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14. Prodigies in Performance

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By far, the most common examples of musical prodigies are those children who perform music. Prodigies of music composition, for example, are less common. Prodigies of performance display extraordinary abilities before puberty and are able to amaze and dazzle adults who find it hard to explain exactly how these children are able to perform with such professional agility on their instruments.

DISTINGUISHING CHARACTERISTICS

Scientists are keen to understand the range of personal and environmental influences that explain musical prodigies' precociousness and shape their musical lives. But what exactly is a *prodigy*? Perhaps the most important distinguishing feature that defines prodigies is the rapid pace with which they are able to learn and memorize works and reproduce this repertoire across multiple performances. One example is Sarah Chang, who could perform much of the Mendelssohn Violin Concerto at the age of six, a feat that normally takes around twelve years of learning by an average violinist to acquire the technical and musical skills necessary to perform such a difficult piece.

The literature on musical prodigies identifies these talented individuals as being able to perform at an adult level before the age of ten within a recognized field of behavior. However, this definition is problematic for a number of reasons. The onset of puberty, which is around ages eleven or twelve for boys and ages ten or eleven for girls, provides a better cutoff, given that this is when a child's body starts to mature into an adult. Referring to a "professional level of performance" is also awkward given how difficult it is to define exactly what this means or implies. Although most examples of music performance prodigies perform classical repertoire on piano or violin, many would argue that this way of thinking about musical prodigies is too limiting and should instead be opened up to include all forms of music making, even rapping and electric guitar. Thus, any explanation of musical prodigies that confines examples to a culturally demanding field of endeavor, such as classical music, should be seriously questioned given the many examples across

all forms of music where precocious young musicians can be found to have excelled in their field.

Some people acknowledge that musical prodigies perform with technical perfection, but they argue that because they are so young they lack the maturity to play with real expression. Listening to the early performances of Sarah Chang and other musical prodigies seriously causes one to question the validity of this assumption, and there are many reports of master teachers who were in awe of the expressive skills of young performers who they accepted into their studios.

How rare are musical prodigies in the general population? There are literally thousands of so-called musical prodigy videos on YouTube, but a close examination of these individuals reveals that it is very difficult to evaluate their abilities from a single YouTube video, even though they may have amassed hundreds of thousands or even millions of views. This aspect of becoming noticed is important, for without public recognition, the musical prodigy will not be known outside of his or her family and, thus, be unable to gain the public recognition needed to embark on a successful commercial career.

NATURAL ABILITIES

One of the natural abilities that appears to give a child a musical advantage is perfect (absolute) pitch—that is, the ability to name any note just by hearing it. Perfect pitch is formed through a complex interaction between genetic endowment and environmental stimulation. Most renowned musical prodigies display this ability, even though the ability is quite rare in the general population.

Musical prodigies also seem to have the ability to mimic what they see and hear and to pick up the specific musicality of an interpretation of a work they hear others perform (e.g., their teacher) as well as the motor ability to reproduce this performance quickly and effectively on their instrument.

The most important capacity of a musical prodigy, however, is the ability to memorize quickly and accurately, and this ability distinguishes a prodigy from all other learners. Wolfgang Amadeus Mozart's father reported that his son was able to learn repertoire in less than an hour and could play these pieces faultlessly and with great delicacy. More recently, the pianist Lang Lang's teacher reported that when Lang Lang was very young, he could memorize four big pieces of music every week.

As one of the first and most celebrated musical prodigies of his day, Mozart's abilities as a performer and composer are still unrivaled. As noted above, he possessed absolute pitch and a remarkable memory for music that culminated in one of the most astonishing feats by any musical prodigy; at the age of fourteen, he attended performances of Gregorio Allegri's *Miserere* at the Sistine Chapel in Rome. This work was forbidden to be performed outside the chapel, so copies of the music were not available at that time. However, the young Mozart is reported to have been able to transcribe this fifteen-minute work from just a couple hearings.

A core ability of musical prodigies is their sensitivity to the physical and emotional properties of sound such that they are able, from a very young age, to make sense of tonality, key, harmony, and rhythm and even the expressive properties of music. This ability both reflects and reinforces their great love for music. There are many reports of how musical prodigies fall in love with music from a very early age and how their love of music provides the basis for developing a very focused attitude about music that drives their passionate involvement with music and strong determination to succeed and often to be the best, even when faced with difficulties or negative influences that would otherwise undermine their development.

For example, despite the emotional and physical abuse that Lang Lang and Michael Jackson experienced from their fathers, both musicians went on to have successful international careers and to gain recognition as the best in their fields. Part of the reason for being able to put up with such abuse appears to have been their love of music and their drive to become the best in their particular field. From a very early age, Michael Jackson wanted to be the king of pop, and Lang Lang was driven to be a star performer. This love for music, combined with a strong determination to be the best, is thought to have triggered an intense desire to learn music and to reproduce on an instrument what these young performers heard on recordings and through live performances.

