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Music development and hearing impairment: a case study of Evelyn Glennie

by

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DECLARATION

This work has not been previously submitted in whole, or in part, for the award of any degree. Each significant contribution to, and quotation in, this dissertation from the work, or works, of other people has been attributed, and has been cited and referenced.

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Signature
ABSTRACT

The purpose of this research is twofold: firstly, it examines the extrinsic and intrinsic factors that contributed to the successful career of the profoundly hearing impaired internationally acclaimed solo percussionist Evelyn Glennie. Secondly, this investigation aims to create an awareness amongst South African music educators about the musical potential of the hearing impaired. The qualitative research design included (a) structured and unstructured interviews with Evelyn Glennie, Lucinda Rutter, an educator of the hearing impaired, Ronel Davids, a social worker for the hearing impaired and official sign language interpreter in Parliament, Arman Kleinschmidt, who is the director of DEAFSA (Deaf Federation of South Africa), (b) a study of audiovisual material of Evelyn Glennie (concerts, recordings and a documentary of Evelyn Glennie) and (c) a study of relevant literature.

The investigation consists of three main parts. In the first part an in-depth theoretical study is conducted on hearing and listening, exploring aspects such as the hearing anatomical system and its functions, failings of the system as well as musical hearing and cognitive-based musical listening. The second part deals with the case study on Evelyn Glennie and includes a structured electronic interview. The third part involves an examination of the socio-cultural aspect of hearing impairment with reference to the Cape Town hearing impaired community. Interviews were conducted with social workers and educators working with the hearing impaired community.

It was concluded that there are several misconceptions that may be construed about the hearing impaired with music. A failing in the anatomical system does not imply the absence of music ability and the findings suggest that if music is presented in a meaningful context, it can play a crucial role in improving hearing impaired children’s learning abilities and social skills. The hearing impaired in South Africa do not have the same access to music education as able-bodied people and policy makers need to be made aware of this fact. This is in contrast to Evelyn Glennie who overcame her handicap through inspiring environmental support (parents and teachers) and her intrinsic qualities of self-motivation. She is a role model and living proof that the hearing impaired can and
should become involved in musical activities. It was recommended that all hearing impaired schools have music training programmes included in their curriculum. This should not be only limited to class music and individual tuition but should include structured listening experiences, which can improve music perception and enjoyment. It was also recommended that a special qualification for educators attempting to provide music for the hearing impaired is necessary and requires expertise in aspects of both music and special education.
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CHAPTER ONE
PURPOSE, METHODOLOGY AND LITERATURE REVIEW

Background
Life is punctuated with great musical figures who have contributed enormously to the field of music in spite of experiencing physical ‘disabilities’. Names that immediately spring to mind are tenor Andrea Bocelli, violinist Itzhak Perlman, percussionist Evelyn Glennie and South African pianist and musicologist Nicol Viljoen. Other musicians include hearing impaired drummer Shawn Dale Barnett\(^1\) and composer Tammie Willis. Willis graduated in August 2003 from Virginia Commonwealth University, United States of America with a Master’s degree in Music composition.\(^2\)

Glennie, Perlman and Bocelli have attracted concertgoers worldwide to their performances and despite being publicly labeled as physically ‘disabled’, have achieved world-class status in their respective disciplines. Perlman’s life is centered upon music; the intricacies of violin performance have dominated every aspect of his existence despite contracting polio at a young age.\(^3\) His life symbolizes what physically disabled musicians can achieve once talent is reinforced with grit and determination. Viljoen, a pianist and musicologist has a doctoral degree accredited to his name and holds a senior lectureship at the University of the Orange Free State, South Africa. Being visually impaired in a society that does little for the sightless can be demoralizing and is often equated with dependence. The visually impaired are often portrayed in Hollywood films to be sitting quietly in a secluded spot, living a life of partial social castration in a society that stresses activity. Academically and musically, Viljoen has ignored his deficiency and risen above a disability that could have darkened all the years of his existence. He is also known as jazz pianist and his research focuses on Schenker analysis of Chopin compositions.


The three Kututeng musicians from Sierra Leone, Sayo Kamara, Muctaru Mansaray and Marehu Mansaray were blind mbira players. Simon Ottenberg documented that these three men were poor and unmarried, but marked that their social status have been enhanced by the fact that they were musicians. According to Ottenberg: 4

Music was a way for these men to handle loneliness and feelings of inadequacy, for it gave them social groups and individuals with whom to interact. It allowed them to see the social world in ways other blind people could not, in pleasant and nonthreatening situations, and it gave them the opportunity to exhibit skills and creativity.

Through music performance these artists have an outlet for their talent and emotions. Music not only presents a way of handling loneliness and feelings of inadequacy, but also is a powerful way of celebrating life. Musicians exhibit skill, musicianship and creativity while providing audiences and students the chance to share in their musical experiences.

It is evident that music performance raised the status of the above-mentioned musicians in a modern culture where handicapped and able-bodied people are not treated on equal terms. These musicians are admired for having a profession and being publicly active despite being ‘handicapped’.

Trying to eradicate the category of ‘handicapped’ is completely futile. It’s essentially trying to eradicate what is arguably the defining characteristic of the Homo Sapiens species. What can be achieved is the evolution of a category and the possibility of eventually even rendering it irrelevant. 5

1. Statement of the Problem

Many learners with special education needs show great interest or possess great talent in music but are often prevented or discouraged from pursuing their music interests or music as a career. 6 An analysis of the effects that physical or other deficiencies had on prominent musicians can offer ways to address the special needs of handicapped learners and will help music educators to assist these learners in pursuing their interests in the

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6 The Bel Porto School in Claremont, Cape Town and the Dominican School for the Deaf, Wynberg, Cape Town offer no music appreciation or any other music related activity in their curriculum.
field of music, as very little research has been completed about the way that their deficiencies affected, contributed to, or even enhanced their music abilities.\textsuperscript{7}

The main reason for choosing Evelyn Glennie as a case study is that she has carved an acclaimed place for herself in the realm of Classical music. \textquoteleft\textquoteleft Glennie is a force of nature, a gift of music to the world.\textquoteright\textquoteright\textsuperscript{8}

The art of music depends on the perception of sound and it seems inconceivable for one to exist without the other. The ways in which Glennie overcame the problems related to her profound deafness should provoke a better assessment of the value of music to special learners. Her attitude towards her hearing impairment in itself is one of courage and determination, and one that should influence all musicians.

For me it was not a question of breaking through my \textquoteleft\textquoteleft handicap\textquoteright\textquoteleft and then competing with \textquoteleft\textquoteleft normal\textquoteright\textquoteleft people. I have never considered myself as anything other than a \textquoteleft\textquoteleft normal\textquoteright\textquoteleft person in the first place. I view my hearing impairment the same way as say a footballer who damages their knee but makes a virtual full recovery. There are many months of physiotherapy and even years later there is the occasional \textquoteleft\textquoteleft twinge\textquoteright and maybe you have to take a few extra precautions whilst training. The injury doesn\textquoteright t define who you are, it doesn\textquoteright t take you out of the realms of being a normal person and it doesn\textquoteright t stop you becoming a world class footballer. In fact it\textquoteright s completely irrelevant to what you can achieve in your work or life.\textsuperscript{9}

Music can make a significant contribution to the life of so-called \textquoteleft\textquoteleft disabled\textquoteright\ people as seen in the life of hearing impaired Evelyn Glennie. An investigation into the influence of the socio-cultural environment of Evelyn Glennie on her musical development could be beneficial to other people.

The overarching research question of this study therefore is:

\textbf{What are the extrinsic and intrinsic factors that influenced the development of music skill and musicianship of hearing impaired percussionist Evelyn Glennie?}

\textsuperscript{7} The literature review, which occurs later in this chapter, substantiates this claim.
This research therefore aims to:

(a) Determine the extrinsic and intrinsic factors that contributed to the musical development of Evelyn Glennie.

(b) Raise an awareness toward and by hearing impaired people that they are capable of perceiving and making music as an important form of self-expression.

2. Research design

The research design consists of three sections. The first deals with a literature study of the anatomical system related to ‘hearing’ and the cognitive processes related to music ‘listening’.

The second section forms the crux of this research endeavour and involves a case study of Evelyn Glennie. Qualitative ways of data collection are used and include literature studies, published interviews with Evelyn Glennie, her autobiography and audiovisual material.

Glennie was approached via email, and agreed to respond to questions posed to her in an electronic interview. Her responses as well as autobiography are used to determine the extrinsic and intrinsic factors that contributed to her development as a musician. Other interviews conducted with her by Jeffrey Brown and Steve Alspach are also used to obtain a more complete picture. Relevant literature and research published about the hearing impaired and music in scholarly journals are used to complete the multi-method process of research required for a single case study.¹⁰

In the third section Evelyn Glennie’s experiences have been compared to the socio-cultural environment of the hearing impaired in Cape Town, South Africa and interviews were conducted with Lucinda Rutter, an educator of the hearing impaired, Ronel Davids, a social worker for the deaf and official sign language interpreter in Parliament, Arman

Kleinschmidt, who is the director of DEAFSA (Deaf Federation of South Africa). These interviews were semi-structured to allow for greater flexibility in pursuing new information as it emerged. Questions around several themes served as guidelines for these interviews that were recorded and transcribed by the researcher. A technical editor at the Writing Centre of the University of Cape Town verified the transcripts. Permission was sought from the interviewees, and Lucinda Rutter and Ronel Davids agreed to the transcripts being included in the dissertation.

The researcher also conducted observations at the Bastion. The Bastion is a community centre for the hearing impaired. Services are delivered in their first language, which is sign language. The organisation DEAFSA (Deaf Federation of South Africa) is also housed at the Bastion. The Bastion provides social services such as social work, counseling - marriage counseling, handling abuse, whatever needs arise. There are also two development workers who are hearing impaired, who specialise in certain avenues of work who help complete certain grant application forms, ID applications, marriage certificates etc. Observations were also conducted at the Bel Porto School and the Dominican School for the Deaf, Wittebome, Cape Town. The researcher spent time in the classroom and at the schools to observe the learners in their natural learning environment.

3. Chapter Outline

Chapter one deals with the purpose and motivation for this study. Chapter two is an in-depth theoretical study defining hearing in normal and handicapped people, exploring aspects such as the hearing anatomical system and its functions, failures of the system, as well as musical hearing (the perception of pitch, loudness, timbre and duration in music) and cognitive-based musical listening. Chapter three deals with the case study of Evelyn Glennie and includes a structured-electronic interview followed by an analysis of that interview. The fourth chapter involves an examination of the socio-cultural aspect of deafness with reference to the hearing impaired community in general. Aspects that are covered include communication, social acceptance, the power structure in the deaf

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11 Ronel Davids, social worker and sign-language interpreter for the hearing impaired, interviewed by the researcher on 18 February 2003.
community, music and the hearing impaired and the South African context will also be discussed. Interviews with social workers and educators working with the deaf community are also presented in this chapter. Chapter five summarises the research finding, includes recommendations based on the research findings and concludes the research.

4. Limitations of the Study
Evelyn Glennie has a demanding schedule and she was unable to answer follow-up questions. Therefore, the researcher could only electronically present her with one structured set of open ended questions.

This study ideally should elicit responses from more hearing impaired individuals apart from Evelyn Glennie. It should ideally also have included viewpoints of hearing impaired people on the role that music education can play. It was difficult to socialise with the hearing impaired community because of the researcher's lack of skills to sign. The researcher was also limited in her understanding of the auditory/vocal culture.

5. Literature Review
Little research has been conducted on the factors influencing disabled musicians. The researcher conducted searches within the following local online catalogues: Nexus, SaCat, ISAP and UCTD. These catalogues contain all literature published recently within South Africa including submitted dissertations at all universities. The majority of investigations found were on deafness and disability, however, no link to music or factors influencing disabled musicians could be traced. The researcher went further to conduct searches within international catalogues. To summarize the lack of research in this field: the researcher viewed only 11 results from a search conducted on a new database 'Proquest digital dissertations (<http://wwlib.umi.com/dissertations/fullcit/980993>) which attempts to publish all completed dissertations and theses at universities abroad.\[12\]

\[12\] The researcher used keyword combinations such as: disabled + musicians, deaf + music, deafness + music, disability + music, hearing impaired + music.
Of these 11, only two were related to music and hearing impairment. Ana Cruz\textsuperscript{13} examined how one profoundly congenitally deaf person constructed meaning in music. Victoria Story Hagedorn\textsuperscript{14} investigated the musical thinking of hearing impaired children. No research was found on any aspect of Evelyn Glennie. It is clear that the topic of music and hearing impairment is still an under-explored area of research.


CHAPTER TWO

HEARING AND LISTENING IN NORMAL AND HANDICAPPED PEOPLE

Introduction

Hearing is the perception of sound, and includes both the physical reception of the sound and its encoding and transmittal as information to the brain.\(^1\)

Hearing and listening are the basis for language and concept development. Hearing refers to the physiological status of the ear (i.e. the ability to receive sound), while listening refers to the ability to pay attention to sound and to make sense of what is heard. Listening is crucial for people with normal hearing as well as for those with hearing loss. If speech is used to impart information to a person, then the status of that person’s hearing must be established and hearing and listening abilities maximized. Specific technologies such as hearing instrument systems (hearing aids), cochlea implants, hand-held microphones, etc. are available that can create an improved listening/hearing environment by enhancing the reception of clear speech signal. Listening strategies can also be implemented to focus a person’s attention to sound. Technology and listening strategies can play an important role in a person’s ultimate success to hear.

The auditory system is an obligatory one. It cannot simply be turned off. In simpler life forms the main function of the auditory system is protection. Because it is obligatory it serves to constantly assess the surroundings for danger as prey, and opportunity, as predator. In more evolved life forms, it takes on an increasingly important communication function, whether that be for mating calls or for talking on the telephone.\(^2\)

When hearing well, a person receives the full range of sound around them and can interpret those sounds accurately, even when there are many sources present at the same moment. We can listen to a friend talking while music is playing, a dog barking, traffic noises drifting in from outside and without effort, understand the nature of each of these sounds and pay attention to those we consider important.

The functional disorder called deafness cannot be described without some understanding of the way in which the normal ear works; the normal ear cannot be described without knowledge of its structure. In this chapter the anatomical and physiological elements involved in the transmission of sound and its reception, both normal and abnormal will be defined. Cognitive aspects related to musical listening will also be addressed.

1. The Anatomical system and its function

The physical processing of acoustic information occurs in three groups of structures, commonly known as the

a. Outer ear
b. Middle ear
c. Inner ear

Figure 1.1 Cross-cut diagram of the ear

The outer ear has three main components: the pinnae/auricle, the ear canal and the outer layer of the eardrum or tympanic membrane. The auricle is the visible portion of the ear consisting of skin-covered cartilage. It is the first point of interception of sound waves and serves to collect and resonate sound, assist in localization, and functions as a protective mechanism for the middle ear. The outer ear canal is a narrow channel leading from an opening in the side of the head that measures 23-29mm in length. The outer two thirds of the canal are composed of skin-covered cartilage. The inner one third is skin-covered bone. The skin in the cartilaginous portion of the canal contains glands that secrete earwax or cerumen. The ear canal is a narrow funneling apparatus which guides the sound vibrations to the ear drum, which forms the outer boundary of the middle ear.

The eardrum is also called the tympanum from the Greek word “drum”. Beyond the tympanic membrane lies the middle ear cavity that is air-filled. Air in the cavity is kept at atmospheric pressure via the Eustachian tube. This tube allows air to pass between the tympanic cavity and the outside of the body by way of the throat and mouth, maintaining equal air pressure on both sides of the ear drum, which is important for normal hearing. The function of the Eustachian tube can be experienced during rapid altitude change. For example, as a person moves from a high altitude to a lower one, the air pressure on the outside of the membrane increases. The eardrum may be pushed inward, out of its normal position, and hearing may be impaired. When the air pressure difference is great enough, some air may force its way up through the Eustachian tube into the middle ear. At the same time, the pressure on both sides of the ear is equalized, and the eardrum moves back.

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4 The following description of the auditory system and its mechanism is a summary formulated with the aid of various sources:


5 The tympanic membrane and eardrum are terms, which can be used interchangeably in subject literature.

6 The Eustachian tube leads from the air-filled cavity in the middle ear to the back of the throat which is called the nasopharynx.
into its regular position. The person usually hears a popping sound at this moment, and normal hearing is restored.

The eardrum vibrates in response to the sound vibrations it receives. These vibrations are transmitted through the middle ear by three small bones, called the ossicles. The upper portion of the eardrum is attached to an ossicle ("little bone") called the malleus which is connected to the other ossicles, the incus and stapes. These three ossicles make up an articulated system of levers, which act like a piston to amplify the force of sound vibrations of the eardrum. These vibrations are transmitted through the middle ear via the ossicles, to a membrane-covered opening in the bony wall of the spiral-shaped structure of the inner ear - the cochlea. This opening is called the oval window. Inward movement of the oval window results in a corresponding outward movement in a membrane covering a second opening in the cochlea – the round window. The cochlea is a fluid-filled structure that resembles the shape of a snail with 2.5 turns. The stapes being the lightest and smallest of the ossicles is the one which actually makes contact with the oval window.

Figure 1.2 Diagram of the Middle Ear Ossicular Chain

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7 The bones in the ossicular chain are also referred to as hammer, anvil and stirrup as opposed to malleus, incus and stapes and are noteworthy for being the smallest bones in the body.
8 The word cochlea is derived from the Latin word for snail shell.
The major function of the middle ear is to ensure the efficient transfer of sound from the air to the fluids in the cochlea. Transmission of sound through the middle ear is most efficient at middle frequencies (500-4000Hz).

