

ARTICLE III.

MUSIC, A LANGUAGE.

BY REV. THOMAS HILL, D.D., LL.D., FORMERLY PRESIDENT OF HARVARD COLLEGE.

IN the apocalyptic visions of John we have the mention of books, of lampstands, and other articles of ordinary utility, but nothing concerning statues nor pictures. John Bunyan, in his *Pilgrim's Progress*, has Christiana and her children shown pictures; but it was before they reached the heavenly gates. Nor do I recall any popular representation of heaven which represents its streets adorned with statues, or its halls with paintings. Statues are not needed where the living forms of the greatest and noblest are always visible; nor paintings, where the vision of immortal beauty is never obstructed.

But the popular representations of heaven always include music, and the Revelations of John give the strongest endorsement of this popular belief by their frequent and wonderfully grand descriptions of the music which ever fills the resounding courts above. The reason of this is obvious. Whatever other employment the redeemed souls may have in heaven, it would seem certain that they will take great delight in praising God, and in expressions of their wonder, love, and gratitude; great delight, also, in communing with each other, in that company of the redeemed, in mutual expressions of fellowship and good-will. Increasing knowledge, increasing powers, increasing occupations, — these will give ever new joys; and the expression of that joy, and the expression of mutual sympathy in such joys, must, one would think, largely occupy the redeemed.

Now, music is the most perfect language of the heart; it is the clearest, most definite, most forcible mode of expressing

emotion; and if there be not in heaven that music which is heard with the outward ear, there is, at least, nothing known on earth which can so fitly as music symbolize the mode in which the saints and angels actually do express their feelings.

Most persons are willing to acknowledge, in a vague and general way, that music has the power of expressing emotions. There are styles of music which are recognized as ecclesiastical, martial, song music, dance music, etc. But I believe music to be capable of expressing, with precision and power, every shade of simple and of complex emotion. The majority of hearers receive from hearing the music a correct impression of the more obvious and common feelings thus expressed; while more sensitive and aesthetically discriminating souls perceive the finer shades of sentiment.

In Dr. Darwin's *Zoönomia*, he says, "Our music, like our architecture, seems to have no foundation in nature; they are both arts of purely human creation." He further says they rest "on the caprices that are introduced into our minds by our various modes of education." He referred half the pleasure and all the expressiveness of music to the association of ideas. His followers, in our days, have extended this to include association of ideas in our ancestors, perhaps of very remote generations.

A course of experiments which I have been pursuing, at irregular intervals, for thirty-three years has led me to dissent from this view; and to hold decidedly that the cause of moral expression, or, as our Tonic-Solfaist friends in England say, of the mental effect, of given melodies has not been discovered; that, for example, the reason why the melodic interval of a fall through a minor third produces its own effect, so different from a fall through a major third, has not more been discovered than the reason why one end of the spectrum looks red, and the other blue. Color affects those capable of seeing it in a peculiar way; it has a moral effect upon the feelings. Take a white card, and draw on it two circles; in each circle draw a concentric circle of half the area. Paint the inner circle in one deep purple; in the

other, yellow. Paint the remainder of the outer circles with the same paints; so that you have in one figure a yellow centre surrounded by a purple band; in the other, a purple centre with a yellow band; and in each figure the surfaces of the two colors are equivalent. Exhibit these figures to a class of intelligent students, who have had no artistic culture whatever, and require each observer to write a brief characterization of the effect of the two figures. At least three fifths of the class will, in some form of words, express the feeling that one figure is constrained, depressed, sad, or sober; the other free, cheerful, lively. They are as different in their effects as the major and the minor thirds.

Of course, the two cases are different. Color requires a surface, a visible extent of space, on which to be displayed; while music is wholly built on time. Not only is it wholly, as far as our mental perception goes, built on time; but in its rhythm or form it is built on sensible divisions of time. Color, on the other hand, although really dependent, like tone, on a rhythm of exceedingly small intervals of time, is not artistically capable, like music, of using longer intervals. In nature the longer interval often modifies the effect. The November daybreak and the March sunset may have equal brilliancy of colors; but, as in the one the tone is rising, and in the other falling, the aesthetic effect of the two is quite different.

Time and space are, so far as the human intellect perceives, the only objects that can possibly be co-eternal with the Maker of the universe. If they are thus co-eternal, they were the only object to which he could turn as a material for that creative action which we can figure to ourselves only as "thought." The manifestation of what Paul calls the eternal power and Godhead of the Creator must, then, be made through space and time; and the only phenomenon which combines simply space and time is motion. All visible, tangible, audible phenomena are, therefore, but modes of motion; all the knowledge which men can have of the external world is the knowledge of modes of motion; and all

the knowledge which they can have of themselves, and of mind in general, must be obtained through modes of motion.

