Music psychology essay

Art & Culture, Artists

As the time passes, Human being is spending enormous amounts of time, effort, and money on musical activities. The modern, international field of music psychology is gradually exploring a multitude of issues that surround this central question. Music psychology may be regarded as scientific research about human culture and its effects.

The results of this research have, and will continue to have, direct implications for matters of general concern: human values, human identity, human nature, and quality of life. As music psychology moves more into the mainstream of scientific enquiry, people are witnessed to a host of approaches that cross disciplines as well as undertakings that integrate several specialties and subspecialties in an inter and multi disciplinary style. The massive growth that has taken place over the years, made it necessary for music researchers to broaden their command of the literature and expertise. Regardless of whether their main focus had been education, sensation, performance, perception, cognition, development or aesthetics.

Perhaps more than in the past, we can distinguish world-class musicians and music educators, who outlined theories and concepts about the essence of human behavior, as well as leading cognitive psychologists who develop our perceptual understanding of musical skill and development. Indeed, if music can be seen as a window to the human mind, then music science has more than a coveted place in the inquiry of human nature and cognition. The widening of the field has consequently opened up new academic and research affiliations than had traditionally been seen in the past.

Music psychology perspective

There is no solid reason as to why music should remain an isolated area within psychology, as its subject matter partly cover with most other aspect of the discipline as given below. It includes neurological and physiological investigations of the biological base of music perception, and hemispheric lateralization studies. Acoustical and psychophysical research of the mechanisms of auditory perception. Cognitive psychological studies of such topics as auditory representation and coding, melodic perception and skilled musical performancePsychometric analysis of music ability and its developmentDevelopment studies of the acquisition of music skills; Social psychological investigation of the aesthetic and affective aspects of music listening; Behavioral analysis of the learning of music;‘ Applied’ studies in the fields of therapy, education and industry and so on.

This list by no means exhaustive, but it conveys that the richness and complexity of musical phenomena can be approached on all psychological levels. The increasing theoretical and methodological sophistication of psychological research mean that these complex phenomena can now be investigated; and there has been a consequent upsurge in the level of research activity. Davies’s (1978 “ The psychology of music” was the first text to reflect the growing influence of cognitive psychology and Radocy and Boyle’s (1979) “ Psychological foundations of musical behavior” is explicitly behaviorist in its approach, as the title indicates. However, the very brief survey of the recent textbooks convey the healthy state of music psychology that now exists. It is easy to detect the increasing prevalence and importance of cognitive approaches within the discipline, and we shall

outline their scope in the below given chapters. Crozier and Chapman (1984), whilst acknowledging that no one psychological explanation will ever able to deal with the arts in all their complexity, nevertheless suggest that the study of central cognitive processes holds out the promise of much greater integration of theories of art than has up till now been possible. But, we should add that in case of music, the microscopic; ‘ bottom up’ studies have tended to prevail. Although these form an important part of the developmental psychological of music, there are other aspects of the field that have been less adequately dealt with.

Developmental psychology perspective

The section of developmental psychology has undergone some dramatic changes over the last decades. In the 1920 and 1930, some research efforts were devoted to the collection of normative data on the typical behavior of children and their different ages. The emphasis of this work was descriptive rather than explanatory, and it led to the compilation of sets of developmental norms such as those of Gesell (1940) and Bayley (1968).

There was a general decline of interest in child development in the 1940s and 1950s, as the major developments in psychology were taking place in other areas of the subject. But several lines of theoretical development were however influential. Two of the most important of these were the ‘ grand theories’ of human development proposed by Piaget and Freud. There has been a dramatic revival of interest in Piaget’s theory in the last two decades, such that it is now far the most powerful single influence on modern developmental psychology.

Freud’s psychosexual stage theory, according to which libidinal energy is discharged at different parts of the body (erogenous zones) at different stages of development, has had much less of an impact on contemporary thinking, largely because it proved impossible to operationalize and verify. The third major theoretical influence is of behavioral psychology. The typical approach was to look for correlations between rating of parental behavior on dimensions such as ‘ punitiveness’ or ‘ permissiveness’ and of children’s behavior on proportions such as ‘ dependency’ or ‘ aggression’. The view contained in these studies was that socialization was one-way process in which parents ‘ shaped’ their children, without appreciable influence being exerted in the opposite direction. Although the more recent formulations of social learning theory have departed radically from this point of view, it remains try to say that the early behavioral explanation of socialization had no specific account of developmental processes. Development was simply seen as the gradual accumulation of an increasing complex ‘ reinforcement history’.

Learning theories

Learning theory, or reinforcement theory, has its origins in the behaviorism of J. B.

Watson (e. g. Watson, 1924). One of the central belief of behaviorism was that psychology should be purely concerned with overt, externally observable behavior, and not with conscious states. In its purest form, the learning theory approach asserts that all behavior can be explained in terms of the laws of operant and classical conditioning.

The environment is essentially seen as a massive complex of stimuli. Most researchers will have their own learning theory, but first they study the basic theories that have been around for years. This theory would mean that a behavior could be repeated over and over again because of a reinforcement or negative reinforcement. This learning theory relies on the ability to change behavior with reinforcement. If a child is punished for a typical bad behavior and then will no longer participate in the same bad behavior, this is considered behaviorism with operant conditioning. B. F. Skinner named this process, which basically means a behavior that is the result of an operation on the environment.

Constructivism is another type of learning theory. This theory means that a person develops or constructs new concepts by taking what he’s learned in the past and using it to develop new ideas. This type of learning is often directed from the student to the teacher. This learning theory was highly used and studied by Jean Piaget who argued that children learned through play.

Left alone to discover things on their own, it was found that children did learn at a good pace.

Research Areas

It is always difficult to find the best answer for questions about musical psychology. Therefore, it is necessary to subject the research material through quality control procedures. This is the standard feature for all leading conferences, music psychological societies and journals. Music

psychologist investigates all aspect of musical behavior by applying best methods and knowledge from all aspect of psychology. For our reference, following methods may help us to understand.

- Daily music listening (while eating, shopping, working or driving etc).
- Musical gatherings and ceremonies (likewise sports, festive, religious or political etc).
- Skills and processes specified for learning musical instrument or singing in choir.
- Behavior by music, likewise dancing and emotionally responding.
- Music role in formation of group as well as personal identities.
- Music preferences, that’s the reason for like or dislike types of music.
- Internal structure of music that we hear, likewise phrasing, melody tonality, harmony, rhythm etc.
- Reading of music, that also includes eye movement in music reading.

Early development

The inherent musical knowledge which adults acquire eventually, is built on structures present in formative years These provide the basis for perceptual learning and enculturation, the process by which a child develops internal schemata of the music of its culture. This process is mediated by the learning environment and begins when the foetus is in the womb. The human auditory system is functional three to four months before birth. The process of musical enculturation begins from that point. After 28 to 30 weeks for gestation, foetuses reliably react to external sounds, their heart rates varying as a result of exposure to music (Woodward, 1992). From birth the

infant has very well developed system for processing music. Infants are inclined to attend to melodic contour, rhythmic pattering and consonant sounds, and are similar to adults in their sensitivity to the pitch and rhythmic grouping of sounds.