The inner ear is an extremely complex structure which consists of the auditory and vestibular labyrinths\textsuperscript{10}. The auditory labyrinth is called the cochlea and is the sensory end-organ of hearing. The vestibular system acts as a motion detector. The vestibular portion of the inner ear consists of 2 sacs (saccule and utricle) and 3 circular canals (superior, lateral and posterior semicircular canals). The unique architecture of the semi-circular canals which permits an awareness of the body’s movement in a three-dimensional space helps humans deal with gravity and to find their position in space. With the emergence of sound, however, came the need for a system of sound perception. Thus, it seems only natural that the part of the ear which evolved to perceive sound - the cochlear system - grew out of the vestibular system\textsuperscript{11}.

The anatomy of the inner ear is dominated by large fluid-filled spaces. A complex series of tubes containing these fluids run through the temporal bone of the skull. The bony tubes (sometimes called the bony labyrinth) are filled with fluid called perilymph. Within this bony labyrinth is a second series of tubes called the membranous labyrinth. The fluid inside these membranous structures is called endolymph. Its role is to transform the vibratory energy of sound into nervous energy. The mechanical energy impinging on the cochlea is converted to activity of the auditory nerve fibres, which transport information to those sections of the brain that will decode it. The cochlea is the most important part of the ear and can provide the key to many aspects of auditory perception. The cochlea is filled with almost incompressible fluids and it also has bony rigid walls. It is divided

\textsuperscript{10} Stach, (58).
along its length by two membranes, Reissner’s membrane and the basilar membrane. The conversion of the mechanical energy of a sound into electrochemical energy for transmission to the brain is performed in the cochlea by the basilar membrane and Organ of Corti, the actual receptor of sound.

Figure 1.3 A sectional view of the cochlea\textsuperscript{12}

The Organ of Corti which contains the hearing receptors is located on the upper surface of the basilar membrane and stretches from the apex to the base of the cochlea. Its receptor cells, which are called hair cells, are arranged in rows and they possess numerous hairs like processes that extend into the endolymph of the cochlear duct. As the vibrations pass through the inner ear, the hairs shear back and forth against the tectorial membrane, and the mechanical deformation of the hairs stimulates the receptor cells. The cells act very much like neurons and they transmit nerve impulses along the cochlear branch of the vesibulocochlear nerve to the brain. The brain then interprets these nerve impulses.

impulses, and the hearing process is complete. The inner ear is the organ of perception, in contrast to the middle ear, the organ of transmission.

One of the hallmarks of audiology is the assessment of hearing sensitivity. There are two kinds of sensitivity, *absolute* and *differential*. Abs

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Inherent in the description of hearing sensitivity is the notion of *threshold*. A threshold is the level at which a stimulus or change in stimulus is just sufficient to produce a sensation or an effect. It is useful to differentiate between absolute and differential threshold. In hearing, *absolute threshold* is the threshold of audibility, or the lowest intensity level at which an acoustic signal can be detected. It is usually defined as the level at which a sound can be heard 50% of the times that it is presented. *Differential threshold*, or *difference limen*, is the smallest difference that can be detected between two signals that vary in some physical dimension.

The auditory system is highly complex. Describing the function of such a rich, complex system is an academic discipline in and of itself, called *psychoacoustics*. The knowledge base of this field is broad and well beyond the scope of this study. However, an understanding of some fundamental concepts is necessary to pursue the study of hearing and listening in the context of this study. One of the rudiments of hearing and listening is the ability to differentiate between *loudness* and *pitch* as defined by Stach:

**Loudness** refers to the perception that occurs at different sound intensities. Low *intensity* sounds are perceived as soft sounds, while high intensity sounds are perceived as loud sounds. As intensity increases, so too does the perception of loudness. Intensity is expressed in decibels sound pressure level, or SPL. One of the most common referents for decibels in audiometry is known as hearing level (HL), which represents decibels according to average normal hearing.

**Pitch** refers to the perception that occurs at different sound *frequencies*. Low-frequency sounds are perceived as low in pitch and high-frequency sounds as high in pitch. As frequency increases, so does the perception of pitch. Frequency is usually expressed in cycles-per-second or Hertz (Hz).

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13 *Absolute sensitivity* is the ability to detect faint sound. *Differential sensitivity* is the ability to detect differences or changes in intensity, frequency, or other dimensions of sound.

14 Stach, (71). Bold font for certain words used by Stach.

15 *Psychoacoustics* is the branch of psychophysics concerned with the quantification of auditory sensations and the measurement of the psychological correlates of the physical characteristics of sound (Stach glossary, 294).

16 Stach, (82).
An understanding of these basic aspects of hearing is only the beginning of understanding the full nature of how humans hear. Once sound is audible, the auditory mechanism is capable of processing complex speech signals, often in the presence of similar, yet competing, background noise. The auditory system's ability to process changes in intensity and frequency in rapid sequence to perceive speech is a remarkable processing accomplishment.

The most common kind of hearing problem is a loss of the ability to hear sounds of low intensity – one becomes “hard of hearing” and turns the radio or television louder, asks others to “speak up” and often requires a hearing aid. This is a simple deficiency in reception ability, and is compensated for by increasing the intensity, the loudness, of the sound by one means or another.

2. The nature of hearing impairment

Hearing impairment results from a number of causes and is usually characterized by the type and degree of hearing loss. The type of hearing loss is related to the location of the disorder within the auditory system, and degree of loss is related to the extent that the disorder is infringing on normal function.

Hearing impairments can be characterized into two major types:

- Hearing sensitivity loss
  - Conductive hearing loss
  - Functional hearing loss
- Auditory nervous system disorders
  - Sensorineural hearing loss
  - Retrocochlear loss

*Hearing sensitivity loss* is the most common form of hearing loss. It is characterized by a reduction in the sensitivity of the auditory mechanism so that sounds need to be of a higher intensity than normal before they were perceived by the listener. *Auditory nervous system disorders* are less common, may or may not
include hearing sensitivity loss, and often result in reduced ability to hear suprathreshold\textsuperscript{17} sounds properly.\textsuperscript{18}

The major cause of hearing impairment is a loss of hearing sensitivity. A loss of hearing sensitivity means that the ear is not as sensitive as normal in detecting sound. Stated another way, sounds must be of a higher intensity than normal to be perceived. Hearing sensitivity loss is caused by an abnormal reduction of sound being delivered to the brain by the disordered ear. This reduction of sound can result from a number of factors that affect the outer, inner and middle ears. When sound is not conducted well through a disordered outer or middle ear, the result is a conductive hearing loss. Sometimes conductive hearing loss is produced by wax in the ear canal, viscous fluid may build up in the middle ear because of infection or the stapes may be immobilized as a result of growth of bone over the oval window. The difficulty by the sufferer can be well predicted from the elevation in absolute threshold. A simple hearing aid is usually quite effective in such cases and surgery can also be effective.

Conductive hearing loss can be tested via bone conduction tests; use vibrating tuning forks placed in contact with the head. By bypassing the external auditory canal and middle ear, bone conduction tests can help distinguish problems in the inner ear.\textsuperscript{19}

When the sensory or neural cells or their connections within the cochlea are absent or not functioning, the result is sensorineural hearing loss although it is inaccurately known as 'nerve deafness'. Sensorineural hearing loss most commonly arises from a defect in the cochlea and is then known as cochlear loss. However, sensorineural hearing loss may also arise because of defects in the auditory nerve or higher centres in the auditory system. Hearing loss due to neural disturbances occurring at a higher point in the auditory pathway than the cochlea is known as retrocochlear loss. The particular difficulties experienced by the sufferer and the types of symptoms exhibited, depend on which part of the system is affected. Often the extent of the loss increases with frequency, especially

\textsuperscript{17} An intensity level that is above threshold is considered suprathreshold.

\textsuperscript{18} Stach, (90).

\textsuperscript{19} Retrieved from http://www.entcolumbus.org/hearloss.htm on the 23 November 2003
in the elderly. However, the difficulty experienced by the sufferer is not always well predicted from the audiogram. People with sensorineural hearing loss often have difficulty in understanding speech in noisy environments and the condition is usually not alleviated by a hearing aid. Most sensorineural losses cannot be treated by surgery. When structure of both the conductive mechanism and the cochlea are disordered, the result is *mixed hearing loss*.

Auditory Nervous System Impairments may or may be not accompanied by sensitivity loss. These impairments result from disease or damage to the central auditory nervous system in adults\(^{21}\) or delayed or disordered auditory nervous system development in children. The consequences of Auditory Nervous System Impairments can be remarkably similar to hearing sensitivity loss from a hearing perspective, but they are treated significantly differently.

Functional hearing loss is the exaggeration or feigning of hearing impairment. Adults and children feign hearing loss for different reasons. Adults are usually seeking secondary or financial gain. That is, an employee may be applying for worker’s compensation for hearing loss. Children with functional hearing loss are often using hearing impairment as an excuse for poor performance in school or to gain attention.

In addition to type of loss, a hearing impairment can be described in terms of time onset, time course of the disorder or impairment, and whether one or both ears are involved.

A hearing loss described by the time of onset: *Congenital* (present at birth), *Acquired* (occurring after birth) or *Adventitious* (not congenital and acquired after birth). Acquired deafness is the loss of hearing that occurs or develops some time during a person’s life but was not present at birth. An Acquired hearing loss may also be called an adventitious hearing loss. Acquired deafness contrasts to congenital deafness, which is present at birth, or associated with the birth process, or to have developed in the first few days of life. Some Scholars refer to hearing loss as being *pre-lingual* or *post-lingual*. A pre-

\(^{21}\) An example such as tumour or damage due to a stroke.
lingual hearing loss occurs before the acquisition of language and speech. A post-lingual hearing loss is one occurring after development of a first language.

Hearing loss or auditory disorder can also be described by its time course: *Acute* (of sudden onset and short duration), *Chronic* (of long duration), *Sudden* (having a rapid onset), *Gradual* (occurring in small degrees), *Temporary* (of limited duration), *Permanent* (irreversible), *Progressive* (advancing in degree) and *Fluctuating* (a periodic change in degree).

In addition, hearing loss can be described by the number of ears involved: *Unilateral* (pertaining to one ear only) and *Bilateral* (pertaining to both ears).

In terms of communication, the degree of hearing loss could be considered as follows:

- **Minimal** – difficulty hearing faint speech in noise
- **Mild** – difficulty hearing faint or distant speech, even in a quiet environment
- **Moderate** – hears conversational speech only at a close distance
- **Moderately severe** – cannot hear conversational speech
- **Profound** – may hear loud sounds to the extent that hearing is not the primary communication channel

It can therefore be concluded that hearing loss is not an “all-or-nothing” condition; it occurs along a broad continuum, ranging from mild hearing loss to profound hearing impairment. Being alert to possible hearing impairment can facilitate early identification and management.

- Family history of childhood hearing loss
- Unusual ear, eye or neck development
- Birth weight less than 1500 grams
- Severe jaundice
- Bacterial meningitis
- Prolonged mechanical ventilation for a duration equal to or greater than 10 days
- Head trauma
• Childhood infectious diseases known to be associated with sensorineural hearing loss e.g. mumps, measles

Some indicators that a child may be experiencing hearing difficulty (or more difficulty than usual) include

• Failing to respond or responding inconsistently to environmental sounds and/or soft or normal speech
• Preferring loud volume on audio equipment or placing an ear on a speaker
• Turning head one side to hear better
• Withdrawing from activities
• Appearing to be in discomfort in noisy situations

Any concern generated by this list warrants referral to an audiologist to further determine the status of the child’s hearing. Warning signs that a child may be experiencing middle ear problems include pulling the ear, head shaking, discharge from the outer ear and irritability. Other associated symptoms e.g. fever, vomiting, disturbed sleep, lack of appetite.

Many obstacles can affect the flow of sound from its inception at the outer ear to its decoding in the brain. Vibration is a physical phenomenon, and interference with its reception will mainly be caused by mechanical problems such as total or partial obstruction of the external auditory canal: ear wax or the presence of a foreign body such as a piece of cotton, a bread crumb, a pearl or pencil tip are enough to reduce the sound stimulus by many decibels. An infection of the canal, inflammation of the ear or a polyp or other growth could have the same effect. Another factor which could possibly affect the flow of sound is eardrum problems. The eardrum can be thickened or affected by eczema, or even torn. Its mobility can be hampered by the presence of excess liquid in the middle ear or by defective functioning of the Eustachian tube, so that air pressure is not

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22 The indicators and warning signs to possible hearing impairment is a summary made from the following sources:

equal on both sides. The malfunctioning of the *ossicles* could inhibit sound inception. Their movement can be blocked by interior otitis or the presence of hardened tissue, or a genetic effect can fuse the *incus* and *stapes*. Any alteration in the middle ear reduces the transmission of incoming sound.

All these mechanical obstructions to the flow of sound can be treated appropriately: the auditory ducts can be cleared by cleaning or localized treatments; damaged eardrums can be rebuilt and medical treatments such as thermal treatment or surgery can deal with malfunctions of the middle ear.

The impact of hearing impairment on communication depends on factors such as age of onset of loss, whether the loss was sudden or gradual, and communication demands on the patient. However, the cornerstone of treatment has to be the early provision of appropriate hearing aids, backed up by the assessment and facilitation of early communication, family support, auditory training and so on.

3. Musical hearing

The mechanical process described so far is only part of the complex process of humans' perception of sounds. In order to understand the perceived sounds, they have to be interpreted within the individual's framework of cognitive syntax. The mechanism of sound interpretation is an area, which has not been fully explored by researchers. It is, for example not clear whether all people interpret sounds in the same way. The ability of people to judge pitch is furthermore quite variable. However, it can be conclusively deduced thus far that, musical hearing involves the physical motion of the tympanic membrane and associated structures as well as conversion to neural impulses that the brain interprets as sound. Furthermore, it can also be said that various physical and neurological conditions can interfere with hearing, degrading the quality that reaches the auditory stream. However, inclusive in the training of any musician's musical hearing is the ability to discriminate between various features within music. These features will be

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addressed in the next section of this chapter by breaking the experience of musical hearing into separate elements.

3.1 The perception of pitch, loudness, timbre and duration in music

Each of the physical attributes of sound – frequency, intensity, wave form, and time – has a psychological correlate – pitch, loudness, timbre, and duration. Psychological elements of sound are the subjective sensations, which appear from the existence of particular physical stimuli. Since the ancient Greeks, researchers such as von Helmholtz and von Békésy, have attempted to explain how the psycho-acoustical elements of sound are being perceived.

Hermann von Helmholtz proposed the first important theory of hearing in 1868. This theory is called the Helmholtz Resonance Theory. Helmholtz called his theory the resonance theory, because he was struck by the resemblance of the basilar membrane structure, to a system of strings like that of a piano or harp. In the same way that each string on the piano or harp responds to a predetermined pitch, Helmholtz theorized that the cochlear nerves (Organ of Corti) of the basilar membrane are responsible for a particular pitch. The cochlear nerves act as resonators and strings tuned to particular tones.

Although Helmholtz’s basic doctrines are still valid, many amendments and modifications have been made in the intervening years, the most notable being contributions from von Békésy, who won a Nobel prize in 1961 for his studies on the operations of the inner ear.

Pitch is the place a tone is perceived to occupy in a relatively fixed region of the musical scale.

Pitch is that attribute of auditory sensation in terms of which sounds may be ordered on a musical scale.

In other words, variations in pitch give rise to a sense of melody. A constant challenge to performers of non-pitched instruments (such as the violin, voice etc.) is to achieve good intonation. A considerable amount of attention during lessons is given by both students and teachers to achieve this in singing and instrumental lessons, ensemble rehearsals etc. Often the quality of a musician’s intonation is used as a yardstick to measure the music ability of the instrumentalist. Karpinsky notes that many musicians who have reached the university, college, or conservatory level demonstrate only small improvements in intonation skills since the basic training has already been covered before they commenced their study at university level.27

**Tone** – a tone is a sound wave capable of evoking an auditory sensation having pitch.28

Tones with a high frequency are perceived to be higher in pitch than tones with a lower frequency. Pitch is primarily a function of frequency but is also influenced by intensity, waveform and duration.

**The Place Theory**
For lower frequencies, the point of maximum excitation on the basilar membrane is nearer the apex or helicotrema and for higher frequencies it lies nearer the oval window. According to the **place theory**, the pitch ascribed to pure tones is determined primarily by the location of the hair cells being stimulated.29

Octaves30, musical intervals and musical scales:
Tone evokes pitch and therefore a sequence of tones with appropriate frequencies evokes the percept of a melody. For example, two tones which are separated in frequency by an interval of an octave i.e. one has twice the frequency of the other sound similar. Thus tones which are separated by an octave (where the frequencies are in the ratio 2:1), have an essential similarity and indeed are given the same name C, D etc. in the traditional music scale. The identification of intervals is variable, even among musicians and does

30 An octave is the interval between two tones when their frequencies are in the ratio 2:1.
appear to be a learned ability. Some people have the ability to recognize and name the pitch of a musical tone without reference to a comparison tone. This faculty is called absolute pitch or perfect pitch and is quite rare, probably occurring in less than 1% of the population (although it is more common in Japan).31 Absolute pitch is distinct from the ability which some people develop to judge the pitch of a note in relation to say, the lowest note which they can sing.

Individuals who are unable to recognize pitch, which is not consequent to any hearing deficiency, mental retardation or lack of environmental stimulation are:

...variously termed tune-deafness, tone-deafness, dysmelodia or dysmusia in the literature. However, we prefer to refer to this learning disability with the less restrictive label of 'congenital amusia', because there may be as many different forms of developmental amusias as there are varieties of acquired amusias that result from accidental brain damage in adulthood32.

