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OF EMOTION

A LECTURE DELIVERED BY

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MUSIC AS THE LANGUAGE  
OF EMOTION

A HISTORY OF THE THEORY

OF EMOTION

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LOUIS CHARLES ELSON was born on April 17, 1848, and died on February 14, 1920. He was educated in Boston, his native city, and Germany. As a teacher at the New England Conservatory of Music, as music editor for Boston newspapers, he exerted a great influence for music in this country over a period of many years. He also served as musical correspondent for several European and South American papers, and enjoyed distinction as a lecturer to the public as well as in the classroom. As author, composer and editor, he had a career of great significance in America's musical development.

In 1945 the Library of Congress received a bequest from the late Mrs. Bertha L. Elson, widow of Louis C. Elson, to provide lectures on music and musical literature in memory of her husband. Professor Pratt's lecture is one of the series made possible by Mrs. Elson's generous bequest, which also supplied funds for this publication.



## MUSIC AS THE LANGUAGE OF EMOTION

ALL FORMS of art are thought of as involving some kind or degree of emotion either through direct arousal or through indirect representation. In this regard music is often assigned first place. "Music stands quite alone," said Schopenhauer in his penetrating treatise on art. "It is cut off from all the other arts. It does not express a particular and definite joy, sorrow, anguish, delight, or mood of peace, but joy, sorrow, anguish, delight, peace of mind *themselves*, in the abstract, in their essential nature, without accessories, and therefore without their customary motives. Yet it enables us to grasp and share them in their full quintessence."

It is not an easy matter to explain what it means psychologically to say that music is the language of emotion. The problem is no easier if the same question is raised, as it has been ever since the days of Greek philosophy, about emotion in relation to any other form of art. The Aristotelian concept of *Katharsis* in connection with the drama has been taken to mean the purging of emotion by the engrossment of the spectator in the events portrayed on the stage. The context in which *Katharsis* is treated makes it impossible to know, however, whether Aristotle meant to imply that the emotion is actually aroused, or whether it is only represented or known by inference, or whether perhaps it is merely grasped intellectually as the sort of experience that real people would have if they were involved in the drama. In the tomes written since Aristotle, confusion has only become worse confounded, so that today the various answers to the question as to how emotion is related to art, and especially to music, are all more or less unsatisfactory.

## I

The difficulty of the question can best be appreciated by noting briefly what a few of the better known answers have run up against from the point of view of modern psychology. These answers are not necessarily wrong, but neither are they quite right, for they make assumptions about the operation and location of emotion which are either dubious or leave the question unsettled.

### EMBODIMENT OF EMOTION

Music may be a language of emotion by way of the embodiment in external tonal form of the qualities which define mood and feeling. Literature on aesthetics is full of references to art as the objectification of the subjective, the projection by the artist of his inner life into the durable media of sound and color. If such phrases are understood as figures of speech, no objection can be taken to them. Aesthetics is not yet a science, whatever else it may be; and writers in this field may be allowed the license of picturesque words. If taken literally, however, the notion that music can embody or contain an emotion is psychological nonsense. Emotions can only be located inside the individual who has them. They do not lie around outside the living organism, in spite of the curious introspection of the invalid who, in reply to the question as to whether she was in pain, said that there was certainly a pain somewhere in the room, but she was not sure whether it was hers or not.

In recent years the famous James-Lange theory of emotion has been vigorously attacked for reasons which are of no direct concern to the present topic; but no one has expressed any doubt about the theory's basic tenet that felt emotions are closely bound up with bodily or organic processes. The fact that the theory states the obvious in no way detracts from the brilliance and originality of William James in giving it precise formulation. Where are emotions? Clearly the only possible answer is that emotions have their locus within the bodily structure.

They cannot exist in some medium outside the individual. It is therefore impossible for any form of art to *embody* an emotion, unless such a phrase is intended to be merely figurative in meaning. Emotions are an awareness of bodily disturbances. These disturbances or changes, as James said, "are so indefinitely numerous and subtle that the entire organism may be called a sounding-board, which every change of consciousness, however slight, may make reverberate." Music may be a sounding-board for the *representation* of emotion, but an emotion which is thus portrayed is no real emotion at all, and so cannot furnish an answer to the question as to the manner in which real emotions find their way into music. Art as the embodiment of emotion is merely a manner of speaking.

