

## **Dramatic singing physiologically estimated / by Walter Hayle Walshe.**

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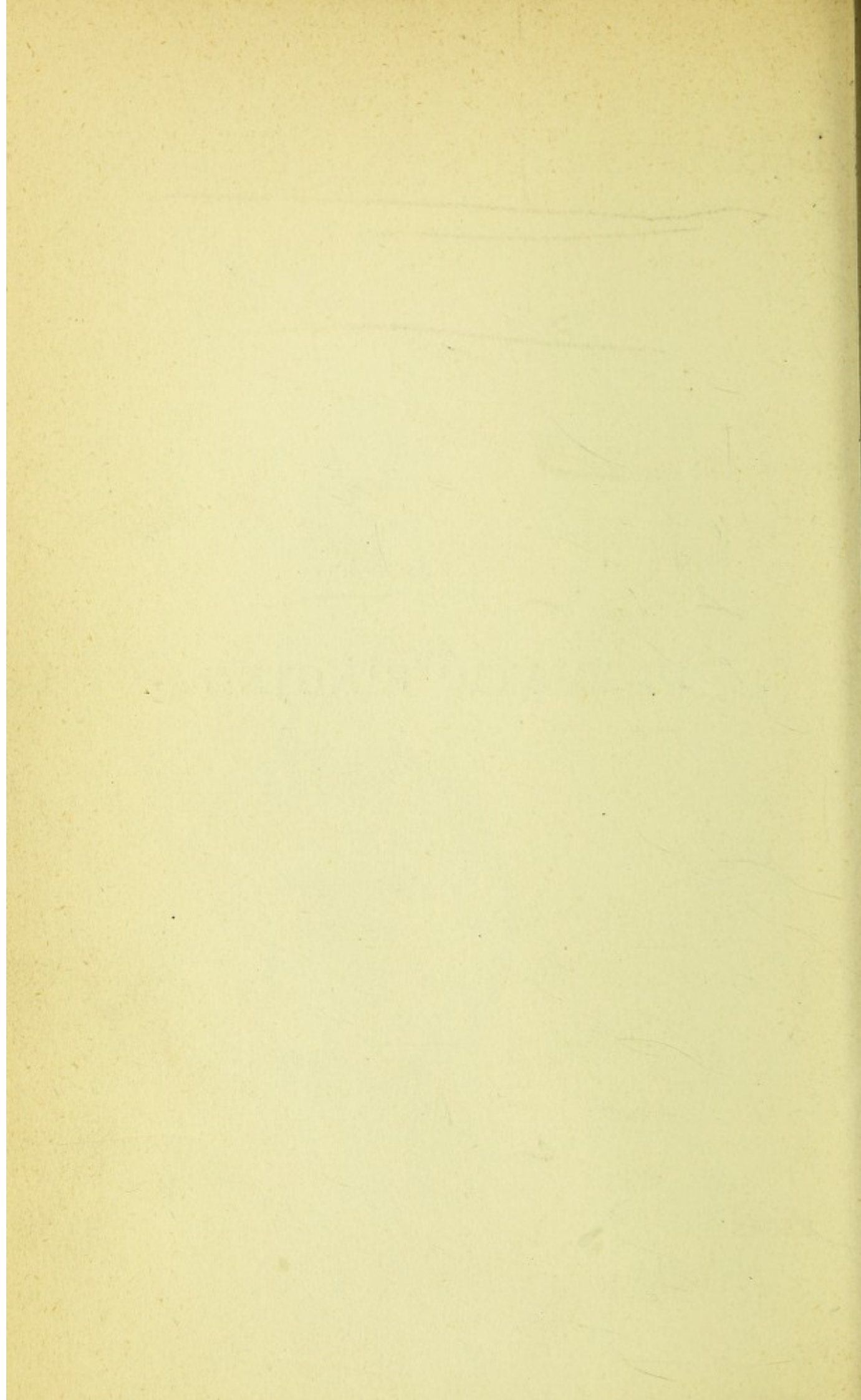
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# DRAMATIC SINGING







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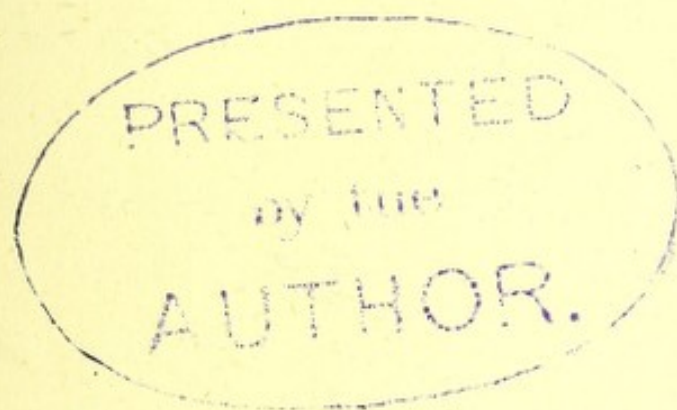
# DRAMATIC SINGING

*PHYSIOLOGICALLY ESTIMATED*

BY

WALTER HAYLE WALSHE, M.D.

ARS LONGA . . . JUDICIUM DIFFICILE



LONDON

KEGAN PAUL, TRENCH, & CO., 1 PATERNOSTER SQUARE

1881

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## PREFACE

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THE SCHEME of the following little work, first thought of some years ago, was fixed on during convalescence from a recent illness, when its arrangement played a pleasant part in beguiling long hours of tedium. And the writer has been induced to place himself in the printer's hands with the idea, it might not be disadvantageous to give publicity to a plan, whereby visitors to the Opera, technically uninstructed, should be helped to analyse profitably their impressions. He further hoped the appearance of his tentative essay might lead some one of musical attainments to undertake a more ambitious treatise of the kind ; and it likewise seemed worth showing how naturally one of the most fascinating of the fine arts falls within the scope of medical study.

The short physiological and acoustic details, introduced mainly for the purpose of proving the



wideness of the issues involved in estimating any given element of the singer's art, will, it is trusted, prove otherwise not devoid of interest, from the glimpse they afford into a few of the intricacies of vocal mechanism,—intricacies some of which are still far from being thoroughly unravelled.

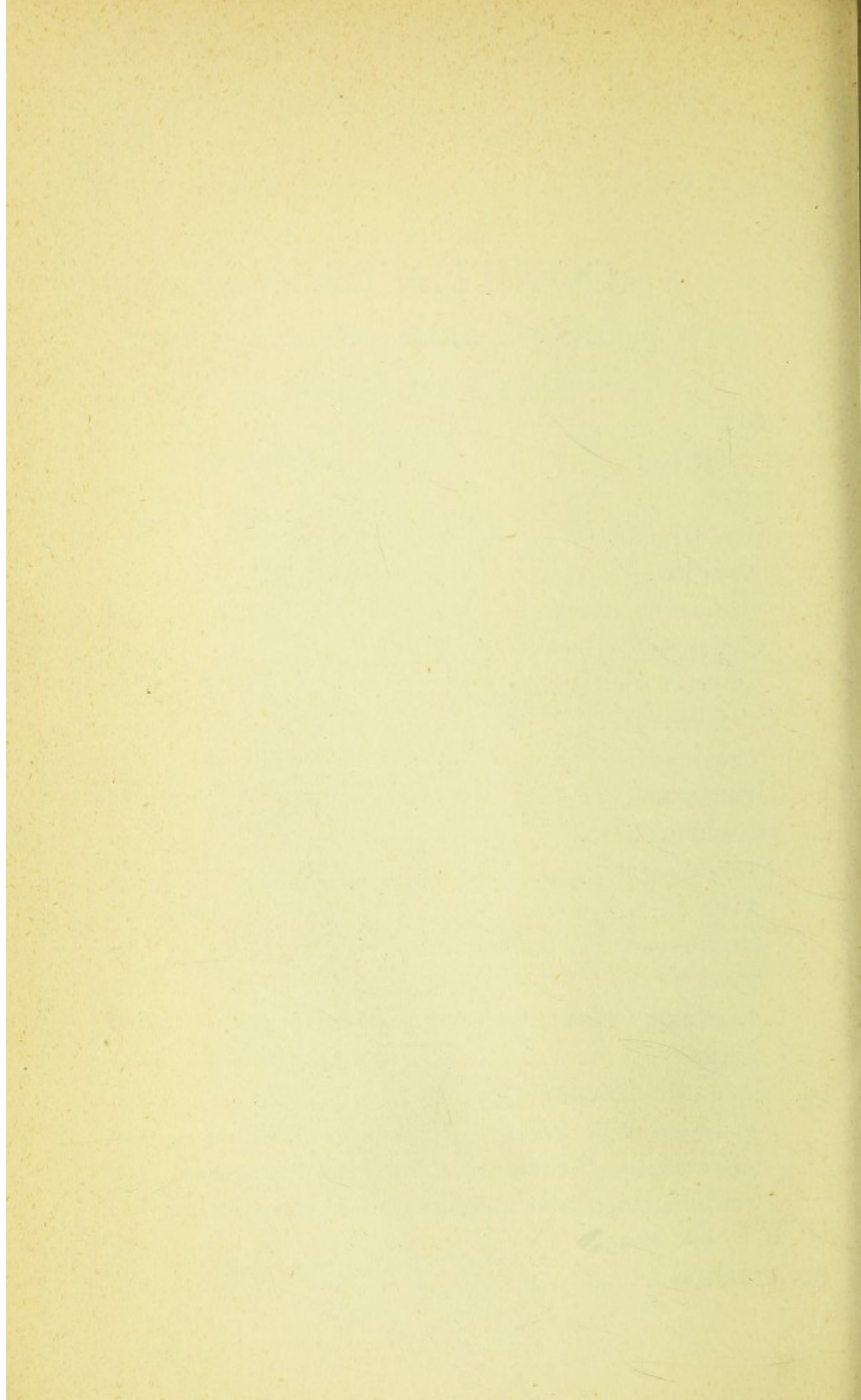
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# DRAMATIC SINGING.

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## INTRODUCTION.

A LIGHT soprano, who some years ago created a quasi-furore in the parts of Maria in 'La Figlia del Reggimento' and Violetta in 'La Traviata,' cannot yet have faded from the memory of London opera-goers: Piccolomini, the artist in question, decisively made her mark of a certain kind even with qualified critics, while she yet more positively managed to captivate the *jeunesse dorée* of the hour, and excite their commonly languid enthusiasm beyond all intelligible bounds. At a dinner party, where the popular operas furnished as usual the staple food for talk, one of this gilded class, true to its accepted creed, broke out into the habitual transports in describing the performance of the preceding night: 'Most charming singer ever heard; twenty times better than Grisi, Viardot, or anyone past or present!' The justification of this extravagant preference being



inquired for, the musical dilettante, at first taken sorely aback, managed at length, after *hums* and *hahs* innumerable, and strong pressure from the inquisitive audience, to reveal as the *raison d'être* of his passionate eulogies, 'she's such a nice compact little thing!' Insensible to titters, impervious to jeers, the sapient youth expatiated on his theme—ever the same, 'pretty, plump, compact, charming,'—'only this and nothing more.'

Again, a tenor of great mid-European repute, and possessed of some very resonant and telling upper notes, pleased and displeased, puzzled, our operatic world for two or three seasons some short while past. The writer of these pages, happening one day at the Crystal Palace to hear 'Il mio tesoro' delivered by this performer in a fashion which appeared to him to the last degree technically defective, was astounded by hearing at the conclusion of the aria (instead of the anticipated hisses mingled with some charitable signs of faint approbation) a storm of enthusiastic and prolonged applause. An acquaintance of the writer's, who happened on the same occasion to sit close to the orchestra, afterwards mentioned he had heard one of the band say to a neighbour, 'Well! if I didn't know my business better than our friend the tenor, I should be ashamed to take my salary.' And this was the executant in whose honour the



οἱ πολλοί almost rent the roof! Here the ground of popular admiration assuredly lay not in the personal attractiveness of the individual, but in the forcible utterance of two or three full-bodied, high-pitched tones at the close of a disastrous delivery,—the *beau moment* more than counterbalancing the *mauvais quart d'heure*. There was something more of musical excuse for enthusiasm in the notes of the tenor than in the plump configuration of the soprano,—but in both instances an equal want of the simplest æsthetic discrimination.

Now, while thinking over illustrations of this kind (they might be multiplied *ad infinitum*), showing the irreflective and illogical manner in which opinions are formed concerning dramatic singers, it occurred to the writer, that were an analytical table of the constituents of operatic singing supplied to persons devoid of musical education, they might, by employing it in individual cases, be enabled to determine the mechanism and gauge the justness of the effects, agreeable or the reverse, produced on their emotions and intellect by music declaimed or sung. It appeared to him also that the habitual use of such a guide might, after an humble fashion, help to produce and educate taste, and generate the faculty of comprehending almost intuitively, and yet on physiological principles, what is, and what is not, good singing.



No doubt there are organisations on which all attempts of the kind must prove purely abortive; people who would listen to the quartet in 'Rigoletto,' or the sestet in 'Lucia,' uttered by gifted artists, with not a whit more or less pleasurable feeling than they would hear a couple of barrel-organs growling forth different airs simultaneously, lie beyond the pale of possible help. Nature has unkindly bestowed on such persons a locally defective brain, and so deprived them of the power of enjoying one of life's choicest delights,—for them tone, melody, and harmony must ever remain meaningless words.<sup>1</sup> But among the masses, musically uninstructed, there is always a goodly proportion endowed with the aptitude of being captivated by melodious phrases, though incapable of defining wherein lies their charm, or of analysing the mechanism of the gratification they convey. That people of this stamp are numerous enough in any large mixed assemblage is every now and then amply proved. Who can doubt their existence, that chanced to be present at the first appearance of Lassalle at Covent Garden, when an audience,

<sup>1</sup> That the defect is cerebral, and not seated in the auditory nerves or internal ear, is proved by the fact that the hearing faculty for mere sound may be as perfect in these persons as that of the orchestral conductor, who can detect the slip of a single note damaging for an instant the harmonic proportions of the mass of tone under his control.



quivering with delighted surprise, interrupted him in the midst of his first aria in 'L'Africaine,' and forced him, in defiance of all æsthetic propriety, at once to repeat the opening movement? It may be fairly said, his hearers, as a body, measured with instantaneous grasp the grand gifts and finished art unexpectedly revealed to them. Take again the instance of Alboni's melodious first utterance to English ears of Arsace's recitative, 'Eccomi alfin in Babylonia:' the entire audience with surest instinct pronounced its verdict before a dozen bars had escaped her tune-ful lips. Now recognition of this stamp indicates an amount of dormant critical skill very superior to that shown by the operatic *habitué* in applauding well-known music, sung by well-known artists, whose every point and every beauty have become more or less familiar. Probably to ninety-nine hundredths of their audiences the very names of Alboni and Lassalle were unknown, when those artists first appeared at Covent Garden.

For this class of persons then, who feel lyrical art, but fail to recognise why they feel it, these pages are intended,—as an humble attempt to make their enjoyment yet greater, because more discriminative, than that actually experienced. And a design such as this may be the more readily pardoned on the part of a non-technical outsider, because as matter of ex-



perience little aid is to be expected in the way of guidance to sound judgment concerning any given singer by applying to persons who are themselves lyrical artists, and who ought to be by far the most competent instructors. Jealousy habitually warps their judgment. As observed by Galton: 'there is excessive jealousy in the musical world, fostered no doubt by the dependence of musicians upon public caprice for their professional advancement. Consequently, each school disparages others; *individuals do the same.*'<sup>1</sup>

Doubtless objections may be made to any project of the kind. It may be said, and with no little cogency, that prejudice, fancy, facile enslavement by personal charm, coupled with idiosyncrasy of taste and feeling, will outweigh all argument, and scatter to the winds the clearest physiological proofs that this singing is good and that other bad. A hope may, however, be fairly entertained that these and similar obstacles to critical interpretation might be gradually got rid of through the adoption of a method such as that about to be proposed,—a method which, it is

<sup>1</sup> *Hereditary Genius*, p. 237. Nor can we forget Byron's phrase concerning the luckless buffo and tenor chained together in the pirate vessel:—

These two hated with a hate,  
*Known only on the stage.*—*Don Juan*, c. iv. st. 93.

Only on the stage? To be just, what of the *odium theologicum*?



emphatically conceded, might be rendered much less defective by handicraft more musically skilled than the writer's.

A scheme of the kind may furthermore be possibly charged with tending to encourage a spirit of hypercriticism. The writer anticipates, as by no means improbable, he may be contemptuously likened to the critic who measured the merits of Garrick's soliloquy with his stop-watch. But by putting the wrong instrument in the wrong place Sterne settles no question of art or criticism. And it would be difficult to prove by any amount of similar jesting, that the habitual analysis of vocal data need lead to ridiculous severity in critical examination.

Cicero somewhere, in a hackneyed but wise passage, insists on the importance of beginning all discussions with a clear conception of the thing to be discussed. In the spirit of his advice then, let it first be settled, what is dramatic singing? Now intra-laryngeal vibrations, strengthened and supplemented *in transitu* outwards, are equal *voice*; voice articulated is equal *speech*; voice modulated is equal *tune*; voice modulated and articulated is equal *song*; and voice modulated, articulated, and modified to express sentiment, emotion, and passion, is equal *dramatic singing*. And the essential elements of



every operatic singer's art, are voice, vocalisation, and the dramatic management of both: the latter being kept carefully distinct (a distinction by no means always easily effected) from any display of purely histrionic skill connected with vocal delivery. Thus the mere acting of Faure in Mephistopheles, of Patti in Giulietta, of Mario in Raoul and Almaviva, of Viardot in Fides, of Ronconi in Rigoletto, and Chevreuse, and the elder Foscari, however admirable, would obtain no numerical recognition in this scheme.

Now the first thing the listener requires to learn is the distinction of these three different elements. A man may be grandly endowed with voice, but be a wretched singer (*vox et præterea nihil*); while, *vice versâ*, a larynx scarcely capable of intoning with vigour the simplest phrase, may possess a vocalising charm that largely compensates for the defective power of phonation.