Congenital amusia is therefore a learning disability for music where there is an underdeveloped system for processing music. Individuals are impaired in the discrimination and recognition of musical tasks and there is a deficiency in processing pitch variations. A study conducted by the Department of Psychology, University of Montreal33 documented in detail the behavioural manifestations of 11 adults, fitting stringent criteria of musical disabilities and the research results showed the following:

These impairments cannot be explained by hearing losses, since they all have, or grew up with, normal audiometry. The musical disorder cannot be explained by a lack of exposure since all amusical participants had music lessons during childhood and were raised in families in which a few siblings are musically normal. Finally, the musical deficit cannot be ascribed to some general cognitive slowing since all amusical participants have reached a high level of education. The musical disorder appears as an accidental disturbance in an otherwise fully normal cognitive and affective system.34

The perception of Loudness

Loudness is the subjective awareness of weak and strong sounds.

31 Moore, (210).
33 Ayotte et al, (238-251).
34 Ayotte et al, (249).
Loudness refers to the perception that occurs at different sound intensities. Low intensity sounds are perceived as soft sounds, while high intensity sounds are perceived as loud sounds. As intensity increases, so too does the perception of loudness.

Loudness is coded and transmitted by the firing rate of the hair cells within the resonance region of the basilar membrane. When the intensity of a tone is increased, the nerves fire at a faster rate. If the tone continues to increase in intensity, the hair cells quickly reach their ultimate firing rate with the result that the resonance region spreads wider along the basilar membrane including more and more hair cells that join in the firing. Thus, the perception of loudness is a result of the total number of neural impulses – a combination of the firing rate of individual neurons and the number of neurons within the resonance region.

The perception of Timbre

Timbre is the characteristic quality of sound, which distinguishes one instrument or voice from another, the quality which allows the listener to differentiate between a string quartet and brass band. Contrary to pitch and loudness, which can be perceived from high to low and soft to loud, timbre, does not exist on a unidimensional scale. Some scores may specify and notate the timbre of the passage. Rather, timbre is described by words such as rich, bright, dull, transparent etc.

The perception of Duration

Of the 4 psychological attributes of sound, duration has perhaps the most defining relationship with its physical counter-part, time. For the most part, however long the physical sound lasts is how long it will be perceived. However, there is a difference in the psychological perception of duration and the physical length of the stimulus. For example, Vierordt’s law states that short (usually less than one second) time intervals are overestimated, while longer ones are underestimated. Furthermore, there is evidence that different perceptual processes are in operation in the discrimination of time intervals above and below 600 milliseconds. The experience of duration is influenced both by

\[35\text{ Stach, (82).}\]
subject variables (age, physical condition, drugs) and stimulus variables (complexity, spacing).³⁶

A thorough understanding of the physiology of the hearing mechanism is essential to understanding many aspects of musical behaviour. In the field of physical acoustics, the question that is primarily of interest to the psychology of music is what physical processes must take place in order to produce a sensation of sound. The topic is a complex one, however a basic understanding of: how a sound wave travels from outside the ear to the brain and the perception of the psychological attributes of sound should be understood.

4. Cognitive-based musical listening
To take any active and meaningful part in musical activities, one has to perceive it.³⁷ This it may seem a very simple and menial task. However, until one is made aware of it, one may not perceive music being played around you. Hearing refers to the physiological status of the ear (i.e. the ability to receive sound), while listening refers to the ability to pay attention to sound, implying that music can be heard but not necessarily understood. Once music is perceived, musicians need to be able to identify, analyse and group the elements within it such as pitch, loudness, duration, timbre, texture, form and perception. Musicians are often educated towards perception and cognition in conventional aural classes.

When a musician reads music symbols s/he could react mentally and physically to them by performing on an instrument. This method is often most reliable in discovering the pitches involved in melody and harmony. Alternatively, as suggested by Pratt, musicians have an imaging ability, that is, the ability to convert the symbols into imagined sound, without actual sound being present.³⁸ Imaging is an internal process, generating an impression inside the mind. Aural Imagery before Sound Production is a procedure,

which any musician should adhere to. The ability to 'auralize' procedures such as timbre, duration, loudness etc. is valuable not only in actual performing situations, but also for everyday reading tasks. Edwin Gordan developed the term 'audiation' to describe this phenomenon.

When the internal process of 'imaging' has occurred, a further stage would be that of externalizing the sound accurately through instruments. Pratt describes the process of externalizing in the following way:

Externalizing is something we do constantly with the voice. Children learn nursery rhymes by first listening, and then singing what they have heard. To some extent we do the same when learning to play an instrument. Most teachers demonstrate what is required, both physically and musically, in any particular musical situation; conductors verbalize articulation and sing phrasings in order to communicate their intentions.

Therefore, once a musician has 'auralized' procedures such as pulse, tempo, meter, loudness etc., these procedures must be performed in some external fashion that is via singing, tapping, conducting and performance on an instrument if they are to be assessed by teachers or peers. Before performing, musicians should be able to establish a key or set a tempo without making a sound. Anyone reading metric tonal music must be able to auralize key and meter before beginning to interpret and understand the individual notes. The ability to auralize the sounds of the individual notes is equally important. Proficient readers scan ahead, taking in musically meaningful groups of notes and hearing them internally before producing their sounds.

Extensive research in this field has been conducted by Anri Herbst. Herbst describes in detail various theories related to the musical hearing process and makes specific reference to Peter R. Webster, Carolyn Hildebrandt and Warren F. Prince who present models that attempt to simulate artificially the musical thinking process.

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38 Pratt, (83).
39 This term is used by Karpinski.
41 Pratt, (96).
42 Karpinski, (156).
Peter R. Webster developed a comprehensive model for musical creative thinking, incorporating the acts of composition, instrumental/vocal performance/improvisation and analysis (either written, verbal or imaginative form). According to Webster, creation is involved in all these acts. To reach his goal of composition, performance, improvisation or analysis, the creator has to rely on so-called ‘enabling skills’ that allow for the thinking process to occur. These skills are musical aptitudes (tonal and rhythmic imagery, musical syntax and extensiveness, and originality nurtured by the environment), conceptual understanding, (single cognitive facts that embody musical understanding such as rhythmic, melodic, harmonic, and timbral concepts) craftsmanship (ability to apply factual knowledge to solve a complex musical problem), aesthetic sensitivity (shaping of sound structures to capture affective responses to music).43

These ‘enabling skills’ determined by Webster are related to the earlier mentioned theory of cognitive musical listening as described by Pratt who describes the processes by using the terms imaging and externalizing. Both Webster and Pratt address the internal process of tonal and rhythmic imagery before sound production. Herbst goes on to describe the theory presented by Carolyn Hildebrandt, who distinguishes between musical-logical (discrimination and classification of pitches, duration, timbres, tonal and rhythmic progressions, themes and variation, and larger musical forms) and musical-grammatical reasoning (understanding of the form and meaning of music within given styles and traditions).

The first enables the classification of musical excerpts as being the same or different, and the latter enables the recognition of certain changes as related to melodic variations within a given style of music, and also enables the ability to anticipate the musical events which are likely to occur next. It was recommended that more attention should be given to this second form of musical-grammatical aspects of cognition, because the ability to organise musical sounds and derive structure and meaning from them is important for musical development.44

Every performance of music should embody a sense of timbre, duration, loudness, meter and form. Musicians must be cognizant of metric structure, timbre qualities, dynamics and any deviations there from. Cognitive musical listening should become as practical as possible to musicians. In various roles - students, instrumentalists, composers, and conductors – musicians can apply their cognitive skills to all their musical activities.

44 Herbst, (193).
The objective of every musician through means of perception and cognition should be to aspire to become the "ideal listener". Herbst uses this description as the 'primary long-term goal'. Musicologists such as Karl Macek and Gustav Güldenstein have provided their own individual descriptions of the "ideal listener". However, the definition prescribed by Erwin Ratz fulfills all that, which should be attained:

The ideal listener perceives every musical detail consciously and takes nothing for granted. Reasons for certain appearances are sought in order to develop beyond the instinctive recognition level. The relationship between detail and the whole is understood.

It is a reasonable assumption, that, when discussing deafness combined with music it is expected to mention Ludwig van Beethoven (1770 - 1827) – the composer who reshaped the Classical style. Throughout his life, Beethoven and his friends were mystified by his deafness. They attributed it to a wide variety of possibilities. After Beethoven’s death the autopsy report stated that

"the auditory nerves...were shrunken and destitute of neurina; the accompanying arteries were dilated to more than the size of a crow quill and cartilaginous." Specialists disagree as to a diagnosis; some lean toward ‘otosclerosis’; others claim that it was a disease of the inner ear, while still others favour ‘otitis media’, a disease of the middle ear.

Beethoven’s deafness began to manifest itself as early as 1798, and grew steadily worse until by 1820 it was practically complete. Data presented by Solomon strongly suggests a pattern of progressive, though uneven, deterioration of Beethoven’s hearing. His suggestion is contrary to popular belief that the onset of Beethoven’s deafness was sudden and dramatic.

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44 Ratz freely translated by Herbst, (32).
46 Solomon, (145 - 162).
The gradual closing off of Beethoven’s aural contact with the world inevitably led to feeling of loneliness and isolation however, deafness did not impair his music and may have indeed, heightened his abilities as composer.

The textbook definition of the category of "deaf", i.e. not being able to hear sound, and the category of "Music", which is sound, are seemingly mutually exclusive. Like Beethoven and Evelyn Glennie’s career, it may seem impossible. However, it is clear that the ‘hearing’ of music involves numerous complex processes and does not solely depend on the physical reception of sound.
CHAPTER THREE
A CASE STUDY OF EVELYN GLENNIE

1. Introduction
On in the evening of 27 July 1989, a packed audience at Kensington Town Hall was eagerly awaiting a unique event in the world of classical music - the first solo percussion recital ever held in the ninety-five years of the BBC's prestigious Henry Wood Promenade Concerts. The recital was a sold out completely, the first time it had happened for this hall, and the people were standing at the back of the auditorium as well as the promenaders crowding in front of the stage. The performance exceeded Evelyn Glennie's wildest dreams. By the end of the recital, the audience were on their feet, clapping ecstatically, cheering and shouting for more and Evelyn then entertained them with 3 encores. David Cairns from The Sunday Times: "Glennie is a phenomenal player". Today, Evelyn Glennie is lauded by the critics wherever she goes. Conductor Leonard Slatkin aptly summarised Evelyn Glennie's contribution in a recent interview:

Evelyn now shows you that percussion is more than drums, and it's more than just being able to keep time. It's a whole world of colours, and vitality and energy, and subtlety that perhaps most people didn't know about before. Evelyn Glennie literally has single-handedly put the concept of a solo percussionist on the map. Evelyn Glennie is a music star. At age 33, Glennie is the world's only full-time percussion soloist.

The existence of a musical world is often taken for granted in an alarmingly complacent manner. Music as an art of personal expression is imperative in the development of the hearing impaired. Through the adequate exposure to music any person could benefit richly in terms of self-expression, social and emotional integration. Even at the beginning of the 21st century handicapped and able-bodied people are often not treated on equal terms. According to hearing impaired percussionist Evelyn Glennie:

Deaf children just don't get a chance. I still feel very strongly that deaf children should be introduced to music as early and as much as possible. It's just crazy the way they are so often taken out of contact with normally hearing children and their activities, and shut up in special institutions with no access

Disabled people react to musical experiences exactly as normal people do. They are not more sensitive to music than others, but to them music can have special significance because it may be a substitute for impossible things, or a means of self-expression and communication better than others – even sometimes the only possible form of expression. According to the literature in music and the hearing impaired, teaching the whole body through body movements in order to perceive musical vibrations, rhythms, musical dynamics or any musical element is a way of helping the hearing impaired individual to construct his/her own concepts of music and consequently to understand them. Robbins and Robbins\(^4\) state that all children, including hearing impaired children, benefit from activities in which movement is necessary. Furthermore, Robbins and Robbins state that movement and music used together to motivate and help a child to control his/her own body can be particularly valuable means of expression for a hearing impaired child. Therefore, it is important to provide hearing impaired individuals the opportunity to appreciate and understand music.

The negative label of ‘deaf and dumb’ is an old relic from the medieval English era and an offensive term to the hearing impaired.

The category of “Deaf” used to be called “Deaf and Dumb” and was representative of the general consensus definition that people who were deaf could not understand the spoken word or the information being communicated and were therefore unable to hear, stupid and unable to speak. During the last century a growing number of deaf people proved that they were able to communicate and that deafness was not an indicator of intelligence.\(^5\)

A recent advertisement for Chapters bookstores in Canada read, “Music prices so good they’re a bargain even if you’re deaf\(^6\) The stereotype that this advertisement perpetuates displays the ignorance of some hearing people in their perceptions and portrayal of hearing impaired people. Very few if any of the so-called hearing

\(^5\) Retrieved from <http://www.evelyn.co.uk/disabled.htm> on 31 May 2001. The extract is based on a keynote speech by Evelyn Glennie at a recent seminar for teachers of “Special Education Needs students”.
impaired live in a world of complete silence. To signify this evolution of definition the category label of ‘deaf’ is gradually starting to be replaced with the label “hearing impaired.”

Scotswoman Evelyn Glennie is a full-time percussion soloist. She graduated from the London Royal Academy of Music with Honours and is following a career as solo percussionist instead of pursuing an orchestral career. Many musicians follow a solo career as pianists, violinists, flautists, cellists etc., but very few people can make a living as percussion soloist. Glennie has been “profoundly hearing impaired” since the age of 12. Starting at the age of 8, for reasons that are still unclear, Glennie’s auditory nerves gradually deteriorated and she lost most of her hearing.

Profound hearing impairment includes a vast number of warning signals. However, it is generally understood that the quality of sound heard is not adequate to enable understanding of the spoken word from sound alone. Dorland’s medical dictionary defines profound hearing impairment as:

> Hearing loss or impairment resulting from injury or loss of function of the organ of corti or the auditory nerve. There is a significant deficiency in the sense of hearing where hearing is not the primary communication tool.

2. **Associative hearing**

Without the interference of any other sound, Evelyn Glennie can usually hear someone speaking although she cannot understand them without the additional input of lip-reading. In Glennie’s case the volume is reduced compared with normal hearing, but more importantly, the quality of the sound is very poor. For instance, when a phone rings, Glennie hears a kind of crackle that she distinctly associates with a phone. This is basically the same as how normally hearing people detect a phone, the phone has a distinctive type of ring that we associate with a phone.

Hearing can also be seen as a specialized form of touch. As explained in the previous chapter, sound is vibrating air, which the ear picks up and converts to electrical

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signals that are interpreted by the brain. If a person stands along the road and a large truck goes by, it could be legitimately asked whether the vibration is heard or felt. The answer is both. With very low frequency vibration the ear starts becoming inefficient and the rest of the body’s sense of ‘touch’ starts to take over. Often the distinction between hearing a sound and feeling a vibration is made; however, in reality they are the same.10 In performance, Glennie plays barefoot, and hears her own instrument and the orchestra by feeling vibrations through the floor and in her own body.

When a particular sound is made, you can truly, truly feel that in certain parts of your body, and you just have to be so unbelievably sensitive to begin to translate certain sounds.11

It is interesting to note that in the Italian language the distinction between bodily sensations and hearing does not exist. The verb *sentire* means to hear and the same verb in the reflexive form *sentirsi* means to feel.

*Sentire*, to feel, to be sensitive or conscious of, to perceive; to hear, to listen; to guess; to foresee

In the Latin language, although these two verbs do not share a single translation, “to feel” is also translated as in Italian, as *sentire*.

*Sentire*, to feel an emotion (usually in the strong sense)13

Dr. Dean Shibata presented his findings at the Scientific Assembly and Annual meeting of the Radiological Society of North America. He found that hearing impaired people sense musical vibrations in the part of the brain (auditory cortex) that other people use for hearing. The study suggests that the brain of a hearing impaired person rewires itself to process vibrations in the absence of sound.14

These findings suggest that the experience deaf people have when ‘feeling’ music is similar to the experience other people have when hearing music. The perception of the musical vibrations by the deaf is likely every bit as real as the equivalent sounds, since they are ultimately

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processed in the same part of the brain. The enjoyment of music by deaf people has been overlooked for too long and the findings appear to support the experiences supported by deaf people.

These research findings present a strong case for exposing the hearing impaired to music and music education.

Hearing impairment does not imply that a person cannot ‘hear’, with the term ‘hearing’ referring to the process of sound perception and interpretation that was discussed in the previous chapter under the heading cognitive-based listening. Although there may be a physical deficiency in the anatomical functioning process that influences the way that the brain perceives and interprets sound, even a person who is suffers from complete hearing impairment can still ‘listen’, feel, and/or perceive sounds, albeit not in the commonly accepted meaning of the word. Another element connected to the hearing equation is sight. Glennie can see items move and vibrate; a drumhead or a cymbal vibrate, or even the leaves of a tree moving in the wind; the brain subconsciously creates a corresponding sound to the movement seen with the eyes. She stresses in the interview with the researcher that appears in the section 3.2 that “we need to realise that all our senses are linked to make one huge sense or the mystical 6th sense”.

The findings by Cruz confirm that several ways of sound experience was used by her case study to obtain information about music: visualisation, feeling vibrations, imitation, imagining sounds and internalising the sounds. Three of these are usually combined to construct meaning in music, depending on the environmental conditions.

Glennie applies associative cognitive skills to enable her to perform as a musician. Greeno et al describes this situation as a

...form of cognitive organisation, depending on relational ideas that the learner already has in a cognitive structure.

