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III. MUSIC IN MEDICINE

by

FRANK HOWES, M.A., F.R.C.M.,

Music Critic of The Times

Monday, 21st February, 1955

The belief that music has therapeutic virtue is of great antiquity and persistence. It has literary but not yet scientific respectability. The story of the belief through the centuries is adorned with anecdotes at once charming and amusing. As a specimen I will cite the latest, and not something from the time of Pythagoras: sedative music administered in a modern hospital at bedtime, on the principle of the lullaby, led to fighting amongst the patients. So much for 'music hath charms to soothe the savage breast'. But the belief in the efficacy of music as an aid to mental health is as strong now as ever it was when David played before Saul, Galen prescribed music for snake-bite or Farinelli sang to Philip V of Spain. For in some American hospitals there is now on the staff an official for the administration of music, called an 'aide', and we in this country have within the last ten years founded a society for the more systematic provision of better concerts in mental hospitals than the odd occasional entertainments which have for a century been a normal feature of hospital life. We are more cautious in what we claim for this Council for Music in Hospitals than is Dr. Licht for the American practices described in his book *Music in Medicine* (Boston, 1946). Members of that Council—and they include many medical superintendents—do none the less believe in the therapeutic value of music. I shall therefore now state the conclusions reached by a study of the evidence for the validity of this belief. It is that the belief is true in inverse ratio to the rigour with which it is pressed. The same formula is also found to fit the relations of music with mathematics and with politics.

If you will accept that cautious yet positive view that music has healing powers, that the tradition of centuries, though without strictly scientific confirmation, is not unfounded, we can proceed to examine it rather more closely. What sort of patients, suffering from what sort of diseases, can be healed by what sort of music? The mere formulation of that question shows the reason why verification by scientific method cannot be achieved: there are too many variables. Music is not an antiseptic ointment composed of standard ingredients which can be applied to any sort of wound, external or internal. Music is a Beethoven sonata, a Schubert song, an operatic aria, a violin solo, a string quartet by Haydn, a jazz band, the *Merry Widow* waltz, a foxtrot. These produce different effects on those who are well; it would hardly do to subject the sick to them indiscriminately. And in fact the question has immediately arisen in practice whether the musical therapist is to confine himself to serious music ('good music', as it is often called by non-musicians) or to subject the patient to a treatment of jazz. Dr. Licht is in favour of bad music. His musical officer's chief qualification

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is 'the absence of artistic temperament', his favourite prescription 'old time favourites', thus for arteriosclerotic psychosis 'old time favourites played softly for several periods daily is indicated'; ward music for those in bed 'should be kept at the popular-appeal level'. 'Bad music is better than good for hospital purposes'. Dr. Mitchell, who was our opposite number in this country and did much valuable work at Warlingham Park Hospital, strongly disagreed. But probably he and we would all agree with Dr. Licht's beautiful epigram 'Hospitalization is not the proper period of life for indoctrination in the beauties of innovations'. Mention of Dr. Mitchell makes a small digression imperative: if he were alive it would be he, not I, addressing you this evening. Dr. Mitchell was an enthusiastic member of the Council for Music in Hospitals; he carried out a number of experiments at Warlingham Park with control groups, to which I shall refer later. He was an amateur pianist and the husband of the professional singer, Norah Gruhn. His sudden death at an early age and the departure to Australia of Dr. Cunningham Dax, who was not a musician but was very active at the Netherne Hospital in the uses of art in mental hygiene, have set back the experimental work with control groups in this country. Dr. Mitchell's colleague, however, Dr. A. Zanker, is continuing such experiments at Warlingham Park and has recently made a report of an experiment which he carried out with groups of alcoholics and neurotics.

This brings me back to my main argument: it is clear that an immense amount of experiment is necessary to discover what types of music are most suitable for various therapeutic purposes. Those who organize gramophone recitals and concerts in mental hospitals soon learn by experience what to avoid and what to employ. What they discover is usually what common sense would suggest: that, for instance, with mental patients music should not be too long, as their attention is even less persistent than that of normal people; that it should not be too complicated for the similar reason that their powers of concentration are less than normal. They go so far with Dr. Licht as to confirm that an element of familiarity in the music chosen is desirable, and helps to make the reception of the other items in the programme more acceptable. They do not find, however, that endless repetition of favourites is at all appreciated by patients. In fact, they discover that an audience in a mental hospital has many of the characteristics of the ordinary not specially musical healthy public. A more encouraging discovery is that to a number of patients, especially if they are not chronics—for nowadays many persons who have suffered nervous and mental breakdowns repair to hospital for comparatively short periods of treatment—is that an interest in music is sometimes kindled, in the leisure of the hospital, which the patient takes away as a permanent possession, something to relieve introspection and something which moreover may bring him into association with other music-lovers. This is real social rehabilitation, though it may not be of very frequent occurrence.