#### AROUSAL OF EMOTION

The problem would be solved at once if it could be demonstrated that music aroused real emotions in the listener. *Solvitur audiendo*. The difficulty is that the solution is not found by listening to music, for many lovers of the art which Schopenhauer placed on the lonely high pedestal insist that in listening to music they do not themselves experience real emotion. The music in some elusive manner has an emotional significance, but the experience is said to be in no way comparable to the real emotions of everyday life. The more sophisticated the listener, the more emphatic he is likely to become in his assertion that he himself is not filled with joy or sadness by the sounds of great music, although he may be equally emphatic in his conviction that such moods are somehow related to the music which he has heard. The music may be joyful. It may be sad. But in neither case does he, the listener, experience joy or sadness. He likes the music. He admires the skill of the performers and the genius of the composer. But he himself is not bowed down with grief nor lifted up with joy.

It must be admitted that the theory of arousal of real emotion does indeed apply to some listeners. Studies designed to dis-

cover the effects of music on listeners show that a few individuals do actually experience what seem to be real emotions. They feel elated, depressed, melancholy, excited and in other various ways deeply moved by what they hear. In extreme cases they have a genuine emotional bath in a flood of sound. These have been called subjective listeners. They listen with their viscera. But these individuals constitute a minority among the lovers of music. To them the theory of emotional arousal seems to apply, but the same theory leaves out of account entirely the large number of music lovers who are keenly sensitive to the emotional qualities of music but who deny the subjective origin of such qualities.

Except for those individuals whose visceral sounding-board is set into actual vibration by music, it is reasonably certain that musical experience ordinarily stops some considerable distance this side of real bodily emotion, otherwise a strange psychological incompatibility would at times be set into operation. The lover of music who has high regard, say, for the slow movement of the *Eroica*, listens with rapt pleasure to a performance by a fine orchestra under an inspired conductor. He agrees with those critics who call that particular movement, especially the fugal passage, the most intense and poignant expression of grief in any form of art. Now, if the effect on him were one of real and powerful grief, it would be difficult to understand how at the same time he could enjoy the experience. The dilemma is easily and quickly resolved. He *does* enjoy the experience, but he does *not* suffer real grief. The sadness of the music is genuine and is there for him who has ears to hear, but there is no sadness of the viscera.

If an emotion is to be real, the organs of the body, and in particular the viscera, must be made to vibrate. For most listeners music makes an appeal to the mind, not to the body. The good lover of music can sit through the second act of *Tristan and Isolde* without a blush, without the slightest trace of embarrassment. He may derive keen pleasure from the last

movement of Tchaikovsky's *VIth*, whereas if his body were involved he might find that movement an ordeal to be sweated out to the last dying gasps of the bass viols. The rage of many of the passages in Beethoven's scherzos is spiritual, not visceral; and the melancholy of Mozart is the quintessence of all sadness, but in the abstract, without any bodily concomitants or motives.

The moods of music, or the *tertiary qualities*, as they are sometimes called, unquestionably play an important even if elusive role in judgments of aesthetic excellence. But if this role or criterion were based on the arousal of real emotion, then music or any other form of art would occupy a lowly position far down on a scale of values. The death of a friend or relative, a game of poker, business success or failure: such events stir up the adrenals as no work of art could ever hope or want to do. The view that music arouses real emotion can therefore be put to one side, not so much because it is wrong, but rather because it fits only a small and relatively unimportant group of listeners.

#### THE SUBTLER EMOTIONS

"These are the moral, intellectual and aesthetic feelings," said James at the end of his chapter on the emotions. "Concords of sounds, of colors, of lines, logical consistencies, teleological fitnesses, affect us with a pleasure that seems ingrained in the very form of the representation itself, and to borrow nothing from any reverberation surging up from the parts below the brain." It is obvious that from the point of view of his own theory James was bothered by what he called the subtler emotions. He was right in suspecting that they involve very little if any visceral action, and was therefore also right in his conclusion that strictly speaking they do not belong within the range of emotional experience that his theory sought to encompass. His descriptions of the subtler emotions reveal the same penetrating insight and skill that are found in all of his writings, but unfortunately in this instance he did nothing to advance the problem. It may even be said that he added

further verbal confusion, for he dropped the problem with the suggestion that the subtler feelings may be thought of as *intellectual* or *aesthetic* emotions.