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The ability to perceive and interpret sound is one that Evelyn Glennie has mastered successfully. She can ‘hear’ and interpret sounds on meso levels of cognitive thinking - she couldn’t be a musician if she were not able to apply analytical musical thinking. It is beyond the scope of this dissertation to analyse Evelyn Glennie’s cognitive thinking skills and musical ability. Such an investigation calls for an in-depth cross-disciplinary study that would involve a closer look at the music psychological factors that influenced her musical development. The nature of such a study would demand some testing procedures that cannot be carried out over a distance.

3. **The socio-cultural factors that contributed to the music development of Evelyn Glennie**

A combination of factors has shaped the music development and vocational successes of Evelyn Glennie. According to her:

> I was not influenced by any one particular percussionist or person. It was more a cumulative sort of thing with all influences playing a part. It was a series of experiences that were influential rather than saying “Ah, that person really did something to me”.

The focus of this study will only be on the social and environmental factors that played a significant role in the music development of Evelyn Glennie.

3.1. **Biographical background**

Evelyn Elizabeth Ann Glennie was born on the 19th July 1965 in Aberdeen Maternity Hospital. Her mother was a primary school teacher and spent her Sunday mornings playing the organ at the local church. Her father, Herbert Arthur Glennie was a farm worker. Being a farm worker was not his first choice as a career.

My father recently confessed to me that his secret dream as a child had been to be a musician, but there was no money for instruments or lessons. He has a very good musical ear, although he cannot read a note of music, and used to play the piano a little. His treasured instrument is a very fine keyboard accordion, which he used to play just once a year. Every Christmas Eve, while the rest of the family attended the midnight service in Methlick, I would stay at home and eagerly watch him haul the huge box to his chest and fasten the wide leather strap around his shoulders and back.

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Evelyn Glennie’s childhood was that of any other local child brought up on a farm, with plenty of fresh air and outdoor activities, and the usual routine of school and homework, while fitting in as much fun as possible with her brothers and friends. As a child she studied piano and clarinet. Glennie attended Cainorrie Primary School, Aberdeen Scotland, a small country school near the farm.

My days at Cainorrie were happy, busy and productive, and it is a time that I look back on with affection and pleasure. It was a privilege to be able to learn my early lessons in that it was relatively peaceful uncompetitive environment, just boys and girls from my own area, whose families were often known to my parents, and who were my playmates throughout my childhood. That lack of pressure on the syllabus meant that we were free to explore new ideas as they came up, and I benefited from having children of several age groups as classmates. At the same time, I was beginning to take a serious interest in music, an enthusiasm that the school encouraged, and my music classes and practice began to play a major part in my daily routine. When I rushed home at night with a bag full of books, as often as not it would be scales and harmony that were on my mind rather than the kings and queens of England, and by the time I was ready for secondary school, I had already completed six grades on the piano.20

Evelyn’s hearing impairment was a gradual process and it was many months before any of Glennie’s family realized that there was a serious problem. The first sign occurred at the age of 8 when she began to complain of sore ears; however, it was not considered serious enough for any action to be taken. It became crucial at the age 11 when Evelyn was ready to continue with her studies at secondary school. A hearing specialist recommended that Evelyn be fitted with hearing aids immediately and that she be sent to the Aberdeen School for the Deaf. However, Evelyn was undeterred – she had no intention of being sent to any place where she would have been removed from her music activities. She attended the local secondary school, Ellon Academy located outside the city of Aberdeen. Evelyn had decided not to tell any of the teachers at Ellon that she was deaf as she felt that she would be able to cope with the help of the aids. The first real challenge came with the music test. There was a strong music department at Ellon, with two full-time teachers. Music was compulsory for the first-year pupils and they gave students an aural test to determine who the musically inclined pupils were. Students had to listen to a tape, which asked questions and marked their answers on a sheet of paper.

20 Glennie, (33).
The questions were straightforward: ‘Which is the highest note?’ then there would be three notes and you had to write 1, 2 or 3. The problem was that I hadn’t a clue what to write because I couldn’t hear the tape.\(^{21}\)

Glennie failed the test and decided that she wanted to enrol for percussion classes with Ron Forbes who visited the school once a week. Evelyn pestered the head of the music department to the extent that he finally agreed to discuss the matter with Ron Forbes, the percussion teacher.

People often ask me why I decided to take up percussion. It’s difficult to say why exactly. I was quite sure that it was what I wanted to do, and my enthusiasm may have dated back to the time a little earlier when I went to a local talent show and saw a young girl playing the xylophone. She was brilliant, just amazing, and I thought “I didn’t realize a xylophone could do this.” Once I went to Ellon I found there were many more percussion instruments to discover, which may be why I was so determined to try.\(^{22}\)

Glennie became a regular member of the school’s percussion group and played pieces such as Mozart’s *Rondo all Turca* arranged by Ron Forbes for the xylophone. It was also during this period of time that she received serious encouragement to develop her own compositions. The head of the music department at Ellon, Mr Park, and Ron Forbes greatly supported Evelyn during her high school career.

Despite her aural reception deteriorating very rapidly, Glennie won a scholarship in 1982 to study at the Royal Academy of Music in London.

Percussion was not the whole of my studies. I attended classes in the history and theory of music with other students in my year. The staff were all aware of my deafness and, as at Ellon, did their best to speak clearly and face the class. However my deafness was so unapparent that they quickly forgot and would rattle on at an incredible speed about all sorts of unfamiliar topics, whilst my eyes were working overtime to watch their faces and scribble notes at the same time. Even the hearing students had difficulties with some of the staff, who liked to use as many long and incomprehensible words as possible. This became particularly problematic in my third year as the time for finals approached, and I became quite exhausted with the effort to keep up with what was going on in class. This, rather than the practical aspects of music, was when my deafness really troubled me.\(^{23}\)

With the help of James Blades, a lecturer from the Royal Academy, Glennie started to progress towards her life-long dream of following a professional career as solo

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\(^{22}\) Glennie, (43).

\(^{23}\) Glennie, (94).
percussionist. While at the Academy, Glennie consulted various books about percussion techniques that were available in the library. Because of the limited range of books available in the library, she frequently ordered percussion scores advertised in magazines and journals in the United States. She broadened her repertoire to include contemporary jazz, Latin, Classical, rags and blues, folk, etc. Evelyn also began to develop her own repertoire of 'popular' numbers as well as solos adapted from the music of Bach, Mozart, Vivaldi and the other great masters.

Glennie played with ensembles and orchestras outside the Academy whenever the opportunity arose. She used these opportunities to develop her stage appearance as well as informing organizers and conductors about her main interest in solo work and soloist in percussion concertos. "The reactions were predictable but discouraging: 'Are there any concertos for percussion?' I had an uphill task ahead of me to change this kind of negativism."^{24}

During Glennie's second year at the Academy she was invited to give an interview on British TV AM as well as the BBC, who also made a documentary about her, one of a series of six called *A Will to Win*. Thereafter came many interviews, invitations, fan mail and reviews and the beginning of session work. Evelyn also participated in the Shell/London Symphony Orchestra Music Scholarship and won which led to more interviews with radio stations and newspapers. Glennie won several prizes including the Queens Commendation Prize for all-round excellence, which is the highest music award from the Royal Academy of Music. She made her professional debut in 1986, and played the first-ever-solo percussion recital at London's famous Prom concerts in 1989. Glennie's debut recording, Bartók's Sonata for two pianos and percussion, with Murray Perahia and the late Sir Georg Solti, won a Grammy award in 1989. Since then she has performed as soloist with many of the world's most renowned orchestras and conductors. The researcher viewed a video recording^{25} of Evelyn Glennie in practice – onstage, Glennie is in constant motion. She plays traditional instruments – drums, marimba, vibraphone – but also a few unconventional and never-seen

^{24} Glennie, (45).

combinations, all within her broad definition of percussion. Glennie explained this to Brown:

Anything you strike, anything you shake or rattle, or just anything that can be picked up, and you can create a sound. I have collected over 1000 instruments. There's the homemade, nothing but a twig, a string, and a hollow wooden cylinder. There are also custom-made instruments that Evelyn has invented.26

Evelyn Glennie played a significant role in expanding the repertoire of classical solo percussion. Not only has she “resurrected” the existing percussion repertoire, but is also creating a new percussion legacy through her commissioned works for solo percussive instruments. Constantly in search of new sounds, Glennie also designs her own instruments. With the recent addition of the Great Highland Bagpipes to her repertoire, Glennie has made her first professional venture into the area of wind instruments.27 28

Since 1993 Glennie has also broadened the scope of her expertise to include composing music. She collaborates with her husband Greg Malcangi to compose, record and produce music for film and television in the United Kingdom. She released a Compact disc “Shadow behind the Iron Sun “ in [2000], which contains several of her compositions.29 Evelyn Glennie describes her compositions in an interview by linking it to her output in the film and television industry:

A lot of people have been interested in that CD by linking it to dance productions, with theatre, with advert music. I use it to promote my writing in TV, radio and that kind of thing. I wouldn’t mind doing something like that again.30

Evelyn Glennie has already secured a place in music history. She is the first ever, and still the only full-time solo percussionist in the field of classical music, and is

28 Evelyn Glennie develops percussion instruments designed for her dexterity and style of playing. These instruments (drumsticks, mallets, and practice pads) are available through her website <www.evelyn.co.uk/merchandise> whereby percussionists can purchase them.
29 Evelyn Glennie (producer: Michael Braurer), Shadow behind the Iron Sun. RCA Victor: 9026634062.
unanimously credited with transforming the role of percussive instruments within its highly conservative world. The breadth and originality of Glennie’s talent make any attempt to define her successes incomplete.

3.2. A Structured Electronic Interview: questions and answers
The purpose of the questions posed to Evelyn Glennie was to determine the factors that influenced her musical career and to investigate how Glennie’s life experiences and hearing impairment contributed to her development of musicianship and musical performance. The research results aim to assist educators in fostering the music interests of all learners alike.

Evelyn Glennie was contacted via email by the researcher. Carla Gawthorpe, the personal assistant to Evelyn Glennie advised that due to heavy concert scheduling, Glennie would be unable to participate in any telephonic, online or follow-up interviews. She agreed to a structured electronic interview to which the researcher then compiled the following questions which have been structured under the headings Childhood years, Ellon Academy, Early career period and Student years.

3.2.1 Childhood years
a. What was the motivation for your musical studies at such an early age?
Curiosity. There was not a particular “thing” or person involved in whetting my appetite but simply my own curiosity.

b. What influence did your family have on your musical studies?
They were supportive in a low key way, not pushy in any way, but they definitely saw the benefits of music because I was able to play to other people and witness them receive enjoyment from it. My focus in music allowed them to see that I could concentrate for long periods, I was happy in my own company and being with others, and there was the organisation of time which I had to take care of by dealing with the normal aims and goals of being a musician.

c. What social structures influenced your musical career?
Thankfully, my family was not particularly musical which meant I could develop at my own pace with few pressures. There was great scope to experiment because I was not influenced by recordings, live performances, masterclasses, etc. I learned very quickly to teach myself thanks to the skill of my school music teacher and percussion peripatetic teacher.

d. The first musical instrument you played was the piano, followed by the clarinet and then came the switch to percussion. What precipitated the change to percussion?
I was curious towards percussion when I saw it being played in the school orchestra at the age of 12 during one assembly. I was also experiencing severe problems with my ears which my parents felt was not being helped by my ambitions on the clarinet as I was trying to do too much too quickly, therefore there was a lot of pressure in my head.

3.2.2 Ellon Academy

e. You mention in your autobiography that you decided not to tell any of your teachers at the Academy that your hearing was impaired as you thought that you would be able to cope with the assistance of hearing aids by yourself. Had this decision involved your parents as well or had they spoken to the school without your knowledge? What was their role in this crucial decision making phase?
It was my decision and my parents were happy with my decision as they did not wish me to have special preferences or to be treated differently. Provided I could cope then nothing was to be said.

3.2.3 Early career period

f. Your skill, musicianship and creativity are phenomenal. Were you always this passionate about music?
I think so! Early on music was a hobby and I had no idea I would ever be a musician but there has been no difference in the focus I have given music over the years. If you are interested in something then that sense of curiosity does not just disappear.
g. Being disabled/physically challenged, society does not treat you on equal terms. How did this factor influence your musical career? It has not other than through PR. The PR aspect is so fickle but also relatively powerful. More often than not, however, what one reads is inaccurate hence why the website is so important to me. However, in the long run one has to deliver the goods every single time I pick my sticks up. It is what one does as a musician that is all important, not what one does as a musician who is deaf. My wish is to have slightly longer arms to have an easier reach across the length of the marimba but I have adapted to deal with it. I have adapted to deal with my hearing, which cannot be summed up in a few sentences because that adaptation is totally fluid from day to day.

h. You describe you taste in music as ‘very broad’ — from contemporary, jazz, Latin and folk to traditional Scottish songs. Do you feel that there is more pressure in the 21st century for world-class musicians to cover a wider range of genres and compared to previous centuries? No. There is no particular pressure in this department. The pressure is far more external – how does one look, personality, be prepared to “not be yourself”. It can be a dangerous game. Music making can only be made well if it is executed in an open and honest way in which the artist truly feels they are giving something genuine. One can always tell the difference between the short-lived, manufactured product and that of the real experience.

i. What are the motivating factors that inspire you to learn/exploit the full variety of percussion instruments? Again it is quite simply curiosity. I have to take one look at an instrument and my only question is “what can I do with it?”

3.2.4 Student years

j. Quoting from your autobiography you mention the fact that “even though the staff were aware that there was a deaf student in their midst, they didn’t quite know how my deafness operated and what kinds of techniques I had developed to compensate, and it took a little time for them to realise that I could manage almost anything if allowed to work out problems in my own way.” – do you feel that there
is a need for trained educationalists to know how to cope with individuals who are ‘Hearing Impaired’?

This is hard to answer as we are dealing with 2 very fluid factors – music is never static and neither is deafness. But, in general (outwith music) there can be no harm whatsoever in having trained educationalists be aware of deafness and indeed cross-fertilization is all important when dealing with any so called handicap. We always need to find the advantages in learning about another’s situation and how that can reflect on our personal and work lives as well. I have never in my entire life felt disadvantaged and I don’t feel any frustration when being with other individuals who may have a disability. I don’t believe there is such a thing as a disability unless we all agree that we ALL have some form of disability. You can have the most amazing musician but they cannot for the life of them change a light bulb and may lack complete common sense to work out how to do it. Frankly, that is a big disability.

k. There were often feelings of isolation – in rehearsals, with fellow students, socializing in pubs etc. How did you overcome these feelings and what is your encouragement to disabled students who find themselves in a similar predicament?

I didn’t do anything to overcome the isolation but instead I let time take its course. I knew that I would always be OK and that sense of assurance allowed me to believe that time itself would be the greatest healer. I still believe that. Therefore, I have no miraculous cure for others other than finding out what makes them communicate well (perhaps through playing music or writing or sport, etc) and to let them feel completely safe in that type of environment but still finding ways that stretch them a little through their particular love in order to give them even more confidence. The important factor is for them to see that what they are doing can affect others in positive ways. That has to be one of the greatest forms of medicine around.

l. Do you think that you would have followed a music career if you went to a school for the deaf? What would your advice be to parents with deaf children?

I have no idea but my gut feeling is I doubt I would have followed a musical career. Certainly the environment I would have been exposed to at the time I was
a child would have been much more limiting. There is absolutely no reason whatsoever for children with a hearing impairment NOT to be able to participate in music making. We must stop the categorization that goes on. However, the deaf community themselves are as much to blame in this due to the “Deaf Culture”.

m. Your desire and will to win is evident in you autobiography – do you think being “hearing impaired” made your will to succeed stronger?

It’s hard to say really. I don’t feel that my deafness has given me that extra edge to succeed but then again I’m not able to stand apart from my emotions. I simply am. I’m willing to give anything I do as best a shot as possible whether I am the only person who experiences it or whether those efforts are displayed to countless others.

n. During an interview you made the following statement: “I remember telling that as well as being a solo percussionist, I should like one day to teach piano and percussion to deaf as well as hearing children.” What steps do you think need to be taken in order for society to acknowledge the educational and therapeutic value that music performance hold for the ‘hearing impaired’?

We need to stop categorizing people, we need to realise that all our senses are linked to make one huge sense or the mystical 6th sense, we need more integration in “normal” schools, we need speakers to visit schools to explain certain aspects of the anatomy and bodily functions and for kids to experience a “day in the life of” a person in an wheel-chair for example, we need interesting approaches to the bodily functions as proper subjects at school (it stuns me that we know so little about our own bodies and what they are designed to do), accurate PR on people who have a disability must be done (many times I have “profoundly deaf” changed to “totally deaf” by the editors in order to be made more sensational and “freaky”), and the use of the internet by providing good educational resources for us all to have a better understanding about each other. These are literally a few ideas.

3.3. Analysis of data

Data analysis is the complex process of selection, sharpening, sorting, focusing, discarding and organising in order to make sense of the data, draw conclusions and
verify the data. It is the process of making meaning. The researcher examined the answers provided by Evelyn Glennie and determined that the major influences could be categorised as extrinsic (environmental) and intrinsic (within). Intrinsic and extrinsic factors do not function exclusively but interact with each other to impact on the situation.

At first glance it is apparent that although Glennie possessed a 'curiosity' for music, the educators she encountered at school stimulated her ambitions. The factors that are conspicuous throughout her answers to the questions are Glennie’s frequent use of the word ‘curious’ and her support system in her parents and educators. The one is an intrinsic quality related to personal characteristics that were influenced by an extrinsic environmental factor, namely motivation and support.

A qualitative analysis and summary of the answers provided by Glennie, as well as the information found in her autobiography, appears in Table 3.1.

