgroup, Internet King and The Rack. The Rack posted a total of 384 messages and responses and Internet King posted 124 during July 2001. Although they are not the only leaders, they often work together to become a stronger presence on the newsgroup. During one conversation it became clear that these two have been members of the community for a substantial amount of time.

(First poster) A year ago, this place was filled with the likes of Dean Humphries, Wave King, Drew Levine, Chris Palma and the always outrageous (and fellow DINS) Kieran Murphy. Then I went away to college, and now they're all gone. I'm miss Seth Miller at this point. What happened to these guys?

Internet King. Regulars come and go.

Heck, I remember regulars from the mid-90's who aren't here anymore.

Some leave usenet, others die, others get lives. ;)

TTYL

(Second poster) Goodness! I had no idea! For you see, I have been on Mars for the past decade, in a cave, with my eyes shut, and my fingers in my ears.

The Rack... And I've been trying so hard to keep the Martians under wraps. And control the British crown. And keep the metric system down etc etc.

You all get the joke.

Internet King. A simple proposition: How would you like to make a dollar? All you have to do is sign a paper that says I can get your life. I need to
get a life - any life. YOURS! :-)  

**The Rack.** I'm now feeling like a considerable loser, for I have been in this newsgroup since 1996, never leaving.

The Rack and Internet King are not only leaders because of their long membership in the alt.tv.simpsons newsgroup but also because of their superior knowledge of **The Simpsons.** They are able to introduce intricate details about the show into many conversations. Other fans rarely question their knowledge and often go to them for help with Simpsons trivia.

When a message is archived the time and date are recorded (Google uses Pacific Standard Time). In a given day, some members read and post to the newsgroup for a considerable amount of time. Internet King can be traced on the 16th to have been active from 10:56am to 11:30am. In this relatively short period of time, he submitted 16 messages. On the same day, The Rack posted 37 times between 2:55pm and 10:01pm. Giving this much time and energy to any community shows a high level of commitment, and one's position in a group is usually a reflection of the level of commitment.

There is a concerted attempt by established members and leaders to keep all conversations directly related to **The Simpsons.** On several occasions over the month, conversations wandered onto other topics and the comments by leaders or well-known members put a stop to such threads or related them back to a Simpsons' theme. In this thread a message thought to be “cross posted” (posted to numerous newsgroups because the author thought the subject was relevant to each of them) has been posted and many members are not pleased that the message has little to do with **The Simpsons.**
The Rack. hmmrn first let me say CROSS-POSTING PISSES ME OFF
2ndly, where does it say "this is about The Simpsons" in that stuff you put on here?

(Second Poster) Um... ? The subject line is a quote from episode 1F17. I'm sure Hank just wants to show an example of "Life imitates The Simpsons". It is about The Simpsons, if not *directly*. I don't see any other groups in the list, either... probably not a cross-post.

The Rack. What the hell does this have to do with anything? Homer stole some sugar once, does that mean I can post the Stock quotes to C&H Sugar every day. Maybe there is some deeper meaning, and everyone has a deep seeded relationship with sugar that I have yet to experience.

The Rack, an acknowledged leader of the community, has taken it upon himself to police the newsgroup. He is not satisfied when the second fan’s attempts to relate the offending message to the show. This is the same behavior that Giese (1998) and Turkle (1996) found in their studies. Postings that are totally irrelevant to The Simpsons are not tolerated. This is an example of Lull’s (1982) relational category, which states that the commonality members share, in this case The Simpsons, is a fundamental foundation that not only brought the people together but also continually sustains them.

A cultural community is one that shares a common mode of reception, a common set of critical categories and practices, a tradition of aesthetic production and a set of social norms and expectations. (Jenkins, 1992, p. 85)

Without The Simpsons the alt.tv.simpsons community would not exist. There are strong relationships in this community, which may be able to survive outside the topic, but members want to maintain this commonality, so new members will be ones who share the same interest.
Giese (1998) found that acceptance into the alt.cyberpunks group required an in-depth understanding of the newsgroup, the history and the hierarchy. The alt.tv.simpsons newsgroup is no different. Many new members post messages, but if they do so without displaying a good understanding of how the community works they are often ignored or ridiculed by senior members. There are some that are successful in joining the community. The example below shows how, by interacting with the leaders in an appropriate fashion, it is possible to be accepted after one's first posting.

(New Poster) I love The Simpsons! It's one of my all-time favorite shows, second only to Wings. Homer, Mr Burns, and Chief Wiggum are the best characters, IMHO, but I love almost everybody. I think the quality of the show has declined slightly the past couple of seasons, but I can always find something in every episode that makes me laugh.


Aw jeez there; they got me living with an African-American, a Semite-American and a Woman-American there... And... I'm GLAD. I love youse ALL! I love everybody! (<<-- the quote connection)

PS: Hi. Welcome!

PS: I am gay (not a guarantee)

(New Poster) LOL! I wish ;0) Same with The Simpsons too.

Thanks for the welcome.

The Rack. I *like* being thanked.

Thank YOU for the friendly "thank you".

The Internet King. Wings! Oh dear lord!