But motion requires three things; namely, space, time, and matter; and the trinity of spiritual attributes, wisdom, power, and love, has thus a trinity of modes of manifestation. The eternal thought or wisdom manifests itself most strikingly in geometric forms in space; the eternal love, in forms of time, that is, in rhythms, — explicit, as morning and evening, or implicit, as tone, color, warmth; while the eternal power is shown by the existence of those material atoms through which alone the forms of space and time are united and manifested as modes of motion. In like manner our finite spirits, made in the image of the Eternal, are capable of revealing thought and embodying intellectual ideas chiefly through forms; feeling, through rhythm, or through tones and colors, which are implicit rhythms; power, more strikingly by effects wrought through material agencies.

The duality of the original objects, space and time, leads to a duality in matter; the primary properties, so-called, have a more emphatic relation to space; the secondary properties, a more emphatic relation to time. And, although the trinity of divine attributes, power, wisdom, and love, has a perfect unity in working for one end, and the same trinity of attributes in the human image of the Creator has also its unity of being and action, yet the duality of space and time is re-echoed in the sexes. In woman the sense of time predominates over that of space; in man the sense of space is stronger than that of time. Thus at school the girls are better at algebra, the fundamental conceptions of which are drawn from time; the boys are better at geometry; in art, the boy takes to sculpture and drawing; the girl, to painting and music. The man of genius adds to his perception of space a feeling of time; the woman of genius adds to her feeling of time the sense of space; according to the saying, attributed by Scherb to Plato, that genius is the combination of feminine and masculine qualities in one soul.

Space is more thoroughly objective than time; the con-

templation of forms in space necessarily diverts the mind more or less from self — even the so-called space of imagination being quasi objective ; it is imagined as outside of self. Time, on the other hand, is measured not merely by external motion,—the periods and rhythms of external nature,—but by internal subjective modifications of thought and feeling, which (owing, perhaps, to our being connected with the body, all whose actions are modes of motion) occupy time, and give meaning to our standards of duration. Hence it is, perhaps, that rhythms, including of course the implicit rhythms of heat, color, and tone, touch and arouse the feelings so much more powerfully than mere geometric forms ; while the latter develop more distinct thought. Thought and feeling are, it is true, always co-existent ; we cannot think of anything with absolute indifference ; nor feel, without taking some view of the matter which excites our feeling. But, from the finitude of our nature, these two mental states must also be, to a certain extent, mutually exclusive. The amount of motion possible in a given brain, at a given time, is limited ; when the limit is reached the brain is disorganized. Hence a very deep feeling prevents, at the time, clear and vigorous thought ; and very active thought suspends, for the time, intensity of feeling. The woman's brain, in beautiful adaptation to her maternal needs, is better fitted for emotion ; the man's, in adaptation to his more superficial work, is better fitted for thought. Hence men are generally less adapted to receive the stimulus of color and tone than women.

Human life in its highest perfected form is the control of a healthy organization (of body and brain) into obedience to the divine thought or plan ; and this plan we are trained to recognize principally through the forms of creation in space ; into harmony, also, with the divine love manifested in time ; manifested, that is to say, through the periodicities and evolutions of nature ; and more emphatically through the rhythmic undulations of light, heat, and sound ; in all which I am, of course, only considering the "elder Scripture," but not denying or doubting the existence of peculiar reve-

lations through the Spirit, and through men filled with the Spirit. The pleasure given through the divine love by means of light, heat, and sound is an ultimate fact, incapable of resolution into simpler elements of consciousness. No theory, fanciful or sober, concerning the gradual development and evolution of a human eye through a myriad millions of generations of lower ancestry, can legitimately touch the fact of consciousness, and show why the vibrations of a particular character give that particular sense of color. I believe that theories are equally impotent to explain why certain shades and tones of color are more agreeable to us than others — that none of the theories of association will meet the actual facts of the case.

Nor can any theory tell why vibrations of five hundred million million waves to the second should give a certain sensation of color; those of half that frequency, the sensation of heat; and those of less than thirty thousand a second, the sensation of musical tone. Nor has any satisfactory theory shown us why we know of no sensations due to regular vibrations intermediate in frequency between the shrillest tones of sound and the lowest notes of heat—a range of twenty octaves, imperceptible, so far as we at present know, by any sense. In color the juxtaposition either of pure tones, or of softened and modified tints, produces an agreeable or a disagreeable impression. But who shall say why one combination is pleasing, and another not? or why the sensation of color is as radically distinct from that of heat in the next octave below, as it is from that of sound, thirty octaves below? These are ultimate facts, perceptible to every observer not absolutely color-blind, but incapable of analysis into simpler facts.