Table 3.1 Intrinsic and extrinsic factors that influenced Evelyn Glennie’s development

<table>
<thead>
<tr>
<th>Factors influencing Evelyn Glennie’s music development</th>
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</thead>
<tbody>
<tr>
<td><strong>Intrinsic</strong></td>
<td><strong>Extrinsic</strong></td>
</tr>
<tr>
<td><strong>Personal characteristics</strong></td>
<td><strong>Environment</strong></td>
</tr>
<tr>
<td>Curious</td>
<td>Competency and skill of teachers</td>
</tr>
<tr>
<td>Inquisitive</td>
<td>Mainstream schooling</td>
</tr>
<tr>
<td>Stubborn</td>
<td>Subtle but firm support of parents</td>
</tr>
<tr>
<td>Imaginative</td>
<td>Integration and cross-fertilisation</td>
</tr>
<tr>
<td>Self-motivated</td>
<td>Support to make own decisions</td>
</tr>
<tr>
<td>Healthy self-image</td>
<td>Balanced extramural activities</td>
</tr>
<tr>
<td>Ability to concentrate</td>
<td>Uncompetitive, free to explore</td>
</tr>
<tr>
<td>Perseverance</td>
<td>Music literate parents</td>
</tr>
<tr>
<td>Ability to challenge a situation and not to go with the norm</td>
<td>Resources (human and musical – specialist music teachers and instruments)</td>
</tr>
<tr>
<td>No self-pity</td>
<td></td>
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<tr>
<td>Awareness</td>
<td></td>
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<tr>
<td>Positive outlook and self-concept</td>
<td></td>
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<tr>
<td>Determination</td>
<td></td>
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<tr>
<td>Self-contentment with social environment</td>
<td></td>
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<tr>
<td>Self-reliant</td>
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<tr>
<td>Self-assured</td>
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<tr>
<td>Assertive</td>
<td></td>
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<tr>
<td>Urge to remain in touch with new trends</td>
<td></td>
</tr>
<tr>
<td>Creative</td>
<td></td>
</tr>
<tr>
<td>Innovative (designed new instruments, own compositions)</td>
<td></td>
</tr>
<tr>
<td>Enterprising, experimental</td>
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</tbody>
</table>

There are many favourable intrinsic factors that the researcher has found in Evelyn Glennie's responses to the questions posed as well as information published in her autobiography.

The elements of 'curiosity, stubbornness and imagination' are the key influential ingredients to the success of Evelyn Glennie. It is clear that Glennie has a strong will to succeed and sees herself on the same level of intellectual functioning as any other non-hearing impaired human being. Several parameters of the case study's personal characteristics favour success. The positive outlook and concept is crucial for the achievement of her happy, fulfilled existence. Her ability to challenge certain situations as well as the fact that she does not perceive herself as deserving any pity is apparent in her answers. The self-reliance of the case-study and linguistic competency through speech, aids in her integration with the 'hearing' world and social environment, and contributes to her positive self concept. Glennie's experimental nature has compounded her class as percussionist and percussion innovator – this intrinsic factor has contributed to her not only being one of the most influential percussionists but also gave her the platform to define her own individual instruments.

I subscribe to things like the Experimental Music Instruments Magazine and things like that, or journals, and it's so interesting for me to see the shapes and materials where I can get ideas for my own little custom-made, rather unique sounding contraptions.

The influence of her parents on Evelyn Glennie's career is undeniable and this extrinsic factor is overwhelming throughout Evelyn Glennie's responses. Their subtle but firm support claims an important role in her music development and successful career. This finding highlights the value in parents being active members and participants in their children's lives. Researcher Lynette Collair also mentions this extrinsic factor in her findings on a young boy who has been integrated into the mainstream education system.

The mother's interest and concern for her child claims a second place in ensuring academic success of the learner. Her achievement-supporting behaviours played a critical role in the learner's success.

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33 Lynette Collair, Indicators of successful inclusion of a learner who is deaf in a mainstream class, Masters dissertation: University of Stellenbosch, Cape Town, 2001 (59).
34 Collair, (59).
Psychologist Chris Kleinke lists support systems as an infinite tool, in coping with life challenges:

Research studies indicate that people with good social support systems are less depressed and anxious and more optimistic about their lives than those with poor social support systems. Other studies show that people with good support systems are more successful at overcoming depression, adapting to injuries resulting from physical disability, maintaining self-esteem, and overcoming loneliness.\(^{35}\)

Not only were Evelyn Glennie’s parents supportive but also music literate, which added to their understanding of the intricacies of music education.

The school’s positive attitude towards the case study and their willingness towards her inclusion and efforts to accommodate her despite her increasing needs played an important role in partially creating and developing the necessary personal characteristics necessary to become a well-rounded person. Researcher Gillian Lloyd reiterates the importance of the school and family and concludes that these two factors are crucial upon the development of self-concept of the hearing impaired.\(^{36}\) The support provided by the educators was also a key factor in the progress as well as curiosity that Glennie developed. Intervention and intense support by all educators and especially her music teachers have played an instrumental role in her success.

Glennie seems to relate her success to the fact that she attended a mainstream school. Her response to what would have happened if she attended a school for the hearing impaired is clear: “my gut feeling is I doubt I would have followed a musical career.”

For very good reasons, educators are reluctant to attach labels to any child. Some argue that the preschool years are too early to begin diagnostic learning and fostering. Ballard\(^{37}\) notes this hesitation of educators, especially in public schools. It is very easy to place learners in pre-existing deaf-education programmes and hope that strategies

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developed for fostering the deaf will be effective. Refusal to recognise the interests and talents is foolish and harmful. The overriding concern of those responsible for the education of the hearing impaired is in finding ways to help each child in finding academic competence and functional and emotional well-being. To encourage this effort it must be noted that the educators require the support of the family and social structures, which is what Evelyn Glennie had from the outset. The primary advantage of these structures being in place is the effectiveness in fostering musical talent (or any other) is inspired from all fronts. The ultimate goal for educators is to assist each child to expand the limits of his or her capabilities, nurture the latent talents to the extent that a well-rounded person emerges who reaches his or her maximum potential.

It is furthermore clear that Glennie encourages the integration and cultural exchange between the hearing impaired and hearing communities. It is imperative that the hearing impaired and hearing learner be exposed to one another’s environment. Far too often, the hearing impaired child is retained in isolation and only once he or she reaches his or her teenage years are they exposed to ‘normal’ schools. Diminished auditory contact with a hearing environment, combined with a lack of peer and parental stimulation results in the hearing-impaired learner lacking the exposure needed to stimulate his or her curiosity. Glennie, although she attended a normal school, admits that the hearing-impaired child’s exposure is limited. This was qualified by the visits made to three schools for the hearing impaired in the Western Cape. Not one of these schools had a music programme in place for the learners.

Certainly the environment I would have been exposed to at the time I was a child would have been much more limiting. There is absolutely no reason whatsoever for children with a hearing impairment NOT to be able to participate in music making. We must stop the categorization that goes on.

There are advantages in learning about one another’s disability and this challenge should be put forward to music educationalists as well as the deaf community. Educators should explore the Internet, literature and other resources to provide learners with information in order to have a better understanding about themselves and the disabled.

38 This conclusion is based on my observations and interviews with educators of the hearing impaired at the Bel Porto School and the Dominican School for the Deaf.
39 Schools visited by the researcher included: Bel Porto School, Claremont, Cape Town and the Dominican School for the Deaf, Witteborne, Cape Town.
Glennie raises an interesting point in not only blaming the hearing world for the existing categorization, but also blames the deaf community.

We must stop the categorization that goes on. However, the deaf community themselves are as much to blame in this due to the “Deaf Culture”\textsuperscript{41}.

It is important for educators to consider their role in promoting “deaf culture”. School administrators, teachers, and interpreters’ assist hearing impaired children in developing their awareness of “deaf culture”. Deaf culture should not be abolished; however, it is important for parents, educators and policy makers to realise that a bilingual and/or bicultural perspective in raising hearing impaired learners could be beneficial. Attempting to promote a bilingual and/or bicultural perspective amongst the hearing and hearing impaired can produce friendships based on true interest among those involved. It is difficult to go to a deaf club where one knows none of the members or to a church (even though a large number hearing impaired people might also attend there) where one recognises no one. It is better to allow integration based on topics, interests and activities that are of mutual interest, thereby exposing the hearing impaired learner to that which a hearing learner would also be exposed to.

4. Conclusion

It is by no means easy for a child to be hearing impaired, likewise for parents, educators to assist/raise a child in this situation. However, the pitfalls, the problems, and above the loneliness of the situation can be eased considerably by an atmosphere of support and understanding. When the school, the hearing impaired community, and parents pool their interests and work together, they can help make the lives of hearing impaired children in their community richer, happier and more rewarding.

\textsuperscript{40} Glennie Interview

\textsuperscript{41} Glennie Interview
CHAPTER FOUR
THE SOCIO-CULTURAL CONTEXT OF THE HEARING IMPAIRED

1. Introduction
Most people live in a world in which they are surrounded by all kinds of sounds that is often taken for granted. These sounds are given little thought until people unexpectedly do not hear them. Nevertheless, people depend on sounds to guide them through their everyday lives, and would be lost without them. People’s days begin with sound and is regulated and interrupted by sounds. Alarm clocks are used to wake people, classes are changed according to bells, and ringing telephones alert people to the fact that someone wants to speak to them. Sounds please people as well as irritate them. Young children’s laughter, the crashing of waves on a beach and their favourite songs give joy whereas barking dogs and thundering airplanes can be annoying. However, most people would agree that their lives would be very different without sounds and could not imagine what it would be like without it.

The absence of sound or presence to a varying degree has a serious impact on the socio-cultural environment and context of hearing impaired people. The stigma of hearing impairment tends to permeate the hearing impaired person’s relationship with family, educational environment, employers and fellow workers. Therefore, this chapter will address the socio-cultural context of the hearing impaired from a global as well as local perspective with special reference to Cape Town, South Africa. It will take into account the attitudes of hearing people toward hearing impaired people and vice versa. After investigating the factors that influenced Evelyn Glennie, and seeing the value that music has contributed to her life, the researcher aims to explore through interviews and observations how the hearing impaired in Cape Town, South Africa react to music and if any music education is available to them. Hearing impaired people need not be excluded in the music classroom and by examining the case study, this statement is more evident. Furthermore, this chapter will briefly look at ‘deaf culture’. Deaf culture is a form of self-expression and a way of communication for the hearing impaired community and is
critical in discussing their socio-cultural environment. Finally, this chapter aims to answer the question whether music should be part of the hearing impaired person’s socio-cultural environment.

The content of this chapter will be based on literature, observations by the researcher of visits to the Bel Porto School and the Dominican School for the Deaf, interviews with Lucinda Rutter, a psychologist who is employed at a school for the hearing impaired in Cape Town, Arman Kleinschmidt, the director of the Deaf Federation of the Western Cape and Ronel Davids, social worker for the hearing impaired and the Chamber of Parliament’s National Assembly official sign-language interpreter. These people have been actively involved in the hearing impaired community for more than 21 years and can share light on the socio-cultural environment of hearing impaired people in Cape Town.

Key aspects of the socio-cultural environment will be discussed under the headings Communication, Social Acceptance, Deafness as ‘culture’, Identity, Personal and social development through the life span, Music and the hearing impaired, and the South African context of hearing impairment.

2. Communication

Hearing loss isolates people from other people and from access to knowledge. The very essence of the disability of hearing impairment is its effects on communication, and the resulting impact of communication on behaviour. The consequences are often a severe deprivation and alteration of interpersonal relationships.

...I mean I had a deaf child living with me for six weeks; I ate cold supper most nights because when we were talking around the table, our family, I would have to tell the child what was being discussed, so that they don’t get a sense of isolation. They are extremely suspicious when they’re not informed what is going on around them and not all deaf children can lip-read. Only thirty percent of the sounds actually fall on your lips, so they are not even able to lip-read. And if they’re profoundly to severely deaf, or severely to profoundly deaf the residual

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The interviewees mentioned have provided the researcher with their permission to publish their names in this dissertation. Furthermore, Rutter and Davids agreed to the publication of transcripts of the interviews, which are listed as appendices.
hearing is just not there, so they would have problems in hearing anything – and imagine how much you learn by over-hearing or eavesdropping and just coming on an incident and standing still to listen, it puts you in the context of what is being discussed. You see, deaf children can’t pick up those cues².

People communicate through sounds – by means of telephones, radios and intercom systems and loud speakers. Even television, which seems to be a very visual medium, often makes little sense without sound. Thus, much of people’s everyday lives are based on the assumption that they can hear. Yet, the question arises as to what becomes of those who cannot hear - those who are hearing impaired? They live within a world regulated by sounds without becoming fully integrated in this world. Therefore, the conclusion is drawn that the hearing impaired person’s most severe disablement lies not in the field of sensory disablement but in the field of communication. This fact is important when considering that man’s need for communication is probably one of his most basic needs.³ The fulfilment of most other needs is to a large extent dependant on the manner in which the need of communication is fulfilled.

During observations with the hearing impaired community it is interesting to note that the communication between hearing people and hearing impaired parents and family members has often been carried out by the hearing children⁴. The child often provides an intimate and reliable method of information exchange between the two cultures. This interpreting and communication process involves much more than just the exchange of words; there is much cultural and decision-making information transmitted as well.⁵

Sign-language interpreter Ronel Davids bridges the gap between those who hear and those who are confined to a world of silence in the Chamber of Parliament’s National Assembly. She is the interpreter to South Africa’s only deaf Member of Parliament, Wilma Niewoudt-Druchen. Unlike most interpreters, Ronel is not the child of hearing

² Lucinda Rutter, educator and psychologist for the hearing impaired, in an interview with the researcher on 3 March 2003.
⁴ Ronel Davids, social worker for the hearing impaired and sign-language interpreter, in an interview with the researcher on 18 February 2003.
impaired parents. Her desire to learn sign-language arose when she first encountered the barriers between the hearing and the deaf first-hand in a surgery:

I often saw deaf patients with the characteristic gestures and muffled voiced sitting on their own, the doctor on the surgery would tell me how usual thirty - minute examinations would take up to an hour to ensure the proper diagnosis was made. Notes had to be painstakingly exchanged between doctor and patient in order to communicate. I felt the strong urge to care. Deaf people are human beings. They can do everything but hear.6

Her work includes interpreting, transcribing and editing debates and official documents, assisting visitors to Parliament and participating in workshops for the hearing impaired. "She is doing pioneering work to make Parliament accessible. A big part of her job is to lobby behind the scenes to reach a point of equality for the deaf. Ronel’s role has been invaluable to Wilma, with whom she has developed special signs for political jargon".7

3. Social Acceptance

In all probability the second largest handicap that accompanies hearing impairment is the attitudes of the hearing community towards the hearing impaired. Social and legal acceptance for the hearing impaired community has been a problem dating back to the ancient and medieval worlds. For scientific, philosophical, religious and economic reasons, hearing impaired people were cut off, and the even the Church made no attempt to mitigate this tragedy, but even made it worse: According to Hodgson:

For in her attitude to deafness the critical text for the church was Romans 10:17. Wherein it is said that ‘faith cometh by hearing’. And so fortified by Holy Writ, the Church appears to have been content that the deaf should be excluded from worshipping the Lord who was responsible for their condition.8

For millennia hearing impairment was considered so catastrophic that very few ventured to ease its burdens. Isolation in a permanent solitary confinement was considered inevitable. The first attempts to educate the hearing impaired child came only in the

6 Ronel Davids, social worker for the hearing impaired and sign-language interpreter, in an interview with the researcher on 18 February 2003.
7 Armand Kleinschmidt, Director of DEAFSA and sign-language interpreter, in an interview with the researcher on 12/02/2003.
sixteenth century. As late as 1749 the French Academy of Sciences appointed a commission to determine whether hearing impaired people were "capable of reasoning".\footnote{Edward Dolnick, "Deafness as culture," The Atlantic Monthly (September 1963) : 37}

All hearing-impaired people share the common feature that their hearing is not normal. Apart from this basic fact, the term "hearing impaired" represents a heterogeneous population whose hearing abilities vary tremendously on the basis of a large number of parameters. Hearing impaired people deal with their fate as outsiders in various ways. Some desire to shed their status as outsiders while others form organised groups\footnote{For example, Bastion in Cape Town represents itself as a local organisation in Cape Town, which host's parties, sporting events etc. for the local hearing impaired community.} where the members are those who share a similar fate.

Hearing impaired scholar, Yeker Andersson, conducted a survey of national organisations of the deaf in nine selected countries. This survey was supported by the World Institute on Disability. Andersson provides interesting statistics into deaf organisations worldwide.

The National Association for the Deaf in the United States is the oldest nationwide organisation in the world. Local organisations in many countries, however, are much older. For example, the still existing club in Copenhagen, Denmark is 128 years old.\footnote{Yeker Andersson, "A survey of Selected National Organisations of the Deaf: Preliminary Findings," Deafness: Life and Culture Vol. 44 (1994): 5}

The CISS (International Committee of Sports for the Deaf) which is recognised by the International Olympic committee interestingly discovered in 2002 that the Swedish local sports club in Stockholm for the hearing impaired, Hephata, was not the oldest in the world as had been believed until recently. Hephata celebrated its 100\textsuperscript{th} anniversary in 2002 when the CISS has learned that the Melbourne Deaf Cricket Club of Australia, is in fact 10 years older! As for social organisations, researchers have not been able to determine which of the local organisations of the hearing impaired was established first in the world. Since local clubs usually were formed near a school for the hearing impaired, some clubs may have been established around the world's first school for the hearing impaired in Paris, France.\footnote{9 Edward Dolnick, "Deafness as culture," The Atlantic Monthly (September 1963) : 37}
Through this research the role that society plays in hearing impaired adults and their children became very clear. The hearing impaired community are more restricted than other groups defined by, for example, religious affiliation, political interests, occupation, etc. thus, there seems to be a greater intimacy between members in this community. During the period 2002-2003 the researcher observed pupils at the Bel Porto School in Claremont, Cape Town and learners at the Dominican School for the Deaf, Wittebome, Cape Town. The intimacy, friendship and camaraderie amongst the deaf pupils were apparent from the outset.

