

Euro Psychiatry 2020 The Influence of Brain Lesion on Musical Masterpieces of Famous Composers

Anna Mazzucchi

Chief of the Department of Centers for Acquired Brain Injury Rehabilitation IRCCS, Don Carlo Gnocchi Foundation, Milano, Italy,

The changing of musical capabilities, after cerebrovascular or neurodegenerative lesions in neuropsychological literature, are referred, over all, to musicians affected by aphasia. Generally, authors examine the relationship between amusia and aphasia and the potential decays of musical general skills. Particularly uncommon is the investigation of pre-lesional versus post-lesional productions of music composers. The rare descriptions that we find in literature, tend to conclude that the postlesional productions maintain a good creativity level.

In the following paper a group of researchers - neurologists, musicians and specialists in music composition- are comparing pre-lesional masterpieces of one composer manifesting cerebro-degenerative disease (Maurice Ravel) and four composers suffering cerebrovascular lesion (Benjamin Britten, Alfred Schnittke, Vissarion Shebalin, Franco Donatoni) with their postlesional compositional productions, applying an objective methodology. Their conclusions are that the examined composers employ, in their post-lesional masterpieces, simplified structures, or simple classic models, or reminiscences, influences and citations referred to their previous experience or related to harmonic traditional forms, in a less elaborate structure, frequently fragmented, static and repetitive. The compositional contextual character doesn't change and maintains, in some way, a "poetry", but the application modality becomes more "technical". The Authors suggest that, in order to be objective in her analysis and conclusions, neuro-aesthetic requires the application of well-defined methodologies and scientific procedures.

Introduction: Few years ago, we published an article dedicated to the critical judgment of the artistic production by famous painters who suffered left or

right focal cerebral lesion. We asked ourselves if the painters post lesional productions could be considered expression of unimpaired inventiveness and skill, or rather the expression of definite adjustments due to decreased of painting ability and creativity. We concluded that a hemispheric lesion significantly affects the painting production in all the investigated painters, who showed manifest modifications in their style [1,2].

In consequence of the above assumptions, a question raised: if other artists who express their creativity in different modality, i.e., in musical domain, manifest a parallel impoverishment in the quality of their artistic production. This investigation and the correlated observations didn't appear predictable, due to the fact that in previous literature the opinions of different Authors are dissimilar and in some way contrasting, although, in general, they seem to justify style modifications as due to "simplification", or, even, to "innovation", "austere", "enigmatic", "ascetic", with more "creative energy", etc. [3].

In neuropsychological literature the troubles of musical competence, over all, are described after vascular cerebral lesion, and very frequently are referred to musicians affected by aphasia [4-6]. But musicians with decrease abilities in one or more musical sub-components without aphasia [5,7-9], or vice versa musicians affected by aphasia without decrease of musical competences, are also described [10-14]. Definitely, the relationship between amusia and aphasia is not more considered required [15].

The reports regarding the musicians mentioned in literature, those who manifested deterioration of their musical competence as a consequence of cerebral progressive degenerative disease are very

uncommon. Besides Alajouanine [16], who describe Maurice Ravel illness, we have very few other cases: NS [12] and MM [14] are not identified in other ways. NS and MM manifest a cerebral degeneration more evident on the left hemisphere associated with language deficits. However, apparently, they show preservation of musical competences: music recognition, lecture and writing of the scores, instrumental execution and direction. NS was not a composer, but MM was. Anyway, the ability to compose music was not specifically analyzed in both the cases.

Finally, as the preserving or deterioration of the composition competence after cerebral lesion, vascular or degenerative, the composers described in the previous literature are rare [11,13,16-20].

Concerning the composition ability after cerebral lesion, inferable by the previous literature, we could find some interesting suggestion regarding the relationship between stroke, music and creative output. In his very comprehensive and stimulating paper, Zagvazdin [3] affirms that Alfred Schnittke recovered and continued his creative work with “inspiring success”; after the stroke he wrote music of “exceptional lyrical generosity, even of embarrassing kitschiness, more austere style, enigmatic and ascetic, style simplification did not lead to a reduction in emotionality”. Ira Randall Thompson’s post-stroke compositions have been well received: independent critics consider them to be as good as his pre-stroke compositions, but musically somewhat “more conservative”. Benjamin Britten post-stroke scores, which are relatively short, are considered to be “superb” and final works were considered “somberly colored”; “the composer renewed creativity reached its peak”; no “enfeeblement of his imaginative powers”. Jean Langlais: the music of his poststroke years was described as “tingled with retrospection and introspection final burst of creative energy”. Igor Stravinsky: after stroke in 1956, composed more works, his music continued to show “development and innovation adopting the serial composition (dodecaphonique) method”. Vissarion Shebalin, after having suffered his first stroke in

1953 was not deprived of “the ability to complete a number of masterpieces” and his best opera in 1957 was premiered at the Bolshoi Theatre.

In conclusion, the musicians with composition production quoted in previous literature are described with preservation of good quality of their music construction and creativity. However, the judgments expressed by the different Authors could appear in some way generic and/or subjective, without the specific application of a common music grammar and syntactic rules and without accomplishment of a valid comparison between pre-lesional and post-lesional music creation.

So, we suggest, as a useful progress in a correct direction of a less generic and more objective judgment of composers who suffered cerebral lesion, a critical revision of pre-lesional versus post-lesional musical production. The proposed questions are the following: a) According to the judgment of competent musicians applying general official/academic rules, what kind of judgments could be expressed comparing the pre-lesional with the post-lesional creation of each composer? b) As for artistic creativity is it possible to draw a parallelism between post-lesional artistic production of paintings and the music compositions of composers suffering a cerebral lesion? c) Finally, music composers suffering unilateral cerebral lesion could use different cerebral areas or different expressive repertoires permitting him to overcome the cerebro-lesional consequences?

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