The main component elements of lyrical art being thus identified, each of the three requires to be resolved into its sub-elements. These sub-elements being ascertained (an easy task enough), the next step is to determine their several positions in a scale of relative importance: here the perplexities of the problem begin to be felt. But, admitting for the moment that these relative positions are determin-



able, can they be furthermore precisely fixed by the assignment of a numerical value to each sub-element. The difficulty here greatly increases. It is in truth plain, the assignment of such values must be more or less arbitrary: no demonstration can be given to what degree, if at all (assuming that an individual is singing an unaccompanied solo), perfect intonation, for instance, should have a greater numerical value than sympathetic quality; or that level power of resonance should rank below the possession of a few abnormally full-toned high notes, or *vice versâ*; it may even be said that, while the assignment of such superiority at all must be a matter of pure fancy, degrees thereof must *à fortiori* lie absolutely beyond the pale of the rigid determination implied by the use of figures. But in truth these are questions precisely *sub judice*: the attempt to settle the point has never been made. And just as numbers have been found useful in establishing general truths in practical medicine, in moral and political philosophy, nay even in anatomising some of the conditions of genius (studies till recently assumed to be totally unfitted for the employment of figures), so numeration may prove of utility within the province of lyrical art. And after all, the use of numbers must enforce analysis on the part of the listener, even if it fail to supply accurate standards



of relative merit: and assuredly, if accepted in this limited sense, the scheme proposed cannot be accused of aiming at an amount of precision to which the subject is inherently antagonistic.

If then it be conceded, that numerical values may with a reasonable amount of correctness be assigned to each main vocal attribute, we have obviously at command an easy means of estimating the relative merits of different singers; the sum of values need only be ascertained in the cases of any two or more we desire to compare.

In the empirical attempt to fix the various values, zero will be taken to represent an ordinary medium of each vocal attribute, such as all trained voices, having pretensions to dramatic fitness, ought to possess; degrees of extra perfection will be marked by *plus* numbers; of imperfection by *minus* numbers. These numbers must, besides, each be limited to a maximum and a minimum, otherwise some special endowment or some special defect might in the case of any individual singer be capriciously assigned a higher or a lower value than that fairly its portion.

To proceed now with the various elements a moment since referred to.



## I. VOICE.

The essential attributes of dramatic singing voice are :

- (a) Compass, range or extent ;
- (b) Volume, power, mass of tone, strength of musical loudness in level and in passionate singing and declamation ;
- (c) Sustained power ;
- (d) Equality of power through the entire vocal range ;
- (e) Quality or timbre ;
- (f) Tellingness ;
- (g) Certainty ;
- (h) Freshness.

(a) *Compass, Range, Extent.* Voices, as is familiarly known, are given different names according to their range : those of the female being styled soprano-sfogato,<sup>1</sup> soprano, mezzo-soprano, and contralto ; of the male, tenor-contraltino,<sup>1</sup> tenor, baritone, basso, and basso-profondo.<sup>2</sup>

<sup>1</sup> Varieties of soprano and tenor voices mounting higher in the scale than ordinary specimens of those ranges by excess of falsetto tones. Such sopranos ought to be able without sensible strain to sing *Astrafiammante* in the ' *Flauto Magico* ;' such tenors, *Arturo* in the ' *Puritani*.'

<sup>2</sup> Alto singers are not specially distinguished, as they are persons with a more or less grave chest voice, possessed of unusual facility



Now can any one of these voices be fairly placed higher than the rest in a scale of excellence? From one important point of view certainly not: they are all, or may be all, equally essential to the perfect *ensemble* of an opera. The contralto range has thus its claim to as good a position as the soprano: the baritone as the tenor. Doubtless the abstract beauty and the rarity of some varieties of voice would appear to justify their taking superior rank to the rest. If in truth the rarity of a vocal endowment constitutes a sufficing claim to extra artistic value, the voice of a tenor or of a dramatic soprano ought to count numerically notably higher than that of a baritone or a light soprano: the two latter classes of voice abound; the two former are scarcely to be met with. Especially in the production of the noblest forms of tenor voice—possessed at once of the requisite range, sympathetic *timbre*, and real power and volume of tone—the right hand of nature seems to have lost its cunning. Nothing of the highest stamp has appeared since the departure of Mario. Italy, the land which, in addition to Filicaja's 'dono infelice di bellezza' was, like a spoiled pet, granted by nature the further gift of generating and nurturing with its balmy atmosphere the finest developments of tenor

in the use of the falsetto register. In one point of view they are assimilable to the Tyrolese jödlers.



voice, seems to have lost its quasi-monopoly, and become as incapable, as the harsher regions of the North, of their production.<sup>1</sup>

But in a scheme of the present kind the fairest claim to numerical superiority must turn upon the possession of a more extensive range by a given voice, than the average belonging to its particular class. Tenors must be compared with tenors,—contraltos with contraltos, &c. He, or she, that possesses a certain number of tones beyond his or her vocal peers, is, *pro tanto*, an exceptionally gifted person.

Now the usual extreme of a well-trained singing voice falls within from two and a quarter to two and a half octaves of really effective force (touching a note and genuinely using it are two very different things),—the female range being, as a rule, somewhat more extensive than the male. But Nilsson is credited with three octaves minus one note, the two sisters

<sup>1</sup> ‘*Le Roi est mort . . . vive le Roi!*’ Men are always thus fortunate in their grosser idols. They can make them—finding a king, if need be, at the sheepfold or the plough. But nobody, by taking thought, can manufacture a Mario. That sort of idol comes as it listeth—we know not whence, nor how. And it was a Mario we lost last night—a genius, that is to say, whose place being empty, is *likely so to remain*.’ Thus sagely prophesied the *Daily Telegraph* (July 20, 1871) the day after Mario’s memorable retirement. The tenor of the future will, indeed, be a precious art-jewel, if the views recently advanced by Dr. Delaunay are really based on ascertainable fact. He maintains that the kind of voice ‘prevalent among the early male populations of Europe was a high tenor, which has gradually fallen to the baritone pitch, now characterising the masculine



Garcia (Malibran and Viardot), Cruvelli and Adelina Patti, with three: Catalani is said to have possessed three and a half. Bastardella (heard by Mozart at Parma in 1770), also commanded three and a half octaves,<sup>1</sup>—the highest note marking nearly 2,000 vibrations per second, while the usual possessors of well-developed soprano range, only reach  $E' = 1,305$ .<sup>2</sup> Carlotta Patti is probably, in respect of height reached, one of the most exceptional soprani-sfogati ever heard, singing, it is said, G sharp in alt. Catalani is traditionally believed to have reached the same height within a semitone. Dr. Bennati, the very remarkable amateur tenor, managed by careful training to secure himself three useful octaves, including the falsetto register.<sup>3</sup> The chest C sharp in alt of some exceptional tenors equals 544 vibrations per second, and if a voice thus endowed superiorly, begins inferiorly at  $G = 98$  vibrations, as it occasionally does, the *chest-range* commands a total of two octaves and four and a half notes, the difference between the number of vibrations per second of the highest and lowest notes equalling 446.

voice of civilised mankind,'—a *pitch destined*, as he opines, *to fall yet lower in time to come*.

<sup>1</sup> Blaserna, *The Theory of Sound in its Relation to Music*, p. 69 (International Scientific Series, vol. xxii.).

<sup>2</sup> The greatest number of vibrations per second marked by the piccolo exceeds 4,700.

<sup>3</sup> Bennati, *Mécanisme de la voix humaine*, p. 53. Paris, 1832.



Of the two registers, chest and falsetto, it may be said, the greater the relative extent of the former the higher the artistic value of the voice,—this holds especially true of the male sex. Thus a tenor touching a falsetto C sharp in alt is a singer of ordinary type; whereas the power to deliver that note resonantly from the chest is so rare a gift, as to have proved a fortune in itself. Nor can it be denied that, although the merits of the achievement have been overrated, the note does bear with it a certain startling charm (as in the duo in 'Otello,' or the 'Suivez Moi' in 'Guillaume Tell'), and justifies a lift in the scale of merit. And yet it is perhaps the novelty of the impression on the ear, rather than the intrinsic grandeur of the note, that gives the sensuous gratification experienced. The splendour of the full-toned, resonant, massy and melodious B flat delivered by Mario in the duel scene in 'Les Huguenots,' does not pale in memory side by side with the C sharp of other tenors.<sup>1</sup> On the other hand, a tenor lavishly employing his falsetto register, and trusting to this for his main effects, almost loses his claim to a place among true tenors, and becomes a tenor-contraltino. In such

<sup>1</sup> It is matter of operatic tradition that Rubini broke his collar-bone in a violent but successful effort to deliver this very B flat in a recitative in Pacini's 'Talismano;' but here the singer had the special difficulty to contend with, that the musical phrase started with the note.



voices the chest-register is generally deficient in volume and resonance, and they must musically, as well as physiologically, take a lower rank than genuine tenor organs.

A character of no mean importance belonging to the present head is the ability, or the inability, to repeat more or less frequently in immediate sequence, without failure of power or steadiness of phonation, a note or notes lying at the extreme of a vocal range. Many an amateur tenor, for instance, can produce from the chest an excellent F sharp or a G, even a fairly full-toned chest A; but to repeat the note or notes a considerable number of times in succession proves impossible to a commonplace singer, unless at the sacrifice of fulness of sound or even perfect intonation. Nor can a voice of the kind produce an air largely composed of various notes in the highest portion of its range, unrelieved by intervening occasional falls of tone, without more or less painful strain. The simple ballad, 'Oft in the stilly night,' furnishes a good illustration. Even public singers of good tenor range often prove incapable of delivering this air in the original key without manifest effort.

Nothing can be more remarkable than the degree to which a very slight difference in the concert-pitch facilitates or obstructs the play of voices. A reduc-



tion of half a tone will often enable an ordinary singer to get through an air without difficulty, which he proves wholly incapable of delivering in perfect tune—or delivers only with serious struggle—before that trifling fall had been effected. But even the greatest dramatic singers keenly feel difference of pitch, even such as this, in the execution of an opera; and hence the tendency which has been exhibited, especially in this country, to gradually raise concert-pitch is highly objectionable.<sup>1</sup> Not only does this sacrifice to brilliancy tend to diminish and even annul one of the greatest charms of vocal delivery—*perfect facility*, but it helps to wear out voices prematurely. The utterance of all the music of any given operatic part at half a tone higher or lower implies a very serious difference in the amount of work thrown not only on the intrinsic and extrinsic muscles of the larynx and the vocal cords, but on the whole supra-laryngeal resonance-apparatus. This truth has at last been recognised in England, the former Covent Garden pitch (A, second space treble clef=455 vibrations) having been lowered a semi-

<sup>1</sup> In a lecture by Dr. W. H. Stone on the *Causes of Orchestral Rise of Pitch*, which the writer had the pleasure of hearing, while these pages were in preparation for the press, that accomplished amateur ascribed the peculiar disturbance to: first, excess of true fifths over octaves; secondly, the effect of heat on the instruments; thirdly, the difficulty of hearing slow beats; and fourthly, the predominance of sharp notes.



tone last season (1880). Even the brilliant voice of Patti seemed to have gained fresh power and her vocalisation renewed facility by the change.

A voice forced up artificially (as a contralto to a mezzo-soprano or this to a soprano, or a baritone to a tenor) always betrays in the superadded notes a want of volume, and a relatively defective, non-descript *timbre* in the new or artificial range. There seems reason to believe, too, that in the attempt to acquire notes unnatural to the individual, the natural portion of the voice undergoes impairment in *timbre*, if not in power. It is said this was true of one of the grandest lyrical artists of the period, Viardot, and that her contralto range would have been finer in *timbre* had she never striven after the soprano. Hence in a numerical valuation, portions of super-added range (the result of praiseworthy labour though they be) must count less than the same notes, if an original part of the voice.<sup>1</sup>

On plain physiological grounds all attempts at forcing up a voice (and from the dearth of tenors and the abundant supply of baritones, the practice is

<sup>1</sup> It is stated (Pinsuti, *Hints on Singing*, p. 11) that Mario 'up to a certain age sang as baritone;' but this happened, it would appear, from the true nature of the voice having been misconceived by teachers. No forcing-up process was ever adopted in his case; and his first appearance on the lyrical stage is always supposed to have been in 'Roberto.'



likely to become more and more common) must be injurious to the vocal organs. The effort, in truth, implies a forced change in the span of vocal cord habitually employed; a modification of natural muscular action; and a change in the amount of vocalising play, upward and downward, of the windpipe normal in the individual.

Excess of compass beyond the average standard, in an upward or downward direction, signifies large dimensions of the larynx, coupled with unusual activity on the part of the laryngeal muscles, enabling them to shorten or lengthen to an unusual extent the vibrating portion of the vocal cords. There are various subsidiary conditions at work; some of these will be referred to further on, in connection with the mechanism of falsetto,—others are undetermined.<sup>1</sup>

<sup>1</sup> Bennati (*Mécanisme de la voix humaine*, p. 49, Paris, 1832) relates a curious case in which a tenor student *lost*, through enlargement of the tonsils, two chest-notes and *gained* five in the falsetto range. After reduction of the tonsils without operation, the patient *recovered* his two lost chest-notes, unintelligibly but luckily *retaining* the five falsetto notes. The singularity of this case is that upper notes should have been gained during the existence of *enlargement*, as the excision of large tonsils appears rather to increase the range of voice upwards (vide L. Browne, *The Voice as a Musical Instrument*, p. 17). It is matter of common belief that Louisa Pyne and Lucca have both had their tonsils excised, and with benefit to their vocalisation,—but with what special form of benefit the writer has been unable to ascertain. Plainly large tonsils must interfere with vocalisation, were it alone through the obstacle they throw in the



Occasionally, when the vocal range of a part falls without the limits of artists, who for various reasons would otherwise be especially fitted to represent it, the experiment has been tried of altering the score vocally, and to a certain extent instrumentally, to meet the requirements of such new exponents: the mountain being unable to go to Mahomed, Mahomed is brought to the mountain. Thus the part of Rosina in 'Il Barbiere,' as is well known, was written for a mezzo-soprano; but the character of the pert girl, as well as the brilliant fluency of the music allotted her, seeming specially adapted to a light voice, the delineation has been entrusted to many high sopranos, and with infinitely successful results, —Fodor, Cinti-Damoreau, Sontag, Bosio, Patti, may be mentioned among the number. In truth the part requiring simply florid vocalisation, the rise of range may have proved a vocal gain; while the concerted pieces in the opera are by qualified critics held to pass unscathed through the ordeal. But the case becomes a different one when a dramatic score, written for a heavy female voice, is transposed to a higher range to suit an organ of less sustained power.

way of full inflation of the lungs. As has long been known, the ill influence of such overgrowth on breathing is sufficiently powerful to cause gradual collapse of the lower parts of the lungs, and especially in early youth to produce the deformity known as pigeon-breast, through flattening of the lower lateral regions of the chest.



Thus the music of *Fides*, scored for a contralto and sung first in this country by Viardot, unquestionably suffered in its vocal and dramatic intensity in the hands of a soprano—though that soprano was the grand and impressive Grisi.<sup>1</sup> Again, though it is traditionally believed, that the tenors Tacchinardi, Garcia, and Nourrit sang the baritone music of ‘*Don Giovanni*’ with satisfactory results, it may be more than doubted whether the concerted pieces would have borne, without grave injury to the *ensemble*, the necessary changes in the scores—while the character of the coarse, almost brutal libertine, is at variance with at least conventional notions of its fitness for the possessor of a tenor voice. Such doubt is changed into certainty by the results of a more recent experiment of the kind. Managers, despairing of finding a baritone at once vocally, dramatically, and personally fit to fill the *rôle* of the Don, some years ago persuaded Mario to undertake it. But though the great tenor looked as if he had started out of a canvas of Velasquez, acted the part with his accustomed perfection, and sang as none other could sing, Mozart’s score would not bear the mutilation involved by the alteration of vocal range, and the result was pronounced by the critics of the day (less

<sup>1</sup> It is to be understood that in all references to particular singers, they are assumed to be in the full possession of their powers.



lenient than their predecessors of thirty years before) to be on the whole a failure. As Tacitus said of Nerva after his assumption of the imperial purple, so may we say of Mario and the Donship: 'Omnium consensu dignus imperii, nisi imperâsset' . . . only in this case the fault was that of the empire, not of the emperor.

As the ordinary compass of trained voices (especially tenor and soprano), capable of being fairly utilised without strain, may be rated at two and a quarter octaves, that amount of range will be represented by zero, excess or deficiency reaching the subjoined figures above or below the mean: <sup>1</sup>

Maximum.	Mean.	Minimum.
+10	0	-5

(b) *Volume, sonorous roundness and mass*, with *power* and *intensity* of tone in level singing or declamation, is one of the distinctive attributes of the highest and the most impressive forms of vocal excellence. The amount of this most valuable endowment, valuable especially in the dramatic sense, stands as a general rule in the inverse ratio of the height of the voice: in males it

<sup>1</sup> Compass is one of the attributes of voice which cannot be determined for themselves by the non-musical persons for whom this Essay is intended. Even with the score before one, as ornamentation may carry the singer below or above the text, error is easy. The compass must be ascertained on competent authority.



increases from the tenor-contraltino range down to the basso-profondo; in females from the soprano-sfogato to the contralto. But exceptional cases occur in both sexes. Thus this attribute of voice was possessed by Mario not only in greater perfection than by any tenor of the present, or probably of any past period, but in the abstract sense reached such dimensions as to constitute one of the most striking characteristics of his magnificent organ. And the voice of Grisi, again, was for her range scarcely less remarkable in this aspect: her rich melodious tone in cantabile probably never having been exceeded in massy roundness by any contralto, not even by Alboni.

Power of this stamp, manifested in the calmest, as in the most vehement phonation, is a gift of extreme rarity; singers from whom it is withheld can only by strenuous forcing of the voice produce loudness of sound, without securing associated volume of melodious tone. And hence it is that when the dramatic situation requires the emphasis producible only by mass of tone, artists deficient in the endowment are only too often obliged to strain violently their thin, non-sonorous organ, so that its utterances become, according to the range and *timbre* of the voice, howling, shouting, bellowing, screaming, shrieking, &c., in character: in a word *noise* is substituted



for *music*.<sup>1</sup> But non-discriminating listeners are most prone to form erroneous opinions on this matter: how often has one heard, at the conclusion of a passage which had been simply *roared* through, 'What splendidly powerful *singing*!' The display of mere physical strength always enlists the sympathy of a goodly portion of ordinary audiences. And as one of the great objects of singers must be to attract applause, they are occasionally betrayed, at the expense of good taste, and indubitably in defiance of their own judgment, to force sound beyond the limits of melodiousness. Even Graziani, possessed of notable level mass of tone and delicious quality as he was, degenerated into a quasi-shouter in the grand duet 'Sì vendetta!' in 'Rigoletto:' but vehement applause followed the achievement (vastly more energetic and prolonged than was ever accorded his most tuneful displays—say, the 'per tanto amor' in the 'Favorita'); why then should he not 'go on and prosper'?<sup>2</sup>

<sup>1</sup> It may not be out of place to mention that noise and musical tone are not only different physically in their mode of production, but are so feebly related physiologically, that separate structures in the ear are allotted for their reception (Bernstein, *The Five Senses of Man*, p. 283 (International Scientific Series, vol. xxi.).

