## Book Review of Musicophilia (2008) by Oliver Sacks. London: Picador.

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This book review evaluates *Musicophilia* (2008) by Oliver Sacks, a book which compassionately shares the stories of patients with neurological conditions that subsequently change the way they perceive music. The field of music psychology, in which this book sits, was historically overlooked by physicians as Sacks states in his preface that there was 'scarcely any mention of the subject until 1977' (Sacks, 2008: 9). Although fascinating present-day advances in technology have changed this, and is allowing for a deeper understanding of the underpinnings of musical perception, Sacks' claims that such advances may mask 'the simple art of observation [...], clinical description [...] and the richness of human context' (Sacks, 2008: 9). This apparent over-reliance on modern technology in discovering the new characteristics of music psychology that Sacks has described here, may have influenced his choice in using personal testimonies (or anecdotal evidence) as the method to present the musical appreciation disorders illustrated in this book. This book is truly unique, which I intend to highlight in this review. Firstly, this review will illuminate the rarity of literature on the gripping effects that music perception can have on individuals, followed by an overview of two of the most compelling chapters, and ultimately analysing Sacks' evidence, premise and audience.

It is without doubt that a significant amount of literature has been published in the field of music psychology in more recent years (Sloboda 1986; Levitin 2008). However, it is readily apparent that impairments in perceiving music, or what happens when the processing of music becomes atypical, is a poorly researched area of music psychology. It seems therefore that *Musicophilia* is the first comprehensive book which uses invaluable personal testimonies to reveal how music perception can grip and possess the minds of so many in different ways. It is surprising, though, that the literature on music perception disorders is lacking, as the prevalence of musical hallucinations occurs in more than one fifth of mental illness diagnoses (Hermesh et al., 2004). It is also recognised that amusia, the inability to detect and produce tones, is present in 4% of the population (Peretz, Cummings and Dube, 2007). It can be presumed that such conditions are a rare phenomenon in the literature of music psychology, but not in medical knowledge. Thus, the impact of *Musicophilia* in the field of music psychology is substantial, as it brings light to a particularly neglected area, and provides it with unprecedented knowledge and support.

Section two of Musicophilia is named 'A Range of Musicality'. One of the eight chapters included in this part is 'Two Thousand Operas: Musical Savants'. Savant syndrome occurs in those with mental disorders, where an 'island of genius will present' (Treffert, 2009). A less recognised area of Savant Syndrome is musical savantism, which is brought to the reader's attention by Sacks in this section. The cases of two Savants are presented in this chapter. Martin, who suffered from meningitis which elicited the onset of epilepsy and has severe intelligence and personality impairments. However, alongside this, Sacks notes that Martin developed extraordinary abilities for music and memory. He was able to excel in singing, listening and memorizing a significant amount of compositions. The second case study, Stephen, was recognised as a musical savant after it was discovered he had perfect pitch, which allowed him to spontaneously reproduce complex chords and had significant powers of improvisation. In the latter part of the chapter, Sacks offers a possible neurological change that may follow a significant illness, such as meningitis in the case of Martin, that can give rise to savantism. Such neurological change is the lateralisation shift from the left hemisphere to the right hemisphere following neurological damage. Thereby, the right hemisphere is released from suppression of the left hemisphere and a Savant-like syndrome can appear. An intriguing section of the chapter, which sheds light on the aetiology of a captivating condition and considers both the professional and inexpert reader in its approach. Similar books to discuss musical savantism include Some Kind of Genius: The Extraordinary Journey of Musical Savant Tony DeBlois (DeBlois and Felix, 2005). Although this book also uses a case study to discuss musical savantism, I believe that it does not use the same accessible and approachable tone that is maintained by Sacks. Rather, it discusses musical savantism in relation to children with special needs and those who are familiar with such background. Sacks is able to narrate musical savantism well within the capabilities of the professional, or those with minimal background knowledge of such topic.

The ultimate section in the book, 'Emotion, Identity and Music' includes case studies on individuals who experience intense musical imagery that have appeared mechanically in their dreams; those who view music as an emotional release from depression; schizophrenia; or strokes and heightened responses to music in frontotemporal dementia and William's syndrome. The final sub-section entitled 'Music and Identity: Dementia and Music Therapy', in my opinion, is perhaps the most touching of them all. With the prevalence of dementia reportedly standing at 35.6 million (Prince et al., 2013), Sacks' detailing of the substantial impact that music therapy can have on those with dementia is therefore relatable to many. This chapter explains the wider importance of music therapy in re-engaging the individual with dementia, as Sacks notes 'it aims to enrich and enlarge existence, to give freedom, stability,

organisation and focus' (Sacks, 2008: 373). Such re-engagement is discussed by Sacks in the case of Woody, whose relative claimed that 'music is one of the only things that keep him grounded in this world. He has no idea what he did for a living [...]. Almost every memory is gone [...] except for music' (Sacks, 2008: 375). Although music therapy does not qualify as a treatment for dementia, it is recognised as having invaluable beneficial effects on social, emotional and cognitive skills (Brotons and Koger, 2000). For this reason, I highly recommend this chapter to individuals who are caregivers to a patient with dementia, or are being directly affected by the symptoms of dementia, to expand their knowledge and skills in enhancing the quality of life of a person with this illness using music therapy.

The presentation of music appreciation disorders in this book relies heavily on anecdotal evidence. Such evidence depends solely on the personal testimonies of illness, and has gained recognition in the field as not necessarily being untrue per se, but unreliable and inadequate in contributing to scientific research (Frost, 2012), which may persuade the reader into discrediting Sacks' book. Contradicting this stance, Vandenbrouke (2001: 335) considers case studies to 'permit discovery of new diseases and unexpected effects [...] and play an important role in medical education'. Whichever side of the anecdotal evidence argument a reader chooses to advance, Sacks' sensitivity and compassion when using anecdotal evidence, I believe, should be appreciated by the audience of this book. Although this book does not have a general theory, Sacks does present numerous thought-provoking theories of the underlying causes of the music perception disorders, which are presented at the end of a selection of chapters. To demonstrate this, it is theorised by Sacks that the use of drugs give rise to musical earworms in the chapter 'Brainworms, Sticky Music, and Catchy Tunes'. He presents this theory using anecdotal evidence from his patient who took medication for bipolar disorder, which exascerbated intolerable earworms. A limitation of this theory however, is the lack of integration of other research that considers the relationship between drugs and earworms. In spite of the fact that Sacks does not use the literature to support his theory, it is evident that there has been some discussion in the literature on drugs and earworms that Sacks could have possibly incorporated. Gloom (2016) writes extensively on the causes of earworms, which include neural activity. It is claimed that if activity in the 'auditory memory centres of the brain are enhanced and a simultaneous surge of dopamine is released (from a drug), a song may have increased likelihood in getting stuck' (Gloom, 2016: 2). I also highlighted this lack of critical engagement at the end of paragraph five discussing the section on Tourette's syndrome. Thus, Sacks does not attain the opportunities for critical discussion when presenting his theories, which shows a lack of ability to recognise, build and appraise arguments. There is no specific target audience of this book, which I exemplified earlier in this review, allowing this book to open the minds of individuals who are both familiar and unfamiliar

with the field of music psychology. Although specialist terms and tones are intermittently used in the book, it is not overbearing and confusing for the non-expert reader. I entirely recommend and give praise to this book for its inspirational presentation of compelling conditions and the revolutionary evidence that it has given to its field.

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