Aesthetic experience certainly involves pleasure and displeasure, and it may be that these feelings, for aught that modern psychology can offer on the subject, are mixed up with the same mechanisms as those which underly emotion. Majority opinion, however, tends to doubt the connection, as did James himself. The aesthetic judgment, suffused as it is with pleasure or displeasure, is calm and somewhat detached from its object as compared with the impulse to quick or violent action which emotion tends to stir up. When Chopin was pleased with a new piece of music, his comment was apt to be "Rien ne me choque." If his viscera were involved in that judgment, they were manifestly under superlative control. An exquisite proof or a neat argument produces pleasure and satisfaction, but nothing like the intense joy from the news that a child, whose life had been despaired of, has been saved by the use of penicillin. In any event, whatever may be the ultimate finding about the physiological relation between feeling and emotion, the problem is not helped at all by referring to the subtler experiences in art as aesthetic emotions. One might just as well refer to domestic, national, religious, social, educational, professional, economic, military, political, and legal emotions, and so on *ad infinitum*, or at least to the end of the dictionary, without thereby doing more than pile up words.

#### THE THEORY OF EMPATHY

It is clear from even this brief survey that aesthetic theory, in trying to deal with the relation between art and emotion, is confronted with a problem which is not nearly so simple as it might appear. Objects of art, whether regarded as independent physical events or as dependent perceptual data, cannot themselves embody emotion. The emotions do not exist "out there" in visual or auditory forms. Neither as a rule do

they exist as full-blown visceral events, except in the case of a few individuals whose appreciation of art is extremely subjective. If they are located neither in the object nor in the person, where can they be found?

One of the best-known answers to this question is in the theory of *Einfühlung* or empathy. Objects of art do not of course contain emotions, but they seem to embody an emotional quality because of the projection into them of moods and incipient emotions which actually have their origin within the individual. Emotions or tertiary qualities are not the property of perceived objects. They are aroused or subexcited, however, at the moment when the objects are perceived, and by a process of associative projection are then seen by the individual as though they actually belonged to the object. The gracefulness of a line, for example, is not an attribute of visual perception, but is a projection into the visual form of smooth and agreeable eye-movements, just as conversely the awkwardness of a line is the projection of unpleasant and jagged eye-movements. The sprightliness of music is not in the sounds but in the bright and lively muscle-flutters in the body of the listener. Nor is the melancholy mood of music in the tonal structure but in the drooping structure of the listener.

The theory of empathy has been drawn upon to account for many phenomena in visual and auditory perception which are not directly related to aesthetics. The perceptual field is replete with qualities which are difficult to explain in terms of the usual sensory dimensions. Shapes and patterns that are jagged, smooth-flowing, agitated, calm, enticing, drooping, sluggish, towering, or what not, present difficulties to any system of psychology that confines its units of description to the mere extensity, intensity, and protensity of sensory quality. It is here that empathy seems to offer welcome assistance. If in the perception of these shapes various muscular responses are present, the latter may be the source of the qualities that seem so closely bound up with the shapes. A certain visual or

auditory form produces, let us say, a soothing effect on the observer. If the observer calls the form itself soothing, it is a sort of figure of speech which is explained by the fact that he has projected his own feeling into the perceptual field. A good deal of impressive evidence has lent strong support to the theory of empathy as originally formulated by Theodore Lipps some fifty years ago. Recent studies, however, tend to cast doubt upon the theory, except in its application to very special and isolated cases. The same doubt would therefore extend to the use of the theory in aesthetics.