<sup>2</sup> It is more than doubtful, however, whether an artist advances his true interest by pandering to the taste of the untutored many, and treating as of minor importance the suffrages of the cultivated few. To such bidders for the *bravos* of the ignorant and for transient



As the fulness of a tone depends directly on the amplitude of the sound-waves, the first essential for extra development of vocal mass is exceptional provision in form, breadth, and vibratile tissue-properties of the vocal cords; next an unusual capacity and favouring form of the supra-laryngeal cavities, which intensify laryngeal tone by unison-resonance and by harmonic additions; and lastly an abnormal supply of breathing volume of air and of expiratory power.<sup>1</sup> Sonorous massiness of tone in level cantabile and declamation, associated with the power of greatly intensifying the sound without sacrificing its melodiousness, ranks, it follows from the preceding statements, as an endowment claiming high numerical expression. The scale suggested is:

Maximum.	Mean.	Minimum.
+10	0	-10

(c) *Sustained power.* The faculty of maintaining fulness of tone through the whole of a vocal effort, whether an operatic part, a dramatic scena, a florid notoriety, one is tempted to exclaim, slightly altering in words and rhythm Juvenal's apostrophe to Hannibal,—

I demens! et sævum curre per strepitum,  
Ut pueris placeas et declamatio fias.

<sup>1</sup> The power of some voices is so great that, as is well known, their owners can fracture a glass vessel by sounding the fundamental consonating note of the vessel at or near its orifice. Lablache and all ponderous basses have been one after another credited with the feat; but powerful tenors have accomplished it also.



cavatina, a simple cantabile aria, or a declamatory recitative, is very unequally bestowed upon singers. Voices of the more delicate classes—tenors and light baritones—exhibit the greatest tendency to failure in this direction. Tamberlik, for instance, habitually lost tone more or less completely after the first few bars of the opening scena, ‘O che oscurità!’ in ‘Fidelio’; and Tom Hohler, despite his sweetly resonant start, has in the writer’s hearing displayed failure of the like fashion after the earliest phrases of the simple cantabile air ‘M’ appari tutto amor’ in ‘Marta.’

Does this defect depend immediately on weakened force of the adductor muscles of the vocal cords, making their expiratory approximation less complete than it should be for full phonation, and mediate on nerve-impotence, just as, when extreme, absolute aphonia is the result? Or does an enfeebled play of the tensors of the cords furnish the explanation? Probably, in some cases at least, the latter is the true mechanism; for when the action of those muscles (the crico-thyroid) is seriously impaired by disease bordering on a condition of paralysis, some upper notes are lost and the remainder of the patient’s range muffled, while the act of singing becomes painful.<sup>1</sup> Can feebleness of the harmonic overtones be the occasional cause? Is the mode of expelling

<sup>1</sup> Morell Mackenzie, *Hoarseness, Loss of Voice, &c.*, p. 44.



the air from the chest at fault sometimes? Rarefied air, as is well known, reduces sound almost to extinction. Whatever its origin, muffled non-resonant tone is an abiding defect in some otherwise well-conditioned voices,—even light soprano: the voice of Catherine Hayes was a case in point. Here defect in the resonance-apparatus affords the most likely explanation.<sup>1</sup>

This deficiency is wholly different in nature from the temporary coarseness generated by continued strain at the extreme limits of vocal power. Mario's voice grew hoarse towards the close of the exacting declamation, 'Notte, perpetua notte!' in 'I Due Foscari,'—and even in the final passages of the grand duet in 'Les Huguenots' his tone sometimes failed,—but only to return in the subsequent act with its massy resonance and distinctive *timbre* in all their native perfection.

Heavy baritone and bass voices are generally able to maintain their full amount of power through lengthened passages and entire operas. And hence

<sup>1</sup> From observations made by the late Duncan Gibb, it would appear that pendency of the epiglottis 'interferes with anything like prolonged singing,'—and it may be inferentially concluded muffles tone (*Anthrop. Soc. Trans.* vol. iii.). But if Manuel Garcia be right, when the epiglottis falls, the voice gains in brilliancy (*Proceedings Roy. Soc.* 1855); and who more likely to be right than the accomplished artist who first applied the laryngoscope in laying bare the secrets of vocal mechanism?



a difficulty in assigning numerical value fairly applicable to all classes of voice: that which would be a singular merit in a tenor is relatively none in a basso. Nationality furthermore is not without its influence in this matter: Italian and English tenors are more liable to fail than German or French.

The *plus* and *minus* values must be applied with due reference to the range of the voice to be appraised. The following scale is very tentative:

Maximum.	Mean.	Minimum.
+5	0	-10

(d) *Equality of power and of fulness of tone through the entire range of a voice*, one of the rarest of gifts, is probably, *ex naturâ rerum*, never possessed in an absolute sense, including the chest and falsetto registers. The mass of tone sent forth by Mario, great as it was in falsetto (a portion of his voice which, as is well known, he scarcely ever employed), for instance, in the cadence 'Vieni,' delivered in the kneeling posture before Valentine in 'Les Huguenots,' fell far short of that belonging to his chest register.<sup>1</sup>

But there is no more common defect than want of equal power through the chest scale alone, at least upon its upper confines. Even in sopranos light and heavy, the medium notes are relatively thin, and

<sup>1</sup> The exceptional voices of jödlers are, of course, excluded from consideration in a discussion on operatic singing.



wanting in roundness of tone and strength. And the concealment of the abrupt change in force and fulness in reaching these notes from above or below is one of the art-achievements most desiderated by some of the sopranos and contraltos of the present day.

This difference of strength and tone at different parts of a vocal range might be supposed to be dynamic in mechanism,—depending on want of uniformity of contracting force in the tensors of the vocal cords, or in the approximating power of the adductors. But inasmuch as the failure of power always occurs on the same notes, is it not more likely to be dependent on structure, and the result of some inaptitude of a certain spot in the elastic tissue of the cords?

This is a different question from that of transition from the chest to the falsetto register, which will be examined further on.

The subjoined numbers may be proposed in regard of this character :

Maximum.	Mean.	Minimum.
+4	0	-4

(e) *Quality, or timbre.* Under all possible conditions of production, the sounds of a pianoforte will differ from those of a violin, those of a flute from those of a hautboy. The peculiarity in each



case may be termed the 'special character' of the instrument or of its tones. But there is a closely allied attribute of sound often confounded or associated in description with 'special character,' though in reality, at least practically speaking, a very different thing therefrom—a property styled *timbre*, or *quality*. Thus tenor voices or contralto voices, as those of all other ranges, have each their 'special character' as a class. But two voices identical in 'special character'—say, two tenors or two contraltos—will sound the same *notes*, in the same *rhythm*, with the same *inflection*, with the same amount of *liquidity*, with the same *intensity*, and for the same *duration* of time, and yet a marked difference shall exist in the sensations impressed upon the ear by the two series: that difference depends upon *quality*, or *timbre*. By this difference any two tenor or soprano voices are well-nigh as easily distinguishable from each other as any one of the four from those of bass or contralto register. A single note would distinguish with unfailing certainty Grisi from Tietjens, Patti from Albani, Nicolini from Sims Reeves, Trebelli from Scalchi. When a phrase, or *à fortiori* an aria, is uttered by two voices of the same range, their radical variances in *timbre* become yet more marked,—but then the method of phonation, of phrasing, of inflecting, and certain other conditions, complicate the



problem: still *note-timbre* and *phrase-timbre* are in essential nature identical.

The *timbre* of some voices maintains its distinctiveness in utterances of all degrees of force; from *pianissimo* to *fortissimo*: such was the case with the organ of Mario. In the septuor in 'Les Huguenots' 'I dritti miei,' and in the cry of agony, 'Balén tremendo,' in 'Il Trovatore,' given forth with the fullest expiratory power of the chest, the specific *quality* of the tones was as patent, as in the softly seductive passages of the garden scene in 'Faust,' or in the *suave cantabile* of the madrigal in 'Romeo.' Among baritones, Santley and Maurel may be mentioned as retaining their melodious *timbre* under all conditions of forced utterance. On the other hand, the *fortissimo* passages of Patti are more or less completely devoid of the tender *quality* that gives such singular charm to her delivery of the simple air, 'Home, sweet home,' and such ineffable sweetness to the dying tones of her Violetta.

The physical explanation of variety of *timbre*, although much has of late years been done to elucidate the subject, especially by Helmholtz, cannot even yet be said to be thoroughly established. Peculiarity of *quality* has, in the first place, been affiliated to peculiarity in form of the sonorous waves,—width and length of oscillation (so important in regard of



loudness and pitch) exercising no influence upon it. That is, the width and length of the sonorous oscillations (say, of a string) being the same, any special form of the curves representing those oscillations (they have been optically demonstrated by Lissajous) will impress upon the attendant sounds specific peculiarity of *timbre*. If this be so, secondly, the question arises, what is the nature of the influence giving speciality of curve to the sound-waves of the voice and so modifying its *quality*? The reply given is in this fashion: (a) with all fundamental tones are associated certain harmonics; and, as originally observed by Knecht, and more recently insisted upon by Helmholtz, the human voice is especially rich in these harmonics: (b) upon these harmonic or secondary tones the form of the sound-waves, as emitted from the mouth, depends. Hence individual *timbre* would be a resultant of special harmonic combinations, added to fundamental tones, and of the ensuing specific form of the sound-waves. The fundamental laryngeal tones themselves, it would follow, have nothing to do with the special *quality*, which makes the voice of, say, one tenor so essentially different from that of another,—the specific *timbre* of each, as emitted, being wholly due to alterations impressed on those primary tones during their exit through the reinforcing cavities.



But physicists seem to forget that, even if it be fully conceded this theoretical doctrine is, so far as it goes, unassailable, the concession only throws back the difficulty a step, most certainly does not remove it. For it would yet remain to be determined, what are the conditions fixing with surety the number, respective strengths and mode of combination of harmonics, that shall accompany the fundamental tones of each voice, and so impressing the requisite and abidingly reproducible form on the sonorous waves. Now, what these conditions are is at present matter of pure hypothesis. We can only suggest that as the *timbre* of any two instruments possessing the same '*special character*'—say, two violins—varies with the precise form and properties of the material composing them, so it may reasonably be held that the form of the vocal tube and the tension, dryness, elasticity, and other properties of its structures, as well as the form and properties of the reinforcing cavities and their walls, must in ultimate analysis regulate vocal *timbre*. It has just been seen that, if the harmonic doctrine be pushed to its logical issue, the resonance-cavities not only exercise more real influence on *timbre* than the laryngeal cords themselves, but that in point of fact those cords are mere negations in all that concerns that attribute of voice. Now the great variety of form and size of



the resounding constituents of the larynx itself in different people, as also of the mouth, pharynx, nostrils, and other resonance-cavities, would lend support to this suggestion. But no idea has yet been vouchsafed enquirers as to the statical conditions of form or texture, or the dynamic conditions of mobility actually linked to this or that variety of vocal *timbre*. Nor is the examination, or even the moulding, after death of the tone-apparatus in its entirety, of well-known public singers, (though it might lift the corner of the veil), likely to clear up the mystery: and for the simple reason that the structures deprived of life must have lost the tissue-properties and even in some measure the form upon which the specific living *timbre* might have depended.<sup>1</sup> Difference of form is no doubt functionally impressed upon some, if not all, of the resounding cavities during phonation, that is, the singer changes the form of his mouth, the attitude of his lips, &c., with the result of modifying his *timbre*, but he does this intuitively, unconsciously; he cannot help us to understand the nature, or gauge the direct effects, of the changes he produces.

Furthermore: the *timbre* of the tones elicited

<sup>1</sup> Banti, a celebrated soprano of the close of the last century, bequeathed her larynx to her native town. The authorities duly preserved the gift, but do not appear to have utilised it in the manner glanced at in the text.



from any given violin, or violoncello, varies with the varying manners in which the bow is drawn over the strings; it is his own particular manner of 'bowing' which gives his distinctive *quality* to each player from Joachim and Piatti downwards to the least adroit of their brethren. So, too, with the clarinet, the special method of each artist in delivering the air to his instrument gives him a 'tone' peculiar to himself. . . . Here, then, is a dynamic added to the statical elements of *instrumental timbre*. Can any analogous agency, capable of influencing *vocal timbre* on like dynamic principles, be traced in the act of phonation? Does some special method, in which the column of expiratory air is by different singers intuitively made to set up vibration in the vocal cords, represent an agency of this stamp? In other words, does the method of manipulation, so to speak, of the laryngeal apparatus by the expired air correspond to the management of the violin-string by the bow, or of the reed of the clarinet by the air-blast from the mouth? The accepted doctrine that the fundamental laryngeal sound exercises no direct influence on *timbre*, does not constitute a valid objection to such a view, for the manner in which the vocal cords are struck by the air-column might, for aught known to the contrary, have a governing influence on the harmonic additions to their primary



tones. But it may be urged (we fear, for the present at least, with fatal conclusiveness), is it conceivable each individual can possess a special fashion of his own of fixing the angle of incidence and mode of distribution of the air-current against and over each portion of vocal cord designed to vibrate? Where is the evidence that the impingement of the current does not take place in obedience to physical law alone, defying any modification through unconscious cerebral guidance? Confessedly no such evidence exists; while on the other hand there is no abstract reason it may not one day be found. . . . Or, again, it might be that the manner in which the form and tissue-properties of the windpipe and larynx *statically* affect *timbre* (as a moment since referred to) is really by guiding the outgoing air-current against the vocal cords in a special manner yet in sole obedience to physical law.

There is as great diversity in the *timbre* of human voices as in the character of human faces: as no two human faces were ever actual casts of each other (in spite of historical examples of mistaken identity), so also no two voices ever possessed exactly the same *timbre* (though occasionally voices have been mistaken for each other.) On the other hand, as in the case of features, so resemblance of *timbre* runs in families, in stocks, and in races.



As we are not given any even tolerably sure intimation, either intuitive or acquired, in the act of emitting vocal tones, in what fashion or to what extent their distinctive *timbre* may depend on the manner of their emission, it would indirectly follow that voluntary modification of *timbre* lies almost completely beyond our power. Still, as matter of experience, it would seem that when the statical and dynamic conditions are in some undetermined manner favourable, sustained imitative effort will enable a singer to somewhat modify his *timbre* after a model fixed upon, and so prove that in a feeble degree the attribute may be brought, at least temporarily, under the influence of the will. Thus the writer knew a tenor singer who managed during the opera season to throw every now and then into a chance musical phrase (though his organ had no pretensions beyond those of an almost everyday drawing-room tenor) a something that faintly recalled the marvellous *timbre* of the voice of the tenor of tenors, Mario.<sup>1</sup> The faculty (disappearing in great measure with the annual departure of the model) came, the writer was assured, of imitative effort. And certainly *speaking-timbre* can be modified after a given model for a short while under effort, as is proved by the imitations of various

<sup>1</sup> *Op. cit.* p. 86.



brother-artists occasionally given by actors on the stage. But imitation of vocalising *timbre* is on the whole so hopeless an effort, that it is never seriously attempted. Even in the well-known duet in the 'Prova d'un Opera Seria,' so amusingly rendered in days gone by, by Grisi and Lablache, the soprano imitated the bass by *gutturalising* her voice, while the bass mocked the soprano by singing in falsetto; the real *timbre* of the two voices remained without change. The nearest approach to actual reproduction of the *timbre* of one singing voice by another, of which the writer has any knowledge, was furnished by Mrs. Howard Paul in her very remarkable imitation of Sims Reeves.

In this matter theory and experience are not in perfect accord. The former affirms that each vocal apparatus possesses the power of variously modifying its harmonic tones, by omission, addition, and varied combination,—hence by inference of changing from one *timbre* to another at will; but as a fact, the latter tells us, the *timbre* of one voice cannot be continuously impressed by any effort on that of another. Were it otherwise, every soprano would be a Grisi, every contralto an Alboni, every baritone a Tamburini.

If genius could modify *timbre*, Ronconi would assuredly have modified his. But though that



accomplished artist managed by consummate skill to soften down the natural asperities of his voice, and to impress upon cantabile great softness of tone and tenderness of expression (for instance, in the 'Veglia, o donna'—'Rigoletto'), his ungenial *timbre* remained always traceable. Even Schneider, the buffo singer, could on an occasion make her voice soft, winning, and melodious (as in the 'Dites lui'—'Grande Duchesse'); but she could not fabricate the sympathetic quality, that did not naturally belong to her organ.

The *timbre* of the speaking does not of necessity strictly coincide with that of the singing voice in the same individual: it is not uncommonly remarked concerning amateurs, that their singing voice is of a more or less different character from that which might have been expected from their ordinary tones in conversation. In what may be called *toned* speech (as in reading letters in opera) the vocalising *timbre* may, however, be sometimes divined. Thus in the letter read by Raoul in the 'Huguenots' the *timbre* of Mario's singing voice might easily be traced.<sup>1</sup> But on the whole this kind of difference between the two voices does not lessen the difficulty of a successful analysis of the mechanism of *timbre*.

<sup>1</sup> Never having even seen this artist except in public, the writer does not know what the *timbre* of his conversational voice may be.



The varieties of vocal *timbre* may be referred to a certain aggregate of species: mellow to hard; pure to husky; sweet to harsh; smooth to rough or grating; clear to nasal;<sup>1</sup> sharp to shrill; resonant to toneless; liquid to dry; laryngeal to guttural; flute-like to reed-like. But there exists an attribute of *timbre* that may be associated with several of these varieties, impossible to describe, but by common consent designated in all countries as *sympathetic*. This is the *quality* that really touches the heart, and most vividly emotionises the musical sense. As a rule this variety of quality is less developed in female than in male voices; the higher the range the less sympathetic the tones; it may be, often is, totally wanting in the falsetto notes of a voice possessing it largely in the chest range; it is not a matter of necessity that the voice displaying it should be clear, it may co-exist with some amount of huskiness of tone; a voice on which sympathetic quality has once been engrafted may, even when fearfully worn, retain some share of the original endowment,—‘quo semel est imbuta’ may truthfully be said of this the most winning attribute of the human voice.<sup>2</sup>

<sup>1</sup> If certain consonants and even vowels be properly pronounced in singing (this is particularly true of *m* and *n* and of *e* and *i* English) it is impossible to emit them without marked nasal twang—that is, without undue prominence of the nasal overtone. But more of this by and by.