However, apart from that the complex skills required for understanding and analyzing music within any particular culture usually take time to develop and depend on the type and extent of exposure to music of any particular child. Infants have the same capacity to process sound pitch as adults. They categorize sound into pitches (Demany, 1982) and can identify sounds of the same pitch with different harmonic structure (Clarkson and Clifton, 1985). The way that infants group sounds in relation to pitch and time follows the same rules as for adults. However, Tonality does not seem to be innate.

Infants need to learn the particular tonal system of their culture and this process takes time. In Western cultures by 1 year old, infants respond differently to diatonic and non-diatonic patterns and by the age grows, its certainly develops.

Ability of Music

When someone depicts as being musical or having ‘ musical ability’, this is usually because they are involved in making music in some method.

Individuals are rarely referred to as musical if they listen to music, even if this comprises an important part of their lives. The concept of musical ability has been severely criticized in recent years. Focusing on the important of effort, some have proposed that it is time spent practicing which underpins

the development of expert performance, not inherited ability. The function of genetic factors in musical ability is mixed. Substantial proportions of education professional and music teachers believe that playing an instrument, singing and composing requires natural talent (Davis, M.

, 1994), although most also stress the importance of learning and effort. Where talent is mentioned, speed of learning and musical communication are seen as key (Hallam and Woods, 2003). There seem to be two simultaneously held views: one suggesting that musicality is biologically inherited, and a more relativistic one that assumes equal musical possibilities for everyone. A number of researchers have explored how different groups in society conceptualize musical ability. General behaviors of ‘ sustained interest’ and ‘ self-discipline’ received higher mean responses than music-specific characteristics indicative of music ability. Six categories emerged from the initial qualitative study: auditory skills, receptive responses to music, generative activities, the integration of a range of skills, personal qualities, and the extent to which musical ability was perceived a being learnt or inherited. By far the largest response in any category was that musical ability was being able to play a musical instrument or sing.

The science of Music

Despite the volume of research demonstrating the value of music in a variety of medical and dental treatments, there is little consensus on which techniques or procedures are most effective. Further, the profession of music therapy is still evolving as a viable component in the array of medical treatments. As medical music therapy develops, its methodology will have to

be conventional to the specification of medial model i. e. a priori treatment protocols dictated by specific diagnoses and proven options, predictable outcomes for a knows frequency and duration of applications, and systematic documentation procedures to readily identify positive or negative health consequences. A formal summary of the research literature, which provides a quantitative combination of the available data could assist the evolution of accountable music therapy techniques in applied health practices. If given an option, would most pregnant women elect to reduce the length of labour by an average of two hours? Would the patient in the surgical recovery room choose to awaken from the anaestheisa sooner, with fewer side effects and less pain? Would person with chronic pain prefer to use less analgesic medication, thereby reducing possible side effects? Would those undergoing consequential medical treatment opt for reduced anxiety during its course? Research shows that music provides the above medical benefits and more, and that most people perceive their preferred music to be relaxing and beneficial to their recovery.

During the past 25 years, researchers interested in human response to music have somewhat abandoned studies in which music and physiological responses were employed as the only variables. Instead, new areas of inquiry have developed, primarily related to the utility of musical stimuli in reducing stress. These studies have utilized either music alone or music in conjunction with various behavioral medicine techniques as the independent variables, while dependent variables have included psychological measures of anxiety as well as physiological responses. Research in which both psychological measures of anxiety and physiological measure were studied,

demonstrated that exposure to music resulted in significant reduction in A-State Anxiety Inventory Scores (Jellison, 1975; O'Connell, 1984) and notable reduction in stress as evidence by verbal reports (Hanser et al.

, 1982). However, no associated decreases were observed in the various physiological parameters measured during these investigations (e. g. pulse rate, blood pressure, muscle tension, galvanic skin response). More recently, Davis and Thaut (1989) assessed the effects of subjects' preferred music for relaxation on psychological and physiological measures of anxiety.

Their findings were consistent with those of previous investigators; state anxiety was significantly reduced while reduction in physiological responses were not observed.

Responding to music by listening and appraising

Whenever we engaged with music – whether as performers, composers or audience – we are listening, appraising and responding to it. We are born equipped with the necessary structures and mechanisms to perceive and respond to music. As we become uncultured into the music of our immediate environment, we learn to appraise it. Hearing is seen as essentially passive, a form of reception while listening involves concentration, focus or activity on the part of the listener. Hearing occurs without conscious attention and is part of the constant process of monitoring our environment. Repetitively hearing particular music enables aural representations to be developed, a crucial element of enculturation. Listening frequently to music enables it to become internalized so that we know and remember it.

This facilitates the development of audition (Gordon, 1993), the ability to hear internally and comprehend music for which the sound is no longer or may never have been physically present. Human being respond to music in a variety of different ways. Responses can be physiological, motor, intellectual, aesthetic, emotional or in relation to mood or stimulation. In music education the focus has been on the intellect and aesthetics.

However, the other responses may be most powerful in music psychology. The effect of music on heart rate, skin conductivity, respiration rates, blood pressure, muscular tension, movement, posture, finger and peripheral skin temperature, blood volume and stomach contractions have all been investigated (Bartlett, 1996). No clear patterns emerge relating the music and the physiological measures. Most studies indicate the stimulating music leads to an increased response in most physiological measures, but not all do. Similarly, calming music does not always lead to a reduction in physiological responses.

Structured Communication

In today’s innovative world, most models of structured communication have been influenced by the information transmission model, which was initially formulated by Shannon and Weaver (1949). This model, which is demonstrated and described in more detailed by “ Cohen” is based on the view of a communicator who uses a channel to send information to a receiver. The sender, the channel and the receiver can take many forms, but the central characteristic of the model is that the information moves in one

direction from sender to receiver, and not vice versa. Music is a fundamental channel of communication.

It provides a means though which people can share emotions, intentions and meanings. Music can exert powerful physical and behavioral effects, can produce deep and profound emotions within us and can be used to generate infinitely slight variations of expressiveness by skilled composers and performers, such that highly complex informational structures and contents can be communicated extremely rapidly among people. Music is something we can do with and for other people, and which through its communicative properties can provide a vital lifeline of human interaction for those whose special needs make other means of communication difficult. The human capacity to communicate through language is perhaps the unique marker that differentiates us from all other species, and it is natural to think of this capacity as inherent to our cognitive and social flexibilities.