In 1912 Wertheimer made an important study of perceived visual movement. Before that time it was assumed that visual movement is a product of visual quality plus concomitant adjustment of muscles of the eye. Rapid differences in external location are accompanied by an ocular muscular sweep, and the two together give an impression of movement in the visual field. The phenomenon may be considered a case of empathy at a simple level. Wertheimer showed, however, that if a line in one location is shown sixty-thousandths of a second after another line in a different location, the observer sees a quick movement between the two. But the eye cannot begin to move in sixty-thousandths of a second. Therefore the perceived movement must have been wholly visual, for the eye muscles made no contribution. In another experiment, Wertheimer exposed very briefly one spot, followed sixty-thousandths of a second later by several spots exposed out on the periphery. The observer saw one spot swiftly moving out in all directions. Obviously a movement of that kind would be impossible for the eye muscles. The conclusion was inescapable: visual movement is a property of the visual field itself, and although it may at times be supplemented by eye movement, it can exist in its own right without any empathic projection of ocular kinaesthesia. The kind of movement studied by Wertheimer is identical with the movement perceived in moving pictures. Stills are shown in rapid succession, too rapid for the eye to

follow. The phenomenon with which everyone is familiar in the movies is therefore a perfect illustration of pure visual movement which can be explained without reference to eye muscles or to empathy.

Similar doubts regarding the role of empathy have been raised in connection with lines and shapes which are called graceful or awkward. Studies of eye-movement show that the eye sweeps over the visual field in much the same way, no matter what shapes or items are present. For jagged lines and for smooth lines the movements are indistinguishable. It must therefore follow that the quality which distinguishes a graceful from an awkward line must reside within the visual material itself. Any appeal to the theory of empathy is quite unnecessary. It is not only unnecessary. It would not help much even if the appeal were made, for the doctrine of empathy does not really explain aesthetic and tertiary qualities. It merely pushes the problem over into another area.

If tertiary qualities cannot exist in their own right in the visual and auditory areas, if they need assistance from organic and kinaesthetic modalities in order to make themselves palpable to the eye or ear, how does it happen that these qualities can exist in their own right in the area of bodily perception? The kinaesthetic and organic modalities are sense departments, just as are the visual and auditory modalities. A theory which denies tertiary qualities to visual and auditory patterns but at the same time accepts without question their existence in the bodily senses can hardly settle the question. It merely poses the same question in another domain.

The theory of empathy encounters even greater difficulties at the higher levels of aesthetic appreciation, although demonstrable proof of its inadequacy is found more easily at the simpler level of the tertiary qualities just described. Lipps and his followers have considered *Einfühlung* the essential element of aesthetic appreciation in all forms of art. If taken literally this view imposes upon the artist a serious if not fatal limita-

tion—a limitation which fortunately every great artist has magnificently ignored. Empathy means that the greatness of a work of art is directly proportional to the amount of greatness which can be projected into it by the person who sees or hears it. A ballet can be no more beautiful than the incipient pantomimic responses of the audience, which must mean that every muscularly clumsy dolt would see in the dancing of Miss Tallchief merely a projection of his own unfortunate want of skill. Rakes and strumpets would hear wanton wiles in the music of the *B-minor Mass*, and prudes might fail to detect a trace of romance in the sounds of the *Liebestod*. Never could an artist soar to great heights unless his admirers had the same capacity. The tonal shouts of joy in the *IXth Symphony* would be inaudible to those of sad disposition, and the wistful melancholy of Mozart could only be heard by one person in ten thousand. Instead of the blessing that art has been to mankind, it would be no more than the portrayal of the commonplace, the representation of the average.

Some observations made by the writer a few years ago reveal plainly the difficulties in the theories of emotional arousal and of empathic projection. A group of 227 college students was given the task of assigning musical or aesthetic qualities, by the method of matching, to four recorded compositions: the introductory measures to Brahms' *First Symphony*, about 40 measures in the middle of Mendelssohn's overture to *A Midsummer Night's Dream*, the transitional passage between the third and fourth movements of Mozart's string *Quintet in G-minor*, and several measures from the third movement of Tchaikovsky's *VIth Symphony*. Experts in a department of music had agreed that the passage from Brahms could best be described as *stately*, the measures from Mendelssohn as *sprightly*, the transitional movement from Mozart as *wistful*, and the measures from Tchaikovsky as *vigorous*. These four adjectives were written on the blackboard, and the students were told to assign to each composition the adjective they con-

sidered most appropriate. The compositions were played through twice in random order, without of course indicating what compositions they were or how they were supposed to be described. If the students made their judgments by sheer chance, they would have been about 25 percent correct. If the judgments exceeded 25 percent by an appreciable margin, it would appear that something in the music was coercive or compelling in leading the students to select one adjective rather than another. The high uniformity in the results went beyond the most sanguine expectation. All of the compositions were judged more than 90 percent "correct" by the students, as can be seen in the following table:

TABLE I

PERCENTAGE OF CASES IN WHICH THE ADJECTIVES IN THE HORIZONTAL COLUMN WERE JUDGED APPROPRIATE TO COMPOSITIONS BY THE COMPOSERS LISTED IN THE VERTICAL COLUMN

[Total number of cases 227]

|                       | Stately | Sprightly | Wistful | Vigorous |
|-----------------------|---------|-----------|---------|----------|
| Brahms . . . . .      | 97.20   | 0         | 3.08    | 5.72     |
| Mendelssohn . . . . . | 0       | 98.67     | 0       | 1.33     |
| Mozart . . . . .      | 3.09    | 0         | 96.91   | 0        |
| Tchaikovsky . . . . . | 5.72    | 1.77      | 0       | 92.51    |

None of the theories designed to account for music as a language of emotion makes it clear how these results can be explained. The compositions cannot be said to *embody* emotion. That view is definitely ruled out. Nor is it reasonable to assume that real emotions were aroused in the listeners. The students looked somewhat bored by the experiment, or at best mildly amused. The theory of empathy also makes it necessary to assume that the students had at least incipient subjective moods which by a process of projection led to the selection of

the proper adjective, a possibility which is again hardly likely. Did these young men have a feeling of stateliness within them while they were listening to Brahms? They certainly did not look sprightly during the playing of Mendelssohn. Did Mozart make them feel wistful? A few of them may have felt a bit wistful, and then experienced a quick shift to a more vigorous internal state when the full orchestra and big chords of Tchaikovsky came at them. It is of course conceivable that the students were ascribing their own emotional experiences to the music. The method gives no guarantee against such a pathetic fallacy. It strains credulity, however, to believe that such a large group of undergraduates would experience such homogeneity of feeling at precisely the right moments. No. These young people were not reporting upon their own sprightly feelings, their wistful moods, or their stately affections. They were selecting from the list presented to them those words which best described the auditory structures of the music to which they were listening.

## II

The last sentence in the preceding section gives a hint as to the way out of the dilemma regarding the place of emotion in musical experience. The students in the experiment just noted were describing the tonal characteristics, the tertiary qualities of the music, but were having no traffic whatever with real emotion either in themselves or in the music. The problem is solved by the simple but very important assertion that the music which they heard, and art in general, may be called a language of emotion only if that phrase is understood in a figurative sense. Real emotion does not enter into music at all.

This radical view is likely to be received at first with incredulity. Music not the language of emotion! What was Schopenhauer talking about? What have artists and philosophers and critics and psychologists been trying to explain

by their elaborate theories? What do the following adjectives, all of them and many more easily culled more or less at random from writings on music, refer to?

|          |            |          |
|----------|------------|----------|
| pensive  | pompous    | serene   |
| wistful  | passionate | enraving |
| restless | agitated   | stirring |
| mournful | soothing   | dramatic |
| erotic   | languid    | placid   |
| fervent  | exciting   | gladsome |
| alluring | seductive  | martial  |
| tender   | somber     | cheerful |

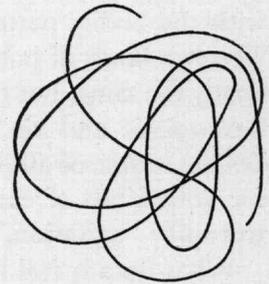
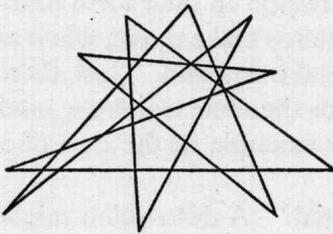
The answer to these questions, although it involves a simple denial of the presence of any emotion anywhere in music, is not at all simple. Nor is it easy to explain. It lies at the very center of a verbal confusion which has plagued aesthetic theory from the beginning.