<sup>2</sup> Salvatore, a baritone who made his first appearance at Covent



Sympathetic quality is, as a rule, best developed in tenors and baritones among males, in contraltos and mezzo-sopranos among females. So-called brilliancy of voice generally proves even antagonistic to this form of excellence: Persiani (unsurpassed, if even ever equalled, as a brilliant and refined vocaliser, free from trickiness) had a *timbre* flute-like, it is true, but inclining to the shrill. Still, we must admit, Sontag, Bosio, and Albani furnish instances of the possession of sympathetic quality within moderate limits by soprani-sfogati. Grisi was indubitably endowed with it to a degree most remarkable in a voice of her range. Tamburini, Coletti, Graziani, Maurel, Santley, among baritones; Bagagiolo among recent basses; Nantier-Didiée among mezzo-sopranos; Alboni, Trebelli, Scalchi, among contraltos, supply instances that occur to us as we write. But it need scarcely be said that the most sympathetic voice heard in these days—the word seems as it were almost created for his unique *timbre*—was that of Mario. The degree to which mere tone is capable of

Garden several years ago in the advanced evening of his lyrical days, furnished an excellent illustration of the fact. Again, Faure, the unrivalled dramatic baritone, still possesses (and it is to be hoped will long continue to possess) in cantabile—say, in the ‘*Per tanto amor*’ in the ‘*Favorita*’—an appreciable amount of the sympathetic tone by which he enthralled the writer long years ago in the music of ‘*Manon Lescaut*.’ It is not generally known that Faure began life as a tenor.



moving the feelings was probably never made fully known, till his voice rang forth the accents of love, despair, and mortal agony. Abounding passages there were among his utterances (such as the 'son un Borgia' of the dying scene in 'Lucrezia,'—the agonised self-reproach 'Insano! Ed io quest' angelo osava maledir!' in the fourth act of the 'Trovatore,'—or the quasi-inspired appeal to the despairing Leonora towards the tragic close of the 'Favorita,' 'rinforzate il cor per la preghiera,' in which the *timbre* of that luscious voice, of those 'liquid tones mellifluously bland,' almost pained by the intensity of its pathetic charm.

As a single attribute of voice, *timbre* must, there can be little possibility of cavil, take the first place in importance, and the possession of even a fractional amount of its sympathetic variety covers a multitude of sins; while no tenor, baritone, mezzo-soprano, or contralto voice, wholly non-sympathetic, can be justly accorded a place among the highest of their respective ranges.

The scale might be ventured on of:

Maximum.	Mean.	Minimum.
+20	0	—20

(*f*) *Tellingness of voice.* This term may perhaps be forgiven as an invention to express that excess of relative audibleness, observed in certain voices as



compared with others, though the volume and mass of sound emitted be, absolutely speaking, not greater—it may be even less—with the former than the latter. As a general rule, the higher the range the more telling the voice,—a soprano of a given power will be more audible than a contralto under circumstances of difficulty,—by inference the higher notes of any voice are more telling than the lower. The voice of Harrison (an English tenor who would undoubtedly have attained rank, had his organ been cultivated judiciously in early life) possessed this attribute to a remarkable degree, his most piano passages being heard in every corner of the house. Clara Novello, among sopranos, was distinguished by well-defined tellingness.

Huge space is required to fairly test the amount of this attribute. Now at the Albert Hall we have heard the tones of Patti, especially at the upper part of her range, ring at a vast distance from the stage with singular force and precision, while the voices of Graziani and Scalchi were conveyed with confused articulation and feeble resonance. The difference of range of the voices, might in some measure, but by no means wholly (for the strong soprano of Cepeda fared equally ill), account for the great inferiority in this point of view of the two latter singers. Neither can the difference be justly referred to a more highly



tutored mode of producing the voice, or to more distinct enunciation of the words on the part of Patti, than of her two Italian associates: in both these aspects the latter artists exhibit no inferiority, where the distance traversed by their voices is moderate. Nevertheless we decline to admit this form of explanation with considerable diffidence; for in the notice of the very concert at which the writer's observations were made, the learned critic of the 'Times' attaches great importance to it.

The observer who desires to be precise in this matter must be careful to compare singers in the same place (for the acoustic properties of buildings, as is well known, widely vary with their forms),—at about the same temperature of the air (for the velocity with which sound travels increases in a definite ratio with rise of thermometer),—and, if not in one and the same building, at least in buildings of similar structure (for velocity and definiteness of transmission vary materially through or along different woods, silks, and metallic substances).

The majestic fulness with which Grisi dominated the *fortissimo* of both orchestra and chorus in such passages as the finale of the second act of the 'Favorita' must have been due not only to power and mass of tone, but also in some measure to this property of tellingness or penetratingness of voice. Voices thus



endowed to the highest degree exhibit the character not only in loud declamatory singing, but in soft cantabile, in mezza voce and even in whispered tones.<sup>1</sup> And, singularly enough, the voices of some individuals are, relatively speaking, more telling in mezza voce than with the full voice.

The cause of this peculiar endowment is obscure : we may easily reject the theory already referred to, while failing to supply a more satisfactory solution. Doubtless it is an inherent and primary attribute, and probably depends in some unknown manner on the vibratile tissue-properties of the vocal cords ; but further enquiry is needed to justify us in forming any fixed opinion.

Probably the following valuation might be accepted in respect of tellingness :

Maximum.	Mean.	Minimum.
+5	0	-5

(g) *Certainty of voice.* The trustworthiness of a voice, that is the surety that it will on any particular occasion possess in their fulness of perfection all its highest attributes, is far from being uniform among singers. A national difference even may be noted in this respect : French and German voices are surer than English and Italian. The character

<sup>1</sup> For a speaking voice that of Sarah Bernhardt may be instanced as possessing penetratingness in the fullest conceivable development.



varies too with the range of voice; tenors are more uncertain than baritones and bassos. And in regard of individual tenors, the more mellow and sympathetic the *timbre* of the voice, the greater the uncertainty attached to its performances: in truth the certainty of tenor voices may be said to rank in the inverse ratio of their beauty. Female voices are more thoroughly to be depended on than those of males: the rarity with which Grisi, Persiani, Bosio, and Patti—to mention a few examples—have disappointed their public, is matter of notoriety.<sup>1</sup>

The scale may be suggested:

Maximum.	Mean.	Minimum.
+6	0	—6

(*h*) *Freshness*. The charm of youth of voice is as great, *mutatis mutandis*, as of youth of person,—and as in the latter case, so in the former, the progress of failure is fortunately so gradual at first as to be scarcely perceptible. But alas! the hour sooner or later strikes, when, as a feeble attempt at consolation, we whisper to ourselves: *on ne peut pas être et avoir été!*

Freshness of voice is one of those attributes only felt in fulness of enjoyment by persons long habituated to operatic art: it scarcely admits of definition,

<sup>1</sup> Probably the immoderate use of tobacco by male singers has something to do with this sexual difference.



—it can only be said, a certain elastic crispness of phonation supplies its positive character, while absence of the defects to be by-and-by enumerated, constitute its negative side. But though the advance in impairment be originally very slow, it is recognised after a certain period year by year; and nothing is more painful than to trace the deeper and deeper mark of the unmistakable finger of time on an organ, the tones of which have through long familiarity taken their place among the accustomed delights of life.

In voices which are originally clear and bell-like in character, the first change noted is a disposition to huskiness, next the full share of resonance fails, at first with an occasional note or bar at the limit of the vocal range,—a failure extending by-and-by to the entire compass and through entire passages; then the compass declines in actual span, one or more notes refusing to respond on demand; strength and volume of tone decline; phonation grows unsteady, the coveted *tremolo* of youth becoming the detested attendant on advancing time; facility of delivery lessens; intonation becomes uncertain,—the singer, feeling it a hard matter to keep the voice under control, and prevent a discordant note from slipping in, purposely sings with *minus* emphasis and breadth of tone, *mezza voce* becoming (the opposite of youth's



experience) easier to guide than full phonation; later on the notes become more or less cracked and bleating,—a kind of falsetto sound often finishing a tone commenced with the chest-voice. The organ has now become thoroughly worn and scarcely apt for lyrical song,—yet even now the distinctive *timbre* of early days may be caught with occasional notes, phrases, or even prolonged passages (p. 40).

The period in the career of a great artist, at which freshness of tone and delivery begins to fail, is subject to material variation. Female voices, as a rule, wear better than male; tenor voices suffer earlier than those of lower range, and delicate melodious voices of whatever compass, acknowledge the blighting influence of years earlier than coarse shrill specimens belonging to the same class: Tamburini, for instance, paid the penalty of the beauty of his baritone *timbre* by losing perfect freshness before his time.

In forming an opinion on this matter the judicious and sympathetic listener will carefully avoid the error, only too common on the part of soi-disant connoisseurs, of imagining the existence of failure, before it has actually come. How often has the phrase (equally true of vocal and of personal beauty) ‘*non è men bella, ma è gran tempo che è bella,*’ risen to one’s memory, when querulous pretenders of the kind,



doing homage to their own fancied acuteness, have mournfully proclaimed the departure of this or that voice, at a time when a Costa would have pronounced it as sound and as melodious as ever.

The causes of wearing of the voice are dynamic and statical. Overwork, careless exposure to atmospheric vicissitudes,<sup>1</sup> and over indulgence in smoking, belong to the first class. Through these influences, abiding congestive fulness or physical fatigue give rise to stiffness of the vocal cords and supra-laryngeal soft parts, with impaired mobility of the laryngeal muscles and unsteady supply of nerve-stimulation. Excessive smoking, as is well known, alters the very shape of the orifice of the throat,—a change that in all probability must injuriously affect unison-resonance and harmonic additions. These influences are

<sup>1</sup> The form of exposure signified here is not that incurred by rapidly passing from London to Naples, and thence to St. Petersburg. The annual proofs reach us year after year in the persons of our familiar artists, that with due care such climatic changes may be accomplished with impunity, or at least without appreciable injury. It is the rushing from heated rooms into cold outer air without fitting protection, carelessness in changing clothes when wet, exposure on the stage in costumes too light for the temperature,—these and allied influences are the real atmospheric causes of injury to the voice through laryngeal congestion. Nevertheless it is not intended here to deny altogether the ill influence of climate on voice; Italians feel the change from their own clear atmosphere to the damp fog of London—suffering modification of *timbre*, and even losing a couple of notes temporarily at one extreme or the other of their ranges. The writer has also heard English amateurs speak with delight of the increased flexibility and improved resonance of their own voices during a stay in Italy.



chiefly concerned in generating decay of the premature kind, and are to a great extent avoidable.

Statically, degenerative tissue-changes are the destroyers of the voice. The vocal cords grow rigid; the laryngeal cartilages lose their elasticity, eventually ossifying, and the intrinsic muscles probably (but this has not been demonstrated) undergo partial oily metamorphosis. And, further, the condition of the resonance-cavities must suffer gradual change,—though from the slow implication of *timbre* they are probably later in suffering textural decay than the larynx itself.

All these alterations, like the well-known condition in the eye, called the *arcus senilis*, come on sooner or later according to the *minus* or *plus* activity of nutritive power in the individual.

Nothing can be more unfair to artists, originally great, than to invite them to exhibit in a previously unknown locality, when once the sun of their powers has set. The writer, happening to be in Rome many years ago, could not help wondering, why a heavy soprano, Nini Barbieri, whom he heard declaim the part of Elisa da Fosco<sup>1</sup> with an amount of vocal power and dramatic skill second only—and second *haud longo intervallo*—to the grandeur of Grisi, had

<sup>1</sup> A substituted title, under which the opera of 'Lucrezia Borgia' was played, for easily intelligible reasons, *within earshot of the Vatican*.



not been lured to the London stage. Long afterwards she did appear among us, as Anna Bolena, Lucrezia, &c., at a time when her impaired powers gave no inkling of that she once had been. Moriani, too, once possessed of a very grand *tenore robusto* voice, was first brought to this country when its decay had become painfully manifest.

At an early period of laryngeal failure, rest, more or less protracted, from vocalisation does much towards renewing lost power: at an advanced period inaction, be it ever so prolonged, proves simply useless. Pasta, Jenny Lind, and Grisi, all illustrate this truth. Pasta, after years of rest in Italy, reappeared in London in 1836,—and, it is matter of tradition, her voice had grown yet more worn than on her retirement. The faded condition of the voices of Jenny Lind and Grisi on their return to, after absence from, public life, is fresh in the memory of everyone.

In gauging the present attribute the critical observer, in common fairness, ought apparently to give full credit for the amount, constancy, and character of the work that has been done by any voices compared with each other. Take two tenors, for instance, and let us suppose the one declaims some of the most exacting parts of modern opera—say, Raoul and the Prophet—two, three, or even four times in the week,



while the other warbles ballad music with half the amount of frequency. Plainly the voice of the latter should last one or two generations longer than that of the first, without his having the faintest claim to be regarded as possessing an organ superiorly endowed. Freshness then is absolute and relative. Still the listener to whom the past career of an artist may be at once unknown and a matter of indifference, will base his numerical estimate on the actual state before him, whatever may have been its antecedents; on this understanding he might adopt the following scale:

Maximum	Mean.	Minimum
+10	0	-10

In the subjoined table the approximative values we have suggestively assigned to the various attributes of voice, are placed side by side.

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	
Range or compass	Volume and power	Sustained power	Equality of power through entire range	Quality or timbre	Tellingness.	Certainty.	Freshness	Totals
Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.	Max. Min.
+10 -5	+10 -10	+5 -10	+4 -4	+20 -20	+5 -5	+6 -6	+10 -10	+70 -70



## II. VOCALISATION.

Under the head of vocalisation the following elements range themselves for analysis :

- (a) Intonation (Pitch) ;
- (b) Time or rhythm ;
- (c) Production of voice and articulation ;
- (d) Flexibility and fluency ;
- (e) Transition from chest-voice to falsetto ;
- (f) Vocal style and embellishment.

(a) *Intonation (Pitch)*. If the faculty of constantly singing in perfect tune be important for the solo singer, it is plainly of much deeper significance for the performer in concerted music, wherein the false note of any one voice of necessity fatally vitiate the *ensemble*. Doubtless it may be true, as contended by physicists, that no mathematically perfect harmony is uniformly heard in existing opera,—that such perfection is merely a possible achievement of the future,—and that at the present hour we often listen to faintly pronounced discords (vocal as well as instrumental), that is, combinations not mathematically harmonious, when we imagine we hear irreproachable concords. But there is less real than apparent cause for dissatisfaction at the existing state of things : were actually mathematical precision



one day attained, it is next to certain practical musicians would hardly be the gainers. For it is extremely probable, nay speculatively positive, that there exist differences of pitch so minute as to lie outside the cognition-power of the ear and brain. It is a familiar fact of acoustics that sounds produced by a number of vibrations on the one hand falling short of, or on the other exceeding, certain experimentally ascertainable limits, are inaudible to the most refined and best tutored ear: there exists a pitch of sound imperceptible by its lowness, as a pitch imperceptible by its height.<sup>1</sup> So, in parallel order, with regard to the eye, it has been established by spectroscopy that in the spectrum beyond the violet there exists a light so faint, though real, that the retina fails to be impressioned by it,—in such manner that objects lying within its area must be photographed in order to be rendered cognizable to our over-taxed sight. If, then, the ear be incapable of perceiving sounds ranging beyond certain *degrees of pitch* (as similarly

<sup>1</sup> The lowest tone cognizable by the human ear represents eight vibrations per second according to some, sixteen according to other, physicists,—the highest from 24,000 to 38,016. The musical character (from Helmholtz's observations) becomes first perceptible in sound with 28 vibrations per second; the opposite extremes of height are also scarcely musical. The faculty of perceiving very high-pitched, and very low-pitched, sounds varies materially in different people, whose readiness in distinguishing ordinary medium musical tones is not apparently unequal.



the eye is unimpressible by light falling below a certain depth of feebleness), it seems even *à priori* certain that given fractional *differences of pitch*, mathematically demonstrable, may be acoustically imperceptible. There must, in truth, be a limit to the defining power, as well as to the actual number,<sup>1</sup> of the senses allotted to man. Hence the brain would be as well satisfied with notes deviating to an infinitesimal degree from, as with others precisely harmonising with, the true mathematical standards. And this statement would hold true of even skilled orchestral players as a class. It is notorious, practised musicians will occasionally differ as to the perfect unison of two tones presumed to be one and the same, and likewise disagree as to the amount of fractional difference existing between two tones confessedly in a small measure discordant. Nay, the author is enabled to state on the high authority of Dr. W. H. Stone, that 'at the Promenade Concerts in 1880, the Toy Symphony of Romberg was played with the toy instruments (imported from abroad) at the normal diapason, whereas the accompanying instru-

<sup>1</sup> Whether the so-called 'sense of direction' and 'sense of space,' candidates for acceptance as companions to the old-established five senses, are finally received by physiologists or not, and even if some yet younger claimants are eventually *placed*, the total number will still be limited. Vide Bastian, *The Brain as an Organ of Mind*, pp. 218 &c. (International Scientific Series, vol. xxix.).



ments were at the high English pitch.' And this remarkable want of accordance appears to have escaped detection on the part alike of performers and listeners, with at least the rarest exceptions. What then are we to say of the assertion of E. H. Weber, that persons are to be found who can appreciate a difference of pitch amounting to only one sixty-fourth of a tone.<sup>1</sup> Such extraordinary perfection of ear must be considered wholly exceptional; and were not the statement supported by authority so high, one might well exclaim, *Credat Judæus Apella!* Furthermore, it must not be forgotten, that a combination regarded as discord at one period of musical development, may be held to be concord at another. Thus 'the third was considered a discord by the ancient Greeks and Romans . . . and it was not till the growth of concerted music in the middle ages that it was admitted to be an imperfect concord.'<sup>2</sup>

However, be all this as it may, the ear, either through natural endowment or artificial training, possesses or acquires a standard of tune, and very trifling aberrations from this are acutely resented. And curiously enough, the 'false note's detected flaw' is more distressing to the musical sense, and

<sup>1</sup> Bernstein, *The Five Senses of Man*, p. 224 (International Scientific Series).

<sup>2</sup> Bernstein, *loc. cit.* p. 278.



more likely to set the teeth on edge, if there be a slight, than a well-marked aberration from perfect tune, as practically established. The offence given the ear by phrases half a tone flat will be less poignant than if the defect amount only to a small fraction of that semitone.<sup>1</sup>

Singers of the very highest grade are not free at all times and all seasons from the serious defect of faulty intonation,—failure in the direction of sharpness being greatly more uncommon than in that of flatness. Persiani furnished a remarkable example of the first and rarer form. Marini, a ponderous-voiced basso-profondo of several years ago, very habitually sang half a tone flat; Ronconi often tripped passingly in the same direction, and Tietjens, one of the most gifted of dramatic sopranos, very frequently failed, either in single notes or in phrases, to reach the proper pitch. Even Graziani, one of the truest of singers, has been known to deliver a good portion of an aria flat.

<sup>1</sup> Everyone has heard the old story of the Persian Ambassador, who, being taken to the opera, expressed great delight at the conflicting sounds of the general tuning of the instruments, but was only prevented by his national politeness from making the wryest of grimaces when the overture began. However, strange to say, the lover of jumbled tones finds a defender in a most learned musical physicist, Blaserna, who (*op. cit.* p. 46) maintains that in the general tuning of orchestral instruments 'there is really a considerable amount of music (although perhaps somewhat irregular), and the general impression produced is by no means disagreeable.'