Communication through language, enabling complex and useful information to be represented and exchanged, seems to be the principle guarantor of our intellectual powers and of our cultural complexities, features that are likely to have had considerable strength in enabling human to have emerged as a highly successful species over the 200000 years or so in which modern humans have been in existence. In other words, it is highly likely that language, in enabling and sustaining our cognitive and social proficiency, was an adaptive factor in human evolution (Pinker 1994); it enabled humans, individually groups, to communicate useful and accurate information to each other and hence to survive and reproduce in situations where other species

could not. Like language, music is also conceived for as a communicative medium; indeed, both seem to fit equally well within a widely used theoretical model of communication, the ‘ information theory’ model of Shannon and Weaver (1949). In this model a sender makes use of a channel to send information to a receiver; the sender and receiver can be any type of entity, the channel can be composed of any medium, and the information that is sent may take any form. In a musical context, one can think of the sender as the performer, the receiver as the listener, the channel as the air, and the information transmitted is the sonic patterns that constitute the music. Analogously, in language, the sender is the speaker, the receiver is the listener, the channel is the air, and the information sent is the patterned fluctuations of air pressure that constitute the sound of speech. The model seems to provide a basis for considering music and language to be analogous systems of communication, setting aside for the moment the nature of the information that is communicated.

Emotional Communication

We cannot examine emotions directly, we do not see anger or hear happiness.

We see violent behavior and feel anger; we hear language and feel happiness. Emotions themselves are internal states and must be inferred from behavior. Sometimes such inferences are unjustifiable. We may see someone crying over a TV movie and infer that they feel depressing, when in fact they might be crying for joy or in anger, or for that matter, they might have an allergic condition where the crying does not reflect emotion at all.

The behavior we observe is not the emotion felt inside by the person behaving. There are two components of emotions: the physiological and the cognitive. When we are aroused, there are certain changes in our bodies, such as increased heart rate, sweating, and changes in electrodermal (skin) measures.

We also think about our feeling and attribute causes and interpretations to them. For example, if we feel very “ hypend up” right after being offered a new job, we would interpret the same state of bodily arousal differently than we would if we had just consumed 10 cups of coffee or had just escaped from the command of a crazed killer. Thus the emotions we feel are product of both our bodily state and our cognitive appraisal of the state (Schahter ; Singer, 1962; Zillmann, 1983, 1991a). Musical communication is often considered to be a transmission process through which meaning of some kind is conveyed from one person to another. Opinions vary considerably on the nature of the meaning, and on exactly ‘ who’ or ‘ what’ is doing the conveying. However, as pointed out by Meyer (1956) and Serafine (1980), the meaning-transmission idea is also evoked by formalists, who implicitly assume that there is some meaning to be received or ‘ decoded by a listener. The question is” What does music communicate? Probably most common notion about what music communicates is emotion.

Music is often referred to as ‘ the language of emotions’ (e. g. Cooke 1959). This idea is not entirely accurate (there is not a semantic in music), but it does capture one important feature, namely that music is often seen as an effective means of expressing and inducing emotions:‘ Nearly everyone

enjoys listening to music. Why? Undoubtedly, because music moves the emotions. But this answer replaces one puzzle with tow: how does music communicate emotions, and why do we enjoy having our emotions stirred in this way? No one knows…?' (Johnson-Laird 1992, p. 13)

Related areas of psychology

Research into musical behavior and experience are wide ranging and impinge on studies of all aspects of music, including performance, listening, theory, analysis and composition. In its strict sense, the psychology of music amounts to scientifically based empirical studies of perception and cognition in listening.

Much of this work has centered on psycho-acoustics – studies of the sensory mechanisms responsible for our perception of pitch, loudness and timbre (Seashore 1967; Deutsche 1982). The main conclusion from this work is that the physical and perceptual properties of sound do not map on to one another directly. For example, the perception of rhythm is only accurate over short time spans (Dibben 2002b). However, at the other end of the spectrum is growing field of social psychology, which researched the reciprocal relationship between listeners and their context (Hargreaves and North 1998).

This area includes music therapy, ethnicity and gender studies, composition, and education. Taste has been demonstrated by social psychologists to influenced to some degree by social context and demographics, as well as having a reciprocal relationship with a person's identify formation.

Psychoogists have also considerd how muci may affect consumer behavior. Another established area of psychological study is performance and musical expression, including research into the role of the body (Davidson 1993; Clarke 1995), and also some studies have argued that biological factors are more important that cultural ones, especially in infant learning (Hill 1997). The subject of music perception is one that has figured prominently in various analytical studies. An early example of this is the analytical language of Arnold Schoenberg, in which traces of the idea of Austrian psychoanalyst Sigmund Freud can be detected, in particular in Schoenberg's concept of the Grundestalt, or ' basic shape', from which an entire piece may be shown to evolve.

Apart from various areas of psychology, relating to music we may correlate Cognitive psychology, Social Psychology and Developmental psychology theories. In the below given details, we will explore these psychologies relates to music and its effects in human life.

Cognitive psychology

The term " cognition" is used to several loosely related ways to refer to a faculty for the human line processing of information, applying knowledge and changing preferences. Cognitive processes can be natural and artificial, conscious and not conscious; therefore they are analyzed from various viewpoints and in different context likewise neurology, psychology, systemic, philosophy, computer science, anesthesia etc. The core concept of cognition is associated to such abstract concepts as mind, perception, intelligence, reasoning, learning and so many others that describe numerous capabilities

of human mind and expected properties of artificial or synthetic intelligence. Cognition is an abstract property of advance living organisms; therefore it is studied as a direct property of brain or of a mind on sub-symbolic and symbolic levels.

Cognition in psychology and artificial intelligence is used to refer the mental processes and its functions and also states of intelligent entities with a particular focus toward the study of such mental processes as decision-making, planning, comprehension, inferencing and learning. More recently, researchers in advanced cognitive psychology have been specially focused on the capacities of generalization, abstraction concretization and meta-reasoning which descriptions involves such concepts as beliefs, desires, preferences, knowledge and intentions of intelligent individuals. Cognitive psychology is also used in a broad sense to mean action of knowing or knowledge, and may be interpreted in social or cultural sense to describe the emergent development of knowledge and concepts within a group that conclude in both though and action. Being a part of music psychology, cognitive psychology is the sub research area, where the sort of mental processes are largely influenced by research. Consequently description tends to apply processes such as attention, perception, memory, problem solving, action and mental imagery. Cognitive psychology comprises these human mental processes, which mediate between stimulus and response.

Its theory contends that solutions to problems take the form of algorithms – rules that are not necessarily understood but promise a solution, in other words, solutions may be found through insight, a sudden awareness or

relationships. Apart from the vast research area of cognitive psychology, we may associate following human processes of cognition to music psychology researches.

- Perception, which includes attention and pattern recognition.
- Categorization, means judgment and classification and representation with structure.
- Memory, different types of human memory and its functions that are also core relation to music psychology.
- Knowledge representation.
- Language acquisition.
- Thinking power, likewise choice, concept formation, judgment and decision-making and logical reasoning.

Social Psychology

In the scientific study, social psychology is the research area, which explores how people's thoughts, behavior and feelings are influenced by imagined, actual or implied presence of others (Allport, 1985).

