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TEN THOUSAND HOURS OR THE FIRST STEPS ON THE PATH TOWARDS MUSICAL GENUIS

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1.0 Introduction

There have been many disagreements, arguments and theoretical debates throughout history surrounding the subject of *learning music*. Similar to other subjects that delve into the human unknown, learning and its music related discipline continue to develop with juxtaposed ideas, thoughts and conclusions. There is however a consensus of agreement that the development stage of a human being is of vital importance to the mastery of music. Sigmund Freud, quite possibly the biggest 'star' of the behavioural world, recognised the consequence of experience in childhood on behaviour in adulthood. Freud's theory of *psychosexuality* may not be of huge relevance to music, in fact it is famously documented that Freud actually loathed music, his nephew Harry Freud stating in; *Freud as we knew him* (1956) quoted: '*He despised music and considered it solely as an intrusion! For that matter the whole Freud family was very unmusical.*' Aside from Freud's dislike of music, he was conscious of the effect of experience and development on a child from infancy into adulthood. Consequently, musical

development has been an integral part of understanding growth and as it is now *widely accepted the experiences of early life shape the way we behave in our adult lives*.

In this research piece I will attempt to review information is are important to the learning and understanding music, bringing together the thoughts, opinions and theories of many different outlooks on the subject. I do not intend this report to be a review of the 'big-bangs' of music learning literature, more of a selection of information, journals and writings which will assist me develop as a teacher and academic.

2.0 Pre-birth and 'Brain-Training' Development Theories

There is much debate surrounding the response of a child yet to be born. One of the most contentious and regularly debated issues of the 20th Century would have to be the point at which an unborn child can experience the sensation of pain. Scientific research suggests that the developing foetus can experience more sensations than we realise, the inner ear '*appearing 28 days after gestation*' and '*by weeks 24-28, the nerve connections from the ear to the central nervous system (the brain) are beginning to mature'*. (Pitts 2007). Linked directly to this is a scientific myth that suggests that *if* we know that the pre-birth child can respond to external stimuli, then *can* we give our children a head-start? Fuelled by the '*my child is developing faster and is more capable than yours'* parental bluster at the school gate, the 'Mozart Effect' has become an *urban legend*. The Mozart Effect itself describes a simple theory that listening to Mozart (for just ten minutes a day!) can

increase a child's intelligence. It seems plausible as from my own experience, listening to 'classical music' helps me to work faster and assists my concentration. However, this '10 minute a day intelligence booster' has now developed into a widespread theory that playing Mozart's music to an unborn child can have the same effect. As with any industry that *claims* to increase development or intelligence, people have responded to this urban legend with a frightening sense of belief. Dr Alexandra Lamont, quoted on the *BBC Parents Music Room* website states;

> *'It's only ever been looked at in adults, but all the people who jumped on it have tried to say "ooh, we should do it with kids, we should do it with babies, we should do it with unborn babies". There's no evidence that just listening to music, not hearing to play an instrument, has any effect at all with children or babies'.*

Of course, there is a lot of myth and scepticism around this subject. I feel because it is not a 'cut and dry' subject, were you can add two together and you (mostly) get four. Music is different and sometimes *unquantifiable* - opening up the a musical genius can be rather like opening up Pandora's Box. We are all individuals and have our own individual ways of living, working, interacting and responding. Therefore unless each and every one of us is scientifically explored and tested then there cannot be an all-encompassing theory that explains the way we learn music and how good we get at it. Exploring these books on mastering music has wet my appetite to explore more about musical development. Many of the texts that I have read more or less hypothesise a very similar way of thinking that development is

very important to us and happens in stages. Our experiences in learning have a direct link to the amount or way information is processed and collated for use later on in life - the many different ways of learning contribute to our own musical psyche. From looking at what musical learning tools are out there before birth, the path really begins from age zero.

3.0 Stages of Development

During this recent venture into the literature available in development, I have found that many scholars choose to quantify their findings by creating and expressing fundamental key stages of music development of a young person, beginning from age zero. Jean-Jacques Piaget is a commonly cited name within the 'staged' musical development debate and is referenced to throughout many musical development texts. It is quite reasonable to state that the majority of 'cognitive staged development' stems from the 'Piagetian Tradition'. Sloboda in *The Musical Mind* (1985); '*Piaget's well-supported view is that there is a universally shared order of passage through various cognitive 'stages' and each stage is characterised by a fairly rapid advance in skill acquisition.*' In *The Musical Mind*, Sloboba documents the stage model, taking into consideration Piaget's original concept by developing the idea of 'musical enculturation', splitting up the development stages into; the first year of life, the pre-school child (ages 1-5) and from age five to ten. Sloboda again reinforces the 'staged development' stating that: *'A very considerable body of data now exists to suggest that musical development does indeed display a common sequence of stages…*' (Lehmann, Sloboda and Woody, 2007)

Bancroft and Carr in *Influencing Children's Behaviour* (1995) relates again to this 'Piagetian Tradition' by reporting four different models in the relationship between learning and development. These four models include the Behaviourist model in which; '*children are seen as empty or partially filled vessels into which knowledge and skills are poured. They are passive recipients of knowledge…*'. The 'Piagetian Tradition' which seems to dictate a more progressive style of teaching and learning suggests that; '*children do not have to be directly taught in order to learn*'. Bruners' viewpoint suggests that; '*learning can lead to development'* and a supporter and contributor to Piagets work; Vygotsky, who developed the '*child's zone of proximal (or potential) development*'. I feel as an educationalist these four models are of incredible importance to the 'teacher's toolkit' and therefore hold particular reverence.