Under special circumstances some singers habitually maintaining perfect intonation will fail; for instance where the key changes in the midst of an air, as in 'Una furtiva lagrima,' ('L'Elisir'). This form of failure is, however, of rare occurrence with well-tutored artists. So, too, it is more difficult to sing with perfect tone in *mezza voce* than with full strength of voice.

It will much facilitate any attempt at explaining the mechanism of false intonation, if we rapidly pass in review the phenomena essential to truth of tone. Let us then suppose music to be sung at sight without instrumental accompaniment; where an instrument guides the voice, fidelity to tone obviously becomes a less difficult achievement,—the conditions differing sensibly. Now the production of true tone, under the circumstances supposed, involves:—

1. Accurate memory of the notes and scale-intervals, as learned by delivering passages more or less completely different.

2. Healthy activity of the brain-faculty to re-command the production of the recalled notes with precisely identical pitch; this involves the order for mere phonation, an act which, simple as it may appear, demands the perfect consensus in action of intrinsic and extrinsic laryngeal, respiratory, and other muscles, numbering more than one hundred



It may be noted intercurrently that the brain-faculty of regulating pitch must have its own special localisation: there must be a distinct cerebral *tone-centre*, both to conceive pitch, and to perceive whether the note emitted rings in unison with the conception. It seems most unlikely, for more reasons than one, that this centre would be identical with the *audition-centre*,—the seat of which, as hitherto tentatively assigned, cannot be said to be satisfactorily established. So, too, it seems physiologically probable, though histological or other proof may long be wanting, that there exist *pitch-fibres* (each for its own note) in the auditory nerve, distinct from simple *tone-fibres*, and from *noise-fibres*. And, yet further, there seems to the writer to exist strong motive for believing, on analogical grounds, that *within the cerebral tone-centre, each tone possesses its own individually responsive molecules, which will remain utterly incognisant of, deaf to, any other tone but that which may be looked upon as their own special property.*

3. Structural health of the nerves linking together the tone-centre in the brain and the larynx, with perfect conduction of the outgoing current from the former to the latter.

4. The faculty of instantaneously, as it were intuitively, responding to the brain-order with the precisely fitting amount of action of the muscles



adjusting the tension and length of the vocal cords (in addition to similar action on the part of those regulating their approximation for the mere purpose of phonation),<sup>1</sup>—a dynamic requirement which presupposes perfect health of all the tissues concerned, inclusive of the texture of the vocal cords themselves, so that no resistance may be offered on their part to instantaneous muscular play.

5. A normal condition of the resounding cavities of the mouth, throat, nostrils, &c., which strengthen the laryngeal notes by unison-resonance, and modify them by harmonic additions. This implies proper form and tension of the hard and soft parts,—but does not mean that all extraneous materials (such as mucus or saliva) must be absent from the surfaces concerned. Just as, if the gamut be run with the voice at the mouth of a glass vessel, its fundamental consonating note will be found of the same *pitch*, whether some foreign body, such as liquefied gum or a piece of paper, be or be not applied to the inner surface.

6. The power of intuitively fixing a definite sliding measure of tension, thickness, and length of

<sup>1</sup> Various alterations of the vocal cords, more or less interfering with their approximation throughout their whole length during phonation, will tend to make the voice shrill, and even cause the emission of falsetto harmonics. (Vide Marcet, *Head Sounds of the Human Voice*, p. 2.)



the vocal cords in *piano* and *forte* utterances, to balance the tendency of those cords to heighten the pitch, when the air-current through them is increased in force, and *vice versâ*. This varying force seems to be of less importance than was at one time supposed, but cannot be denied some share of influence.<sup>1</sup>

7. Absolute precision in various changes of the windpipe designed to ensure its vibrating in unison with the vocal cords,—these changes being elevation, reduction in length, diameter, and amount of surface-tension, all of them increasing in a fixed ratio as pitch rises,—along with these, contraction of the throat, fauces, and uvula.

8. Precise adjustment of the membrane of the tympanum to varying pitch in tone, and by involution a healthy state of the muscle tightening that membrane.<sup>2</sup>

<sup>1</sup> In experiments on the dead body, the laryngeal sound is very certainly raised slightly in pitch by increasing the force of the air-current through the glottis (vide Béclard, *Physiologie*, 5<sup>ème</sup> éd. p. 783, Paris, 1866).

<sup>2</sup> The importance of this condition is, however, contested by some physiologists on the ground that 'it would be impossible for the tension of the muscle to alter with sufficient rapidity to enable us to perceive the great number of consecutive tones in music, which it is really in our power to do. For the contraction of the muscle would, in a shake for instance, evidently lag behind the tone heard, and soon fall exactly upon the wrong tone' (Bernstein, *op. cit.* p. 207). But who can fix the limit of possibility in regard of muscular adaptation? And Bernstein, indeed, ends by admitting that



9. A normal ratio in regard of density and plasticity of the fluid of the labyrinth in the internal ear : if these properties were abnormal either in a *plus* or *minus* direction, it is reasonable to suppose sounds of given pitch would undergo alteration in transmission through the fluid to the terminal filaments of the auditory nerve.

10. An efficient condition of the constituent of the internal ear designed to be impressed sympathetically by variation in tone. There seems no room for doubt, that this important function is discharged by the microscopic fibrils, named in honour of the discoverer, the rods, teeth, or organs of Corti.<sup>1</sup> And after this fashion : a singer produces a tone designed to be of a certain pitch,—but whatever be the pitch of the tone actually emitted, its respondent rods of Corti, with the connected portion of, so-called, basilar membrane on which they rest, are thrown into uniso-

the tension has some connection with pitch in regard of general sharpness or graveness of tone.

<sup>1</sup> Of the 3,000 fibrils of Corti, which it has been calculated the ear possesses, Helmholtz distributes 2,800 among the seven octaves in general use,—that is 400 to an octave. This exquisite microscopic instrument may be said to replay all music produced within audition-distance, before the notes are finally conveyed to the brain. The curious observation of Hensen (Bernstein, p. 228), who distinctly saw vibrations, *corresponding with tones of different pitch*, take place in the microscopic hair-like processes on the surface of the body, antennæ, and tail of small crabs, when a horn was sounded close by, illustrates the mode of activity of the fibrils of Corti.



nant vibration,—that vibration is conveyed by corresponding particular fibres of the auditory nerve to the cerebral tone-centre,—and there the accordance or the reverse of the tone as conceived, with the tone as produced, recognised. Whether the rods of Corti play this part or not, some portion of the internal ear must be entrusted with the function ; were it not so, in case of defective emitting differentiation of pitch on the part of the cerebral tone-centre, there would be no mechanism to warn the brain of the singer of the tendency to, or actual production of, falseness of tone.

Now the slightest disturbance in any one of these more or less complex conditions must lead to fault of tone,—and the causes and mechanism of the defect will vary with its abidingness.

Where permanently established, vicious intonation probably depends either on local cerebral imperfection, on defect in the teeth of Corti, or on perverted conduction on the part of special fibres in the acoustic nerve. Such persistent deficiency could hardly depend upon structural defect in a singing larynx,—for change of structure of the kind would of necessity in other manners greatly interfere with or wholly prevent vocalisation. Deficiency of this species is obviously incurable by any amount of training.

Abiding weakness of the contractile power of the



thyro-arytænoid muscles, the relaxing agents of the vocal cords, appears to render the voice shrill and high-pitched ;<sup>1</sup> probably temporary weakness of the kind may act as the cause of incorrect rise of pitch for a note or a few notes.

There exists in all likelihood a morbid condition of the tone-centre in the brain, corresponding to the *amnesia* (forgetfulness) of the word-centre. The special tone-memory might be out of order for a note, a phrase, an entire air, or throughout an opera from first to last. If the failure of intonation were temporary, the morbid condition would be dynamic ; if persistent, some statical change in the brain must be suspected. This form of falseness would be observed in persons, whose vocalisation had at one time been irreproachable in tone.

The outgoing current from the brain through the vagus and laryngeal nerves may be enfeebled in low states of health, or of passing exhaustion or general debility,—hence failing guidance in managing the length, tension, and approximation of the vocal cords. Or the muscles playing on those cords might from weariness, limited to themselves, refuse to respond correctly to the proper amount of nerve-stimulation, as tired legs refuse to walk, though the spinal marrow may continue to send its mandates for movement

<sup>1</sup> Mackenzie, *On Hoarseness*. See also note, p. 60.



just as before. The flat intonation of Tietjens (defect of this mechanism would probably always be of the flat kind) seemed habitually connected with continuous exhausting strain night after night on her laryngeal strength.

The frequency with which persons singing false, whether the defect be of constant, frequent, or rare occurrence, are themselves totally unaware of their shortcomings, is one of the most curious facts in the natural history of faulty intonation. In such cases one would suppose the teeth of Corti probably, and the cerebral tone-centre certainly, must be either permanently or transiently impaired in efficiency,—that is either structurally or functionally. But there is this difficulty in the way of accepting this or any other explanatory hypothesis, that almost at, or actually at, the very moment the singer is deaf to his own defect, he may be keenly alive to the slightest flaw in his neighbour's tones.

Considering how infinitesimally, how inconceivably minute must be the change in length of vocal cord entrusted with effecting each modification of pitch, and allowing their fair share of importance to the number and complexity of the subsidiary dynamic conditions at work in the process (*ideation, memory, volition, unconscious cerebration, voluntary innervation, reflex action, muscular sense and contracti-*



*lity, all responding on demand with quasi-electric speed*), it must be admitted that rapid and accurately toned vocalisation is one of the most composite and most wondrous acts of life.

The importance of correct intonation may perhaps be fairly signified by the subjoined numbers :

Maximum.	Mean.	Minimum.
+10	0	-20

(b) *Time.* Rhythm, as all the world knows, is of the deepest importance as an element of music : in fact, given sounds of varied pitch, the next most essential condition in the production of music is that a rhythmic relationship between their returns and the intervals separating them, shall be steadily maintained.<sup>1</sup>

The power of perceiving this rhythm in its main and subsidiary divisions, a *sine quâ non* in the musician, is a primary faculty of the brain,—like other of its faculties, possessed in very various degrees by different people ; and like these, too, im-

<sup>1</sup> Rhythmic monotoned sounds appear to be the primary attempt at music by the lowest animals spontaneously sound-producing—taking precedence even of variation in pitch. Thus the not unpleasing sounds emitted by insects and certain spiders are always in monotone, but *repeated rhythmically*. Scudder, *Proceedings Boston Soc. of Nat. Hist.* vol. xi. April 1868, quoted by Darwin, *Descent of Man*, 2nd ed. p. 566, 1874. On the subject of rhythm in general, the curious reader will find deeply interesting facts and speculation in Herbert Spencer's *First Principles*, chap. xi. ed. 1862.



provable by use and destructible completely, or almost so, by disuse. Natural endowment, aided by practice, may produce great sensitiveness of rhythmic feeling: thus the humble German bands that perambulate the streets, though often, for an obvious motive, taking the main *tempo* too fast, succeed as a rule in keeping most perfect rhythm, according to the measure adopted,—and this without any guiding conductor or even a regular *chef d'attaque*.

Where the power of perceiving rhythm is wholly wanting (and the defect is not an excessively rare one, especially in certain nationalities), the cerebral centre normally connected with the faculty must be either congenitally deficient or defective; the resulting vice must be incurable, and the individual, no matter how efficiently otherwise endowed, incapable of taking part in concerted music.

Occasional dragging, or hurrying, of the time would perpetually occur among a mass of executants (showing the rarity with which nature bestows the rhythmic faculty in its fullest perfection), were not the measure delivered them by a competent timeist.

Habitual drawling in time was a very notable defect in the vocalisation of Giuglini; threatening sometimes, when at its worst, to embarrass the orchestra: in fact his accompaniments ought for safety always to have been marked *a piacere* or *colla*



*voce*. Ronconi occasionally erred in this way too, but his drawling, unlike the meaningless drag of the tenor, had generally some dramatic purport and significance. Lengthening out notes in such fashion as to break the time and spoil or even destroy the vocal expression—a liberty often taken with the text by singers to exhibit unusual power of *sostenuto*—of which more by-and-by—is a grave offence against sound taste, and ought to be (instead of being, as it often is, applauded to the echo) visited with distinct disapprobation. On the other hand, occasional deviation from the strict measure may be used as an effective instrument of dramatic expression; while changing the written length of one or more notes in a bar, one shortened the other lengthened, so that the main time remains unaltered (*tempo rubato*) gratifies the ear as a vocal device, especially when the music is well-known.

In its lesser degrees, failure in sustaining rhythm is a vice of habit or arises from inattention, and has little or nothing to do with the brain-centre concerned: in this variety it may probably be cured by special training.

Perfect time-keeping is so essential in concerted music, that, whereas faultlessness in this respect (provided the singer be qualified for the art at all) scarcely deserves special recognition, defectiveness



must be severely mulcted, somewhat perhaps in this wise :

Maximum.	Mean.	Minimum.
+ 5	0	-15

(c) *Manner of producing the voice and articulating.*

As in speech, so in singing, great diversity is observable in the manner of emitting the voice. In this aspect singers may be divided into two main classes: those who vocalise purely and directly from the larynx (the unison-resonance and harmonics of the reinforcing cavities being added in the manner designed by nature, that is without conscious effort), and those who purposely and visibly modify variously the laryngeal voice by what may be termed *mouth-manipulation*. Of this defect in vocalising mechanism—for defect it unquestionably is—Ronconi frequently supplied remarkable illustration.

Let us not be misunderstood however. It is of course only the over-use (equivalent to abuse), and not the mere use of mouth-vocalisation, that is to be deprecated. In fact, as was long since proved by Savart, modifications of the primary laryngeal tones are necessarily effected by changes in the shape of the mouth and the tension of the soft parts forming its walls in every act of vocalisation, and such alterations may obviously be designedly and with all propriety made within certain limits by the singer.



Bennati (*op. cit.*) distinctly showed years ago that elevating, lowering, and grooving the upper surface of the tongue produces notable modulatory changes. Even the lips play a modulating, as well as an articulating part, as may be felt in intoning the vowels (Italian) *u* and *i*.

It is habitually taught that the mouth should be opened as widely as possible almost, in order that each tone may be emitted with all attainable perfection. Doubtless there is truth, in the main, in this contention; keeping the mouth nearly closed deadens laryngeal sound by interfering with its exit, and besides lessens the fulness of the projected tone by hampering the unison-resonance and the amplitude of the harmonics produced within itself. But probably in this matter, as in multitudes of others, *in medio tutissimus*; and certain it is, some sounds cannot be projected at all if the mouth be opened beyond a given angle, varying probably with different mouths. Thus it will be found, that if the vowel *o* be intoned with the lips nearly closed, and the mouth then gradually opened, the sound, at a certain degree of expansion of the cavity, will change, in spite of all effort to prevent this, into *ah*. The writer is not aware whether experiments have been made to determine the exact amount of opening of the mouth best adapted for the production and musical articulation



of various sounds; but, from the single example just given, it is plain some definite relationship of the kind must obtain, so that a singer, it may be inferred, must every now and then sacrifice either fulness of tone or correct pronunciation. Helmholtz's well-known experiments on vowel-sounds give the nearest indications.

As matter of operatic experience, Mario did not open his mouth widely, in cantabile scarcely at all; and some singers remarkable for their excess in this particular (as Nau among sopranos, Fornasari among baritones) made in consequence an exhibition of the interior of their mouths and fauces anything but agreeable to the looker-on.

Naturalness in producing the voice is essential in singing as in speaking; and as in clergymen, who from an affected and strained mode of utterance become the ready subjects of *dysphonia*, so singers by overstraining their powers and attempting vocal gymnastics for which their organ is inapt, may produce functional paralysis of the adductor or tensor muscles and temporary impairment or well-nigh loss of voice. Anyone, who is in the habit of singing, must have felt how much sooner laryngeal fatigue and distress are experienced in learning a new piece than in singing well-known bars; in the former case the fear of mistake in pitch (especially if the singer



be not a practised reader at sight) causes the projection of the notes to be effected in an unnatural and strained fashion.

Very great importance is commonly, and in the main justly, attached to distinctness of pronunciation. But in estimating singers in this matter, it is essential to take into consideration the fact whether the language in which they sing be, or be not, their mother-tongue.

Languages, as exponents of song, differ essentially by the relative predominance of vowels or consonants. There are besides numerous subsidiary influences affecting the pronouncing position of the tongue and the form of the mouth, which make one language promote, and another interfere with, melodiousness in utterance. Bennati (*op. cit.* p. 29), who made many experiments on this subject, found that articulated song became increasingly difficult and non-melodious in an ascending scale in the following languages: Italian, Portuguese, Spanish, French, German, English,—apparently in the direct ratio of the abundance of consonants, and, especially in our own vernacular, of the lavish supply of the letter *s*. Now, though, it may be taken for granted, the faculty for pronouncing English possessed by Bennati was rather a *minus* quantity, still the position of our own language in the series will scarcely



surprise anyone who has been accustomed to hear music declaimed in other tongues. In point of fact, the more slurringly English words are pronounced, the better for the melody, if the worse for the libretto; while the more perfectly articulated are Italian syllables the better for the music as well as sense. An actual penalty is paid for too careful pronunciation in English,—and how quasi-ridiculous the vocalisation of the late tenor Harrison occasionally became through his startlingly correct pronunciation, must live in the memory of all who ever heard him. Again, the prestissimo delivery of the Italian buffo singer would be simply unattainable in English.

But not only does the relative excess of vowels or consonants influence the emission, modulation, and sustainment of projected notes (*sostenuto* is impossible with a true consonant), but each vowel must exercise a special influence of the kind. Helmholtz has in fact shown both analytically and synthetically by a series of experiments with his resonators unsurpassable in ingenuity and conclusiveness, that each vowel intoned in the same note is accompanied by different harmonics from the rest. The *timbre* of the voice must then, if evidence already adduced (p. 32) be positively unshakable, *vary in the production of the different vowels*: and it would be very interesting to ascertain experimentally, whether the position



given to each vowel language in Bennati's series corresponds to its relative richness in the more melodious vowels.

The remarkable display of Italian song by non-Italian singers frequently (of late years invariably) heard in London, supplies an opportunity of studying the evil influence of faulty pronunciation or 'foreign accent' on vocal melodiousness. The polyglot character of the companies, we hear on both our Opera stages, constitutes so striking a feature in modern musical development, that it may not be without its interest to place before the reader a list (an incomplete one beyond all doubt) of non-Italians who have within the last twenty years (some few, further back) sung Italian in London. The nature of each voice is signified by a letter in brackets, and the different nationalities distinguished.