With this definition, scientific refers to the empirical method of investigation. The terms feelings, behavior and thoughts include all of the psychological variables that are quantifiable in human being. The statement that others may be imagined or implied suggests that we are prone to social influence even when no other people are present, such as when watching television, or following internalized cultural norms. Social psychology is a name shared by two similar and related disciplines and both are employ as their units of analysis, the group and individual, but differ in some of their respective

approaches, methods, goals and terminology. There is considerable overlap between the fields, however researchers within one subfield may consider research from other. Social psychology (psychology), also knows as sociopsychology is the branch of psychology that focuses on the individual, and thus endeavors to explain how the feelings, thoughts and behaviors of individual are influenced by other people.

Psychologically oriented researches place a great deal of emphasis on the immediate social situation, and the interaction between person and situation variables. Their research tends to be highly empirical and is often centered around laboratory experiments. Social psychology (sociology), also known as group psychology, or sociological social psychology, is the branch of sociology which focuses on the behavior of the group, and then examines such phenomena as interactions and exchange at the micro-level, and phenomena such as group dynamics and crowds ad macro level. Sociologists are interested in the individual, but initially within the context of social processes and structures, such as social roles, socialization, race and class. They tend to use both qualitative and quantitative research methods. Social psychologists typically explain human behavior as a result of the interaction of mental states and immediate, social situation. In Kurt Lewin’s (1951), famous heuristic, behavior can be viewed as a function of the person and the environment. In general, social psychologists have a reference for laboratory based empirical findings.

Their researches tend to be focused and specific, rather than general and global. Social psychology began as an interdisciplinary field, with

psychologists and sociologists who had an interest in studying behavior in small groups. The field is balanced midway between psychology, which deals with the individual and sociology, which focuses on groups and social structures.

However, social psychology has become increasingly specialized over the years, and this entry approaches the subject from a psychological perspective. It is an empirical science that attempts to answer a variety of questions about human behavior by testing hypotheses, both in the field and in the laboratory. Cautious attention to sampling, research and statistical analysis is important, and results are published in peer-reviewed journals. Following are some examples of methods applied in this regard. Experimental methodsinvolve the researchers altering variable in the environment and determining the effect on another variable. An example would be allowing two groups of children to play violent and nonviolent games, and then observing their subsequent level of aggression during free-play period. A valid experiment is controlled and uses random assignment.

Observational Methodsare purely descriptive and include naturalistic observation, participant observation, “ contrived” observation, and archival analysis. These are less common in social psychology but are sometimes used when first examining a phenomenon. Correlational methodsexamine the statistical association between two naturally occurring variables.

For example, one could correlate the amount of violent television children watch at home with the number of violent incidents the children participate in at school. This is to be noted that this study will not prove that violent TV

causes aggression in children. It is quite possible that aggressive children choose to watch more violent TV.

In this segment, we may reach to a conclusion that how social psychology correlates with music psychology, with the vast importance of results derived from this area of study. It is usually impossible to test every, research tends to be conducted on a sample of persons from the wider population. Social psychologists frequently use survey research when they are interested in results that are high in external validity. Various forms are used for surveys random sampling to obtain a sample of correlatoinal, since there is no experimental control over variables.

However, new statistical methods like structural equation modeling are being used to test for potential casual relationship in this type of data.

Developmental psychology

Developmental psychology, known as Human Development, is the scientific study of progressive psychological changes that occur in human beings as they age. Initially concerned with children and infants, and later other periods of great change such as aging and adolescence, it now encompasses the entire life span. This field of music psychology examines change across a broad range of topics including motor skills and other problem solving abilities, psycho-physiological processes, conceptual understanding, acquisition of language, moral understand and identity formation.

Developmental psychology is not only concerned with describing the characteristics of psychological change over time, but also seeks to explain

the principles and internal working underlying these changes. Understanding these factors is aided by the use of models. Developmental models are often computational, but they do not necessarily need to be the same. A model must simply account for the means by which a process takes place. This is sometimes executed in reference to change in the brain that may communicate to change in behavior over the course of the development. Computational account of development often use either dynamical system, connectionists (neural network) or symbolic models to explain the mechanism of development.

An important question in developmental psychology is the relation between environmental influence and innateness in regard to any particular aspect of development. This is often referred to as “ nature versus nurture” or nativism versus empiricism. A nativist account development would argue that the processes in question are innate that the organism’s genes specify them. An empiricist perspective would argue that those processes are acquired in interaction with the environment. In latest researches, developmental psychologists rarely take such extreme positions with connection to most aspects of development; rather they investigate among many other things, the relationship between environmental influences and innate.

One of the ways in which the relationship has been explored in recent years is through the emerging field of evolutionary developmental psychology. Developmental psychology informs several applied fields, including educational psychology, child psychopathology and developmental forensics.

Developmental psychology complements several other basic research fields in psychology including cognitive psychology, social psychology comparative psychology and cognitive development. A developmental psychologist investigates key questions, such as whether children are qualitatively different from adults or simply lack the experience that adults draw upon. Other issues that deal with is the question of whether development occurs through the gradual accumulation of knowledge or through shifts from one stage of thinking another, or if children are born with innate knowledge or figure things out through experience and whether development is driven by the social context or by something inside each child. One area where this innateness debate has been prominently portrayed is in research on language acquisition. A key question in this area is whether or not certain properties of human language are specified genetically or can be acquired through learning.

The nativist position argues that the input from language is too impoverished for infants and children to acquire the structure of language. Linguist Noam Chomsky asserts that, evidenced by the lack of sufficient information in the language input, there is a universal grammar that applied to all human language and is pre-specified. This has led to the idea that there is a special cognitive module suited for learning language, often called the language acquisition device. In this section, we may reach to a conclusion that how developmental psychology correlates with music psychology research. The empiricist information required for learning the structure of language and that infants acquire language through a process of statistical learning. Form this perspective, language can be acquired via general learning methods

that also apply to other aspects of development, such as perceptual learning. There is a great deal of evidence for components of both the nativist and empiricist position, and this is a holy debated research topic in developmental psychology.

Relation to Music and Musicology

Musicology is the study of music and its history.

The specializations of musicologists are quite diverse. Like the comparable filed of art history, different schools of musicology and branches emphasizes different types of musical works and approaches to music. National differences in the definition of musicology also abound. Some American scholars, for instance do not consider music therapy to be within the field of musicology. Musicology itself a vast field of research, and having so many types to be found. Following are some of them, which are most popular. Historical musicology. Is the field of history of musicology that studies how music developed over time.

In theory “ music history” could refer to the study of the history of any type of genre of music (for example the history of Indian music or the history of rock). In practice, courses in the West titled “ music history” are nearly always studies of European classical music. The product and tools of music history tend to include manuscript studies, editions of composers’ works (sometime emphasizing textual criticism), biography of composers and other musicians, studies of the relationship between words and music, iconography and the relation between music and society. The application of musical

analysis to further these goals is often a part of music history, though ‘ pure’ analysis or the development of new tools of music analysis is more likely to be seen in the filed of music theory. Ethnomusicology.