Again, the theory of categorising learning and teaching into 'developmental pigeon-holes' is further explored in; *Individual and Social Aspects of Learning,* (Saloman and Perkins, 1998). The four-model concept of learner aptitude in different states of development (with teacher, without teacher, child centred learning etc.) is further explained into six areas, or 'styles' of learning and development. Each of these different styles of learning is to achieve what Saloman and Perkins denote as 'critical conditions' of learning, in which they mean the perfect time for a child to soak up the information.

During this study of literature, the 'Piagetian' idea of a 'tiered' system of learning and development seems to be a highly regarded one, and an idea that has been developed much further by many writers. David J. Hargreaves (1986)

documents an almost overview or glance at the many sub-ideas of musical development. This ranges from children's thinking and development again with reference to age ranges; 'pre-schooler' (p.60) and 'schoolchild' (p.83) and also includes writings on creativity and the social aspects of music development. Hargreaves makes reference to Piaget and Freud and begins to support their popularity; '*three theoretical influences have been predominant in the historical development of developmental psychology: and that two of these are the 'grand' theories of Sigmund Freud and Jean Piaget*'. (Hargreaves. 1986)

The 'staged' theory continues still to have its supporters and developers. Swanick (1986) makes reference to a theoretical construct with another psychologist Tillman, a detailed staged concept that he calls '*The Spiral of Musical Development*'. In this spiral Swanick and Tillman develop key stages of musical cognitive realisation, in basic form ranging from learning, to interacting physically on a very simple level with music and/or an instrument; this is called *mastery*. The next step concerns the basic copying or the child choosing to 'savour the sound' (Swanick, 1988, p.76) which is described as *imitation* this then develops into *imaginative play*.

4.0 The next 10,000 hours

Malcome Gladwell's 10,000 hours theory suggests that in order to become an expert, or master in a skill (music in this case), 10,000 hours of study and practice needs to be completed in most cases before a musician reaches adulthood. The Musical Ear suggest that these hours should be further broken down into the following areas of concentrated practice:

- Ear training (transcribing songs by ear)
- Brain training exercises
- Learning with teachers
- Reading
- Time with your instrument

These areas instil skills in the music, starting with learning to repeat and mimic music by ear. By learning how to deconstruct songs and put them back together again with reinforce other skills such as composition. Brain training exercises include scales and drills commonly found in the grading system. This promotes motor function and the ability to understand music theory (scales promote the understanding of keys and key signatures). Teachers can often push a student into a direction otherwise unexplored and can be used to help students 'think outside the box' of their usual music direction. Reading books like the 'AB Guide to Music Theory' – commonly thought of as the best introduction to theory available can help solidify the 'nuts and bolts' of how music works as a language. Last but no means least is the time with your instrument which should be sectioned into composition, performance and technique practice. So, with all this to fit in, what are the suggested amounts of time to achieve the 10,000 hours rule? Sutton (2015) explains that there are two ways of approaching this, the realistic way and the quick fix way: *'It just* sounds *like a lot, doesn't it? Ten thousand isn't a number we use every day. It works out to about 4-5 years of practising 6 hours every day, or a decade of more realistic practice hours.'* Letang (2016) suggests a more detailed approach saying that 10 hours of practice a week will take the average musician 19 years to complete, however not many

children begin to learn music until around 5 years of age, so more than 10 hours per week is needed. 17 hours per week will take around 11 years to complete, which assuming the student starts by the age of six, it will be mean that the 10,000 hours is complete by 17. 17 hours per week is by no means easy as it equates to two hours per day at a minimum, which for young people is far too much. Therefore, a more sensible suggested model is starting at 30 mins per day (this is what I was required to practice when I was learning), accelerating up to 3 hours per day in the teenage years (I was not required to do this, hence my conspicuous lack of musical genius…).

5.0 Final Thoughts

Starting on the path to achieving music mastery and perhaps genius is not for the faint hearted. Music can occupy, quite literally, your whole life and according to some theorists, starts even before life begins. Perhaps acquiring 'genius' status is not the most realistic ambition for most as 8,000 hours is what is considered to be very good on your instrument, and a mere 4,000 hours is what it takes to become a good teacher (Music Think Tank).

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