*Austrian*.—Rokitansky (b.).<sup>1</sup>

*Belgian*.—Artot (s.); Sylva (t.); Gassier (bar.); Zelger (b.).

*Canadian*.—Albani (s.).

*English*.—Braham (t.); Sims Reeves (t.); Tom Hohler (t.); Lyall (t.); Maas (t.); Santley (bar.); L. Sherrington (s.); Louisa Pyne (s.); Clara Novello (s.).

*French*.—Nicolini (t.); Capoul (t.); Ad. Nourrit (t.); Dorus-Gras (s.); Miolan-Carvalho (s.); Castellan (s.); Marimon (s.); Nantier-Didiée (m. s.); Trebelli (c.); Faure (bar.); Maurel (bar.); Levasseur (b.); Lassalle (bar.); Guilhard

<sup>1</sup> Brother of the celebrated pathological anatomist.



(bar.); Petit (b.); Vidal (b.); Roger (t); Duprez (t); Guéymard (t); Tagliafico (b); Battu (s.).<sup>1</sup>

*German.*—Rudersdorff (s); Wilda (m. s.); J. Wagner (s.); Anna Zerr (s. s.); Nau (s.); Lucca (s.); Fricci (s.); Gerster (s.); Smeroschi (s.); Cruvelli (s.); Liebhardt (s.); Bloch (m. s.); Pappenheim (s.); Dr. Gunz (t.); Wachtel (t.); Formes (b); Staudigl (b.); Pischek (bar.); Stigelli (t.); Bauermeister (s.); Siedeman (b); Gindele (s.).

*Greek.*—Urio (t.).

*Hungarian.*—Tietjens (s.); Ilma di Murska (s.); D'Angeri (s.); Csillag (m. s.).

*Irish.*—Catherine Hayes (s.).

*Moorish.*—Ambré (s.).

*Mixed.*—Malibran (Garcia) (s.);<sup>2</sup> Viardot (Garcia) (c.); Patti (s.); Zaré Thalberg (s.).

*Polish.*—Parepa (s); Sembrich (s.); Mierzwinski (t.).

*Russian.*—Ivanoff (t.); Fodor (s.); Belocca (c.).

*Spanish.*—Cepeda (s.); Rey Balla? (s.); Gassier (s. s.);<sup>3</sup> Marino (t.)<sup>4</sup> Gayarre (t.).

*Swedish.*—Jenny Lind (s.); Nilsson (s.).

*United States.*—Kellogg (s.); M. Hauk (s.); Valleria (s.); Foli (b.).<sup>5</sup>

<sup>1</sup> Different parts of some countries are said to produce the best specimens of different ranges of voice. In France Picardy seems to have been noted for its bassi; Languedoc for tenors; Burgundy for sopranos (vide Bishop, *op. cit.* p. 13). As regards tenors and bassi, the same localisations are said to hold good at the present day.

<sup>2</sup> Malibran possessed both soprano and contralto ranges, having performed the astonishing feat of singing the parts both of Semiramide and Arsace.

<sup>3</sup> The original singer of Venzano's valse, 'Ah! che assorta.'

<sup>4</sup> Now known as Marini.

<sup>5</sup> The present season (1881) introduces a fresh contribution of non-Italian singers at Covent garden—one only of whose names appears in the above list.



A glance at this list (which doubtless contains some inaccuracies in regard of nationality) will show :

That no country enjoys a monopoly in the production of fine voices, and that, *per contra*, probably no country is incapable of giving them birth ;—

That light sopranos especially appear indigenous in all lands ;—

That France furnishes a lavish supply of baritones of the very highest class ;—

That the dearth of grand tenors is singularly striking ;—

That mid-Europe has been foremost in rank with dramatic sopranos, mezzo-sopranos, and contraltos ;—

That the true Italian *timbre* still reigns supreme ; while the nearest approach to real rivalry has been made by France with voices of the baritone range ;—

That the superiority of the Italian *timbre*, as heard in this country, is the more remarkable because singers of that nationality must suffer relatively more than those born in ruder latitudes from the combined damp and cold of *Britannia brumosa*.

Time was (and not so long since), when pure Italian blood flowed in the veins of all who trod the Italian stage : Grisi, Persiani, Alboni, Mario, Tamburini, Lablache. Of the present groups how many lovers of art would be inclined to exclaim : *heu ! quantum mutati ab illis !* For the writer's part he is



not a mulish *laudator temporis acti*, and is deeply grateful, that he still can hear grand vocal power guided by genius, let it come from what corner of the earth it may.

But there is no doubt that (unless by a few exceptionally gifted persons) the beauty of modulation is impaired through foreign accent and mispronunciation. So true is this, that though the listener may himself be poor in knowledge of the language, the moment an Italian-born sings, amid a crowd of non-Italians, his ear tells him he hears the genuine ring of those soft syllables ('that sound as if they should be writ on satin'),—much as, in a series of portraits, badly and well painted, the spectator feels instinctively which are, and which are not, true to their originals, though he had never seen in the flesh any one of the number.<sup>1</sup>

The essential ground of distinction under the present head lies in the perfection of direct laryngeal utterance, unspoiled by bad articulation. We may tentatively say :

Maximum.	Mean.	Minimum.
+5	0	—5

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<sup>1</sup> It is at all events fortunate the language, artists of foreign nationality are habitually called upon to use for song, should be Italian,—the most apt in existence for vocal purposes. What a stumbling-block English proves to those, not to the manner born, is well known; Duprez' recitative in 'William Tell,' anent 'My country and my *face*' (faith) will not easily be forgotten.



(d) *Facility, fluency, and flexibility.* Fluency of delivery seldom escapes recognition, when highly developed, by even the most careless listener. But in estimating its musical value various minor points must be attended to.

It is to be premised that nature endows differently in this respect voices of different ranges. Sopranos, tenors, and baritones are habitually more gifted than mezzo-sopranos, contraltos, and bassos: and the heavier of its class the particular voice the less agile its production. Persiani, both Pattis, Gassier, Bosio, Ilma di Murska, Albani, Louisa Pyne, Marimon, may be mentioned as exceptionally flexible among sopranos. Trebelli and Scalchi among contraltos execute the music of Arsace with faultless fluency,—as did also Alboni and the contralto of the sisters Marchisio. The delivery of the ‘a che d’ amor’ by Mario in the ‘Barbieri’ stands, as far as our experience goes, unapproached as a specimen of tenor flexibility: the light tenor Bettini, too, can produce the ornate and rapid music of Almaviva with great nimbleness of voice and unmistakable precision. Tamburini’s Assur (a part that may be styled the *pons asinorum* of baritones) with its rolling smoothness of utterance, possessed a charm never to be forgotten: the nearest approach to his standard of vocalising excellence having been pro-



bably attained in this country by Gassier,—while the crowd of baritones who prove incapable of more than slurring over the ornate bars of Rossini, is matter of notoriety. Ponderous basses are always more or less deficient in facility of rapid utterance,—the examples of Marini and Zelger (noble though their voices were in other respects) may be instanced; while a light basso, otherwise less happily endowed, may display no mean amount of flexibility.

It is essential for the perfection of fluent and rapid delivery, that each note be definite in itself and distinct from its neighbour on either side, though the execution be occasionally *legato*,—sharply though smoothly accentuated. This calls for especial attention on the part of the listener; he must also be on the *qui vive* for defective intonation,—pitch is often inclined to swerve on one side or the other in rapid passages, especially if these be partially or wholly chromatic.

Well-developed flexibility of voice must depend on :

Perfect elasticity of the vocal cords; extreme perfection not only of the structure, but of the muscular sense of all the laryngeal muscles, intrinsic and extrinsic; and instantaneous readiness in response to motor nerve-stimulation.

But in order that these conditions, especially the



dynamic, shall be maintained in satisfactory order, the parts concerned must be kept in constant practice: probably there is no element of singing so much under the influence of steady labour as fluent delivery. And hence it is, thoroughly facile vocalisation is rapidly becoming a thing of the past. The declamatory, non-ornate music of Verdi, and still more that of Wagner, replacing the florid scores of Rossini and the cantabile flowing melodiousness of Bellini and Donizetti, are not only fatal to the steady practice of fioriture, but, by straining the vocal apparatus to its utmost capacity in declamatory delivery, often bordering on shouting, deprive the parts of their natural share of ready mobility. The antagonism of the dominant school of the present day with those immediately preceding, is in this point of view confessedly on all sides extremely pronounced.

Probably the following scale may be provisionally adopted for the present element of singing:

Maximum.	Mean.	Minimum.
+10	0	-10

(e) *Facility of transition from chest-voice to falsetto.* The faculty of gliding smoothly from the lower to the upper register and back again is a gift very unevenly apportioned among singers. Sex, in the first place, makes the most marked distinction.



In female voices the break is successively less and less pronounced as we ascend from contralto to soprano; and in soprani-sfogati, for instance Carlotta Patti, it is absolutely or well-nigh imperceptible; in point of fact her vocal range lies almost wholly within the falsetto register. In males the break almost or completely unnoticeable in bassi profondi (conversely to soprani sfogati, they use their chest-register almost solely), gradually increases in distinctness till we reach singers of the tenor range, in whom it is always more or less sharply defined. Baritones are seldom called upon to use falsetto.<sup>1</sup>

When abruptly, jerkingly, and clumsily effected, and when in addition the *timbre* differs in the two registers, the transition from one to the other produces an unpleasant and singular effect. Thus in the case of a tenor who long figured at Covent Garden, the falsetto notes appeared to issue from a different part of the stage from that he occupied, and from the throat of a different person.

The requirements of opera call more frequently for the use of falsetto on the part of tenor singers than of those of any other male range. No tenor of

<sup>1</sup> Some singers of this range have, however, been remarkable for the extent and flexibility of their falsetto. It is related of Tamburini that he once sang the soprano part in Mercadante's 'Elisa e Claudio' in the absence of the *prima donna* (Edwards, *op. cit.* ii. 272).



the present day could deliver the music of Arturo ('Puritani') without the more or less free use of the upper register. The great tenor-contraltino Rubini is credited habitually with having achieved the feat with his chest-voice alone, but it seems very questionable whether he actually did so. As matter of fact he very certainly sang the *c* sharp in alt in the score of 'A te, o cara' in falsetto. His really great merit in this matter was, that by dint of laborious practice he managed to make the transition from one to the other register quasi-imperceptible; and hence it is he is constantly spoken of as singing from the chest, while he was actually employing his falsetto.

The exact note at which the change occurs varies in different individuals possessed of the same kind of voice, even if their total ranges be closely, or even actually, identical; consequently it cannot be predicted of any particular organ, the break will occur upon this, that, or the other note. Nay more, there may be a difference of one or two tones in the same person (as the writer has himself found) in different states of laryngeal aptitude and of respiratory and general health; the better the condition of all three, the higher in the scale chest-phonation continues possible. Even the amount of repletion of the stomach must be taken into consideration; the emptier this organ, the higher the note



attainable without recourse to falsetto. This might be expected from the acknowledged influence of fullness of stomach in temporarily diminishing the compass (sometimes by three semitones) and the volume of voices.<sup>1</sup>

The greatest diversity of opinion prevails as to the level at which the break occurs in female voices, a fact not to be wondered at, as the ear has great difficulty in detecting the transition either in contraltos or sopranos. In tenors and baritones the greater the number of notes that can be sung both with chest and falsetto voices, the more easily is the transition accomplished. No certain information, however, as to the average, usual, or maximum number of such doubly-producible tones exists; it probably does not habitually exceed three or four in tenors most fortunately endowed in this aspect; but we have known a baritone able to execute forcibly six to eight notes in both voices.

The transition is more easily effected in *mezza voce* than in full-toned delivery; a circumstance which must be borne in mind by the observer desirous of fairly estimating individual skill.

<sup>1</sup> This interference with vocalisation, mainly ascribable to reduction of the breathing capacity of the lungs, depends also in some measure on upward pressure in the direction of the heart, and in all probability also somewhat on reflex influence through the eighth pair of nerves.



The mechanism of falsetto has proved a stumbling-block to laryngeal physiologists from time immemorial, and even at the present hour (as in the case of *timbre*) one instinctively feels the last word has not been pronounced in solution of the problem. Two facts must strike everyone, who has ever used his own voice, as indisputable: namely, that the mechanism of the two registers, even in the glottic area, differs to a well-defined extent; and that higher portions of the vocal apparatus are newly subsidised for, or at least much more actively concerned in, the production of falsetto than of chest-voice.

In pre-laryngoscopic days various 'guesses at truth' (they could be little or nothing more) were successively made, some widely diverging from, some closely approaching, certain opinions accepted at the present day. A few of the number are worth glancing at.

Ferrein, denying *in toto* the participation of the vocal cords, referred falsetto to a 'new organ;' but as he never described this organ, though he survived the announcement of its discovery for thirty years, we may safely set aside the alleged novelty as a mistake.<sup>1</sup> Hellwag ascribed falsetto tones to contraction of the uvula,<sup>2</sup> in partial anticipation of the now demon-

<sup>1</sup> *Mém. de l'Acad. des Sc.* 1741, p. 409.

<sup>2</sup> *Diss. Inaug.*, Tübingen, 1874.



strated fact that the whole of the soft palate rises and passes backwards almost to the extreme possible limit during their production, while the uvula retracts so as to be scarcely distinguishable from the arches of the palate. Bennati, without questioning that the larynx played some part in their production, strove specially to affiliate these tones to contractile movements of the parts surrounding the isthmus of the fauces.<sup>1</sup>

Bishop, seizing upon an idea started by Wheatstone, suggested that 'falsetto tones are produced by a nodal division of the column of air within, together with the vocal tube itself, into separate vibrating lengths.'<sup>2</sup> He gives some simple and interesting experiments made on singers during vocalisation, which seem to show that aid may come from this source.

Then come hypotheses ascribing these tones to special conditions of the vocal cords:

Here may be mentioned the theories of:—Müller, tracing them to a limitation in the *width* of the cords vibrating during their production, — their free edges only acting, while the entire width is concerned in chest-sounds:—that of Diday and Petrequin, to vibration solely of the *air*, as it passes through the orifice of the glottis, which becomes rounded in

<sup>1</sup> *Op. cit.*

<sup>2</sup> *On the Voice*, p. 19.



form like the embouchure of the flute :<sup>1</sup>—that of various persons who assume the falsetto vibrations are confined to a limited *length* instead of the entire span of the cords :<sup>2</sup>—that of Helmholtz, to desiccation of the moisture on the edges of the cords, whence their rims becoming thinner, and their weight less, while, their elasticity remaining unchanged, their vibrations become more rapid.<sup>3</sup>

Laryngoscopic examination has not settled this question with the precision that might have been

<sup>1</sup> These physiologists, in support of the notion that the air-currents through the glottis alone, and not its lips, are concerned in falsetto singing, set great store by the fact that the tactile vibration felt on the thoracic walls during chest-phonation ceases, when the upper range is reached. But as the writer long since stated (*Dis. of Lungs*, 4th ed. p. 24) the parietal vibration 'may be absolutely null on a high note' from the chest, 'though most loudly sounded, while it is well marked with a low note of the same voice softly uttered.' With the writer's own voice (tenor) the vibration becomes faint on *f*, and absolutely ceases on *g* above the lines, though the note be sounded with the fullest power of the chest. The strength and pitch of the tone (and not the register) regulate the amount of tactile vibration.

<sup>2</sup> It had long been known by experiments on the dead body, as also by those of Magendie on the living dog, that with the lowest tones of the *chest* voice, the cords vibrate through their whole length; and that, as the pitch rises more and more, a proportionally reduced length is thrown into vibration; therefore the shortening in falsetto would simply signify rise in pitch and not a new condition introduced into the mechanism of phonation.

<sup>3</sup> To Helmholtz's conception it may be objected, with fatal force, that Müller found experimentally on the dead body, that when the cords became dry, artificial phonation ceased to be producible—reappearing when they were wetted.



expected. True, it has established beyond chance of controversy, that both the vocal cords and the upper part of the tone-apparatus are concerned in, and assume special conditions during, the production of the falsetto range : but the precise peculiarity of the part played by each may be considered even still *sub judice*. The difficulty of applying the instrument, when the larynx is sufficiently raised for the production of these notes, is likely long to interfere with final decision on their mechanism.

In a Tyrolese jödler examined by Dr. W. Marcet, the production of the falsetto tones was accompanied by considerable shortening of the vocal cords, which were *tightly applied against each other throughout their entire length*. ‘The skill of the singer,’ he observes, ‘who wishes to pass very quickly from a chest to a head note, and to strike the right clear sharp falsetto sound, will be an acquired dexterity of regulating the motion of the arytenoid cartilages so as to cause the air from the chest to act on the length of the cords required for one of their harmonics.’<sup>1</sup>

Of the limitation of the length and width of the vibrating portions of the cords in falsetto (the rims only acting) various other observations prove the reality. But the state of the orifice of the glottis is less certain,—though the balance of evidence deposes

<sup>1</sup> ‘On Falsetto,’ &c., *Phil. Mag.* April 1869.



to *widening of its anterior portion* as the pitch rises, with assumption of rounded or oval form. Sufficient reference has already been made to the well-established change in the condition of the soft palate and uvula.

In respect of our main point, the numerical estimate of the facility of transition from one range to the other, the kind of voice must never be lost sight of. In tenors some amount of abruptness of transition seems a blemish almost inseparable from the range of voice (the case of Rubini stands out as an extreme exception); while in sopranos similar defectiveness would betray most clumsy vocalisation. The subjoined scale might be provisionally adopted; the annoyance to the ear, be it remembered, from very notable defect in this regard is greater than the gratification derived from any amount of perfection:

Maximum.	Mean.	Minimum.
+2	0	-6

(f) *Vocal style.* The particular style of a singer represents the sum total of a number of components: the manner of producing and uniting the notes; the use of the legato and the staccato; the æsthetic modification of the time; the posing or balancing of the voice, sustaining, intensifying, or lessening the



amount of tone ; the employment of the piano and the forte in giving light and shade ; the steadiness of phonation ; and the amount, variety, and brilliancy of ornamentation. A few words may be ventured on concerning each of these elements.

Smooth production of tones and union of those in sequence, without jerkiness of rhythm, are plainly essential to good singing ; this is easily intelligible, and defective utterance in these respects proves readily traceable.