Music presents to the ear an array of auditory patterns which at the purely formal level are very similar to if not identical with the bodily patterns which are the basis of real emotion. The two kinds of patterns are with respect to their form practically the same, but the auditory patterns make music, whereas the organic and visceral patterns make emotion. Just there lies the source of all the confusion, for the same words are used for both kinds of experience, as for example in the case of a word like "agitation."

What does it feel like to be agitated? A description might include reference to such things as increased rate of breathing and heartbeat, unsteady organics in the region of the diaphragm, tapping of the feet or fingers, inability to keep still, etc. The same kind of disturbances and movements, at the level of form, are present in many passages of music. Staccato notes, trills, strong accents, quavers, rapid accelerandos and crescendos, shakes, wide jumps in pitch, percussions and fortissimos—all such devices conduce to the creation of an auditory pattern

which is appropriately described as agitated. Agitation is both an organic feel and an auditory perception, but in the former case it is an emotion and in the latter it is a tertiary sensory impression—two quite different psychological modes of experience, which nevertheless, because of the similarity in form between them, are called by the same name. The verbal confusion is largely responsible for the confusion in theory, because if a tonal passage is called agitated, the philosopher will want to know how agitation, by which he will mean an emotion, has made its way into music. Until recently it had apparently not occurred to anyone that emotion need not be present in the experience of agitation, provided the experience is in the auditory and not the organic domain.

A simple illustration of similarity of form between two different sense departments has been made familiar in the literature of *Gestalttheorie*. In the space below are two meaningless forms. The reader will be able to decide without any trouble which of the meaningless sounds, *uloomu* and *takete*, applies to which form.



The demonstration shows that impressions from different sense departments may be very similar with respect to form. Each of the sounds, *takete* and *uloomu*, fits perfectly one of the visual designs, but not the other. The impressions are different in content—one is visual and the other auditory—but similar in form. An even better example of identity of form across sense departments is furnished by rhythms. A rhythm can be

visual, auditory, or tactual, and in each case the form may be made identical. A three-fourths rhythm or an iambic pentameter meter can be as easily recognized in one sense department as in another.

The great composer does indeed make of music an expressive language of emotion. Music is for him a means of giving objective and permanent form to his inner life. The miracle is accomplished by arranging sounds in such a way that the design is recognized by the listener as sprightly or languid or somber or majestic. The recognition may be only half conscious and ordinarily is not made explicit by the use of words, unless the listener happens to be a critic whose task is to describe what the music sounds like. The critic will struggle with words and will have recourse to a vocabulary that baffles the philosopher, for the words seem to imply that the music has embodied or aroused various emotions.

In the life-history of the composer himself there must of course have been real moods and emotions which laid the basis of the temperament which his artistic genius was capable of translating into sounds. Art reveals the temperament of the artist. The great works of Bach came from a noble and lofty nature, whether or not his contemporaries were able to perceive it in his everyday life. Beethoven struggled with tremendous inner forces, but also achieved moments of heavenly serenity. Mozart may have seemed a commonplace sort of fellow to those who knew him, but somewhere down deep within him humor and pathos dwelt together, untouched by any worldly vulgarity, whereas in Tchaikovsky and Wagner the outer and inner worlds were more blatantly mixed. Music more than any other art discloses both the surface and the depths of the artist. One reason for this luminous character of music is the absence in the perception of tone of the ordinary meanings and objects that clutter almost all other kinds of awareness.

Music is an artificial construction in the sense that the material out of which it is made is found nowhere in nature.

Musical sounds and the instruments for their production are man-made. The sounds do not symbolize or stand for objects of any kind. A strain of music cannot in and of itself represent a tree or a wild rose or the afternoon of a faun. To be sure, almost any meaning can be fastened to music by the use of words, titles, and program notes, and such associations may stick fast enough to make it possible by means of tones to indicate the town pump, the Democratic Party, or almost anything one likes. Pure music, however, is meaningless, a circumstance which gives it an appeal and capacity that are unique. In all other arts the tertiary qualities, the unspoken moods of the inner life, have to be represented by words and signs and symbols. In music these moods and qualities are conveyed at once to the mind of the listener without the intervention of any disturbing thoughts or objects, except those that may flit through consciousness by way of wandering associations.