Certain facts of music are also ultimate. It is easy to see why the string of a violin should give a tone different from that of a trumpet; but no one can say why either produces the precise sensation which it does. It is manifestly proper to give a slow rhythmic movement to our music on solemn occasions, and it is easy to see why allegro time should give

a more spirited and joyous effect than adagio ; but I can see no force in any reasons given to explain the fact that two tones whose frequency of vibration is in a very simple numerical ratio should give pleasure by their accord, and other tones pain by their discord ; those are ultimate facts. In like manner, the reason why a given musical interval in melody, or in harmony, produces a given mental effect,— that is, has a given character,— has never been explained in any satisfactory manner ; but as an ultimate musical fact it is proved by the experience of nearly all persons who have the slightest musical culture. Every chord has its own character ; every interval produces its own effect, differing in the ascending from the descending movements. The minutest variations vary slightly this character. The modern temperament for the piano assumes to be equal ; but as the tuners always begin with C, and go through the same course of keys, the unavoidable inequalities are distributed in all pianos nearly in the same manner ; and the player who keeps his piano always at concert pitch can tell in what key his neighbor is playing with a piano a full semitone below.

On these ultimate facts — first, the mental effect of the time, whether slow or quick, etc. ; second, the mental effect of intervals and chords ; third, the mental effect of a progression of chords — probably depends the fourth fact, on which I wish to lay particular stress, as also a fact, and a fact of great importance, not resolvable into any other facts except those three ; namely, the fact that a given piece of music, played in correct time, and with the right emphasis, as the composer felt it when it first rang in his imagination, conveys to a majority of hearers a true, definite impression of the composer's state of feeling at the time of the composition, and carries them, for the time, into a state of more or less vivid sympathy with him.

This fourth fact is, I think, not at all to be explained by the modern materialistic theories ; neither is it to be denied and set aside as being not a fact. I was not led to belief in it by *a priori* reasoning, such as I have now been using in defence

of it, but by observation and experiment. A classmate, whom I had known to be still more deficient in musical ear than myself, was one day at my house, when he spoke of the pleasure he derived from hearing a certain lady in his parish play. I immediately asked: "How can you, who have absolutely no ear, who cannot recognize a single melody when you hear it, nor sing in unison with any note, nor tell chord from discord, enjoy music?" He replied that it was the expression of feeling by the music which delighted him. I instantly began experiments upon him and upon other friends who were willing to submit, also upon schools and classes. These experiments have satisfied me that an ear for music is a complex thing, and that one person may have a high appreciation of melody, without an ear for harmony; another may appreciate keenly the sentiment, yet be utterly unable to recall the melody, or detect discord in the harmony; another may readily remember the melody and harmony, and actually reproduce them from memory upon the piano-forte, and yet have little perception of the spirit and meaning of the composition.

The classmate to whom I refer has no memory of even the most familiar airs, and never recognizes one even as having been heard before. He is a man of culture, of high character, of sensitive feelings, of a warm heart and affections, and lively sympathy with noble things; accustomed to the analysis of sentiments; a man, also, of executive ability, and well acquainted with men and affairs. His truthfulness is absolute; and I never have had the good fortune to experiment upon any other person whose analysis of music was so sharply and unerringly accurate.

When Beethoven's "David in the Cave of Engedi" was first announced to be performed in Boston, I went with this classmate to hear it. As we entered the hall I said to him: "K., do you know anything of this oratorio? or did you ever hear of any oratorio written by Beethoven?" He said, "No"; and I replied: "These words are not a translation from the original German, and you must judge of the music

entirely independent of the words." After the oratorio was over I asked him his impressions, and we discussed various passages. "That closing chorus," said he, "was the grandest music I ever heard. While the choir was singing, before the oratorio, Handel's Hallelujah, I thought it very fine. But this closing chorus far surpassed it; first, in sustained dignity and reverential awe; and secondly, in the wonderful impression it gives you of successive re-echoes from other choirs, and then from other worlds, joining in, until the universe rings with the song. The most peculiar difference between the two choruses, however, is, that the music of Handel's is simply direct praise to God; rationalists, even devout heathen, could join in it; while Beethoven's is Christian; no rationalist can comprehend it. It is praise and thanksgiving; but the gratitude is for forgiveness; and what is most peculiar is, that there is a reference in it to mediation; it is thanksgiving for forgiveness obtained through a mediator. Depend upon it, Beethoven must have written it either as a hymn of praise to Christ himself, or else as a thanksgiving for the reconciliation through Christ." I was astonished, and exclaimed, "Excuse me, K, but have you no suspicion or hint?" He assured me that he had none but what the music itself gave. Yet the original words contain the sentence: "Worlds are singing thanks and honor to the exalted Son of God."

The same classmate was at my house one evening; and my wife, in an adjoining room, played various pieces upon the piano, while he, without knowing what they were, gave his impression of their expression. Many of the selections were from Handel's Samson. The opening chorus, "Awake the trumpet's lofty sound," introducing the festival in honor of Dagon, he pronounced full of anticipation, triumph, and joy. The bewildered song of Manoah, "O mirror of our fickle state," he thought uncertain and fluctuating; the theme of "And triumph over death, and thee, O Time," he said expressed "triumph bordering on exultation — triumph with express mention of the things triumphed over, as though

treading them under foot." The opening theme of the same chorus is set for the words, "Then round about the starry throne," the word "then" referring to Samson's prediction of his own death. K. said the air expresses "hope rising on eagle's wings to the very heavens, yet with a reference to a previous state of despair." The Dead March is introduced between a chorus of lamentation for Samson and a bass song of eulogy on him, neither of which was played to K; the march he described as "the utterance of a soul too full of emotion to refrain from utterance, and yet with feelings so exactly balanced that it does not know which to break out into, lamentation or eulogy."