For most people knowledge of hearing impairment comes from films such as *Children of a lesser God*\(^\text{13}\) and from the odd magazine article. In recent years, however, there have been several books published about the deaf community, some written by deaf individuals and others by hearing people within the community.\(^\text{14}\) These works have provided new and valuable insights into a subculture that otherwise might be inaccessible to hearing people.

Higgins suggested that “deaf people are sceptical of hearing people’s intentions”\(^\text{15}\) as well as being wary of other deaf people with whom they are not familiar or who do not play sufficiently active roles in the deaf community. In portraying deaf people as “outsiders” in a hearing world, Higgins gives the impression of an insular, even paranoid group that is less tolerant than other minorities – even of their own. Lane\(^\text{16}\), in a recent and extensive review of the literature on the personality characteristics of hearing impaired people, points out that the list of labels associated with deaf people are mostly negative stereotyping: antisocial, dependent, immature, submissive, egocentric, naïve,

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\(^{12}\) Andersson, (8).


\(^{14}\) Examples of recently published books are:

unintelligent, androgynous, impulsive, stubborn, depressive, neurotic, paranoid, etc. Such labels are commonly based on normative assumptions about the conditions of hearing impairment and do not take into account the origins of the condition nor images that hearing impaired people hold of themselves. A closer look at the cultural and social contexts in which most hearing impaired children and adults find themselves will lead to a better understanding of this group of people.

4. Deafness as ‘culture’
Throughout history, communities have considered their language to be their most precious possession, for it contained their cultural heritage and identity. Gottfried Herder, for example, commented that language is the possession held most dear among a group of people because it “resides its whole thought domain, its tradition, history, religion, and basis of life, all its heart and soul.” To deprive a people of its language, Herder wrote, “is to deprive it of its one eternal good.”

The hearing impaired community is no different. They comprise a minority in South Africa. It is a group with its own culture, art, social organisations and language. Hearing impaired children who have hearing impaired parents are brought up within that culture and learn and absorb the values of the community naturally.

Deaf people can be born into the culture, as in the case of children of Deaf parents. They begin learning the language of their parents from birth and thus acquire native competence in that language. They also learn the beliefs and behaviours of their parents’ cultural group.

Culture in the South African context is not one singular, integrated culture, but a mosaic of a variety of cultures largely held together by the economic, political, educational and legal systems. The South African hearing impaired community is one of the subcultures in this grand mosaic.

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17 Gottfried Herder, Language and nationalism. [Herder (1744-1803) originally wrote this in German and this was translated from the German original to English] Maryland: Newbury House, 1972 (1).
5. Identity
Because hearing is so important within the larger world, the inability to hear is the salient feature of members' identities. Members of the hearing impaired community feel a sense of belonging among fellow members, which is not found within the hearing world. Therefore, they are likely to be ambivalent about their hearing impairment. A hearing impairment is a necessary, though not sufficient, condition for membership within a hearing impaired community.

Membership of the deaf community: Much controversy has surrounded the question of membership in the deaf community. Who is authentically deaf? The numbers of preceding generations of deafness give individuals greater credibility in being identified as Deaf. Individuals who mouth or use spoken English have less credibility. Those born deaf have greater credibility than those who lose their hearing. Hard of hearing individuals have little credibility unless they reject amplification and use sign language exclusively. Individuals who attended residential schools for the deaf have greater credibility than those who attended public schools. One other group of individuals who have a connection to the Deaf community, though not equal membership — the hearing children of deaf parents. Sometimes referred to as CODA19 these are children who grow up using sign language are considered apart of the deaf.20

The levels of status within the hearing impaired community give rise to strong community cohesion are undoubtedly the result of the community's need to define itself separately from the hearing community. Authors and educators in the hearing impaired community have noted that the primary reason for hearing impaired people's strong bond within their community is for the purpose of socialisation. Woll claims that the hearing impaired community has

...its own language and its own distinctive culture. Ninety percent of its members marry within that community and most have been educated separately from English speakers. They have their own complex network of clubs where they meet to relax and share in social and cultural activity.21

19 CODA is an acronym for Children of Deaf Adults.
This account is in many ways, a sad reflection of the general lack of knowledge in the wider population concerning hearing impaired people. It highlights the fact that the social experience of hearing impairment generally takes place largely outside of the sphere of hearing people.

Hearing impaired individuals are often described as sharing a heritage of oppression, lacking meaningful representation and leadership in educational, professional, and political institutions that affected their lives. Until recently hearing impaired people saw themselves powerless. In a world, which takes physical ability for granted, the disabled are discredited. Stigmatisation often leads to unsatisfying interaction for the hearing impaired in a hearing world.

Higgins has explored the issue of the processes of exclusion, which are enacted within the social relations between hearing and the hearing impaired. The focal point of Higgins' work concerns the way in which hearing people view hearing impaired people.

Deaf People are perceived as lacking an important, even an essential, element of being human. Consequently deaf people are defective. 22

Rutter and Davids confirm this exclusion but both also mention certain factors that could assist in the confidence of the hearing impaired individual. Intrinsic factors include the degree of hearing loss, communication skills, academic ability, social skills and personality. Rutter continually emphasises extrinsic factors including school factors whereby the attitude of the educator plays an important role, family-related factors, interpreter services, curriculum related matters and educational support. The extrinsic factors have steadily improved since the government has made several policy changes to accommodate learners with special needs. 23

Exclusion has propelled repercussions upon the relationship between the hearing impaired and hearing community and in consequence, hearing impaired people have


23 Lucinda Rutter, educator for the hearing impaired and Ronel Davids, social worker and sign-language interpreter for the hearing impaired, interviewed by the researcher.
continually had to confront the assumptions of hearing people in everyday interaction. Interaction between the hearing impaired and the hearing is often strained and awkward due to the impact of hearing impairment and its accompanying limitations on social interaction. Personal and social development often seems to take a back seat during the early and adolescent years of hearing impaired children because of the focus on language development and academic progress. The importance of social interaction and personal growth has never been underestimated by the hearing impaired person and rarely overlooked by parents. It is often educators and other professionals who seem to forget that the persona and social dimensions are equally important as the academic ones and that language ability is connected irrevocably to using language with others.

6. Personal and Social development through the life span
As individuals age, they generally lose their hearing. Though acquired deafness is not only caused by aging, it is the most common cause of adventitious deafness. Individuals with acquired hearing loss typically experience increased feelings of isolation. Schirmer found that social isolation was the principal handicap associated with adventitious deafness. Also observed was that adults who became hearing impaired experienced a breakdown of social life. In his autobiography, David Wright related his feelings about social situations as a teenager aboard a ship:

My deafness did, and still does, often make me feel at a disadvantage; but that is quite a different thing from feeling inferior. What made me suddenly conscious of deafness, rather than sensitive about it, was the awful incertitude in which I found myself – not knowing what was going on. How can you break into a group of people, join them, introduce yourself, if you have no notion what they may be talking about? Specifically there was the realization that I had no idea how to strike up an acquaintance. How does one break the ice – what does one say to a complete stranger? Having started, what then? I was at a loss because I had no way of finding out except by trial and ignominious error. Deafness prevented me from overhearing how it was done.

Hearing impaired individuals “overhearing” the social milieu of hearing individuals and hearing impaired individuals with limited sign language proficiency “overseeing” the

social milieu of signing individuals, confront similar challenges in learning the social rules of the respective cultures and finding satisfaction in their social lives.

Because hearing impairment is synonymous with impaired language acquisition\(^{26}\) and reduces the ability to communicate, language development and the training of communication skills have been the focus for the hearing impaired community.

7. Music and the hearing impaired

At the very essence of music, dance, and drama lies a vital link of human communication unlike any other.\(^{27}\)

An informal survey conducted by Critchley and Henson\(^{28}\) about music educators of the hearing impaired indicated that people with a hearing impairment are inherently no less or more musical than the general population, but a more than usual effort has sometimes to be made to tap into this musicality. There is further confirmation of this, from Campbell’s work in ‘Introduction to the Musical Brain’.\(^{29}\)

Fortunately, the old idea that hearing impaired children should be excluded from music is fast disappearing but there is still no impetus in South African education for the idea that music is necessary in the curriculum of hearing impaired schools. Both the Bel Porto School for the Disabled and the Dominican School for the Deaf, presently have no music education available to their learners. According to Rutter\(^{30}\), there is a soundproof music room at the Dominican school, equipped with instruments; however, it is not being utilised, as there is no educator at the school who is able to teach music. Rutter later explains that the children at her school often dance and that hearing impaired adults often


\(^{30}\) Lucinda Rutter, educator of the hearing impaired at the Dominican School for the deaf, in an interview with the researcher on 3 March 2003.
attend dances held by the Bastion in Cape Town. Ronel Davids verifies this by stating that the dances held every third Sunday at the Bastion are very well supported.

Music is a language that speaks to all people. It can express emotional experiences and mirror cultural heritage regardless of hearing impairment. As explained in the previous chapter, Melody and rhythm can be internalised by means other than the sense of hearing. What David Ely Bartlett wrote in 1848 still holds true today:

In estimating the pleasure that is derived from music, it must not be forgotten that the sensation or perception of sound is not the whole of the pleasure produced by music. A considerable part of this pleasure results from the underlying rhythmic character of the movement which can be perceived by the sense of sight alone to a considerable extent, and yet more perfectly by sight and feeling together. If the question be raised, what possible benefit can result from teaching music to the deaf…it may be answered: What benefit is ever derived from teaching music? It is a means of intellectual cultivation.31

Other countries have realised the importance of music education and have implemented strategies to facilitate this process.

Ana Cruz identified the most important benefits of music for her case study as “(a) it is cleansing, (b) it is therapeutic, (c) it helps him to deal with his frustration and emotions, (d) it is a tool for self-expression, and (e) it is of spiritual value.”32

The hearing impaired can receive sensory satisfaction and valuable auditory training from experiences with music. Exposure and experience will help the hearing impaired child to build musical concepts, understanding an approaching music. A meaningful and effective experience with music is largely affected by the qualification of the professionals involved. A special qualification for educators attempting to provide music for the hearing impaired is necessary and requires expertise in aspects of both music and the

hearing impaired. In order for an educator to teach music an understanding of hearing impairment is essential.

8. Hearing impairment in South Africa

There is little formally documented on the history of the South African hearing impaired, therefore the main sources are press cuttings, records and newsletters of the South African National Council for the Deaf founded in 1929 and interviews with hearing impaired adults.

In 1863, six Irish sisters of the Roman Catholic Dominican Order, founded a school for the hearing impaired in Cape Town, later known as the Grimley Institute for the Deaf. The school soon succumbed to the philosophy of separatism and split into two: the Dominican Grimley for white children and the Dominican School at Wittebome for non-white children. At approximately the same time, the Dominican sisters started a school for the hearing impaired in King William's Town. In 1881 the De la Bat School for the Deaf was started by the Dutch Reformed Church in Worcester. In 1934, the same year that St. Vincent school for the hearing impaired was founded in Johannesburg, schools were divided into 'European' (white) and 'non-European' (black). The first school for the black hearing impaired was opened in 1941.

Increasing fragmentation of educational policy was entrenched by the coming to power of the Nationalist government in 1948. There were vast disparities in services, which were directly linked to the philosophy and separatism on race. Because of the widely diverse education systems, a number of variations of sign language existed. In 1987 a national research project jointly funded by the South African National Council for the Deaf and the Human Sciences Research Council was established which had its aim a characterisation of the diversity of sign languages in the country as well as of the sign

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syntax found among deaf groups. The first volume of the *Dictionary of Southern African Signs* was published in 1992.\(^{35}\)

While the present government has desegregated all schools and implemented new policy regarding subject choice, staffing and funding (S.A. Schools Act, 1996), the heritage of the apartheid era is still evident.\(^{36}\) Previous non-white schools are still struggling and the former white schools still have the more affluent children in attendance.\(^{37}\)

Although most probably not the only prominent people with hearing deficiencies, it is worth mentioning three hearing impaired South Africans, Wilma Newhoudt-Druchen, David Wright and Tommy Motswai who successfully overcame the inequitable system.

- The Honourable Wilma Newhoudt-Druchen, member of the South African Parliament was nominated by Disabled People of South Africa (DPSA) and became Member of Parliament after the June 1999 elections. Newhoudt-Druchen became hearing impaired at the age of three because of meningitis. She attended the Dominican School for the deaf in Wittebome, Cape Town and because there was no higher education for the ‘coloured’ deaf under the apartheid system, she completed her education at a hearing Catholic girl’s school. While working, she studied at the University of South Africa (UNISA). In 1988, after her first year at UNISA, she was able to enrol at Gallaudet\(^{38}\) University with assistance from a deaf South African alumnus. She studied social work and graduated in 1992, giving the student speech on graduation day. She returned to South Africa in 1994 and worked as a social

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\(^{36}\) Lucinda Rutter, educator for the hearing impaired at the Dominican School for the deaf, in an interview with the researcher on 3 February 2003.


\(^{38}\) Gallaudet University (Washington, DC) is a multipurpose institution of higher education for hearing impaired citizens of the United States of America and of the world. It offers under-graduate and post-graduate academic programs. Gallaudet is the only liberal arts university in the world designed exclusively for hearing impaired students. Communication among staff, faculty and students is through the use of both sign language and written and spoken English. As a result, students are able to participate fully in all aspects of campus life and thereby acquire the comprehensive education and
worker for a local organization called Deaf Community of Cape Town (DCCT), which she had helped start before attending Gallaudet University. In 1998 she worked for DEAFSA-Western Cape as provincial director, and in June 1999 was sworn in as a new Member of Parliament.39

• The second famous hearing impaired South African is David Wright, who was born in Johannesburg in 1920. At the age of seven he contracted scarlet fever and subsequent complications resulted in deafness. He left South Africa in 1933 to pursue a specialized education at Northampton School for the Deaf in England40. Wright is a poet of considerable influence having edited several anthologies and the *Penguin Book of Modern Verse*. He felt unsettled, lost and alienated at the Deaf school, not having learnt the sign of his peers, but at university he also felt a stranger in a hearing world.41 The effect of Wright’s deafness on his personal and poetic development cannot be ignored, as his personal and poetic concerns are often inseparable. In his poetry he shows a cynical perception of life’s paradoxes and injustices. The last verse of his poem “*Monologue of a Deaf man*” is particularly poignant:

Thus I too must praise out of a quiet ear  
The great creation to which I owe I am  
My grief and my love. Oh hear me if I cry  
Among the din of birds deaf to their acclaim  
Involved like them in the not unhearing air.42

In the last lines of his own funeral oration which he wrote at the age of 30, he makes reference to his South African origins:

Born in a dominion in which he hoped not to go back  
Since predisposed to imagine white possibly black  
His life, like his times, was appalling; his conduct odd  
He hoped to write one good line; died believing in God.43

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42 Wright, (14).
Deaf artist Tommy Motswai born in 1963 a pupil at Kutlwanong School for the Deaf near Rustenburg, has become a well known figure in South African art - his work has been hung in local and international galleries and has won awards including most recently the Standard Bank Young Artists award.\textsuperscript{44}

Hearing impaired people comprise a minority in South Africa and there is a serious lack of reliable information about the nature and prevalence of hearing impairment in this country. The following statistics and facts are based on a Government Publication by the South African Department of Health and population Development coordinating committee.\textsuperscript{45} Conclusions were drawn from investigations conducted in other parts of the world. The study that is frequently used to indicate prevalence and incidence is that of the National Census of the Deaf Population (NCDP) conducted in the USA. In this study it was found that

- Approximately 66 out of every 1000 people in the USA have a measurable hearing impairment
- Of these people approximately 33 have a significant hearing impairment in both ears and 8 to 9 are totally deaf.

No similar studies have been undertaken in South Africa. It is estimated however, that 35/1000 of the population are significantly hearing impaired and 1,18/1000 of the population are totally deaf. It can also be accepted that the real incidence in South Africa could be higher, owing to the fact that it is a third-world country. Certain infectious conditions such as rubella and otitis media are not controlled to the same extent as in the USA. It would therefore be a conservative estimate to claim that at least 3\% of the total population is significantly hearing impaired. According to DEAFSA (the Deaf Federation

\textsuperscript{43} Wright, (190).
\textsuperscript{45} Government Publication by the South African Department of National Health and Population Development coordinating committee: \textit{Disability in the Republic of South Africa. Volume 8, Hearing impairment (the deaf and hard of hearing).}
of South Africa) fewer than 20 qualified sign - language interpreters are employed full time due to insufficient funding and training.

In South Africa people with disabilities are excluded from the mainstream of society and experience difficulty in accessing fundamental rights. The rights of people with disabilities are protected by the Constitution. Government departments and state bodies have a responsibility to ensure that, in each line function, concrete steps are taken to ensure that people with disabilities are able to access the same fundamental rights and responsibilities as any other South African. To co-ordinate this activity, the Office on the Status of Disabled Persons was established in the Office of the then Deputy President, Thabo Mbeki. With this in mind, a “White Paper on an integrated National Disability Strategy” was drafted and released in November 1997.