Such therapeutic virtue as music may possess is one department of the general psychological effects of music. This is a study on which much work has been done, most of it in connection with listening. It is undeniable and indeed obvious

that making music, performing whether as soloist or in an ensemble, playing and singing, is an activity that yields much mental satisfaction. It has not failed therefore to find a place in occupational therapy. Functional therapy of wounded limbs was adopted in the First World War for its physical benefits, as distinct from any psychiatric value it exercised. Music in the form of practising and playing instruments has therefore some use in the treatment of orthopaedic cases, arthritis, fractures, paralysis, burns and other scars, but the other arts and crafts are better for this purpose, if for no other reasons than that they make less noise and can the more easily be pursued in association, and are less difficult and disappointing in the results they yield in the short run. Still, there are some patients who are attracted to music rather than painting or basket-making and some provision can be made for them, even if it is only a dummy keyboard. Apart from the physical benefit of the acquisition and exercise of digital skill, there is of course the psychological benefit of being busy, of exercising the instinct of construction (i.e. the creative instinct) in such cases. When we leave orthopaedic hospitals for tuberculosis sanatoria and mental hospitals, the psychic value becomes the more important value of all occupational therapy. Dr. Dax employed a most ingenious combination of musical with graphic art. Music was played to patients who were then asked to paint their impressions. Here the patients were mental cases; the music played consisted of a movement of Bach's third *Brandenburg* concerto, the *Adagietto* of Mahler's fifth symphony, Schumann's piano quintet, a Chopin Nocturne, the *rondo* of Mozart's oboe concerto and Mendelssohn's *A Midsummer Night's Dream* Overture, and the emotions so released in the patient—for emotional release and response is the prime purpose of the music, to get behind the patient's inhibitions, nervous mechanisms and mental obstacles—the emotions so released found expression so clearly that it was possible to submit the drawings to statistical investigation. The pictures generally showed depression or elation: Mahler's *Adagietto* produced one case of despair such that the patient threw his picture on one side and rushed from the room as though to make an end of himself. Britten's *Variations on a Theme of Purcell* produced elation. The *Midsummer Night's Dream* produced in 13 cases out of 17 a series of violent crises, robberies, fires, a train accident, ship in storm, a war scene, a murder and a suicide.

This brings us back to listening. All psychological investigation has been made one degree more scientifically reliable by the gramophone record—fluctuations in the quality of performance have been eliminated, repetition is endlessly possible and recording has made available any kind of music required. This is pure gain experimentally, but from the point of view of general well-being, for which music has been used in hospitals for generations as entertainment, it is no substitute for the concert by living artists. The gramophone record has thus become a piece of apparatus in all psychological investigations about listening. One result of such experiments, in which listeners have recorded by introspection their reactions to specific pieces of music, has been to classify listeners into types. It is perhaps more accurate to say that it has been discovered that we listen in various ways, and no one listens in only one way all the time,

but we mostly gravitate to one form of listening, so that for rough purposes of classification, such as the practical business of selecting the patients to form a hospital audience, we are divisible into types. Different psychologists give different numbers. Vernon Lee adopting and refining on Nietzschean terminology classifies us into three—Cecilians, Dionysiacs and Apollonians; Dr. C. S. Myers used a four-fold classification; the Swiss Dr. Odier five, and Dr. Philip Vernon seven. In my book, *Man, Mind and Music*, I come down in favour of four types of response. Vernon Lee's three will suffice for medicinal purposes. She postulated a class of Cecilians for those who are susceptible to sheer sound, Dionysiacs in whom the response is emotional and Apollonians for the 'purely musical', in which class I think must be included the technical. Roughly, very roughly, this means that music is either a sensuous or an emotional or an intellectual experience, and for hospital purposes it is only the emotional response which counts. When Dr. Agnes Savill published her epoch-making book *Music, Health and Character* in 1923, it provoked some correspondence in *The Times* from alienists then eminent, Sir Robert Armstrong Jones claiming a high value for music in mental illness, Professor Glaze Shaw scouting the idea altogether. But what was assumed or explicitly stated by both was that it was music's emotional evocations that mattered. No one stopped to investigate just how emotion is contained in works of art—this is a philosophical problem of aesthetics—whether it is the emotion of real life or a special emotion *sui generis*, but it is a question that pops up its head on the purely practical problem of what to play to your patients—classical or romantic music, Brandenburg concertos or *appassionata* sonatas? The evidence about what kind of music is appropriate is confused, but I think we can accept the general assumption that it is the emotional and not the sensuous or technical or 'purely musical' aspects of music, in so far as they can be separated, that is the operative factor in musical therapy. Mental disorder is more an emotional than an intellectual derangement—so much at least has become axiomatic since the discovery of the various kinds of psycho-analysis. Music has got very mysterious ways of getting at the subconscious. It has powers of suggestion and sympathy, and powers, at any rate in association with words in song and opera, of conveying with extraordinary power and extraordinary subtlety the emotions of real life, whether recollected in tranquillity or in some other way dissolved in artistic forms. If you want a concise instance of such combined power and subtlety I would suggest the aria 'Salce' in Verdi's *Otello*, especially the last dozen bars in which Desdemona says 'good night' quietly and then suffers a fortissimo revulsion of feeling as her fears sweep back over her. This is an effect of psychological verisimilitude beyond even Shakespeare's contrivance. It is these emotional powers of music, sometimes latent, usually incalculable, to some extent though not widely varying from listener to listener, but valid for those who are in any degree musical, that the doctor uses for penetrating the veil of his patient's clouded mind. Dr. Mitchell says as much: 'In psychotherapy emotional processes are of primary importance and it was these rather than conscious intellectual discussions that we wished to foster in talking with patients about the music they had heard'.