Is the study of music in its cultural context. It can be considered the anthropology of music. Jeff Todd Titon has called it the study of “ people making music”. It is often thought of a study of non-Western music, and indeed most of the work in ethnomusicology has been on non-Western or popular music. But ethnomusicology may also include the study of Western classical music from an anthropological perspective. Ethnomusicologists usually (but not always) conduct fieldwork in the culture they are studying, such fieldwork may involve the recording and later transcription of music, interviewing musicians, and learning to perform in a different musical style. The New Musicology. Is a term applied to a wide body of work emphasizing cultural study, analysis, and criticism of music.

Such work may be based on feminist, gender studies, queer theory, or postcolonial hypotheses, or the work of Theodor Adorno. As one of the foremost new musicologists Susan McClary says, traditional “ musicology fastidiously declares issues of musical signification off-limits to those engaged in legitimate scholarship.” Music theory is a field of study that depicits the elements of music and includes the development and application of methods for composing and for analyzing music through both notation and, on occasion, musical sound itself. Broadly, theory may include any statement, belief, or conception of or about music (Boretz, 1995). A person who studies or practices music theory is a music theorist. Some music

theorists attempt to explain the techniques composers use by establishing rules and patterns.

Others model the experience of listening to or performing music. Though extremely diverse in their interests and commitments, many Western music theorists are united in their belief that the acts of composing, performing, and listening to music may be explicated to a high degree of detail. Generally, works of music theory are both descriptive and prescriptive, attempting both to define practice and to influence later practice. Thus, music theory generally lags behind practice in important ways, but also points towards future exploration, composition, and performance.

According to Richard Middleton, the strongest criticism of musicology has been that it by and large ignores popular music. Though musicological study of popular music has vastly increased in quantity recently, Middleton's assertion in 1990– that most major " works of musicology, theoretical or historical, act as though popular music did not exist" — holds true. Academic and conservatory training typically only peripherally addresses this broad spectrum of musics, and many musicologists who are " both contemptuous and condescending are looking for types of production, musical form, and listening which they associate with a different kind of music…'classical music'…

and they generally find popular music lacking" (Middleton 1990, p. 103).

Impact of music through life

In the developing world, music is in evidence in almost every aspect of our lives.

We hear music in on the radio and television, supermarkets, shopping precincts, restaurants, place of worship, schools and through the medium of recordings. Music also plays an important role in theatre, video and advertising and films. Never before in the history of humanity have so many different kinds of music been so easily available to so many people. The development of electronic media in the latter part of twentieth century revolutionized access to and use of music in our every day lives. A reflection of the extent to which people engaged with music in the developed world is the size of the music industry worldwide. In the USA and UK music is amongst the top economic generators of income (Hodges and Haack, 1996; KPMG/National Music Council, 1999).

Nowadays people can use music to manipulate personal moods, arousal and feelings, and to create environment which may manipulate the ways other people feel and behave. Individuals can do use music as an aid to relaxation, to overcome powerful emotions, to generate the right mood for going to a part, to stimulate concentration – in short, to promote their well-being. It has become a tool to be used to enhance our self-presentation and promote our development (DeNora, 2000; Sloboda et al., 2001; Slobada and O'Neill, 2002). Music tends to be listened to while individuals are involved in leisure and maintenance activities, for example, housework and shopping – inducing positive mood change and increased arousal and attention.

Many people listen to music while driving and value the privacy this offers (Oblad, 2000). Music that is too stimulating distract attention. In order people assists in developing self-identity, connecting with others, experiencing and expressing spirituality and maintaining well-being, feel competent and independent, providing ways for people to maintain positive self-esteem and avoid feeling of isolation or loneliness. There is considerable evidence that the foetus can perceive and is stimulated by sounds that can then be recognized after birth (as discussed earlier in this dissertation). In one study, a group of mothers exposed their unborn babies to the sounds of the violin. After birth, the onset of behaviors 0 to 6 months was charted.

The exposed group was significantly more advanced in gross and fine motor activities, linguistic development, and aspects of somato-sensory co-ordination and some cognitive behaviors (Lafuente et al., 1997). When exposed to music, babies born prematurely or underweight gain weight, increase food intake and reduce their length of stay in hospital in comparison with controls, (Caine, 1991; Cassidy and Standley, 1995). In addition to its role in developing musical skills, many claims have been made regarding the benefits of music education in relation to a range of transferable skills.

One strand of research has explored the effects of music on general intellectual skills. This has been extremely controversial. Studies exploring the effects of increasing the amount of classroom music within the curriculum have found that children receiving extra music lessons kept up with their peers in language and reading skills despite having fewer lessons,

although there were differences between high and low ability groups (Spychiger, et al., 1993; Zulauf, 1993).

Learning in Music

The learning process in music involves two primary aspects: acquisition and retention of musical information and experience, and the development of musical skills. Both of these are included in the frequent use of term “ memory”; thus, we have conscious memory, which is the making available of stored information and experience, and subconscious or automatic memory, which is a phase of habit, such as exhibited in all the various types of musical skills in performance. Musical memory is a talent which is inherited in vastly different degrees, the differences being greater for this special capacity than for memory capacity in general; one student may have more than a hundred times the capacity of another for learning music. Yet this ability, both in the gifted and in the non-gifted, is capable of an astonishing amount of improvement by training.

Training in the art of learning can accomplish wonders. Psychology has furnished more experiments on problems in learning than in any other field. Instead of summarizing the facts established by experiment, we shall put the most fundamental findings in the form of a series of simple rules for learning music and will state these rule with utmost brevity and clearness, for the purpose of motivating student of music in the effort to establish right habits of learning. Learning any thing is an act, which must be performed by the learner.

The teacher cannot do it for him. The only thing a teacher can do is to assist in creating favorable conditions by motivation, supply of material, and general guidance. The first essential then in facing any learning problem is to place the responsibility where it belongs, namely, on the learner. This principle is violated by learner and teacher alike in much of current instruction which seems to rest upon the assumption that it is function of the teacher to hammer something into a learner who is sometimes not only passive by resistant. Following are some of the rules in learning music, which may help them out. Select your field of interest. Select as your object of study that in which you have a genuine interest, for which you have natural aptitude, and which you consider worth learning. Make this a real object to be attained at the sacrifice of may other interests.

If music does not qualify for you on the three grounds of talent, personal value and interest, perhaps, avoid it except insofar as musical instruction is a routine part of children. Intend to learn. This does not mean an occasional or sporadic intention but a firm decision to give continuity of effort until mastery is attained. Occasional intention is ruinous because the exception tends to destroy what has been attained. If it is not your personal choice, you should avoid the pursuit. It should be remembered that some things are learned for their own sake, and others, for example, reading, are pursued as tools for the attainment of higher things.

Trust the first impression. In learning something, make a deliberate and deep first impression and then trust that. Instead of repeating the impression,

repeat the recall or memory. At a given moment you have selected a specific thing in music that you wish to learn.