The too constant use of the *legato*, obtrusively and perpetually gliding a series of notes into each other, may amount to a positive defect. Such abuse tends to destroy the sense of rhythmic movement, and render *intervals*, so essential to the very essence of music, imperceptible. But the occasional adoption of the *legato*, even when not marked in the score, produces a most pleasing effect. This is especially true where either a sudden rise, or a sudden fall, in pitch occurs in two notes in sequence. In illustration of the latter (a device of which Verdi is notably fond) may be mentioned the sudden fall of six notes in the opening movement of 'Parigi, o cara : ' the effect, if the *legato* be well managed, is charming, and few tenors fail to deliver it smoothly ; but one occasionally hears it uttered with an accentuated jerk, indicating a total want of the sense of the beautiful.



Another ravishing example of the same kind is to be found in 'Del miser sol' (the 'sleep song') of Masaniello. So also a *legato* rise in pitch—occasionally resorted to, when *not* marked in the score, by singers of the highest eminence—becomes, especially when of the *syncopated* form (that is when the last note of one bar is linked with the first in the following), a means of striking effect. A good example is found (second part of 'Ah! che la morte'—'Trovatore') in the lament 'L'amor che posi in te! Non ti scordar di me,' &c. By uniting the '*te*' with the '*Non*' (the eighth to the ninth bar, and a rise of five notes) a most charming result is produced,—though in one sense the *legato* involves a breach of vocal art, for the '*te*' really ought to conclude the musical, as it does the grammatical phrase.

On the other hand, the *staccato* or *mezzo staccato*, sparingly introduced, give both vocal charm and dramatic significance of high order. Persiani's utterance of *staccato* notes was exceedingly decisive, and sharply defined—the essential necessities for their proper production. But Patti—in this attribute of song probably never rivalled—may in very truth be regarded as the queen of *staccato*. What can be more startlingly perfect than the sparkling shower of such notes, dazzling the musical sense by their brilliancy, which that accomplished singer flings



from the larynx, in returning to the theme of the cabaletta 'sempre libera degg' io,'—verily 'orient pearls,' but *not* 'at random strung?'

The faculty of delivering *staccato* with success must depend on the power of contracting and relaxing the intrinsic muscles playing on the vocal cords with extreme, almost electric rapidity, nipping up and letting go, as it were, with instantaneous movement.

Altering the time (*ad libitum* alteration is alone referred to) in solo, or by mutual convention in duet singing (*accelerando*, *rallentando*), when not too frequently had recourse to, is a device of great utility in giving emphasis and æsthetic colour to phrases. But not unoften artists who indulge themselves with free recourse to unwritten *rallentando*, end by acquiring a drawling style, on the evils of which we have already spoken.

The manner of posing the voice, and the power of maintaining a *sostenuto*, a *crescendo*, or a *diminuendo*, play a great part in individual style. A *sostenuto*, held on through a variable number of bars, may be set down in the score:—here the essential merits of the singer will consist in the steadiness and equability of sustainment, and the fulness of tone maintained. But artists possessed of the necessary anatomical and physiological conditions are exceed-



ingly prone to introduce *ad libitum sostenuto*, and to offend good taste more or less outrageously by its abuse. Mongini was a grave sinner in this respect: few can fail to remember how completely he perverted the very sense of the cynical soliloquy of the Duke, 'La donna è mobile' ('Rigoletto') by his inappropriate and meaningless *sostenuti*: why, the 'gallant gay Lothario,' in his then mood, would not have given himself the trouble to hold a note,—and the air ought to be tossed off with the easy indifference of a *blasé* and nonchalant libertine. And it would be easy to designate an existing singer who systematically annoys the audience by dragging out a favourite note to an unreasonable length. On the other hand, an artist exceptionally endowed in this point of view may be pardoned an occasional exhibition of the special gift, on the understanding that it is a condoned *tour de force*. In this sense, Adelaide Kemble's never to be forgotten *sostenuto* in her delivery of 'Casta Diva' might be accepted without demur, as probably presenting the most remarkable specimen of prolonged tone-sustainment ever heard.

The necessary conditions of this sustaining power are, statically, more or less portentous capacity and length of chest—hence a 'total breathing volume' more or less in excess of average endowment; and, dynamically, the manner of taking in air (so as to



utilise thoracic capacity to the full), *plus* the careful emission of the voice, so that tone shall be maintained without the *waste* of a sensible fraction of a cubic inch of air. But further, this power, when exceptional in amount, must be connected with a particular facility in augmenting the distinct volume of intra-pulmonary air which we have called '*complementary*,' that is 'the volume which can be inhaled by a forced, after an ordinary inspiration.' It also indicates in all probability a special control over the '*supplementary*' air, that is 'the volume which can be expelled by a forced, after an ordinary expiration.'<sup>1</sup> It is to be remembered that in estimating the numerical value of *sostenuto* power, the hearer must ascertain which is the note sustained, and watch the intensity of production; the exhaustion of the pulmonary air disposable will take place sooner (and the duration therefore be proportionally shortened), the further the note lies from the singer's range of easy emission, and the more forcibly it is emitted.<sup>2</sup>

<sup>1</sup> *Op. cit.* p. 40.

<sup>2</sup> The method of breathing adopted by the singer exercises a great influence on the facility with which the air is taken in and the ease with which its volume can be husbanded. The vicious system of designedly forcing the clavicular regions to extra work, and keeping the diaphragm as idle as possible, was many years ago exposed by Mandl (*De la Fatigue de la Voix, &c.*, Paris, 1855). But the sexual difference in breath-movements must not be forgotten—it is more natural and therefore easier for a man to breathe with his diaphragm than for a female, who is from birth formed to



The value of *crescendo* and *diminuendo* (whether taken alone or in conjunction, first one then the other following on the same note or in the same musical phrase), as means of musical expression, and whether in solo or concerted song, cannot be over-rated; and the faithful delivery, or the reverse, of the gradually increasing or gradually decreasing mass of tone, is a winning grace or an unhappy blemish. The steady posing of the voice at the outset of a crescendo, the husbanding the laryngeal strength at first, and quasi-insensibly developing it,<sup>1</sup> are marks of finished style displayed in perfection in the delivery by Graziani and Lassalle, of the final note in Renato's plaintive air 'Dolcezza perdute.' This crescendo is brought to an abrupt close when at its height by sudden closure of the mouth, whereby all resonance in the upper vocal tube is instantaneously arrested. Much more striking effect however is produced by crescendo passages protracted through a specially use her upper chest-regions—a tendency increased, when she grows up, by the compressing influence of stays on the base of the chest. Indeed, as the writer long ago remarked (*Dis. of Lungs*, p. 15, 4th ed.), the extensive play of the upper regions in full-chested soprani through the exercise of their art, ends by increasing the amount of infra-clavicular play in ordinary conversational breathing. The subject is a most complicated one, and can only be glanced at here.

<sup>1</sup> The greatest effect in such passages is ensured by what the Italians term a *serpeggiando* movement—a gradual *creeping on* in force of accent, until the commencement of the true *crescendo* is reached.



certain number of bars, as in the grandly impressive outburst in 'Robert, toi que j'aime,' admirably rendered by many of our sopranos; but not unfairly connected in the recollection of many with the massive if not over-refined delivery of Rudersdorff. The power of concerted crescendo in emotionising may be illustrated by the effect of the well-known passage in the trio 'Troncar i suoi dì': it is impossible to listen to this phrase, as it gradually rises from piano to fortissimo, without a thrill of exquisite delight, when the effect as designed by Rossini is properly evolved; while the bitter disappointment experienced by the hearer, when the tenor voice from previous over-strain fails in making its distinctive mark, is redeemed neither by grandeur of the basses nor by any amount of orchestral crash.

The charm of *diminuendo*, whether of a note or of a phrase, as commonly used, rather appertains to executive skill than vocal expression. But to feel to what point the vividness of that charm may attain, we have only to recall the *diminuendo* of Mario in his delivery of 'Angiol d'amor' in the 'Favorita': certainly the most exquisite specimen it has fallen to the lot of this writer to hear.

The value of interchanging piano, forte, and mezza-voce utterance as a help to vocal expression,



whether declamatory or cantabile, is so patent that artists even of the highest merit, too enamoured as it were of the loveliness of contrast, are occasionally betrayed into its abuse. Those who remember Rubini well, admit that his occasional transitions from fortissimo to pianissimo overstepped the limits of good taste; nor would it be difficult to name a living tenor who occasionally, after his loudest expiratory effort, suddenly, from the faintness of his pianissimo, becomes inaudible except to persons in his closest vicinity.

Steadiness in phonation, complete freedom from shaky, tremulous utterance, might be supposed a *sine quâ non* in the delivery of declamatory or cantabile music. But of late years a school of vocalisation has sprung up which cultivates as a grace, under the title of the *vibrato* or *tremolo*, that which is an unquestionable physiological defect. Essentially confined to male singers, this shakiness of tone, pushed to an extreme literally distressing by some artists, as for instance the basso Vidal, may sometimes find a dramatic excuse in the nature of the music or of the part played. On this principle the vibrato of the baritone Fornasari, as a rule disagreeable, appeared not inappropriate in 'Linda di Chamouni,' where the intense anxiety and misery of the father (the rôle he filled) might be assumed to give a broken



character to his utterance, and hence claim acceptance as an adjunct to 'tears in the voice.'

Physiologically the vibrato may be looked on as a shake on a single instead of on two notes. Its mechanism remains so far undetermined. Bécларd adopts the notion 'as not unlikely to be true,' that 'the epiglottis, aided by the soft palate, and thrown voluntarily into vibration, produces the tremolo.'<sup>1</sup> Whether the suggestion be true or false remains to be proved; but as in the ordinary shake on *two tones* no such epiglottic interference occurs, why should it be needed in the explanation of its *single tone* form?

Under the head of *embellishments* rank graces, triplets, scales, shakes, cadences, roulades, and fioriture of all varieties. If set down in the music the artist's part is confined to their correct delivery; if introduced, good or bad taste may be exhibited in their method and amount. The tendency to excess of ornamentation on the part of singers appears at one time to have threatened to destroy the simple beauty of melody, and to avert this evil, it appears, Rossini wrote his own fioriture.<sup>2</sup> And the great

<sup>1</sup> 'On a pensé qu'elle (l'épiglotte) pourrait agir à la manière des couvercles élastiques qu'on place au-dessus des anches dans les tuyaux d'orgue,—couvercles qui ont la propriété de rendre le son tremblé, sans en changer la hauteur' (*op. cit.* p. 783).

<sup>2</sup> Rossini, it is said, was finally driven to adopt this course by the outrageous embellishment of Velluti, the last of the male sopranos.



maestro himself adopted different systems. He varied his ornaments from the simple scale, abounding for instance in such airs as 'Non più mesta' ('Cenerentola'), to the more complicated adornment very peculiarly his own, wherein each central note essential to the air is floridly represented (as throughout the melodious 'Semiramide') by a number of higher and lower pitched of its harmonics. Running up and down scales bar after bar displays poverty of invention on the part of the singer, and being frequently a merely inopportune display of flexibility in phonation, displeases rather than pleases. Who will not endorse this statement, that can recall Rubini's endless cadences in the 'Tu vedrai la sventurata' ('Pirata')? Even the chromatic scales of two octaves credited by tradition to Catalani would weary on frequent repetition. On the other hand certain singers (Persiani among the past mistresses of the art) possess an inventive faculty that gives a singular attractiveness and freshness to their floriture; such ornamentation alone would merit recognition in the present scheme.

The shake, less utilised in opera than in some other varieties of music, will probably fall eventually almost into desuetude, as the school of Wagner grows more and more dominant. When, however, this form of embellishment does occur in the score, if rendered with the perfection of Bosio's memorable



display in the first act of the 'Etoile du Nord,' (Vascel, che lasci il lido), it would deserve special numerical acknowledgment.

The writer feels greater difficulty even than with previous headings in suggesting musical values for that just considered. It seems doubtful, in truth, whether 'style' ought not to have been subdivided, so numerous are the conditions ranging themselves under that head. The limits must at least stand wide apart, and we incline to the following standard:

Maximum.	Mean.	Minimum.
+ 20	0	- 20

In the subjoined table the various values suggested for the elements of vocalisation are grouped together. And it will be seen that the total numerical difference between two voices may by possibility amount to 128, according to the scale. Such amount of difference is, however, most unlikely to occur; the numerical equivalent for any given voice will fall somewhere between the two possible extremes.

(a)	(b)	(c)	(d)	(e)	(f)	Totals
Intonation (pitch)	Time or rhythm	Production of voice and ar- ticulation	Flexibility and fluency	Transition from chest voice to falsetto	Vocal style and embel- lishment	
+ 10 - 20	+ 5 - 15	+ 5 - 5	+ 10 - 10	+ 2 - 6	+ 20 - 20	+ 52 - 76



## III.—DRAMATIC EXPRESSION.

*Music! oh! how faint, how weak,  
Language fades before thy spell!  
Why should feeling ever speak,  
When thou canst breathe her soul so well?*

It is not easy to determine whether, while Moore penned these lines, he had specially in view that form of music, the touching ballad, in delivering which he himself is traditionally known to have attained well-nigh marvellous perfection,<sup>1</sup> or whether he meant to assign to music in general a rank high above that of spoken language as an instrument of expression. In whichever sense, however, the stanza be accepted, few capable of feeling music will quarrel with it on the score of exaggeration; nor will they be disposed to cavil with Herbert Spencer's homage to the emotional power of the art: 'music arouses dormant sentiments of which we had not conceived the possibility and do not know the meaning.'<sup>2</sup> Spell-bound, in truth, we muse in vague indefinite dreams of something beyond and above this nether world,

<sup>1</sup> Marvellous, especially when it is remembered that the poet scarcely possessed any real singing voice; insomuch that his vocalisation may be correctly described as *modulated speaking to an accompaniment*.

<sup>2</sup> *Essays*, vol. i. p. 228, 1868.



as melody and harmony of the higher moulds enthrall the auditory sense: we feel a something yet deeper than the shadowing forth, or the idealisation, of the most trivial and of the deepest emotions, the subtlest and the most refined sentiments, the tenderest and the deepest passions.

And true as this is of music even in its simpler forms, how greatly more so of that vast *ensemble* of solos, concerted pieces, vocal and orchestral effects, that constitute a lyrical drama. And further, if influences so deep are felt by ordinary mortals, possessed of average musical feeling, what amount of intensity may they not reach in organisms of vividly developed sensibility to the 'power of sound.'<sup>1</sup>

How is this influence exercised? Music in its existing phasis of development does not possess combinations specially affiliable to given conditions of emotion, and to these alone. There is no fixed set of sounds, or mode of rhythm or conventional phrasing, or peculiar kind of melody, identified with this

<sup>1</sup> Such susceptibility as that of Malibran Garcia, who is said to have fainted on hearing Paganini play, and of Jenny Lind, who is credited with having shed tears on listening to Persiani's *Amina*, is, perhaps happily, of rare occurrence. Sensitiveness of the kind may be actually injurious to health. It is said that a sort of epidemic of nervous disorders set in among the ladies, *habituées* of the opera at Naples, under the emotionising influence of the change of key from the minor to the major in the last verse of the choral prayer 'Del tuo stellato soglio' in Rossini's 'Mosé' (Edwards, *op. cit.*, vl. ii. p. 164).



or that varied form of sentiment or passion. The day has gone by when what may be called *painting in sound* could please fastidious taste. The crash of the orchestra accompanying each step of the dismounted statue in 'Don Giovanni,'—the roll of the drum to represent the lion's roar in Haydn's 'Creation,' the *rallentando*, drawling movement to suggest the slow creeping of the worm in the same oratorio,—and even the imitation of falling rain in the storm-interlude in the 'Barbiere' by so recent a maestro as Rossini, are devices in the main rejected by the great composers of the present period. Nevertheless there are exceptions. Thus in his gorgeous, oftentimes sublime, tone-poem 'Faust,' Berlioz frequently realises with startling truthfulness the precise character of the sentiment by forms of orchestral notation. The music descriptive of the hovering movements of the spirits of the air, as they float around the sleeping Faust (Part II.), may be quoted as one signal example. So, too, the tramping of the fiend-horses (as they bear Mephistopheles and his victim to the abyss in that furious gallop which literally 'transfixes with horror' the actual listener as completely as it is intended it should terrify Faust himself) is closely imitated by the orchestral modulations. But Berlioz goes further than this: he even, like Mozart and Haydn, occasionally utilises the *musical onomatopœia*,



as it may be called. One of the most remarkable illustrations will be found in the accompaniment to Mephistopheles' command to the chorus of spirits at the close of his jeering serenade, 'Hush ! Now vanish all !' So realistic are the sounds that the listener seems not only to hear, but verily to see, the pell-mell flight of the horde of demons.

Still the general thesis cannot be gainsaid, that the melody and harmony of to-day only fit in *surface-character* the nature of the thought to be musically expressed. The 'Lieder ohne Worte' of Mendelssohn, like the 'Nocturnes' of Chopin, only convey a general impression of the species of sentiment or emotion designed to be illustrated ; though springing from the most musically poetic of brains aided by technical endowment of the highest reach, those gems of art do not mark, phrase by phrase or movement by movement, any special sentiment. And were different people with different qualities of poetic fancy and musical sense to actually set words to Mendelssohn's beautiful creations of rhythmic tone, it would doubtless be found that even in the main sentiment their renderings widely varied.

In truth it is the absolute and the relative time, the manner of phrasing, the placing of accent and emphasis, the character of the melody, the nature of the general harmony, and the subsidiary orna-



mentation, that emotionise in various ways the human being (though how and why they do so is one of the unexplained mysteries of organisation),<sup>1</sup> rather than the mere association or sequence of any particular set of tones. Let anyone who doubts this play on the piano, correctly as regards mere notes, the 'Miserere' of Verdi, but let him variously alter the time, convert the staccato into legato, emphasise where no emphasis should occur, omitting it where the sense demands it pressingly, change forte into piano, and *vice versâ*, and he will find that a piece of music which probably comes as near to exact expression of a given dramatic sentiment as any that could be readily quoted, is perverted into a meaningless combination of notes scarcely pleasing even to the simple musical sense. This is somewhat as in ordinary speech, wherein the actual words often stand second in significance of meaning to the inflection, the force, the measure and the smoothness of phonation with which they are uttered.

And herein lies a truth, that lends a colour of justification to the opinion held by not a few, that it is a matter of indifference whether the precise words of an operatic drama be understood or not,—

<sup>1</sup> Herbert Spencer (*loc. cit.*) has some curiously acute speculation on the subject, deserving of study by all who interest themselves in the philosophy of music.



that it is only necessary the sentiment under musical treatment should be known and felt,—nay more, that accuracy of verbal knowledge of a libretto is not only superfluous but æsthetically detrimental, because it tends to divert attention from the tone-effects. Setting aside the cases, unfortunately only too numerous, in which the words of the narrative are simply absurd, this proposition seems untenable both in regard of song and recitative, and might in the writer's view form the central figure of a new 'Book of Fallacies,' conceived in the spirit of Jeremy Bentham. Take two examples among a thousand. Would the madrigal in 'Romeo' produce the same thrilling effect on the musical sense, if the dialogue between the Pilgrim and Giulietta were a dead letter to the hearer, and the 'curious felicity,' with which the ineffably *suave* and simple music is linked to the words, beyond his comprehension? Or, again, can he, on whose ears the words of the nuptial duet in the same opera fall as meaningless syllables, by any conceivable possibility taste of the same emotional charm as the listener, who follows phrase by phrase the fond struggle of the doomed pair,—whose heart can actually beat in unison with theirs, because he knows *what they say* (as they alternately strive to persuade each other 'tis the song of the nightingale, and not the notes of the lark, that is heard without),



and for whom the beauty both of the thought and music is intensified tenfold by the almost inspired fitness of the melody?