9. Conclusion

What is available in terms of understanding the psychology of hearing impairment and hearing impaired communities has come from the results of psychological and psychosocial studies of persons who have various types of hearing problems. More research needs to be conducted on the psychology related to hearing impairment, social aspects of hearing impairment, and ways to involve hearing impaired people in music activities. Research about hearing impairment lacks well-developed theoretical frameworks that explore the processes of identity and cultural formation. It is clear that hearing impaired people are much more like hearing people than unlike them, but that they differ more than likely in one major respect: they have suffered the psychological and psychosocial impact of disability and have adjusted or are in the process of adjusting to this impact.
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

1. Summary
The research question posed in Chapter One of this study was:

What are the extrinsic and intrinsic factors that influenced the development of music skill and musicianship of hearing impaired percussionist Evelyn Glennie?

The findings concluded that Evelyn Glennie overcame her handicap through inspiring environmental support in her parents and teachers as well as her intrinsic personal qualities. Amongst the environmental factors that enhanced her musical development were mainstream schooling, musically literate parents, competency and skills of teachers and an uncompetitive environment that fostered freedom of exploration. Intrinsic characteristics included curiosity, self-discipline, self-reliance, perseverance, creative, inquisitive, imaginative and self-contentment with social environment.

The findings furthermore suggest that there are misconceptions that may be construed about the hearing impaired and music. Normal hearing people tend to view music as a phenomenon which is primarily experienced auditorily and thus exclude hearing impaired persons from music making. However, extensive neuroscience has found that hearing impaired people sense vibration in the part of the brain that other people use for hearing. This finding explains how hearing impaired musicians can sense music and enjoy concerts and other musical events.

An investigation into the socio-cultural environment of the hearing impaired in Cape Town, South Africa, highlighted the fact that a ‘deaf culture’ exists. It was furthermore found that there is a lack of positive attitudes towards and images of the hearing impaired, and that the mass media, advertising and entertainment industries play a significant role in shaping mindsets about how the disabled lead their lives. The lack of positive images hampers the quest by disabled persons for social, economic and cultural integration.
Music is a possible medium that can help bridge the gap among all cultures, including the hearing and hearing impaired. Despite evidence of the positive feedback of music in the lives of the hearing impaired and the numerous societies that promote music making by the hearing impaired, South Africa is lagging behind in these initiatives.

2. Conclusion
After a review of the literature, case study and analysis of data presented in the form of interviews, it is concluded that the hearing impaired child can successfully experience music listening and music-making. The findings of this study suggest that intrinsic factors and extrinsic factors are critical in the hearing impaired experience of music. Since neither hearing impairment nor education systems are homogenous in nature, the researcher understands that a different set of intrinsic and extrinsic factors could suggest very different needs. However, by engaging the hearing impaired in musical activities, they can experience an important form of self-expression and communication as well as more avenues to engage with the hearing community. It could even open up more career opportunities for the hearing impaired.

If music is presented in a meaningful context, it can play a very important role in improving hearing impaired (and multi-handicapped) children’s learning abilities and social skills.

3. Recommendations
It is recommended that all hearing impaired schools have music training programmes included in their curricula. This should not be only limited to class music and individual tuition but should include structured listening experiences, which can improve music perception and enjoyment. Furthermore, for a meaningful and effective music educational experience, a qualification for educators attempting to provide music for the hearing impaired is necessary. Such a qualification would require expertise in aspects of both music and special education.
Future research should investigate the associative learning and cognitive abilities of role models such as Evelyn Glennie. The ability to perceive and interpret sound is one Evelyn Glennie has mastered successfully. Once the process has fully been researched, those findings could assist music educators in fostering talent among the hearing impaired.

South Africa is a country presently scarred by a history of prejudice and separatism. The hearing impaired and disabled in South Africa are not treated on equal terms as able-bodied people are and policy makers need to be made aware of this. The present government should explicitly state their commitment to social changes and to the entitlement of all levels of society to enjoy music education.
APPENDIX 1

Lucinda Rutter, psychologist and educator for the hearing impaired, interviewed by the researcher, 3 March 2003

Q: Would you like to introduce yourself?
A: My name is Lucinda Rutter and I am a teacher of the deaf for 21 years.

Q: What do you think the majority situation of the pupils are at the school i.e. is there deafness in the whole family; or is the situation isolated?
A: About 5 families whose children come from deaf families (It’s not the norm). One percent of the total population being deaf in any country and most of the children have hearing parents and hearing families. There is a handful of deaf children of deaf parents.

Q: What causes deafness in children?
A: Some children are prelingually deaf, the parent (mother) during pregnancy might have had Rubella, German measles, or contracted any other type of disease not even being aware that they have the disease and then they take medication that has a side effect and while pregnant that could happen, so these are prelingually deaf children. Postlingually deaf children often during the first year they contract meningitis, measles, scarlet fever, mumps etc.

Q: The children at your school: are they from rich, poor or middle-class communities?
A: We get communities who are so poor, they come from informal settlements; we have 2 children at the school, who are in the pre-school who cry when they have to go back to the shacks, because they get a nice warm bed, good food although the children do complain about the food but it’s wholesome. She doesn’t want to go home on a Friday. The other day she came out in a strange skin disorder, nobody knew what it was until the nurse took her to a dermatologist; it was something she picked up in the squatter camps. So we get children who...we had a child who was being breastfed at the age of 5, not being inoculated but had not one disease. So it’s a whole range of children. We have first world standards but it’s a third world country.
Q: Are the dormitories/sleeping facilities available to all?
A: No, it's not available to all. Each child is measured on what the circumstances are; of course, if they are from up country then they have to stay here; we don't take children any longer from the Eastern Cape or Gauteng. In the old days we were the only school so children would come from Johannesburg, but because there are deaf schools all over the country now, we only take within the Western Cape and we have seven Namibians...because the Namibian government came here to take a look at our schools, then they started a school for younger children and as the children grow, the school expands, but the children that are here are already too old and so they don't have a school available for them there. So they've come to our country on student visas. They are regarded as foreigners; their government pays for their schooling. Half the children here don't pay school fees although we have it in place, so the borders also don't pay, they have bills of thousands of rands but also being a Christian school you can't turn anybody away.

Q: Do you think that the majority of your students here come from the poorer communities?
A: Yes, although we have children from affluent families, they're middle-class so to speak.

Q: Are there richer deaf schools around here that you could consider affluent?
A: The thing is, the deaf child comes from a rich family, the parent (mother) wouldn't have to work, the mother could go to the oral programme at Carel du Toit and there would be all kinds of support from a financial [view] and the parents have the insight so the child won't have to come to our school, oral programme would then be the way out for them. Not all rich people who have the money to offer support have the insight, because here are middle class kids here. Parents are just not supportive of them – and I'm not saying rich people go for an oral programme and poor people go for signing, it's not that, it's not as clear-cut. You can have a well-adjusted affluent signer; it's the insight and supportive parents that don't go together. And deafness goes across the border,
any race, any gender and any economic situation. But unfortunately this school does feed a poorer community.

With the opening of schools, you could go to any school you wanted to. The English signers don’t have an option; they just have to come to our school. But if you’re Afrikaans speaking you could go to the...ex-white De La Bat you might have a better opportunity. We have had students lured away because of sport, better sport, because there’s money to be made in sport, so we’ve had a few students going over to other schools, they offer them a sport programme which we can’t.

Q: Your observations with regards to children who come from deaf parents and those that come from hearing parents. Can you see a difference?

A: Yes, you see, language is the issue. Your language is your contact of relationships, your contact of emotions. The deaf child from a deaf parent comes to school with language. Might not be the language of the school being English, Afrikaans or Xhosa, but it is a language. Concepts are developed, and the child is able to express the emotional...the whole concept of feelings, and their understanding of relationships is embedded because of their sign language is a deaf parent signs and most deaf parents sign. So the child is already communicating from the age of 6 months.

The deaf child in a hearing family: A baby who doesn’t respond to the mother, after a while the mother stops interacting. Research has shown that the parent’s way of communicating, the hearing parent with the deaf child is not spontaneous. It’s deliberate intervention, so it lacks that spontaneous kind of thing and often parents are not even aware that the child is deaf while speaking to the baby in the cot, and then the child would just lie there and the parent stops talking until oh wow! Oh, the child should be talking now what’s happening...and so there’s that immediate loss of communication and also, as the child grows up, in the hearing family if they sit around the table and have a meal, you know for yourself how you have a conversation unless you in a family where nobody talks while supper, I mean, that’s the one time you can talk when sitting together and you chat. The deaf child will be isolated completely. I mean I had a deaf child living with me for six weeks; I ate cold supper most nights because when we were talking around the table, our
family, I would have to tell the child what was being discussed, so that they don’t get a sense of isolation. They are extremely suspicious when they’re not informed what is going on around them and not all deaf children can lip-read. Only thirty percent of the sounds actually fall on your lips, so they not even able to lip-read. And if they’re profoundly to severely deaf, or severely to profoundly deaf the residual hearing is just not there, so they would have problems in hearing anything – and imagine how much you learn by overhearing or eavesdropping and just coming on an incident and standing still to listen, it puts you in the context of what is being discussed. You see, deaf children can’t pick up those cues.

Q: Would you say that this leads to their homogenous nature?
A: They gravitate towards each other. In their teenage years, you will find that they would gravitate to go into deaf clubs, so they won’t hang out in the home and they will find everything wrong which is normal.

Q: Are there many deaf clubs?
A: Not many...not many. It will be sport orientated and they meet once a month at the Bastion, and that is where they get together, and so their social life, they always hang out together...in each other’s homes especially over the holidays and long weekends they would.

Q: So it gives them a sense of belonging?
A: Social Identity. It’s like we who go through identity crisis and finding your own identity and that...they go through exactly the same thing, but gravitate towards deaf culture, the deaf identity, they become empowered it’s called “deaf power,” and they will start demanding why don’t you have that here, I’m deaf and so things like that would happen.

Q: Does this situation lead to many marriages within the deaf community?
Yes, endogamous marriages, it has happened where deaf girls or deaf boys marry hearing but it has not always been successful. It’s very, very hard communicating, and sometimes you will realise that the hearing person is streets ahead depending on your education, your support and insight to the world, then after a few years there’s divorce and things like that between the
deaf and the hearing. I don’t know of one successful marriage between a hearing and deaf person I mean it just does not happen. I know of a couple, a very nice couple, deaf girl and hearing guy. He went as far as signing, he sat in on the sign language classes that I gave, and I think they were married for about three or for years and then they divorced. I do not know the real reason why they divorced but its relationships. A relationship is based on communication and the concept of isolation, a hearing person will never understand isolation of that nature. We can say we feel isolated and lonely, but we are not cut off completely from the world – switch a television off on silent mode – half the time you wouldn’t know what’s happening. That is what they meet on a daily basis and you know your frustration when you see the picture but theirs something wrong with the audio. So they meet that on a daily basis.

Q: What are your personal experiences within the Deaf Community in Cape Town. Are they positive?
A: Some positive, because... look I hung out with the deaf community. Because with adults it was one way I could improve my sign language to get a full or a clearer understanding of deaf culture and things like that – and they welcomed me into their community.

Q: Why?
A: Because I sign. You are unidentified by your understanding of signing as a means of communicating. You are then also associated with deaf education; you are also open to listen to them. Some people in this school are just a no-no in the deaf community. They may carry a history of things, maybe not wanting to sign, or they’ve treated a deaf person with arrogance, like that. So, these people’s names are known in the deaf community. So maybe if you mention that persons name you might get a response like “I don’t want to talk about that person.” It all lies on the personal experience you see, because the deaf community is made up of the school they come from, there are personal experiences for many of the children. I mean look at the baggage you and I carry from past experiences. If you haven’t shaken or moved from it and so likely, the deaf carry that same and so their experiences of the school also influence their understanding of who you are and where you are coming from.
but the primary reason is the signing. I mean I’ve been asked many a times if I’m deaf by the deaf community. I sometimes mouth but you don’t use your voice. Other people use their voices it’s also accepted, but I’m a signer and I have moved on with the whole concept of understanding the deaf person and things like that - and they know me – some of them have passed through my hands as a teacher, so they know me.

Q: From your observations in the deaf community, do you think they are resentful towards hearing people?

A: I think that it depends on their experiences. Some of them have had very, very ugly experiences with hearing people – be it in their working environment or in the school, or just in life in general – and they are scarred. While they know that they are deaf they’ve been put down all their life – they’ve always been measured. You see, with human rights has come the concept of “I’m okay; you don’t have to fix me.” But for hundreds of years it’s been the pathological view: I am deaf and I need to be fixed, whereas the other one is a socio-cultural model where I have a community of my own and therefore it must be respected. I have my own language, therefore it will be respected; and I have my rights as a deaf person, therefore I must go for that. The other model which has been around for much longer and it’s difficult to shake is: I am deaf; therefore, I must learn to speak, fix me, put on a hearing aid, fix me. Something is wrong so go for a cochlear implant, fix me. The other model is not like that. There’s a big difference and because of human rights the focus has been a lot on now recently, the socio-cultural view, acceptance of sign language, and things like that. I mean just think of apartheid; Xhosa was down, Zulu was down, Tswana was down, there were hardly any books printed. It needs a status, the same thing with deaf; it’s going to have its own status. So coming back to your question with the hearing world, yes it carries a history; some Deaf adults will tell you stories of how they were told to sit on their hands, some of them had their hands tied behind their backs. Now I’m talking about twenty years ago. These are your forty-something year olds – and they carry the resentment some of them laugh about it, but depending your personal nature – can you dump that? Or does it remain a factor with you? They also sometimes have resentment towards the school because of the
education. They say that the school let them down. They forget to see that education is not only required with the teacher being there to teach you it is also the support of the family – the mother, father to drive you. Their own behaviour influences how much they learn, and the successful deaf often has a driving force behind them – a well supported family, they don’t have to be rich, but that desire to take an interest in their child. Some of these children go out with their parents – the parent does not tell them what the name of the place is, or they sit and watch a movie not even knowing what the name of the movie is. Some of them can’t read - they don’t even discuss. They also think that the school provides everything; they leave it all up to us. You sometimes act as a parent. Say for example a girl in her teenage years was to become a young lady, I mean starts to menstruate. The mother comes to the school in the morning and asks the teacher to explain what has happened to the daughter. I know that if the mother explains it creates a better bond between mother and daughter. With boys, the father does not explain the whole sexuality thing. We have to get the men here on our staff, and the staff are predominantly women and again the father explaining to the boy – it would create a better bond between father and son. Simple things like I’ve just mentioned is what the hearing world takes for granted. So these children come from the age of three with all these different experiences and they reach adulthood and then blame the school, then I sometimes remind them that they were very naughty at school, ask them if they did their homework when they should have I just ask did you do this, did you do that? Because sometimes when I hang out in the deaf community, I can become depressed because they blame you and yet you cannot blame an institution in total. They would say “I stayed so long in a grade” but they didn’t have the language to move on. With changes educationally, children have greater access now and modifications have been made to accommodate the deaf learner slowly.

Q: When?
A: Well, in the last few years. Our understanding has also improved. We the teachers didn’t know that you could draft your own paper for the Matric exams and then it was moderated. We did not know that pupils were permitted an interpreter, could have extra time, could have a note-taker, and so on.
Q: When did you find this out?

Let me see...in the last five, six years. Also, the Education Department has given a lot of leeway. Before, you had to have two languages – English and Afrikaans. Now, you need one language. The Department of Education is not ready to recognise sign language as the other language. We have the curriculum but the structures are not in place. I see it as a process.

Q: So there has been a greater awareness towards the deaf learner? What has perpetuated this?

A: I think the whole new way of looking at education. Also the choice of subjects has been left now to the school. In the old days, you had to do geography. We now liaise with technical colleges, so we can have technical subjects which are a lot easier sometimes for our children than history. The students can then use these skills learnt at school – you see we trying to make the curriculum from Grade seven upwards, more orientated for the open labour market so that the children can get a better opportunity for a job and with affirmative action they could get a job although many of our deaf are still unemployed. We have three or four deaf students working at Pick 'n Pay in the bakery section. One of them is being primed for a managerial position. But then you have to ask yourself “How is he going to cope?” because he would need an interpreter. Pick ‘n Pay needs to know strategise because they have an employee who is a brilliant worker – so they have sent him on a couple of courses and grooming him for a top position, But these are isolated cases. We have a deaf pupil at University; two at Technikons...

Q: The successful deaf seem very sporadic. Why?

A: I cannot pinpoint one thing. Affirmative action is one place, but production is also an issue, if you’re not productive in a factory they will fire you...and sometimes the deaf have an attitude problem... they always say its miscommunication or if they not happy they just don’t return the next day to work. This is where I feel sometimes the deaf school pamper and mollycoddle that they don’t get in touch with the real world, that they are isolated and then all of a sudden they are out in the world. And you know, we always make
excuses but sometimes you must actually be a hard taskmaster. It's because they are isolated that they don't know how the world operates. That is why when they go out they get a shock, because there's no teacher to come to.

Q: What are your views on the deaf child being integrated into a mainstream school?
A: I'm not totally against it, I think each child must be measured on his or her own merit and we should consider first what structures are going to be put in place in that school. You know the whole concept of inclusive education is a pipe dream - it has its own limitations but it can be successful.

Q: Deaf culture in Cape Town – does it exist? Do they go to church, have parties and so on?
A: Oh yes. They love going to parties, when it's somebody's 21st you will see a whole crowd of deaf people will be there. I went to a deaf wedding – they dance, I danced with a deaf person.

Q: And so do you feel they can hear the music?
A: Yes, they turn it on extremely loud and our children have even won dancing competitions – I will show you the trophies in the display cabinet in the foyer so they do have dancing – they love going to disco's as well – it's just that they watch, watch when the music stops playing – the funny thing is that we've seen deaf people dance without music…we also run disco’s once a term with senior deaf adults so that the pupils can learn the proper decorum of what is proper manners. They really do love dances – they don't have fundraisers at the Bastion but they will organise.