You approach it with the habit of indenting to master it, and you will save enormous time and effort if you now trust the first impression, instead of looking or listening in a black manner, expecting to get it another time. Trust the first impression and make this deeper and deeper by practicing recall instead of re-impression. Learn by thinking. Thinking is meeting new difficulties with deliberation and solving them. Intelligent learning consists largely in effective classification. Therefore, fit each new experience into its relationship to what you already have; that is, classify it deliberately with great precision and with as full meaning as possible.

Cultivate concrete imagery. We hear, taste, see, touch or smell an object in its presence; we may recall it and see, taste, hear, touch or smell it in mental image. For example, last night I heard a song; at this moment, I can close my eyes and hear it, noting in great detail the characteristics of the rendition. Full, vivid, and accurate mental imagery is one of the most outstanding characteristics of a musical mind. It is this that enables the musician to live in a tonal world. He occasionally hers or performs music, but far more frequently images it either in recall or in anticipation.

Imagining in Music

The most outstanding mark of the musical mind is auditory imagery, the capacity to hear music in recall, in creative work, and to supplement the actual physical sounds in musical hearing. This subject has received too little attention in recent years, largely owing to the extreme behaviorist attitude,

which ignores the existence of the mental image, and partly owing to the fact that it is a phenomenon, which does not lend itself accurately to psychophysical measurement. For the latter reason it is usually but unfortunately, omitted in testing programs for the analysis of musical talent. The significance of auditory imagery may perhaps be best recognized through its analogy to the visual imagery of the sculptor and the painter. A sculptor who has no good visual imagery is a mere mechanic, modeling by measurements. The visualizing sculptor not only models from memory, often a single impression, but he sees in anticipation the expression, the type, the temperament, the ‘ soul’ which his creation is to embody. He sees in anticipation not only the model as a whole, but in terms of the minutest detail of fact or fidelity, of idealization or action.

These features come to him in turn as the creation grows in his mind, often during the days and weeks before the first act of modeling or chiseling is begun. In this sense he lives himself into his character so that the final work of art in a human bust portrait become not only a living and true representation of the subject, but also the embodiment of the artist’s ideals – ways of interpreting, mood, conceiving, favorite snapshot of the subject in action, or responses and as a modes and models or trial sketches gradually take shape, the material shapes are critically compared and modified in adjustment to the imaged creation. The creation is first imaginable. The statue is a representation of the image, that is, the image gradually built up to represent the subject faithfully in mood, pose, or action representing the artist’s conception of his subject. At each state the imaginable invention precedes the material treatment. The visual image is the working tool of the

artist’s imagination. Without it his workmanship would be condemned to mediocrity.

The same principles apply to the workmanship of the painter, and the analogy is perhaps faithful to an adequate account of creative power in music. It has been argued that some musicians do not have this power and the reply is, it has been found that some musicians are not musical. Certainly some do not have creative power, either in invention or in interpretation of music, and the absence of such power often correlates with the absence of musical imagery, just as the absence of visual imagery often correlates with mediocrity in painting and sculpture. Normal individuals probably differ more in capacity and mode of the utilization of mental imagery than in any other mental capacity. We say “ probably” because we have no comprehensive measurements. Of two equally intelligent normal persons, one may have the capacity to recall tones or to anticipate tones as clearly as if they were actually sounded at the moment, and the other may say with equal certainty that he cannot image any tone at all in its physical absence. Between these two extremes, normal persons are distributed on a scale showing relatively few cases near the extremes and a tendency to bunch toward medium abilities.

Nature of Musical feelings

In setting out divisions, such as imagination, memory, intelligence and feelings, there is no implication that these are separate faculties or part of the mind. These terms simply characterize certain dominant aspect of experience and behavior as a whole. All perception involves intelligence,

memory, and action; all feelings involve imagination, perception, action etc. The organism always responds as a whole, yet in the analysis of the total response, it is convenient to isolate dominant characteristics. The most illusive of these old concepts of psychology is feelings. Perception always has reference to the concrete, the objectively definable thinking always deals with concepts, logical and analyzable; but the affective life is scientifically less tangible and intelligible, although it may be the most violently responsive.

Fundamentally, all action in normal behavior represents attraction or liking or dislike, repulsion, agreeableness or disagreeableness. Music deal with the feeling of agreeableness, liking and attraction but the contrast of the setting, it must always deal with their opposites, the repulsive, the disagreeable, and the unattractive, even if only for elimination. Musical feelings, like all other feelings, is aroused in proportion to a certain sensitiveness to objects, either physical, mental or ideal.

A person who is sensitive to a difference of 0. 01 of a whole tone step responds to the musical situation in any entirely different affective way than the person who cannot hear any less than a quarter or a half tone. He will like or dislike only what he can hear, and the sensitive person, therefore, has vastly greater occasion for affective response to pitch than the person who is not sensitive to pitch. This is even more true in the realm of images, ideas and emotions. Images of pitch, memories of pitch, thoughts of pitch, emotions aroused by pitch, skills in the performance of pitch, all call forth feelings of attraction or repulsion, agreeableness or disagreeableness; but

the person who is sensitive to pitch has vastly greater resources in these higher mental processes than the person who is not. In other words, a person who is pitch-conscious, likes to hear pitch, is likely to build his memories, ideas, and skills in terms of this medium, but always living under the delicate balance of seeking the agreeable and attempting to avoid the disagreeable. The same is true of the sense of intensity, the sense of time, and the sense of timbre. The degree of sensitiveness to one or all of these determines the number of objects or experiences to which he can respond affectively.

The highly sensitive person lives in a vastly larger field than the less sensitive, and he is more likely to select his pursuit of life in those fields within which he has the greatest resources, the largest number of pleasures, the greatest power. This is the reason for the quite generally recognized classification of musical minds into the tonal, the dynamic, the temporal, and the qualitative. The musician may be born with superior capacity in one or more of these, and, as a result, he concentrates his interest around the use of these capacities in which he has the greatest power. What is true of sensitivity for each of the attributes of hearing is true for each of the different sense modalities.

The person with high sensitivity for color and strong visual imagery tends to find his outlets in this field and to be dominantly conscious by responses of attraction and repulsion within this field. This is particularly true in the stronger feelings, usually called emotions, which result in marked outward expression.

Assessment

The effect of assessment of learning is powerful.

‘ The assessment tail wags the educational dog; tests drive instruction to concentrate only on what these tests seem to measure’ (Snow, 1990). This effect is so powerful that Elton and Laurillard (1979) have suggested that if teachers want to change the way that student learn, rather they should change the assessment system. The effect that assessment has no learning and teaching is called ‘ backwash’. Backwash can be cognitive or affective. Cognitive backwash refers to the strategies used in preparing for assessment, while affective backwash refers to the effects of different kind of assessment on affective outcomes, for example, attitudes and motivation and emotions.