Possessing a natural flare for music is insufficient for the development of the types of musical performance talent that will be recognized and accepted by others. Although far less evident nowadays, adult attitudes toward young performers have changed markedly across the centuries. Wolfgang Amadeus Mozart's sister Nannerl, by all accounts, showed early promise as a composer and performer; yet, once she reached a marriageable age, her father forbid her to perform in public. We will therefore never know the full extent of her musical abilities. The same is true for many other young girls, such as Fanny Mendelssohn, whose brother Felix is one of the most renowned musical prodigies of all time. Despite her precocious abilities, like Nannerl, she was forbidden to publish her compositions or perform in public lest she compromise the feminine virtues of obedience and love. It was not until Clara Schumann (1810–1896) that female prodigies started to become more widely known and publicly celebrated.

ENVIRONMENTAL INFLUENCES

There is no doubt that Wolfgang Amadeus Mozart was profoundly gifted; yet, even with these natural abilities, he worked extremely hard, probably accumulating as much music practice before he was ten years old as many musically trained eighteen-to-twenty-year-olds today who are auditioning to enter music institutions. This observation aligns with the proposal that it takes ten thousand hours of practice to become an expert in any field, whether that is painting, music, or tennis. Many young prodigies who are exposed to high levels of training of the type offered at major specialized music schools in North America, Europe, and China, however, will have exceeded this figure by their midteens. Some will have even

completed up to fifteen thousand hours of practice by the time they reach age twenty.

However, it is not merely the total number of hours of practice but the quality of that practice that counts. K. Anders Ericsson and his colleagues coined the term *deliberate practice* to explain a form of practice they believe is essential to the acquisition of expert skill. Within this conception, deliberate practice is defined as a special kind of practice that is focused, determined, and hard work but not necessarily always fun. Some music psychologists have found evidence in the lives of some prodigies that they embarked on a form of “deliberate play” for a year or more before receiving lessons on the instrument they finally chose to learn and ultimately excel in playing. For example, a prodigy with whom the author has worked spent many hours playing a toy piano as she mimicked the music from her father’s hi-fi system. This occurred well before she commenced formal piano lessons. It was felt that this form of deliberate, unstructured play provided the solid foundation from which she developed a love for performing music once she commenced formal piano lessons.

Another form of environmental stimulation occurs when a young learner is exposed to varied opportunities to perform and learn. As an example, Mozart traveled extensively throughout his childhood and was exposed to all the various trends in music within Europe at that time. These experiences provided a springboard for him to subsequently create works that were generations ahead of his time. In addition, having one of the most accomplished teachers of music as his father as well as receiving intense training from the age of three meant that the young Mozart was able to develop musically extremely rapidly. His intense motivation to learn, perform, and compose music added to his father’s desire to earn an income from showing off his young son’s abilities, which resulted in the young prodigy traveling to over eighty towns and villages before the age of ten. In fact, Mozart spend around a third of his life (3,720 days) traveling, which was unheard of at the time. As well, the acclaim of performing for royalty throughout Europe meant that the young boy obviously felt special, which also would have fed his desire to become the best musician in Europe.

Possessing a range of gifts provides an important foundation from which a young performer can become musically talented. Hard work and determination are also important for the development of ability, especially for performing music. Yet, the various stereotypes of musical prodigies show many misconceptions concerning how these natural abilities flower into musical talent across time. The perception that the young performers were forced into practicing for many hours is not always the case. Many parents of these prodigious individuals report that they find it hard to keep up with their son’s or daughter’s efforts and feel like they are serving a facilitating role by providing the resources and attention for them to devote many hours to their practice.

Another stereotype is that young prodigies will never realize their abilities unless they transition to learning from a master teacher. While this may have some truth, it is generally the case that the young prodigies displayed remarkable performance abilities even before entering the master teacher’s studio. One of the main

advantages of studying with a master teacher is that it can open doors if the teacher is well connected within the profession. Prodigies who attend the Curtis Institute of Music in Philadelphia, where many of the world's greatest prodigies have studied, receive tuition, private lessons, living expenses, and access to resources that are unheard of in any other institution. As an example, Lang Lang went from poverty in China to a full scholarship at Curtis, where he enjoyed living in an apartment that had a seven-foot Steinway Model B piano in the living room.

CONCLUSION

The above description highlights some of the more important conceptions used to explain prodigious development and the types of natural abilities and environmental forces that shape a prodigy's development. An important footnote to this information is that such rapid, precocious development is often fragile, and there are many examples of young prodigies burning out before they reach adulthood or deciding that they wish to pursue other activities. We must therefore be cognizant of the young prodigies' emotional needs and allow them opportunities to be part of the decision-making process so that they can grow up to be autonomous adults who look back on their younger musical years with pride, no matter whether they chose to pursue a musical career or decided to devote their attention to another area.

References and Further Reading

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