Poetry, on the other hand, although ideally an auditory art, is one in which sound is apt to be subordinated to sense. A prosaic illustration of the minor role of sound in the perception of words as contrasted with tones is furnished by the ordinary word-association test. The reader may try the test on himself or on a group of friends, and he will find that the demonstration rarely fails. The task is simply to respond with the first word that comes to mind when a list of words, such as the following, is read or recited:

TABLE DOG MAN KING DOLLAR

The chances are that "chair" will be associated with "table," "cat" with "dog", "woman" with "man", "queen" with "king", and "cent" with "dollar"—or if not just those particular words, certainly words that are associated with the stimulus-words by way of meanings or related objects. Now there is nothing in the principle of associationism which states that connections between words are necessarily brought about by their meaning. Association by sound is presumably as valid

a principle as association by meaning, yet only in very rare cases in the word-association test does anyone respond with a rhyme instead of a meaning. It practically never occurs to anyone to say "fable" for "table", "log" for "dog," "pan" for "man," "ring" for "king," or "collar" for "dollar." If the test is given to a large group of people, a wide variety of different words may turn up without a single instance of a rhyme. Even if the people are asked to give unusual and out-of-way associations, they may think long and hard without coming up with a rhyme. It may be a good sign that they do not, for there is some evidence that if in such a test a person gives too many associations by sound he has begun to lose control of his logical faculties. Be that as it may, the results of such a test show that psychologically the element of sound in the spoken word is almost negligible. It serves merely as a quick clue to meaning. Meaning, not sound, is the important thing. The poet, as compared with the composer, has an initial disadvantage if he wishes to impress upon the mind of his hearers the excellence of his auditory design.

Since the tertiary qualities of music are inextricably bound up with the sounds themselves—indeed it may be said that musical mood and musical sound are one and the same thing—the appeal of music is direct and universal. Nothing needs to be learned or translated. Schopenhauer was profoundly right when he said that the "emotions" of music are given in the abstract, in their full quintessence, without the disturbing distractions of ordinary associations. The sadness of music is not the sadness produced by a particular event, but universal sadness, without accessories or motives or consequences.

Other arts, like abstract painting, may try to imitate music, but the material with which they have to deal suffers in comparison with musical sound. The ordinary layman when confronted with abstract visual design is made puzzled and unhappy by the lack of meaning. The vulgar but irresistible "What is that?" is an obstacle the painter may never fully

overcome. Visual material seems to require a context of meaning, whereas musical sound does not.

If the language of music is universal, it must presumably be understood at all times and in all places. It would be a strange commentary on human nature, and also an embarrassing argument against the present theory, if the grief in the slow movement of the *Eroica* sounded like a paean of joy, let us say to the Koreans. Felt grief is very much the same everywhere, and the bodily basis of joy must be the same for a New Yorker as for a Hottentot. The aesthetic qualities of music are the direct counterpart in tone of the bodily reverberations involved in real emotion, from which it must follow that the identification of those qualities would not go far wrong in different parts of the globe.

Reasonable and self-evident as this hypothesis may be, it would be extremely difficult to give it a fair and reliable test. The first requirement would be to find a group of subjects entirely unacquainted with Western music. Such a group in these days is not easy to come by. In almost all remote places of the world, radio and records have made the local inhabitants familiar with Bach and Beethoven and Tin Pan Alley, just as to some extent an earlier generation in the same regions had learned to sing gospel songs along with their native chants.

Another difficulty is bound up with the very nature of tonal structure, or rather, with the manner in which the ear apprehends tonal designs of any complexity. The ear is a selective instrument. What is "out there" as far as the sounds themselves are concerned is often selectively rearranged in such a way as to obscure certain parts and favor others. Although listening to the same sounds, two people may not hear the same things. If the music is strange or novel, some time may be required to detect the tertiary qualities which the composer has woven into his tonal texture. The appeal of the music may still be direct and powerful, but the interpretation may not coincide with the

composer's intention until selective exploration has exhausted various possibilities of tonal rearrangement. Failure on the part of a Korean to assign the proper adjectives to joyful and to mournful music would not prove that those qualities were lacking in the compositions, unless after several attempts his oriental ear still made no better than a chance discrimination.