Biggs (1996) suggests that the aims of learning, the process adopted and assessment should be aligned so that backwash effects are positive. In music the most appropriate way of achieving this is to ensure that assessment procedures are authentic. It is amazing given the power of assessment to affect teaching and learning, there has been relatively little research relating to assessment in music. Authentic assessment in music is normally based on performance (this subsumes composition and improvisation), although assessment of critical listening and thinking skills is also important. The nature of performance can vary: it may be in front of examiners, public, recorded, part of a competition, solo, or part of a group. Critical listening and thinking skills are usually assessed by written work that might be in form of examinations, portfolios or coursework, although interactive computer

assessment is becoming more common. Some of the assessment methods in music psychology are as follows.

Assessing composition. In educational framework, composition is normally assessed through its performance, in part because it is not always noted – although computer generated compositions are an exception to this. Differentiating between the performance and the composition can be challenging for assessors. There is debate about where evaluation of composition should be though objective analysis of their specific content; or global, holistic, qualitative judgment or subjective. However, the specialist teachers are more aware of the specific structural characteristics that affected the overall composition, while non-specialists did not distinguish between global qualities and specific musical attributes. Assessment of improvisation. It needs to take account of the particular genre within which the improvisation is being developed. Within the framework, issues relating to the appropriateness of the style; the use of different sound textures; the development of ideas; melodic, harmonic, dynamic, rhythmic, and expressive qualities; the extend to which the improvisation is structured; and originality, imagination, and effectiveness need to be considered.

A number of checklists have been developed to assess improvisation skills. Gorder (1980) developed material which enabled scores to be given for the number of improvised phrases produced (fluency), shifts of musical content (flexibility), varied use of musical content (elaboration), rarely used content (originality) and what Gorder called ‘ music quality’. Computers and music assessment. Increasingly, interactive computer assessment systems are

being developed. For instance, Venn (1990) has developed such a system to measure common objectives in elementary general music: melody, texture and tonality, or rhythm.

Tasks were developed to assess the child’s ability to detect change in an element, identify compositional devices related to an element, and identify a place in a musical selection where a change in an element occurred. Test, retest reliability was 0. 79 for the total measure. Such interactive tests can be provided a reliable means of assessment, releasing teacher time for more creative work.

Responses Development by music

Researchers are researching many different aspects of music and its aftereffects on the brain. A great deal of work has already been done to characterize the brain’s response to musical patterns, but now investigations are initiating to focus on more complex issues, likewise how the patterns may change as a function of a person’s knowledge of training in music. “ Among the most promising research is that involving the development of musical abilities, because this will tell scientists how the nervous system adapts to influences from the environment,” says Zatorre.

Younger children, specially those who grew up in home, where music is often heard can develop an enhanced brain response to musical stimuli – a response characteristic of other children about three years older, according to a study by McMaster University in Hamilton, Ontario. The study also revealed that one year of formal musical training does not increase the response. In recent researches, scientists are revealing the factors that are

responsible for an enhanced brain electrical response to music, the effects on the brain of growing up in a musical or non-musical environment, and which areas of the brain process different aspects of music including speaking and singing. A study uncovers that positive emotions induced by pleasant music can have an analgesic effect on people, pointing to a possible role for music in pain management therapy.

“ Music touches almost every cognitive ability that neuroscientists are interested in — not only the obvious auditory and motor systems involved in perceiving and playing music, but also multi-sensory interactions, memory, learning, attention, planning, creativity and emotion,” says Robert Zatorre, PhD, of the Montreal Neurological Institute. In turn, the way that training and learning interact with genetic factors that predispose certain neural traits to develop with clearly be a source of much interest for further study. All of this investigation may one day lead to new rehabilitation therapies for people recovering from stroke or neurological disorders – and to more effective methods of educating children.

Researchers have discovered at the Tokyo Metropolitan University of Health Sciences that although the left hemisphere of the brain may be important for language, and the right for music, singing and speaking share a common neural network that includes many different areas of the brain. “ Language has some musical components and vocal music has some language components,” explains Yoko Saito, lead author of the study. “ They share a common network in brain.” These investigations will help scientists to

develop more effective methods of rehabilitation for people recovering from illness and injuries that affect the brain.

Musical, Creativity and personality development

Creativity is one of the most mysterious, complex, and fascinating aspect of human behavior. It has attracted the attention of artists, historians and philosophers and other thinkers for many years, and its complexity presents difficult, if not intractable problems to the experimental psychologists. Nevertheless, psychological studies of creativity have proliferated in recent years.

Unfortunately, the rapid growth of research ha not occurred in any organized or systematic way. Yamamoto's (1965) view of the field is what he calls a ' blind man's view of the elephant', implying that researchers, differing presuppositions about and definitions creativity rare not coordinated with one another. The term ' creativity' is perhaps best regarded as a convenient shorthand term in psychology – as an ' umbrella' encompassing different aspects of ability, personality, motivation and affect.

To complicate the matter still further, the interest in creativity has been equal strong in education, specially in the context of child-centered' and informal teaching methods, and the same terms carries yet more different connotations in the context. Creativity is a term that psychologists define in many different ways. It is also a term that is widely misused in everyday life.

Hudson (1966) was quite right to say that ' In some circles " creative" does duty as a world of general approbation – meaning, approximately, " good" –

it “ covers every thing from the answers to a particular kind of psychological test, to forming a good relationship with one’s wife”. Creativity is seen as a mundane, everyday aspect of behavior, which can be observed in the activities of young children, for example, just as in the works of great artists. Valid definitions can be provided for creative products, and can be assess individual differences in ideational fluency or originality, but we cannot make the inference, as have those psychologists who have referred to creativity tests, that creativity per se is a normal distributed trait. We can only approach it via the inference that what the tests measure might predict creativity, and so the implication is that more neutral, accurate description of the measures should be used.

The main areas of empirical research on creativity from a person-based point of view have been those on personality characteristics and cognitive styles. Creativity has been treated as normally distributed trait, which may manifest itself in different domains according to the interests and predilections of the individual. This is not necessarily a valid view, however, we can see that the characteristics of every day creators may well be qualitatively and not just quantitatively, different from those that mark out the great creators. Music, furthermore is an area that seems to provide many exceptional cases. The phenomenon of the child prodigy seems to crop up more frequently than in may other fields, we have to consider some reasons why this might be so before outlining the work on personality and cognitive styles.

Learning through practice

Practice is a central point to the development of all aspects of musical expertise. Musical practice is multi-faceted. The musician not only need to consider the development of technical skills but also must develop musical interpretation. They may have to play or sing from memory, rehearse and perform in cooperation with other musicians, improvise, and contend with stage fright. These elements require technical, cognitive, aural, communication, performance and learning skills. Such complex skills cannot be acquired, improved and maintained by simple repetitious practice.