Q: So what then is the function of the Bastion?
A: The Bastion is there to see to their needs – mainly for adults. They will have social workers there as well as audiologists on a part-time basis. In school, the audiologists hear sees to their hearings aids and the fixing thereof. It's very expensive to go privately – here the school bears the payment and cost because they must have a hearing aid. When you are an adult the Bastion sees to that – they will put you in touch with the hospital, social work: problems in
the work environment, problems in marriages, problems with their children, many deaf people have hearing children...so how do they cope because the hearing child’s language will be stifled in some way – so the social worker would have to set out that they go for language therapy, go to the school etc. The Bastion also sees to the sign – language project. They offer interpreting as well. They liase with other organisations worldwide.

Q: Is the Bastion only in Cape Town?
A: DEAFSA the Deaf Federation of South Africa and then you also get the Deaf World Federation who have a conference every four years and so then South Africa would send a delegation to that conference. Papers are usually presented there – so I could take my research and present it there if I wanted to. Sometimes schools send teachers over.

I just want to say about the dancing and religion because this is a Catholic School. In the old days they converted to Catholicism – that is a no-no now. But say those that did convert, they have a Mass once a month. Our school is Catholic because of the Dominican order but it’s not Catholic by the people because a child cannot be turned away – he’s here because of his handicap, not because of his religion. The school has an ethos, which is Catholic – and we teach religious education and the Catholic children are separated but the Muslim parents who request in writing that they don’t want their children included – we get an imam for them. That is the change with the country – tolerance. The Deaf adult also has the option of going to a Mass at St. Michaels in Rondebosch – there’s a mass for them there once a month and afterwards they have a whole day on a Sunday of getting together.

Sports, they also get together. Every second year deaf adults have a sporting competition. DEAFSA organises this event. You qualify from the age of eighteen. It’s often held around March or April. The next year are the schools, nationally – all the deaf schools having a competition. Last year we had the South African games of which all handicaps were represented. So sport is a big thing.
Q: **What music programmes are in place here at your school?**
A: We have drumming, in the old days when I started here we had percussion and we had hymn singing – but it’s signing and singing. We would have a signed song and the children would do dancing but nobody playing an instrument. We used to have a guy called Stuart Radcliff who came in and taught the xylophone and the marimba but when the teacher left – the skills go and nobody else is trained for it.

Q: **So it’s only the drumming activity that exists in the school as far as music appreciation goes?**
A: Yes, and that happens outside in the quad. There are a team of volunteers who facilitate these classes. Our children have been to the Amphitheatre at the Waterfront to demonstrate their drumming skills so they’re getting some exposure.

Q: **Besides that, do you have any class, music, individual tuition, choir training, theory and aural skills and so on?**
A: No, none of that.

Q: **Do you think that if some of these programmes were implemented that they would have a positive effect on the deaf learner?**
A: Yes, last year there were a few students who wanted to do music therapy here but they were looking for funding. We showed them our room, which is well equipped with musical instruments of which some has been disappearing; it’s also soundproof – but they haven’t come back. We have one or two staff members who are not musically trained but can play a bit of piano and guitar – but I would love to see music alive in the school – even if it is just done by a volunteer. I think the percussion was a wonderful experience for the children.

Q: **Do you think there are enough role models for the deaf learners at your school?**
A: The ideal would be to have in every class a hearing teacher and a deaf teacher – so that the deaf teacher provides the deaf role model with sign language and the hearing teacher provides the hearing world perspective – because they
have what we call a duality of existence – they live in both worlds. There are too few people employed in our schools as deaf role models because you see… a young child thinks that him or her are the only deaf in the world. I had a child who asked if when they grow up they will be able to hear – then you realise that they only see hearing people. At this school we have a deaf teacher, and a deaf teacher-aid. But you know she does not come to the staff room – because we don’t sign

I have though invited Manfred, from Pick ‘n Pay. He went to the USA for training as an actor – he is excellent as a story-teller – he attended Gallaudet for a year training – the children just love him He is an excellent role model in his manners, in his acceptance of his deafness, in his blending in a hearing world – there’s no resentment from him even though he didn’t matriculate.

Q: Do you think that the government is making a deliberate attempt to include the deaf in the overall policy-making process?

A: Policy has been put in place but policy is not the be and end all – you must have a system and structures put in place. They haven’t moved on funding for training for sign-language teachers; in fact they’re taking money away from us. We don’t have money for hearing aids or an FM system – an FM system is a wonderful system – it improves the classroom communication drastically. One is approx. R1000 – therefore in a classroom of ten pupils we will need 10 microchips for the FM system which will cost thousands of rands. So from grassroots level we see very little. However, policies are being put in place and policies are being written. We have a deaf MP – it’s a slow process and because it’s a minority group it will be left for last. Affirmative action and the disabilities act are in place, but you must have the correct people in place to facilitate the procedure. The education department also lacks understanding about our needs – so sometimes we just feel like we’re fighting a losing battle here at the school.

Q: Would you agree that there is a general lack of understanding of the deaf community – that most peoples' knowledge is limited to that which they’ve seen in movies, read in books and so on?
A: Absolutely. Yesterday we had interviewed a teacher -- she had never in her life met a deaf person before, she had no understanding of deafness -- not even the signing at the 6 o'clock news. We then put her in a classroom for an hour just for her to see what it's all about -- she came back to me in my office and said, I don't think this is for me. We had a teacher here already for a day -- she just left because she couldn't handle it. It is hard work working with these children, it's a calling. I think though that these children must get the opportunity - the only difference between these children and those in another school is that they can't hear -- they must be exposed to everything and you will be amazed at the response. But you need to know how to access the opportunities. But I do think there's a major lack of understanding.
APPENDIX 2

Ronel Davids, social worker for the hearing impaired and sign language interpreter, interviewed by the researcher, 18 February 2003

Q: Would you please introduce yourself?
A: My name is Ronel Davids. Presently I am doing social work for DCCT (Deaf Community of Cape Town) at the Bastion on an ad hoc basis but I'm working fulltime as a sign language interpreter for Parliament for the one deaf MP as well as doing work for the political party to which I belong, the ANC (African National Congress).

Q: How did you first become involved with the deaf community?
A: My husband is a General Practitioner. I often saw deaf patients in the surgery with the characteristic gestures and muffled voiced sitting on their own, the doctor who is my husband on the surgery, would tell me how usual thirty – minute examinations would take up to an hour to ensure the proper diagnosis was made. Notes had to be painstakingly exchanged between doctor and patient in order to communicate. I felt the strong urge to care. Deaf people are human beings. They can do everything but hear and so those experiences encouraged me to get involved with the deaf community.

Q: What is the main purpose of the Bastion?
A: The Bastion is basically a community center for the deaf person. It is a stronghold – it gives the deaf person an opportunity to call something his or her own. Services are delivered in their first language, which is sign language so people would find sign-language interpreting services, which is catered for by another organisation, which is housed here, DEAFSA (Deaf Federation of South Africa). The Bastion also provides social services which is social work, counselling – marriage counseling, handling abuse, whatever needs be. There are also two development workers who are deaf, they specialise in certain avenues of work like helping them complete certain grant application forms, helping with ID applications, marriage certificates etc. The development workers also
communicate with the authorities on behalf of the deaf client. So basically it’s a help centre for the deaf, which caters in their first language.

Q: And do you find that coming here gives the deaf individual some sense of belonging?
A: Speak to any deaf person and ask them, do they know about the Bastion. Go to any province, the Eastern Province, up north – that person will identify with the Bastion. The message goes out to them that Bastion is there to assist them.

Q: Do you find that even though you have normal hearing, you are accepted amongst the deaf?
A: Yes. My knowledge of sign language is what I learnt from the deaf community – my mentor was a deaf person. He might not have much education behind his name but at the end of the day he taught me my sign language. I feel I am accepted the way I am treated – the clients I deal with in my social work need to trust me, and I think that I have gained enough confidence from them in order for them to trust me. However, I think my greatest advantage is the knowledge – I can interact with them in their prime language, therefore there’s no language barrier. There is a great willingness by the community to teach you their language, so if you have that desire to help the community, then you will find many deaf members willing to assist you. I have gone away to do full-time interpreting for the last three years, and since being back at the Bastion, it felt like coming back home.

Q: Do you find the here at the Bastion that the deaf community are from the poorer communities?
A: Those that come to the Bastion are from the lower socio-economic class. Basically, those who do not have jobs come looking for jobs here, or they don’t have money to go and look for jobs so then they will get a travel allowance from the Bastion. Before, there were food parcels given out but that has obviously stopped, because the government does not subsidise food parcels to DCCT any
more. So yes, you would find that those who come here do not have much. I am talking now from my social work experience, I have clients coming from communities like Delft, Mitchells Plain – the poorer areas where there is also much more abuse happening and also there is often no income in the family. In the deaf community you do have class distinctions, you have race distinctions – you will find that we have organizations in Bellville, Delft and so on. Before then these areas were sectionalized, so people in the Northern suburbs would go to the Bellville office however, clients decided that it's their choice where to go, so you will find that the non-white deaf will come to the Bastion. You will find that the whites will hardly come here – it will be maybe one or two – depending on the circumstances - there might be a social worker that they are very close to. You will find people from Paarl, Atlantis coming here – they just feel at home here and that there is help here.

Q: You mentioned that the government has stopped subsidising food parcels, do you know why?
A: My understanding is from what I have heard from administrators of DCCT is that the Bastion is situated in a very affluent area Newlands, so it's not categorized in a poor area. If you have offices in a poorer area then we would receive a subsidy. DCCT rents these offices from another organization DEAFA.

Q: Do you think that the government has made any progress in implementing programmes for the deaf?
A: Yes, if you compare to previous years. I mean, if you look at now, the fact the sign language is given much more attention than what it was given before. There has been more emphasis on sign-language and I also think that more interpreters have been given work. I can see it happening in the field because the deaf are also now more aware of their rights and what the constitution stipulates. I think that sign language in deafness is being recognized much more. Given things like the news, it has only been four years since you have seen sign-language interpreters on television so that is also an indication of a greater awareness. Sunday mornings
on SABC there are also programmes for the deaf called 'deaftv'. Also there have been amendments to the Broadcasting Act in which it now stipulates that SABC by law have to include services for the deaf and visually impaired. Ok, they still have a long way to go but it's a start. Also, I mean looking at Health Professionals, ninety-five percent can't sign – the police force can't sign, universities are not accessible for the deaf, so there is a long way; however, people can't say that nothing has been done but there is a lot more to do. Education should be first and foremost – the current situation is not ideal. Many parents feel that they would not send their deaf child to a school in the Western Cape – they would rather send him or her to a school in Durban so education and mainstreaming, how you would mainstream a deaf child, these things must be approached. I also think that things must be done with the deaf and not for them. The Disabled People's of South Africa motto is 'Nothing about us, without us' and I think the same applies to the deaf.

Q: Do you think that the lack of awareness of the deaf and the isolation that they encounter make the deaf person hard towards the hearing world?

A: Look, deafness is not a visible disability. If you had spoken to me, not knowing that I was deaf you would have thought that I was ignoring you, or I was being rude, so I just think for my self if I was deaf how would I view the world – I always try to personalise situations. It also depends on their personal situation, if they have supportive structures in place – if their mother or father could provide them with information needed then maybe they have a different attitude. However, if the deaf have a bad attitude towards the hearing world, personally I don’t blame them, it takes two. For example, the way information is dispersed to the deaf, how much of information is signed to the deaf person on television or in any course offered. They are far behind – it is shocking for me to see that the majority of the deaf know nothing about HIV and the AIDS virus. It’s a fact – so I'm just saying this barrier is created by them as well as by society. In my experiences, when there’s deaf person in the workplace they call them ‘dommies’, that is my experience, so it’s really an attitude that creates barriers.
Q: Are deaf people given the platform in schools, communities to various opportunities?
A: They are not given nearly enough opportunities as the hearing person is given. I believe that the deaf person can do anything, but there is a serious lack of opportunity. Say for instance a deaf person applies for a job and the employer realises that he or she is deaf then they would say something like ‘well, you would have to answer the phone’. You know, they will look for any excuse. Deaf people are also not aware of their rights for example there’s a law that talks about accommodating ones needs, so the employer should be prepared to dish out more funds to employ somebody else. But they will always look for excuses, and you know, I actually think that a deaf person is more committed and will give more than 100%. You will find that they are excellent workers because they concentrate more and are not affected by noises or chattering. Somehow they always have to prove themselves, but they are not given scope and opportunity. I also think that deaf children are not exposed enough to successful deaf adults. People do not know about deaf role models. I mean we have one deaf chartered accountant, about four or five accountants, a deaf MP - these people are not heard of. Schools will employ deaf people but what are they doing? It would then be the tea lady, the cleaner and so. Not that I have a problem with a tea lady or cleaner, but what about the teaching and principal posts – we need to see the deaf in these positions too.

Q: In most of the deaf cases you handle here at the Bastion, are the parents also deaf?
A: No, the majority of deaf children are born to hearing parents. We do have families though where the whole family is deaf

Q: What support do you get from the parents?
A: We don’t really work here with children – the child would be referred to the school. Some schools do have social workers and psychologists at the school. We
don't really work with the child - only if there has been an abusive situation, then we are called in to counsel. If there is no counseling happening at the school or we would be called in to do interpreting services at the court. That is as far as our involvement goes with children.

Q: **What is the family setup of the hearing impaired adult?**

A: Many of them come out of abused families. Many of them come out of families where parents don’t understand them. Many of them come out of situations where their children are suddenly taken away from them because they are hearing, so the grandparents feel that they should take on the role of looking after the children. This has happened many times, so the deaf that come here do not really have much support in the home. Many of the women are abused, taken advantage of and it’s sad sometimes when you as a social worker have to intervene and tell a family to back off. Also, there is also a problem with deaf parents and a hearing child. The parents often assume the child to be the role of ears. They do not allow the child to be a child and I think that is one area where we need to do a lot of work shopping here at the Bastion. When a child is four or five years old – he or she cannot interpret a phone call for you, a medical situation and so on. I had a situation where the child was required to tell the mother that she has cancer. The child was seven years old – I mean the medical profession is just not aware of the situation. It’s frightening -- and so the child grows up very quick and when they come to the age of twelve they’ve just had enough and rebel. The parents then think that the child is very rebellious but it’s not that - all factors need to be considered. This situation is happening at an alarming rate in the deaf community where the hearing children are losing respect for their deaf parents. Often because of the socio-economic situation, the deaf parents are very dependant on the hearing child and often not realising the damage this responsibility is causing.

Q: **Are there a lot of inter-marriages within the deaf community?**

A: Yes, you find that the deaf community know one another, I mean they all know one another. We go to school together then we get married – that is what often
happens. It's a big community but also a very intimate community. You'll find that sometimes deaf people marry a hearing partner but ninety-percent of them come back for counseling because of the communication problem. You will find that the hearing spouse is tired of being the ears all the time - while you courting it works, but in marriage they often grow tired. However, there are a few couples that stand out and can be applauded for their efforts. Also, what I often encounter is deaf women who have married hearing men and are spoken into signing contracts, it's alarming to see the ignorance which is taken advantage of. And when they get divorced they are not aware of the legal jargon etc.

Q: Does the Bastion host any social functions?
A: Yes, every third Sunday they have a get together where everyone just comes to sit and socialize. DCCT also organises many dances which are very well supported.

Q: Why is it called the Bastion?
A: A bastion is a stronghold – and basically, that is what the Bastion is for the deaf community; a stronghold. Throughout South Africa this term is used.

Q: In your full-time work, do they treat the deaf MP as any other normal MP?
A: Deaf people function at different levels. You have your community deaf who could be functionally illiterate, so you need to know how to sign to them. Our MP is somebody who functions at a much higher level. It also depends on the debate, situation etc. Say for instance there's a debate on child abuse, she would wants to know every word so that when she responds she will respond in the exact same way that the opposing person has spoken. It depends on her how she wants us to interpret. On a political level, you will find that there are not many signs available, so what she does is, because she knows international signs we will then use an international sign. If there's no sign at all, there are three of us who interpret, we will then discuss and make up a sign.
Q: How many interpreters are in Parliament?
A: There are two of us and every twenty minutes we swop because it is so mentally tiring. It is very expensive to hire interpreters. Parliament does have one full-time interpreter but she is not used by the MP.

Q: You mentioned that you spent time with the deaf at a hostel in Heathfield. Can you elaborate?
A: It is a residential hostel with approximately thirty people who live there. They have a hotel administrator who is deaf. There is accommodation for 10 women and 20 men. So if you come from say, for example, the Eastern Cape and you need accommodation while looking for a job, then you can stay in the hostel. It's not permanent accommodation. There are elderly deaf people there who have been there for years and you cannot put them on the streets so they live their permanently – but there are very few of them.

Q: Does the hostel then have social structures like the Bastion, in place?
A: No, they depend on the Bastion. The hostel is a local organization while the Bastion is provincial which then provides all support to the local bodies.

Q: Are there any more hostels?
A: No, but similarly in Bellville, there is the De La Bat school which has a hostel and in Bellville the De La Bat church, which is a church for the deaf, as well as a crèche and it also provides social work services. Tygerberg has the Carel Du Toit centre, where the cochlea implants are done. In Observatory there is a deaf club, which also comes together once a month.

Q: Do you find that often you are mistaken as being deaf?
A: Absolutely, many times I have been asked if I am deaf. Even by hearing people.

Q: Are there any other comments you would like to add before I go?
A: Being involved in Parliament the last four years has been a wonderful experience. It’s been an educational experience – you have so much respect for the older generation and it’s something I would definitely impart to my own children.
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