Sincerely,

Little Girl
First, the new member showed knowledge of recent conversations. The decline of the show is a hotly debated topic on this site. However, The Rack was not going to give this person an easy entry into the newsgroup. He responds by making fun of her love of Wings, but the new member does not take offense and responds with a LOL (laugh out loud) and thanks him for the welcome. After The Rack's acceptance, others subsequently post to welcome the new member. Depending upon what a person chooses to reveal about themselves, they are less vulnerable to personal prejudice in an online community. Aesthetics are not a problem when you are just text on the monitor, so one cannot tell if you are of a specific race or gender. However your knowledge of the show and history of the newsgroup become a point of ridicule if you are unprepared.

Discussion

Alt.tv.simpsons is a transnational community with borders that are difficult to delineate due to the indefinable nature of time and space in cyberspace. There is evidence to suggest that members come from many countries and nations, however they are all expected to understand the irreverent take on American culture in The Simpsons. In alt.tv.simpsons an individual member's nationality is irrelevant, but knowledge about The Simpsons culture and nationality cannot be if that member is to belong to the community. So there is a sense of nation to the group, but that sense is borrowed from the fictional town of Springfield in America and does not originate in the group. The media messages in The Simpsons are the basis for the existence of this community and so, before we examine the structure, we must look at how that message is interpreted.

Thomas' (1991) three categories that help describe the interpretation of a message from one community to another are assimilation, appropriation and syncretism. In chapter
two we looked at Matt Groening, the original source of the text, and the show’s writers, producers, and network. We also explored the American audience the show was originally intended for. However, when the message is passed onto other nations the interpretation may be very different from the originally intended message. In the case of alt.tv.simpsons one might expect that the devoted fans of the show would take the text literally without changing its sacred message. This would imply a simple assimilation process, where the message remains unchanged. Once I have explored the fundamentals of this transnational community I will evaluate this more closely.

The alt.tv.simpsons newsgroup is host to an intricate community, which, as in the real world, has developed a complex structure of its own. Anderson’s (1991) three fundamental rules of an imagined community are evident in the group. In any community a community language is both a means of communication and a way of keeping the community exclusive. The way that the alt.tv.simpsons group communicates is unique to itself. The group uses its own abbreviations and creates new words, in part to exclude nonmembers from the group.

All cyberspace communities exist on the Internet. So, as with all such communities, technology is required both to view the show and to access alt.tv.simpsons. This accords with another of Anderson’s (1991) rules, that technology is key to any community. A third requirement, patriotism, or the need to make symbols and signs sacred is also an important part of this group. The community regards all popular Simpsons' quotations as sacred, ranging from the popular “D’oh” used by Homer, to lengthier excerpts like the original songs from the episodes. As Fish (1980) explains, a subject, in this case The Simpsons, is the one thing all members have in common in such
communities; it is the foundation for this community, and that is why it then becomes sacred to each member. All of Anderson’s fundamentals for a real world community seem to exist in this cyberspace community as well.

James Lull (1982), in his work with consumed media and social interaction, also observed that in real world communities there is a common subject that brings the group together. He categorized this rule as “relational” (p. 399). This is certainly true for the transnational community of alt.tv.simpsons. There must be a common interest among the members if the community is to exist in cyberspace. The other three rules found in Lull’s (1982) research are also evident in this community.

The hierarchical system I observed complies with Lull’s (1982) dominance category. He found that when analyzing a community’s interpretation of any text, a dominance structure becomes apparent. He suggested that many of the opinions and understandings of an interpretive community are often filtered through a hierarchy in which the leaders greatly influence the overall belief. Not only are there accepted leaders in the alt.tv.simpsons community, but there are also members who can be classified as newcomer or established member. This reflects a social structure formed in real world communities. Real world communities create leadership positions in order to regulate and enforce rules that the community lives by. In the case of alt.tv.simpsons the leaders are also there to protect borders from outsiders and decide who can be admitted into the community structure. They are also the authority on trivia and Simpson facts; consequently leaders help fulfill the need for patriotism outlined by Anderson (1991), as they help to keep the show’s text sacred.
Another of Lull’s (1982) categories is avoidance, specifically the avoidance of physical and verbal contact with others. His research was on the media’s relationship with communities and the effect it has on communities. In this case the media produced The Simpsons but the setting of this community is a direct evolution of the show in cyberspace. Another part of this particular category is appropriate when looking to this community. The Internet is a place that can decrease tension in social situations as there are no aesthetics and therefore race and gender can become inconsequential.

Finally, Lull’s (1982) social learning category refers to the processes involved in socialization. Peirce (1991) also writes about the importance of social learning, offering it as an explanation for most social structures and beliefs (pp. 255-257). Alt.tv.simpsons is a transnational audience, and one can presume that each member belongs to several other communities, not only in the real world, but perhaps also on the Internet as well.

We have drawn some fundamental comparisons between cyberspace communities and real world communities; they are very similar. We have suggested that the three basic components of Anderson’s (1991) imagined communities are present in cyberspace as they are in the real world. We may therefore posit that if the structures of communities are artificial and socially learned, then, no matter where the communities are formed and where the borderlines are drawn, they will fundamentally be alike. The individuals involved in the community bring the learned structure with them to the newly formed group.