Effective practice has been defined by Hallam (1997c) as ‘ that which achieves the desired end product, in a short time as possible, without interfering negatively with longer terms’. In other words, effective practice is “ what works” in the short term without interfering with progression in the long term – for instance, by creating undue muscular tension. This definition assumes that effective practice might take many forms and implies that the musician requires considerable meta-cognitive skills to facilitate completion of task requirements or, in the case of the novice, appropriate support. Models have been developed to provide a framework, which encompasses the multi faceted nature of practice in musical creativity and peformance (Hallam, 1997c; Chaffin and Lemieux, 2004). Time spent practicing has been proposed as underpinning the development of expert performance. Typically, 16 years of practice are required to achieve levels that will lead to international standing in playing an instrument.

The individual usually begins to play at a very early age, with 25 hours of practice being undertaken weekly, increasing by adolescence to as much as 50 hours (Sosniak, 1985). Evidence from higher education music students and school aged musicians support this, showing that those with the highest levels of expertise accumulated considerably more hours of practice than their less successful peers, although there are substantial individual differences (Ericsson et al., 1993; Jorgensen, H., 2002). Evidence from students who have dropped out suggests that there are complex relationships between prior knowledge, effort, motivation and perceived efficacy. When a child beings to learn an instrument, prior musical knowledge affects ease of learning and the time needed to achieve mastery of task.

While undertaking additional practice may compensate for lack of prior knowledge, this has a time cost and requires perseverance. If a task proves challenging, the effort required to complete it may be perceived as too great and the individual may give up. Difficulties may be attributed to a lack of musical ability, leading to a loss of self-esteem, loss of motivation, less practice and a downward spiral followed by the termination of lessons (Asmus, 1994; Chandler et al.

, 1987). The amount of practice required for different instrument varies. At conservatoire level, keyboard players have the highest rate, followed by string and wind players (Jorgensen, H., 1997). These differences are in part determined by the technical demand of the instrument and the extent of the repertoire for it. Skill maintenance requires less practice time than skill

acquisition. The amount of practice sustainable is limited. Three to four hours daily seems to be the maximum sustainable over long periods without burnout occurring (Ericsson et al.

, 1993; Bastian, 1989).

Motivation and Musical identity

The human motivation study is a long history. Many attempts have been made by theorists to explain it from a wide range of different perspectives. These fall into three main groups, those which emphasis motivation as deriving from within the individual, those where the individual is perceived to be motivated by environmental factors, and those where motivation is seen as complex interaction between the individual and the environment mediated by cognition. Most modern theories of motivation have evolved from the major metal-theoretical positions (behaviorist, humanist, psychoanalytic), taking much greater account of cognition, the way our perceptions of events are determined by our construction of them, and the ways in which our interpretations of them subsequently influence the constantly changing perceptions we hold for ourselves. They acknowledge the capacity of the individual to determine their own behavior, whilst also recognizing the role of the environment in rewarding or punishing particular behaviors, which then influences thinking and subsequent actions.

A further key issue for understanding motivation which modern theories have begun to address is the way in which motivation operates at different levels and in different time scales. At the highest levels, motivation to behave in particular ways may be determined by needs deriving from the

individual’s personality and goals, which are specified over the life span. In the medium term, behavior may be determined by the need to achieve intermediate goals, while maintaining self-esteem. Actual behavior at any single time, while it may be influenced by longer-term goals will also depend on decisions made between competing motivations and needs, and coping with the demands of the environment. The study of motivation is extremely complex and needs to take account of many different and inter-related factors. Musicians may identify themselves as a part of musical subgroups – for example violinists, singers, and conductors.

For singers the issue of musical identity is central as the voice, for all of us, in part defines who we are and how we are perceived by other people. It conveys our feelings and inner states to ourselves and to other (Thurman and Welch, 2000). Jazz players develop a specific ‘ jazz’ identity although they play across a range of their musical genres, usually for financial reasons (MacDonald and Wilson, in press). The relative lack of financial reward in playing jazz is offset by musical satisfaction, indicating high levels of intrinsic motivation. Fatigue, hectic schedules and financial demands tend to be seen as obstacles preventing a focus on practicing and playing the music of their choice.

Intrinsic motivation is a crucial aspect of developing self-identity as a musician. However, not all musical activities may be intrinsically motivating. Novice and professional musicians exhibit diversity in motivation to practice. Many students require parental encouragement to practice (Howe and

Sloboda, 1991) or other rewards, including playing favorite pieces of music or pleasing teachers.

Conclusion

The esthetics of musical form may be reduced largely to the cumulative body of practical principles of artistic structure, the interpretation of these in terms of musical objectives, and the theory of the nature of the beauty involved.

Historically, the esthetics of form is the main and almost the entire body of historical treatises on musical esthetics, and the development and validation of principles for composition represent the best contribution that the musician can make toward the scientific foundation of the art. The law of harmony, for example, is somewhat analogous to laws of philology, and philology is recognized in the sisterhood of science. To the musician, musical form is the primary issue to which the medium, the message, and the response play but a secondary role. It is in the field that musical theory has made the most notable advances; it is in this field also that musician has held and must continue to assume larger and larger responsibility for initiative in the building of musical esthetics; it is the creative work. The scientist, however, makes his entry into this field by critique of concepts and by reducing aspects of musical form to concrete issues, which may be treated exhaustively in the laboratory for verification, criticism, and adaptation, and even for the development of new form. Such problems as the analysis of scales, of consonance and dissonance, and of rhythm, are

problems of form, which may properly come up for review in the laboratory at this time.

Resources:

The Science and Psychology of Music Performance: Creative Strategies for Teaching and Learning By Richard Parncutt, Gary E. McPherson, Published 2002 Oxford University PressUSMusic Psychology in Education By Susan Hallam Published 2006 IOE Publications, ISBN 0854737162The Developmental Psychology of Music By David J. Hargreaves Published 1986 Cambridge University Press ISBN 0521314151The Origins of Music By Nils Lennart Wallin, Steven Brown, Björn Merker, Contributor Nils Lennart Wallin, Björn Merker, Steven BrownPublished 2000 MIT Press ISBN 0262731436Musical communication By Dorothy Miell, Raymond MacDonald, David J. Hargreaves, Oxford University Press, ISBN 019852935XPsychology of Music By Carl Emil Seashore, Published 1967 Courier Dover Publications, ISBN 0486218511Science of music By Sir James Hopwood Jeans, James Jeans, Published 1968 Courier DoverPublications, ISBN 0486619648Musical communication By Dorothy Miell, Raymond MacDonald, David J. Hargreaves, Oxford University Press, ISBN 019852935XIntroduction to the Psychology of Music By Geza Révész, Published 2001 Courier Dover Publications, ISBN 048641678XA Cognitive Psychology of Mass Communication By Richard Jackson Harris, Published 1999 Lawrence Erlbaum Associates, ISBN 080583088XMusicology: the key concepts By Kenneth Gloag, David Beard Published 2005 Routledge (UK) ISBN 0415316928Article from Science Blog (2004), Website: http://www. scienceblog. com/communityOnline Therapy:

Music in Therapy (Article), Website: http://www. enterthefreudianslip. com/articles. htmOpen access and Open source online magazine: Official Website. http://www. musicpsychology. net