Nor are the great masters alone capable of giving these expressions of feeling through melody. K. has been equally successful in interpreting many other composers; and I could give hundreds of instances in which his success was as real, and in scores of cases as striking, as those above cited. Even my own feeble attempts at composition he has interpreted, without knowing that they were mine, or for what purpose they were composed. My setting of Dr. Holmes's "Flag of the Heroes" he said was "a glorification of the flag, without any allusion to the sufferings by which it was being upheld." My setting of Bryant's "To a Water-fowl" he said was pensive, consolatory, "an exhortation to a lonely wanderer to trust in Providence."

One fine day toward the end of March, thinking of the early flowers which I used to gather in my boyhood, I improvised a little waltz, and afterwards whistled it to K. He said it was "innocent and refined pleasure, mingled with anticipations, like the joy of children looking for the earliest wild flowers." The next day I whistled it to my oldest sister, who immediately said, "It makes me think of going after early wild flowers, with my sisters, when we were children." Sixteen years afterward I was telling this to a distinguished authoress, and she frankly said: "Now, Dr. Hill, you must be mistaken; you confess you have very little ear for music; your whistling confirms it, for your intervals

are so false that it is painful to hear you ; and yet you fancy that you have created a perfectly beautiful work of art." I replied that I made no such claim ; the melody had neither the grace of Rossini, nor the witchery of Mozart, the quaintness of Bach, nor the passion of Beethoven ; but it expressed, rudely, but really, the early spring feeling. Her answer was that I must be mistaken ; it expressed nothing. A few weeks afterward I was at K's house, and, knowing that he could not remember a melody five minutes, sufficiently even to remember that he had heard it before, I whistled, without explanation, my spring waltz ; and he immediately said : " That is the pleasure of children finding the earliest spring flowers."

In March 1879 I went into the high school of Portland, Maine, and met a class of seventy-six pupils, averaging fifteen years and seven months in age. I wrote upon the blackboard the following adjectives : boastful, complaining, confident, despairing, eulogistic, gay, happy, hopeful, innocent, lonely, penitent, religious, sad, saucy, solemn, thoughtful, thoughtless, trusting. Each pupil, being furnished with pencil and paper, was requested to characterize each of the pieces of music which they were to hear by three, or at most four, adjectives selected from those eighteen. A young lady then played to them selections from music which I was confident the members of the class had never heard ; and, to make the more sure that they had not heard it, two of the selections were my own manuscript. The papers being gathered and compared, it was manifest that a clear majority of the seventy-six pupils had received the same impressions from each piece. For example, " To a Water-fowl " appeared to 43 sad, to 35 solemn, to 33 thoughtful, to 31 lonely ; and the Spring Waltz was to 44 happy, and to 40 innocent ; the third element of anticipation was not recognized, apparently, by a majority, only 14 calling the air hopeful.

In June 1879 I went into one of our grammar schools, and tried a similar experiment upon a class of thirty-six girls, with still greater success. I did not, at this time, limit

them to adjectives of my own selection; and the numerical results cannot, therefore, be so precisely stated. The Dead March in Samson was least understood; yet I judged, from what they wrote that eighteen of the girls recognized its wonderful blending of eulogy and sadness. All the other selections, including "To a Water-fowl" and the "Spring Waltz" were satisfactorily analyzed by from twenty-four to twenty-seven of the thirty-six. These results from the Portland schools agree with those which I obtained, many years ago, in the schools of Waltham, Massachusetts. They show, as it seems to me, that the expressiveness of music is not an affair of the imagination, nor of caprice, nor of the association of ideas in the individual mind; but that it is real, and really appreciated by a majority of our community. Few hearers may be able to analyze their feelings, and express in words the emotions awakened in them; but men feel a great deal (and are influenced and modified in character by feelings) to which they can give no verbal utterance.