Finally, after careful examination of the newsgroup, it is clear that a transnational interpretive community such as alt.tv.simpsons is not interpreting the text by assimilating it, not merely relying on the literal meaning of the text. There are more factors involved
in the interpretive process than that. The community considers the text sacred, and so tries to stick to the original meaning. However, this community has thoroughly integrated the text, in fact it is a product of the text and has evolved with the program. These factors suggest Thomas' (1991) syncretism is a more accurate categorization of the final interpretation. The vast array of nationalities and cultures that members bring to the overall interpretation produces a hybrid; many elements come together, creating a new combined interpretation.
CHAPTER V

CONCLUSION

The purpose of this investigation was to discover, through analyzing alt.tv.simpsons, how a transnational community interprets a text. There were several steps in this process. First it was important to understand the intended message put forth by the creators, writers, and producers of the show. To do this, I briefly looked at the show’s history, explored the American ideology that Matt Groening was portraying through his characters and briefly described the main characters on the show. Rupert Murdoch himself was discussed as a transnational phenomenon, and his corporation and networks were found to be an easy market for transnational media.

The idea of a transnational audience was introduced in chapter two and expanded on in chapter three. Such audiences can no longer be defined by conventional terms. The Simpsons is broadcast to more than 60 countries, so by defining the audience as transnational I could take all audience groups into consideration when looking at the interpretation of the text. Also in chapter three, I explored the fundamentals of community and Benedict Anderson’s (1991) idea of imagined communities, the three principals of which are language and religion, patriotism, and technology.

We then went on to look at how a community interprets a text by exploring the works of Fish (1980) and others involved in understanding interpretive communities. A community creates an interpretation through its collective knowledge. Thomas (1991) introduces three categories of interpretation—assimilation, appropriation, and syncretism.
I then analyzed three types of audience groups. The international English speaking audience tended both to assimilate and appropriate the text. The non-English speaking audience had a greater degree of diversity in its interpretation, and tended to appropriate more than assimilate. The Christian audience also appropriated and assimilated.

With a clear understanding of the text, interpretive communities, and the idea of a transnational audience, I could then analyze a community that is a direct product of *The Simpsons*. Alt.tv.simpsons is a transnational community that meets in cyberspace to discuss the show. I investigated the community’s interpretation of the show. To begin, I compared and contrasted Internet groups with real world communities. The most significant difference seemed to be in their perceptions of time and space. Then I examined the studies of Giese (1998) and Turkle (1996) to gain a better understanding of how Internet groups are modeled.

I applied Anderson’s (1991) three fundamentals of imagined communities to alt.tv.simpsons. I found that all three principles applied in a way that was similar to real world communities. Then I took Lull’s (1982) research into media effects on communities, which he split into the categories of relational, the bringing together of people through the media; dominance, the hierarchical structure; avoidance, the need to avoid social situations; and social learning, the concept of socially learned behavior.

Although there is evidence of the relational, dominance, and avoidance categories in the analysis of alt.tv.simpsons, what is most important is the evidence of social learning. This, along with Anderson’s (1991) principle that all communities are based on the same fundamentals, led me to the conclusion that the interpretation of the text by this
transnational audience is one of hybridization, or as Thomas (1991) put it, syncretism. The many members of the newsgroup belong to other communities with the same fundamental principles. It is their existing knowledge that makes the community in cyberspace so similar to that of the real world. This may seem axiomatic. However, when their preexisting social learning is combined with their disparate cultural backgrounds, the overall interpretation of *The Simpsons* becomes layered, and the result is hybridization, a new meaning made up of a convergence of several distinct meanings.

In the future, I feel it would be beneficial to study other Simpsons’ cybergroups in order to compare communities based on the same common theme as that of the community I found at alt.tv.simpsons. *The Simpsons* are the basis for hundreds of Internet communities, and with this one commonality would the rules of language and hierarchy prove to be the same? If a language were to be created for other Simpsons’ Internet groups would it contain similar slang, phrases, and abbreviations to that found on this site? Some members of alt.tv.simpsons stated that they were also members of other Simpsons’ cybergroups; are they loyal to both groups, and do they attempt to implement interpretations from one group to another?

The Internet may lack the physical and tangible aspects that real world groups have. However, the time and effort some of the dedicated members input into this community suggests more loyalty than that found in real some world groups. It is rare that one finds a community that has the dedication, let alone the capability, to meet and talk for hours each day. These members may not have the real world benefit of physicality but they have fewer constraints in terms of time and space. The bulletin board thread system means that a conversation that can be read in a minute may be promulgated
over a number of days. Furthermore, it allows people to communicate from different locations all over the world while still feeling that they are part of a highly established community. It would be interesting to explore this new phenomenon.

As technology becomes faster and more accessible, the capabilities of Internet communities will grow. With visual stimuli and audio responses becoming more available, the interpretation of text will evolve. The Internet created the foundation for these communities with no sense of time or place, and the possibilities of community development in the future are vast. Perhaps in the future as technologies change there will be an alteration in the fundamental structure of these communities, and this may well continue to change the way community interpret text.
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