Fortified by this much confidence in the powers of music physicians first proceeded on the too naive assumption that music was, as it were, a good maniac-depressive remedy: you applied stimulus to the apathetic, and sedative to the excited. This does to some extent make sense: it has been found for instance that classical music of Bach and Mozart does have a tranquillizing effect, producing feelings of integration and security and leading to increasing musical pleasure, and some strongly emotional romantic music does produce apparently dangerous reactions. But we have learned that psychology is a science in which double-talk is not dishonest; it has you either way: a denial at the conscious level is an affirmation in the subconscious. So with the music. Vaughan William's F minor symphony, rightly described by Dr. Mitchell as an excellent mirror of the mounting collective aggressive feeling of the 'thirties when it came to birth, led when it was played to patients, especially the last two movements, to much emotional release in the form of openly expressed hostility towards psychiatrists. Dr. Zanker gives another and later example. After hearing a Spanish tango by Albeniz, a patient jumped up and ran away in great excitement. Breaking into tears when questioned, she explained that the piece had painful associations for her of a sister, once fond of dancing, who had died. The doctor, however, read this as a defence rationalization to cover a strongly repressed sensuality in the patient. Such explosions are thought to be ultimately beneficial. Dr. Mitchell explains them as due to the patient's inability to come to terms with the forces aroused by the music's emotional congruity with the patient's state, but says that the stimulation of these forces may be of ultimate therapeutic benefit. Which is the old Aristoteleian doctrine of *κάθαρσις*, *catharsis*—purification.

On the other hand the doctors claimed no therapeutic value for the fight that was caused by soothing music at bedtime. So what with the direct results of music, order and contentment from the classics and emotional excitement from the romantics and anger from the moderns (there were other examples besides Vaughan Williams, Stravinsky's *Rite of Spring*, for instance), and what with the indirect results of *catharsis*, you are confronted with a very pretty problem if you try to compile a musical pharmacopœia. And this is the complaint of all the medical investigators: that, while you can be sure that aspirin has the same effect on Indians as on Englishmen, that penicillin may be established as *the* cure for certain kinds of fever—statistically the evidence is overwhelming that drugs are reliable and specific in their effects—you cannot prescribe the same music for the same group in the same hospital and be sure of getting any one effect nor the particular effect that you desire. It is this 'recalcitrance' to statistics, to the scientific postulate of cause and effect, to scientific method in fact that causes the scientific mind to despair of musical therapy. But I will be so bold as to say that scientific certainty is not the only form of knowledge. It would no doubt be very convenient if a psychiatrist could prescribe for a schizophrenic half a Brandenburg concerto to be taken twice a day after meals, or for a psychosis of repressed sexuality an extended treatment of gradually increasing erotic severity beginning with the folk-song 'The Seeds of Love'

with its wonderful flower symbolism, and proceeding with the more salacious 'Foggy Dew', on to Schumann's rapturous '*Widmung*' and Strauss's sensuous '*Durch die Dämmerung*', thence to selections of *La Bohème* and culminating in the second act of *Tristan*. But it will never be, because of the variable responses of individuals. One whole class of patients that has been found, not unnaturally, to be unresponsive to musical treatment are the unmusical, and there are cases recorded of patients being upset by music, their distress aggravated by ill-advised attempts to coax them into the idea that it will be good for them, that they will come to like it in the end and so on. Furthermore, there are cases on record of fits of epilepsy induced by music.