And herein lies the only real objection to the views which I am endeavoring in the present paper to establish. It seems to some lovers of music that the thesis that music is capable of giving so definite an expression of feeling undervalues music. If Beethoven's music expresses only what the words express, where were the use of composing or performing it? But this objection loses sight of many points in my argument. Antecedent to all reply, I may say, it is a merely subjective objection to a theory sustained by thousands of positive external facts. Nor does the theory claim that the music expresses only what the words express. The music in Beethoven's chorus expresses adoring gratitude to the Redeemer, but expresses it with a power, a majesty, a sweetness that words cannot approach. Words go to the heart by a circuitous route, through the head, where they often fall in with thieves, who strip them, plunder, wound them, and leave them half dead, perhaps incapable of crawling to the heart; but music goes direct to the heart itself, with resistless power. Again, the music has far different and more effective

connotations than the words — connotations arising partly from the inherent nature of the music, partly from associations of idea. Music not only goes to the heart more directly, and with more power, than words, but with more breadth of expression; it stimulates all the sensibilities, and exalts for the time the whole nature of the hearer. Words are all derived originally from sensible, chiefly from visible, images; they retain something of the finiteness of space; they always seem, to a man who is thoroughly awake, too poor to express his highest thoughts; much more, too poor to express his highest and deepest emotions. But pure tone is free from the limitations of space; it is bounded by time only; it is at least half free, as the soul itself is, and thus, in the midst even of its most definite utterance of emotion, suggests, and even awakens, a thousand emotions which it does not definitely utter.

The inferences which should be drawn from the experiments of which I have given a very few are numerous. If music is a language for emotion, it should be recognized as such by teachers and pupils. A certain good teacher in Boston has been in the habit of playing every new piece to her pupils before telling them the name, and making them analyze and describe the expression of it before they began to practise it. If the expression of music is the expression of the composer's state of feeling at the moment of composition, then the programme is of more importance than the names of the artists who are going to render the music. The genius of Joseph Jefferson or of Charles Fechter may give great interest to even a poor drama; just as the genius of Mozart has made an inferior drama immortal by his setting; so that the absurdity of a statue dismounting becomes, in the music, an awful opening of the pit of hell, more full of terror than any word-painting of Dante, making the hearts of sinners tremble and quake in the midst of the gayeties of the opera-house. But in general, it were better to read to one's self a play of Shakspeare than to see the best troupe present the work of an inferior writer. So it is better to

hear ordinarily good players render the works of a musical master than to hear the grandest orchestras and choirs giving inferior music. Sometimes the musical master misunderstands and misapplies his power, precisely as the best authors sometimes write things unworthy of their talents. The public ought, therefore, sedulously to cultivate its own power of judgment, and not be content with music simply because the composer has a great name, or because it is given by good performers.

The Christian church has always taken a lively interest in music, as the Jewish church before it. The traditional intonations in the synagogue worship to-day include many musical thoughts, which, coming from an unknown antiquity, may have been in use in the time of David. The early Christians, being familiar with these scraps of melody in the synagogue cantillations, would undoubtedly use them in "singing and making melody in their hearts to the Lord." In fact, I have recognized in the synagogues the well-defined airs of some of our oldest and most familiar psalm-tunes. The modern development of music took place quite largely in the service of the church; and the clergy in the older establishments have been always solicitous both to improve the legitimately ecclesiastical music, and to exclude from the churches "all light and unseemly music and all indecency and irreverence in the performance, by which vain and ungodly persons profane the service of the sanctuary." In our Congregational churches the oversight of the music is generally intrusted to the parish committee, sometimes to a special committee; and the oversight is not always successful in making the music "the best their circumstance allows." The music to which a hymn is sung ought to be such as to awaken the same feelings as the hymn, or, at the very least, no feelings contradictory to that of the hymn; and the voluntaries and interludes ought, in their character, to be in keeping with the religious services of the hour. That this is not always done is known to us all. For example, I once gave out, on Easter day, the hymn,

“ Christ, our Lord, is risen to-day,
Our triumphant, holy day ”;

and the choir sang it to the plaintive, pensive strain of Pleyel's hymn. In another church I heard the solemn, heart-searching hymn,

“ A charge to keep I have,”

sung to the joy-inspired, joy-inspiring strains of Haydn, “ A new created world.” Still worse, I once heard President Walker, after a very serious, earnest discourse, read this hymn of Wesley's in his old church at Charlestown, when a brilliant organist and excellent quartette sang it to a joyous quickstep of Corelli, light-hearted and free as though it had never heard of duty. The music of that closing hymn not only neutralized the power of Wesley's words, but partly that of Dr. Walker's sermon also. A member of my family, visiting in the country on Sunday, was asked what he thought of their music. He replied that he feared the organist thought more of his lady than of his Lord, since all his interludes and voluntaries had been purely amatory. The country friends could hardly be persuaded that the critic was wholly unaware that the organist was engaged to start the very next morning to go and be married. My classmate K. once told me, when I played *Smyrna*, a psalm-tune, to him, that there “ was no religion in it ; it was simply the billing and cooing of a young married couple.” Yet I know that K. was wholly unaware that the melody was Mozart's, and that it is a bride's song to her husband : “ It beats, it beats only with love to thee.”