If the reader wants a striking demonstration of the selective nature of the ear, let him play over to himself or to friends the music printed below. The task is not to identify the mood of the music, but rather, what should be much easier, to pick out a well-known melody concealed somewhere within the tonal design. It can be said with almost complete assurance that nearly everyone in this country has heard the melody again and again. No note has been altered. What is the melody?

The image shows three systems of musical notation, each consisting of a treble and bass staff. The music is in G major (one sharp) and 4/4 time. The first system has a treble staff with a melody of eighth and quarter notes and a bass staff with a complex accompaniment of eighth and sixteenth notes. The second system continues this pattern, with the treble staff showing a more active melody and the bass staff providing harmonic support. The third system concludes the piece with a final cadence in the treble staff and a sustained bass note in the bass staff.

Very rarely does anyone hear the familiar melody the first time the piece is played, no matter how keen his musical ear. Indeed there is some evidence that the more musical the per-

son, the more difficulty he has in finding the melody. If the reader wishes to try himself out, he should skip the next paragraph until he has given himself the test.

The melody starts in the tenor on the half-note *f*, proceeds from there to the two eighth-notes in the bass, then to the two eighth-notes in the tenor, then in the next measure to the quarter-note in the tenor, then the quarter-note in the soprano, and then the eighth-note and dotted quarter in the alto. From that point on the melody can be easily located.

This demonstration is intended to show the susceptibility of tonal material to organization by the ear of the listener. The notes that make up the melody have not been altered in any way. They have merely been surrounded by different harmony and embedded in the minor rather than in the customary major mode. This alteration in tonal context produces such a novel effect that even the trained musician usually finds it impossible at first to hear the well-known sequence of notes. So it might be with the members of any group, unaccustomed to Western music, if they were asked to identify the mood of what they heard. Failure would not prove that the mood was not there. It might mean rather that some momentarily more salient characteristic of the music obscured the mood.

### III

The present view regarding the relation between art and emotion has made use of some of the principles of *Gestalttheorie*. Sensory forms have important characteristics which are not adequately described by the usual psychological dimensions. They are soothing or exciting or somber, *etc.* These tertiary qualities will eventually find their explanation in the physiological mechanisms of perception. Certain it is that in the meantime they cannot be properly understood by assuming that the emotional qualities of organic sensory material are projected into the sensory forms of audition, as the theory of empathy demands. Each sense department has its own unique material.

The material of the bodily senses is the stuff of emotion. The forms of tonal material, especially when designed by great artists, are so similar to those of the bodily senses that they are best described by using the same words that are also used to describe emotions. Tonal forms therefore seem to have emotional qualities, but these qualities must not be confused with real emotions. The latter exist only in the bodily senses.

Emotions are dynamic, not static. They go on in time and are filled with all kinds of movement. The origin of the word "emotion" illustrates the importance of movement in the subjective experiences to which the word finally became attached. In old English the word was frequently applied to external events: the emotions, meaning the movements, of the troops; an accidental emotion in the center of gravity; a flash of lightning that caused a great emotion in the air; *etc.* Only later was the word used exclusively for disturbances and movements within the human body. The German word *Gemütsbewegung* reveals with equal clarity the manner in which language took over a combination of words that places stress on the role of movement in the experience of emotion.

Music is also dynamic. It goes on in time and is filled with all kinds of movement. Descriptions of music, again selected more or less at random, abound in the use of words that refer to movement.

|         |        |         |
|---------|--------|---------|
| soar    | ascend | surge   |
| mount   | rise   | sink    |
| bound   | fall   | quiver  |
| climb   | spring | throb   |
| descend | shoot  | flutter |

It is appropriate and graphic to call music a language of emotion if that phrase is not taken to mean the arousal of real emotions in the listener. For most people music fortunately has no such capacity. Even if it had, the emotional response could be regarded as no more than an interesting but not par-

ticularly important byproduct. For the great majority of people the intrinsic character of the tonal design itself, rather than any bodily concomitants, is the supreme and unrivalled glory of music. The ears of those who love music are filled with the *form* but not with the material of emotion. In this sense music is the language of emotion, and is unequalled in this regard by any other art. *Music sounds the way emotions feel.*