But there is no need to lament the absence of scientific certainty. Medicine is an art not a science, though it makes use of science. Science, by which I mean all knowledge whose certainty has been established by scientific method, has acquired great prestige by its enormous success in its application to technology. As we know, it has increased our wealth, put up our standards of living, annihilated time and distance, given us many pleasures and amenities, but it has, as we realize increasingly, to our cost outstripped our wisdom. Now your good doctor is a wise man; he is a man who practises an art, he cures the sick. Science has handed to him a number of drugs, but the skill of the surgeon is a manual art, the wisdom of the physician is based on empirical not on scientific knowledge. Music too is an art; it too is more skill than knowledge, and its knowledge such as is involved in its practice is more often historical than scientific. So here we have two arts, which are empirical in their methods and are recalcitrant to scientific method. I am not suggesting that further scientific experiments should not be made with controls and statistical measurements, and the number of variables reduced as far as possible but, as in economics, scientific method cannot be applied to humanistic studies as rigorously as to natural phenomena. I would almost venture on my previous formula the proposition that economics, psychology and medicine are profitably subjected to scientific method in inverse ratio to the rigour with which it is employed. I have not the fashionable reverence for statistics. It is not therefore a reproach to musical therapy that it is still largely empirical in its methods and incalculable in its results.

At the empirical level some of the legendary stories of musical cures become more credible. Early medicine among primitive peoples is essentially magical and for any sort of magic incantation is necessary. If a patient is cured by a medicine-man, the music he employs will be an attendant circumstance rather than the therapeutic agent itself, which may be the exorcism of fear, the compelling of the patient to sit still and be quiet, or any of the beneficial effects of subtly contrived auto-suggestion. Such a primitive cure is not very far from the modern ascertained knowledge that music helps anæsthetization. There is a case recorded of a dentist using nitrous oxide who found that he could dilute his oxygen content by mixing it with Debussy's '*Claire de lune*', the 'Moonlight Sonata' or Humperdinck's 'Dream Pantomime'. Pythagoras is said to have cured mental states like depression with music, and the insistence throughout the

Greek literature of antiquity upon the emotional and moral effects not only of music but of specific modalities—not for nothing was the Dorian mode virile and the Lydian soft—is something of a puzzle to us. Plato was not a legendary figure like Pythagoras but the author of a treatise on government in which he quite seriously discusses what modes may be used in the music of the governing class. There is also a passage in *The Republic* which contains a very pregnant idea that does seem to be confirmed by our ordinary experiences in education and æsthetic enjoyment. It reads: 'Rhythm and euphony enter right into the inner recesses of the soul (i.e. the subconscious mind) and act powerfully upon it in imparting comeliness and order (εὐσχημοσύνη) and rendering the man a well-ordered person'. In the *Protagoras*, he says: 'It is necessary to insist on rhythm and euphony being imparted to the souls of the young in order that they may be more civilized, and in becoming more imbued with rhythm they may be made more serviceable to the community in word and deed. For the whole life of man needs a good rhythm and a spirit of harmonious accommodation'.

This truth has often been overlaid by the more earnest schools of moralists about the connection of music, health and morals. I spoke of Dr. Savill's book being epoch-making. It was, in fact, as to half of it an autobiographical confession of how a dislike of music was converted to a keen appreciation of its pleasures and its values. The title she gave it was *Music, Health and Character*, and this startling title and the implications have made it one of the classics of musical therapy, though it only discusses the problems in general terms, unlike Dr. Licht's book and the valuable *Therapeutic and Industrial Uses of Music*, by Doris Soibelman (Columbia Press, 1948). The industrial uses of music are relevant to the medical in that they testify in measurable terms the output of energy and output of goods, which in healthy persons are increased by music. If energy is a sign of health, a bicycle race of 1911 confirms the value of music: 46-mile races were separately tried on three evenings, half were ridden to music. The average time with music was 19.6 miles per hour and without it only 17.9!

But if one thing more than another emerges from this strange assortment of empirical facts it is the illegitimacy of trying to frame general hypotheses about them. Few, however, would be found to deny that the pursuit of music is a healthy one. If it is a question of singing in choirs there is the physical exhilaration of the body and the instinctive satisfaction of the mind in communal activity. If it is a question of playing an instrument the fine control of nerve and muscle is an aspect of physical health—a minute exception may be noted in the case of the musical glasses, which for a short period in the eighteenth century enjoyed a limited favour, but were said to produce acute nervous irritation through the excessive stimulation of the finger tips. If it is listening, there is the healthy factor of having an endless source of interest in something intrinsically beautiful; there is the emotional *catharsis* for unhappiness and there is the subtler, more mysterious educational effect which Plato isolated. Whether music is therapeutic or not it is certainly hygienic, and medicine is as much concerned with health as it is with the prevention of disease.