When Rossini wrote on secular themes his music was exquisite. His “ *Di Tanti Palpiti*,” for example, is the most graceful and beautiful expression possible of the pleasure of a wanderer returning to a home full of natural beauty and fond recollections. But when he attempted sacred music he was as much out of his element as Thomas Moore in writing hymns. Moore's love songs are perfect ideals ; his translation of the old Anacreontic scraps fuses them into new forms of his own imagination, wholly unlike the Greek originals,

but even more fascinating. But when he wrote sacred melodies, the very best of them have an air about them repulsive to a truly religious soul ; he approaches the All-holy, Inapproachable Majesty of heaven and earth with pretty phrases and quaint conceits which show that he was not thoroughly in earnest. In like manner, Rossini leads Israel out of her cruel bondage into the glorious liberty of the sons of God, not as Moses led them,—by an awful guide of smoke and flame, across a divided sea, and through a great and terrible wilderness,—but by a jingling, merry march, fit only for a parade of light-hearted boys on a holiday—boys that never saw war, and never heard it even described in its dreadful realities. “Depend upon it,” said K., “the Lord led Israel out of Egypt to a very different tune.” In the overture to his Mount of Olives (David in the Cave of Engedi) Beethoven paints, by his wonderful tones the agonies with which our salvation was purchased ; heaven and earth are convulsed in sympathy with the more than royal sufferer ; darkness blots out sun, moon, and stars from sight, in an obscurity into which angels strive in vain to penetrate with unavailing pity ; the listener feels that the burden is too great for human strength, and rests with new confidence on the One mighty to save, who could tread such a wine-press alone. But Rossini takes up the immortal mediaeval hymn, *Stabat Mater*, and attempts also to portray the sufferings of the Crucified One ; the music rises only in one movement to even seriousness ; most of it is sickly, sentimental melody, fitter for Catullus’s lament over his mistress’s sparrow than for the Latin hymn ; and it closes with a rollicking chorus of Amen, fitter for the opening of Belshazzar’s sacrilegious feast than for the close of the most awful scene of all history.

The introduction of such music into the church is sometimes deprecated on account of its associations ; we do not wish to be reminded in our hours of worship of that which we have heard in our hours of relaxation and gayety. But the real objection lies deeper. Undoubtedly it is best to avoid, in

religious worship, music which has trivial and secular associations connected with it. Yet very few — not one in five hundred — of those who sing “Gently, Lord, oh gently lead us” to “Batti, batti,” have any other associations with the air than the hymn which they are singing to it. Nevertheless, in any congregation, a considerable proportion of the whole feel from the music an influence, of which they may be wholly unconscious, disposing them to mistake the true character of a reverent, obedient love toward God.

The duty of well-educated men is to lead, rather than to cater to, the popular taste. Whether in literature or in the fine arts, it requires some cultivation to attain what Paul calls the power to “distinguish differences.” If it were not so, there would be no growth and no progress in our tastes, which would deprive us of a large proportion of our earthly pleasure. Upon those who have learned to appreciate the difference between good writing, good painting, good music, and bad, devolves the duty of attempting to lead others, also, to the same degree of light and knowledge. In music this duty is as imperative as in the other departments. The majority of men, not having learned to appreciate good music, applaud more earnestly the inferior. Let the same choir sing, at the same religious service, the “Hallelujah to the Son of God,” from the Mount of Olives, — which is the grandest composition known to me, — and also some familiar sweetly monotonous melody, like the “Sweet By-and-by,” and, undoubtedly, two thirds of the congregation would be more touched and moved by the simple music than by the grander. But this does not absolve the other third from their duty, nor deprive them of their right, to have the better music brought continually, in its due measure, before the people.

The most important requisite in church music is that it should not express emotions unfit for the sanctuary, such as are expressed by a large proportion of operatic airs and orchestral compositions. But it is almost equally important that it should be the offspring of genuine religious feeling in the composer, that is, actually be of a devout and serious

character. Much of the music in the church and Sunday-school collections of a few years ago was mawkishly insipid, and was well compared to boiled water. It was as innocent of religious feeling as it was of secular passions. Any person of the slightest musical gifts and education could write it *ad libitum*, as easily as a schoolboy writes nonsense verses for an exercise in prosody. The advantage of such music was said to be, that it admitted of any hymn of the same metre being sung to it, and it depended for its expression partly on the words, partly on the way in which the organist and singers rendered it. No players or singers could, however, give it meaning.

In all which I have been saying concerning the expressiveness of music I have assumed that the composition was played and sung in the proper time and with proper emphasis. But the question may be asked, whether an improper rendering in these respects may not destroy or reverse the meaning of a melody. I answer that my experiments have led me to conclude that, in the majority of cases, a false time simply injures, or partially destroys, the effect, but does not usually give a new effect. For example, Yankee Doodle is a trivial holiday march. The organist in Trinity church, N. Y., nearly sixty years ago, played it as the congregation went out from morning service. He played it so slowly that no one appeared to know what it was. Remembering this anecdote, I tried the experiment on K., and repeated it, at different times, with different melodies; sometimes playing slow music rapidly, and sometimes quick music slowly. But in the great majority of instances K. would immediately say, That seems flat and without meaning. Are you not playing it too slow? or too fast? Occasionally a melody would have two distinct expressions; one when given fast, the other when given slow; in which case K. would think them two different tunes.

If the hundreds of experiments which I have made, and which have, almost without exception, given accordant results, prove anything, they show, also, that a performer should

conscientiously endeavor to render the music according to its proper spirit. It is a great mistake in lovers of music to applaud an artist not in proportion to his fidelity to the composer and to the occasion, but in proportion to the manual and vocal dexterity which he displays. It is this which encourages singers and players to take unwarranted liberties with the text, and even to reverse the meaning of a composition, by accelerating the time, or loading the melody with *ad libitum* ornaments. An actor or reader might as innocently change the punctuation and emphasis of his text, and declaim, for example,

“To be ? or not ? To be, that is, the question ?”

If music be not a language, but be merely a highly ethereal intoxicant, and its melodies depend for their expressiveness altogether on association, or on the execution, we may justify ourselves in this misplaced applause of technical skill and neglect of the genius of the composer. But if Handel's genius expresses itself as distinctly as Milton's, in the *Samson Agonistes*, then we ought to hold orchestra and choir and soloist strictly to the interpretation of Handel's feeling, not to the display of their own skill. In music, as emphatically as in the other arts, it is the highest art to conceal the art, and to make the music flow as the natural expression of the performer's own feelings wrought into sympathy with the composer's.

The expression of music lies partly in the rhythm, partly in the quality of tone, in the pitch, in the melody, in the harmony, in the progression,—all which divisions are capable of subdivision, and capable of varied emphasis. Thus the beauty of music, and its expressiveness, varies from the prettiness of a bird's single call note up to the majesty of the wonderful compositions of Bach, Handel, or Beethoven. The power of recognizing the beauty of music and interpreting its meaning varies as greatly. All the faculties of human nature are subject to great variations. This is one of the striking points of our difference from even the highest animals—that our individuality is so much more pronounced.

Undoubtedly a part of the difference between one man's appreciation of music and another's arises from the difference of their education. This must be conceded. It must also be acknowledged that music gives us a very delicate physical pleasure—a higher pleasure than the ordinary pleasure from flavors or odors or textures, but nevertheless a physical pleasure, distinct from the pleasures of the mind or heart.

But these concessions are not to be pushed to the extreme of saying that all the expressiveness of music lies in association of ideas, or that all its pleasure is merely refined physical pleasure. As well might we say of the human face, that it may have regularity of features, smoothness of contour, clearness of complexion, and marvellous contrasts and harmonies of coloring, but that it never can express any moral emotion—never betray surprise, nor flush with anger, nor burn with the longing of love, nor glow with the holy rapture of devotion. We know better concerning the human face; and my numerous experiments have taught me better concerning music. It does not require the education of a draughtsman nor of a sculptor to see the character of a strongly marked face; nor does it require any musical education to recognize the sadness of a dirge and the light-heartedness of a jig.

William Gardiner's theory that music is founded upon hints given in natural sounds is doubtless true. Yet musical art has wrought up forms of vocal and instrumental expression which so far transcend all these natural sounds that it is but idle dreaming to suppose that their expressiveness is the result of the association of ideas—associations formed in the experience of mankind millions of centuries before polyphonic music was invented. In the highest forms of music expression is given to feelings which transcend all narrowly physical, natural bounds. The expression is according to natural law, and the feelings are natural, but not according to the view of nature which makes man a merely material organization. In that closing chorus to the *Mount of Olives* Beethoven expressed through music (and K. cor-

rectly interpreted the expression) feelings which transcend the bounds of flesh and sense, and lay hold on infinite and eternal verities. The theory vanishes before the facts.

The denial of the reality and intellectual nature of beauty seems to me the denial of religion. The Hebrew word for beauty is splendor, refulgence. God is light; and the boldest speculations of modern physicists present the view that light is physically the primal fact of creation; that all the phenomena accessible to human sense are the result of invisible rays of light pouring in from sources infinitely beyond the reach of the telescope. The Greek name of beauty is order and symmetry; it is their synonyme for the universe. The universe is the embodiment of order, the incarnation of beauty, the realization of co-ordinating, harmonizing thought. Our own word "beauty" has a long genealogy; but it is of the same parentage, and originally of the same meaning as the word "bounty," and thus points, although obscurely, to the All-bountiful Goodness. The denial of an intellectual element in beauty, capable of expression in an appropriate language, is, therefore, a virtual denial of the light, the order, harmony, and goodness of the creation.

Man's intellect is not competent to grasp at once the whole complexity of the order of the universe. But that there is a universal order is manifested by every new discovery of science. Science, in fact, busies herself with but one problem — to discover that order, to make manifest to human eyes the harmony, the simplicity, and beauty of some part of the physical world; that is, of some part of God's embodied thought. But art and religion take a higher office than science; they seek, with partial success, to unfold the moral purpose, the essential meaning of the great work of creation; while science is engaged upon its mere grammar and philology. The landscape, says Emerson, belongs to the poet whose eye can integrate the parts. When a painter gives us an ideal head, embodying the character of some great historical personage, with such force and beauty that every beholder is at the sight thereof lifted into sympathy

with the hero's greatness, and, for the time being, ennobled as if in the presence of the living man, it is evident that the painter has studied the human head to good purpose. Yet he may not be able to tell you anything about the sutures of the skull, the membranes which line it, or the brain which it incloses. Beauty has spoken to him in the faces of noble men of his acquaintance, and he has endeavored to transcribe some of her sayings upon his canvass. Thus, also, when Beethoven wrote that chorus, he was not thinking of modes and keys, chords and progressions; there was no conscious thought employed on rhythm or tone, much less, on the intricate arithmetical problems of harmony. On the contrary, his head and heart were full of but one theme, to which the dramatic action of his oratorio had led: Christ had suffered in the garden, and was being dragged to the judgment-hall and to the cross; the attendant angels here saw the beginning of the end; the death, the resurrection, the ascension, the eternal reign of glory, the salvation of myriads in future ages — these rushed upon their view; they burst into that immortal song; Beethoven heard it, and wrote it down for us.

These things are the great realities of human life; and it is a matter for deep sorrow, or for indignation, that any men should deny their existence, or should attempt to belittle them, either by reducing them to petty associations of ideas, with the pleasures of infancy, satisfying its hunger, and nestling on its mother's breast; or by making them in themselves merely a refined physical pleasure. Beauty, goodness, and truth are the great realities of life. The perception of beauty, even in its lowest forms, is a perception by higher powers than those of sense, for it is the perception of that which transcends all sensation; beauty, even in its lowest forms, is the incarnation of law, of intellectual order and harmony, and therefore requires intellect to perceive it. In its higher forms beauty is the incarnation of the higher sentiments of justice, adoration, and love, and therefore requires a heart and soul to perceive it. The blindness of those who

fail to see it does not confute the testimony of those who see. Some of those who fail to see it are unconsciously confirming the testimony of those who do see it. That which for ages has been deemed beautiful is, in some cases, shown by modern science to conform to peculiarly simple laws. For example, musical taste has gradually dropped almost altogether every mode except the major and the minor, and has shown a strong tendency to prefer the former; but it was not until quite recently that mathematical investigation has shown that the musical world has therein for ages been following strictly arithmetical laws; that major harmony presents the greatest variety in the greatest simplicity; next comes minor harmony; and then, by a longer interval, the other old modes. Here is a demonstration that the sense of beauty is a faculty of appreciating intellectual law, independent of conscious intellection; it is, in fact, unconscious intellection, always the highest form.

The world is the product of divine thought, prompted by divine love; therefore it is full of beauty. Science feeds the intellect, and gives us a refined pleasure in our analysis of the visible forms and movements of nature. But beauty steals in upon us with most power through those rhythmic pulses which separately elude the senses. Their existence in the vibrations of light, heat, and sound, and their numerical relations, in which their harmonies consist, are revealed by the searching intellect of science. But their effects, the harmonies themselves, the moral expression and power of their combination — these are perceived by the heart; they appeal to the affections, and are felt by capacities almost independent of the intellect. They speak to our heart; and, I would say it with reverential awe and gratitude, their voice comes from the heart of God; it is the utterance of his unfathomable love. Every moment that I am surrounded by the beauty and glory of the universe, every moment that my ear is filled with its exquisite melodies and harmonies, I am bathed in the all-surrounding love of God, sustaining, leading, blessing all his children — that immeasurable love

whose highest manifestation was in Gethsemane and on Calvary. What thanks are worthy of such love? The thanksgiving of a perfect obedience and of a constant consecration would leave us still in immeasurable debt to Him whose service is perfect freedom and unutterable joy.

ARTICLE IV.

PASCAL THE THINKER.

BY PROF. JACOB COOPER, LL.D., RUTGERS COLLEGE, NEW BRUNSWICK, N.J.

To direct the thoughts of cultured minds is the highest prerogative of human intellect. And whether this be effected by original ideas, or the presentation of such as have already become trite in a form which compels attention, the impress of the master workman is equally apparent. For it requires as much grasp of mind to form striking combinations from ideas which have long been common property as was required for their first elaboration.

The exercise of abiding and controlling influence upon thinkers falls to the lot of but few. Indeed, there have been more Alexanders, Caesars, and Napoleons than emperors in the realms of thought. Many, it is true, have aroused the attention of their contemporaries, and have powerfully directed the spirit of their age. But this is usually owing to a happy combination of circumstances bearing them along on the highest wave of a revolution in the minds of men. This may be seen particularly in the case of popular authors and statesmen, who have shrewdness enough to divine the public taste, and sufficient pliancy to shape their own course accordingly. Such are the product of their age, but one that is perishable. They have no influence in moulding public opinion, but are its servile creatures. Hence their influence does not extend below the surface, and when the seething and froth settles all their greatness has evaporated. An