Music has the advantage of being in some sort a universal language, equally intelligible in its general signification by all civilised communities; and so natural is it even to untutored man, that it may have preceded, probably did in a rude form precede, the use of spoken language by our primæval ancestors.<sup>1</sup> That form must in all certainty have been a kind of recitative; though, curiously enough, recitative, as a form of operatic delivery, was not adopted until long after song had been systematically used. The word *adopted*, not *invented*, is advisedly employed; for very certainly the early Greeks had recourse to a form of toned recitative for their sacred hymns, which must have been in great measure assimilable to the operatic recitative of the present day, though certainly not modulated to the same extent.<sup>2</sup>

<sup>1</sup> Primæval man, or rather some early progenitor of man, probably *first used his voice in producing true musical cadences*—that is in singing, as do some of the gibbon-apes at the present day' (Darwin, *Descent of Man*, p. 87, ed. 1874). Of course very rudimentary cadences—for one must admit with Herbert Spencer (*loc. cit.* p. 233), 'it would be absurd to suppose that along with the undeveloped verbal forms of barbarism there existed a developed system of vocal inflections.'

<sup>2</sup> Vincent Galileo, the father of the astronomer, is said to have



The human voice, being the most perfect musical instrument in existence, capable of variation in expression to an amount unattainable with lifeless constructions, is really the mainstay of opera; and the responsibility of the singers entrusted with the assignment of its special meaning to the story and score is immense. They may well feel it rests with them to make or mar the finest efforts of creative genius. No one could doubt the reality of such blighting power on the part of a soulless artist, who had chanced to hear (as the writer once did on a continental stage) the melodious tenor music of Gounod's 'Romeo' delivered in such non-intellectual fashion that the very meaning of that romantic idyll of love and sorrow was totally obscured. On the other hand, the inspiration of vocal genius will intensify the emotional effect, and diversify with new significance the dramatic interest of the most complex and elaborate scores.

In regard of mere tone, however, few voices have ever been heard rivalling, or even approaching in thrilling melodiousness or in sympathetic quality, the plaintive wail of the violoncello, as elicited, for instance, by the brain and fingers of a Piatti. And there exists not a little instrumental music, which

'helped to *invent* recitative' somewhere about 1570 (Edwards, *Hist. of Opera*, vol. i. p. 5).



to our feeling is rather damaged than improved by the intervention of voice or words, though it distinctly belong to the cantabile genus. Gounod's 'Méditation sur un prélude de Sebastien Bach' (occasionally given with, but more commonly without, vocal accompaniment) appears to us to supply an apt illustration, all the more remarkable as some of its ideas, transferred to the garden duet in 'Faust,' seem as it were created to receive in words the sensuous imagery of that erotic scene. And it is noteworthy that in some of the weird *diableries* of Berlioz' 'Faust,' which would seem on first impression, both from the dramatic situation and from the cantabile character of the music, to cry aloud for vocal colouring, the composer has refrained from adding any voice part. And his wisdom is soon acknowledged by the listener, who by and by instinctively feels that the intervention of choral language would blur the chiselled distinctness of the instrumental warbling. Again, in the 'Romeo e Giulietta' of the same great master, the garden scene is wholly instrumental—no vocal aid being enlisted, with the idea of intensifying the expression of the dramatic thought. But the vocal solos, concerted and choral pieces, interspersed through both his symphonies, on the other hand sufficiently prove Berlioz had no sympathy with the doctrine of Schopenhauer, that music



loses much of its ethereal charm by being linked to speech.

In attempting to form a correct judgment on operatic expression, the listener must carefully distinguish in the dramatic results before him the truly vocal from the histrionic element. The vocal constituents to be estimated will by and by be enumerated; facial expression, gesticulation, by-play, as purely histrionic, must be ignored: our thesis concerns singers, not actors. Now the attentive observer will soon discover that operatic artists are divisible into two classes, mere vocalisers, and dramatic singers. There are performers, such as the two great tenors, Rubini and Giuglini, whose style, mode of emphasis and accent, and general fashion of delivery, were very nearly identical, no matter whether the tragic, the purely sentimental, or the gaily nonchalant was the dominant feeling to be expressed. Sympathy between artists of this type and their audiences cannot exist except as the sole outcome of admiration of vocal skill; they forget the old adage, '*si vis me flere, primum dolendum est ipsi tibi.*' More or less delicious warbling will not make up in an operatic story for deficiency of dramatic exposition. Nor would it be difficult to quote examples of the opposite defect, exaggerated expression; where a cynic might pronounce the artist's object an attempt to show how



narrow is the space separating the ridiculous from the sublime.

Brain must here, as in all things, direct; steering the artist equally clear of *plus* and *minus* demonstrativeness. The intellect, in truth, plays a governing part in the proper delivery of emotional song, the same in essence as, though less in degree than, in the inventions of the composer. This close interdependence of vocal expression and intellectual force is shadowed forth in one of Herbert Spencer's striking inferences, one of which we instinctively recognise the justness: 'using the word *cadence* in an unusually extended sense, as comprehending all modifications of voice, we may say that *cadence is the commentary of the emotions upon the propositions of the intellect.*'<sup>1</sup>

It is no doubt true, the main share in the painting of emotion and passion through tone rests with the composer. He it is that decides the melody, and engrafts the harmony thereon, fixes the limits of vocal ranges, determines the phrasing and the pauses, the *accelerando* and the *rallentando*, the *piano* and the *forte*, and the other ordinary forms of musical accent; the singer is to a large extent in his hands, and further, within certain limits amenable to the method in which the orchestral effects are controlled

<sup>1</sup> *Essays*, vol. i. p. 232, 1868.



by the conductor. London opera-goers were recently furnished in a remarkable manner with the means of testing the latter proposition by a comparison of Richter's method of conducting Wagner's music with that of the Italians who had preceded him here in the onerous task. Setting aside the new meaning given to various parts of the orchestration, which is a matter beyond our present purpose, the task of the singers was greatly facilitated by the refined delicacy and almost *mezza voce* delivery of the instrumentation, and the somewhat slackened *tempo* ordered by the German conductor.

But still a vast deal remains under the control of the singer. Now the first essential for singing with dramatic expression is that the artist have the most perfect command of vocal resource,—that he shall be able to declaim and to warble without effort; that, in fact, both by natural endowment and by long-continued practice, *recitative and song shall have become, as it were, his natural speech*. Plainly, if serious effort, both mental and physical, be required merely to vocalise a part, the power is in a measure exhausted which ought to be husbanded for dramatic development. Should effort be required, art must conceal this as far as possible, and above all grimacing is to be carefully eschewed.<sup>1</sup>

<sup>1</sup> Bennati (*op. cit.* p. 26) has some curious observations on this



The means of expression within the singer's province, the instruments with which he works, have already, under the heads of voice and vocalisation, been passed in review. We have now to estimate the amount of success with which the sum total of natural endowment and acquired art is utilised in developing the full meaning of music varying in all conceivable ways in dramatic sentiment.

So we will take separately :—

- (a) *Just adaptation of style to the nature of the sentiment signified.*
- (b) *Adaptation of style to the character portrayed.*
- (c) *Appropriateness of delivery to the national type of the music.*

(a) *Just adaptation of style to the nature of the sentiment signified.* Vocal art has at command for him who knows how to use them, its special means of portraying every sentiment, every emotion, and every passion to which the human being is prone. To travel through the almost boundless field of such varying psychical states is of course out of the question,—and in truth a few illustrations will quite answer all reasonable purposes.

matter, showing that certain disfiguring attitudes of the face may be connected, in the emission especially of certain notes, with physical peculiarity of the tongue and other soft parts of the mouth.



Mere vocalising feats, whereby no special sentiment is signified, may be dismissed with a word. Here we should rank such music as that of 'Casta Diva' ('Norma'), the finales for female voices of Rossini and his school, for example 'Non più mesta' ('Cenerentola'), 'Ah! non giunge' ('Sonnambula'); 'Rode's variations,' by none more deftly delivered than by Louisa Pyne; the cantabile valse 'Ah! che assorta,' and the valse in 'Romeo' with its striking crescendo so exquisitely rendered by Patti: or similar music with slight dramatic colouring, as 'Una voce poco fa,' 'Largo al Factotum,' 'La Calomnia,' and 'Manca un foglio' ('Barbiere'), and 'C'est l'histoire amoureuse,' the laughing song ('Manon Lescaut'): or, as concerted pieces of the same type, 'Tornami a dir che m'ami' ('Don Pasquale'); 'Ti prego, o madre pia' (Curschmann); 'Soave sia il vento' (Così fan tutte): or, with some dramatic character infused, at least for the tenor part, 'È scherzo od è follia' ('Ballo in Maschera').

Here too may be included serenade music, such as 'Come gentil' ('Don Pasquale'); 'Or che in cielo' ('Marino Faliero'); 'Ecco ridente' ('Barbiere'); occasionally allied with dramatic meaning, as in 'Tu che fai' ('Faust'),—where the mocking malignity of the fiend gives Faure one of his finest opportunities for artistic colouring.



Of somewhat more defined dramatic significance are airs falling under the general title of Brindisi or drinking song,—ranging from the jocular type of the beer song, ‘Chi mi dira’ (‘Marta’) to the serious character of ‘Vedi al par rubino’ (‘Italia del Nord’), uttered by Maurel with such perfection of melodiousness; with, lying between these extremes, ‘Tocchiamo, beviamo’ (‘Gazza Ladra’), in which Alboni was wont to captivate all who heard her; ‘Beviam e intorno giri’ (‘Prophète’), that terrible strain on tenor power at the close of one of the most exacting parts in existence; ‘Il segreto per esser felice’ (‘Lucrezia’); ‘Libiamo, libiamo’ (‘Traviata’); and, although not appertaining to Italian opera, may we not include that charming souvenir of Louisa Pyne, ‘Come, taste this sparkling cup of wine’ (‘Lurline’)?

And now appears music growing more dramatic in significance: tenderness of feeling being the main sentiment to be expressed, as in ‘Quando le sere’ (Luisa Miller); ‘Quando lieta’ the interpolated contralto air in ‘Faust;’ ‘Vivi tu,’ that earnest outpouring in song of fervent friendship (‘Anna Bolena’); ‘Amici, più bello,’ the tuneful cantabile in which the fisherman disguises his ideas of revolt (‘Masaniello’); ‘Questa ò quella’ and ‘La donna è mobile,’ the light musings of a wearied libertine (‘Rigoletto’).



Next we reach the dramatic narrative—a story told in song or recitative : of the former ‘*Di pescator ignobile*’ (‘*Lucrezia*’), and the ballata ‘*Sull’ onde errante*’ (‘*Vascello Fantasma*’), may be cited as examples; while of the latter ‘*Un di presso al Castello*’ (‘*Huguenots*’), and Giovanni’s dream, ‘*Sotto le vaste arcate*,’ (‘*Prophète*’), are sufficient illustrations.

Song expressive of love in its multitudinous phases follows next. Let us take first those arie, severally descriptive of chaste and of lawless love, the ‘*Nel remirar*’ of Volfram, and the ‘*Felice al pari*’ of Tannhäuser (‘*Tannhäuser*’); then hopeless love, as in ‘*Angiol d’amor*’ (‘*Favorita*’); timorous and bashful, ‘*Una furtiva lagrima*’ (‘*l’Elisir d’Amore*’); respectful yet encroaching, ‘*Salve dimora*’ (‘*Faust*’); ardent and determined, ‘*Il balen del tuo sorriso*’ (‘*Trovatore*’); anxious yet confiding, ‘*Notte gentil*’ (‘*Romeo e Giulietta*’); mixed with low craft, ‘*Il mio piano è preparato*,’ made a study in dramatic painting by Ronconi (‘*Gazza Ladra*’); tinged with melancholy foreboding ‘*Oh! mio Fernando*’ (‘*Favorita*’); self-reproachful, ‘*Sei vendicata assai*’ (‘*Dinorah*’); overpoweringly sensuous, ‘*Dammi ancor*,’ the garden duet in ‘*Faust*’; intense but conflicting with duty, the duet in the ‘*Huguenots*’; merging into madness, ‘*Spargi d’amaro pianto*’ (‘*Lucia*’); combined with urgent supplication, ‘*Roberto, tu che adoro*,



(*‘Roberto il Diavolo’*); with passionate entreaty in the soprano part of the duet *‘Mira, di acerbe lagrime’* (*‘Trovatore’*), and in delineating which the genius of Grisi trenched on the sublime,—and marked by uncontrollable passion in Margherita’s jubilant heart-cry of amorous ecstasy at the cottage window, *‘Ei m’ama, turbato è il mio cor!’* uttered with such vivid and yet languishing seductiveness by Albani.

See, again, broken-hearted resignation depicted in the passage, *‘Cercando la pace nella braccia della morte’* (*‘Favorita’*); religious enthusiasm, *‘Rè del ciel e dei beati’* (*‘Prophète’*); devilish incantation *‘Protetti dalla notte’* (*‘Faust’*); jealous fury, *‘Ah! non tremar’* (*‘Norma’*); terror in the finale, *‘Respiro appena’* (*‘Semiramide’*).

But a truce to illustration: enough has been given to make the inference unavoidable that every variety of human feeling has, or may have, its exponent in some special vocal form. And it will easily be understood that the dramatic effect must vary so widely, according to the ability possessed by individual artists of giving truthful vocal expression to the sentiment or passion under treatment, that the range of numerical values to be assigned must be an equally wide one. Let us admit for the present the subjoined scale, which in its range of 30 would allow



for the highest perfection in dramatic singing at one end and mere vocalising at the other :

Maximum.	Mean.	Minimum.
+20	0	-10

(b) *Adaptation of style to the character portrayed.*  
 The style of vocal art may or may not harmonise with the histrionic character—and shades of character—of the individual represented : and the more incisively its distinctive essence and varying phases are marked—that is the more appropriate the vocal style in each case, the higher the æsthetic merit of the artist. A few instances will bring this truth clearly before the reader. Take for example, as belonging to the tenor *répertoire*, the part of the Prophet, with its successive cantabile, grand declamatory, mystic, remorseful, and reckless styles ; that of the Comte Ory with its light bustling vocalisation ; that of the Duke in ‘Rigoletto,’ with its libertine indifference ; that of Alaviva, with a form of delivery which, if it do not sparkle as the instrumental score, becomes a ‘heavy blow and great discouragement’ to the composer’s idea ; that of the simple rustic Nemorino, with his love-sick melodies ; that of Faust, representing discordant varieties of feeling and sentiment, weariness of life, mournful memory of the joys of youth, love, remorse, horror,—each of them



requiring its own special manner of utterance. In each of these varieties of mood Mario's singing bore its special impress. Take again the part of Mephistopheles, with its instinct of fiendish mockery; that of Assur with its solemn villainy, craft marking every tone; that of Belcore, the lightly *insouciant*, who should recruit with a voice as pregnant with gaiety as his own nature: all these phases of character are developed in song by Faure. See, again, the maiden shyness of Giulietta in the madrigal, her nascent passion in the balcony duett, her wife-like affection in the nuptial chamber, her horror in the scene with the monk, her joy changing to hopeless despair in the tragic finale; pass on to the pert frolicsomeness of Rosina; exchange this for the glittering but false happiness of the Traviata as she warbles 'Libiamo'—that tuneful Brindisi, which amid its flashing brightness contains an under-current of melancholy that, by a marvellous stroke of Verdi's genius, gives a foretaste of the sorrow to come: for each of these varying conditions a voice of its own, modelled to each sentiment and passion, will be found in the tones of Patti. Next watch the tragic jealousy of Chevreuse,—the wounded pride and helpless paternal love of the elder Foscari,<sup>1</sup>—the cunning

<sup>1</sup> 'Doge nel volto, e padre in core.'



intriguing fun of the *Barbiere*,—the malignant vindictiveness of the Duke in '*Lucrezia*,—the impudent but genial humour of the quack doctor *Dulcamara*,—the struggle between the duties of Court buffoon and the tender care for a daughter in '*Rigoletto*': that every one of these diverse sentiments and passions may have a vocal style of its own has been shown by the genius of *Ronconi*.

Many similar examples of perfect vocal art might be given: these will suffice for our purpose. Artists thus endowed take their places at the summit of any scale that may be adopted, while at the bottom will be found the less gifted many who have but one voice and one manner for every variety of dramatic development. A range of thirty from one end of the scale to the other will perhaps sufficiently mark the æsthetic difference between the best and the worst types.

Maximum.	Mean.	Minimum.
+20	0	—10

(c) *Appropriateness of delivery to the national type of the music.* The chief national varieties of operatic music are the Italian, the French, and the German, and it may be premised the typical character of each is less distinctively pronounced at the present day than formerly. Besides, as will easily be seen from



the following examples of the three schools, arranged with an approach to chronological order, there is a growing tendency on the part of the two other national types of musical construction to assimilate themselves to the German.

Italian.	French.	German.
Matrimonio Segreto	La Dame Blanche	Fidelio
Il Barbiere	Le Pré aux Clercs	Der Freischütz
Tancredi	Le Philtre	Roberto il Diavolo
Semiramide	Le Serment	Gli Ugonotti
Guglielmo Tell	Diamans de la	Il Profeta
Norma	Couronne	Vascello Fantasma
Beatrice di Tenda	Masaniello	Tannhäuser
Pirata	La Juive	Lohengrin
Puritani	Le Roi de Lahore	
Lucia		
L'Elisir d'Amore		
Don Pasquale		
Lucrezia Borgia		
Favorita		
Don Sebastian		
I Lombardi		
Nabucco		
Ernani		
Rigoletto		
Ballo in Maschera		
Aïda		

Now a glance at this selection will show that, as time has rolled on, the tender melodiousness of the



Italian school has become a less and less marked quantity, until the vanishing point is almost reached, while the attributes of the German school grow more and more pronounced. How enormous the leap from Cimarosa's 'Matrimonio,' or Bellini's 'Beatrice di Tenda,' to Verdi's 'Aïda,' or even from this composer's own 'I Lombardi alla prima Crociata!' Still, when artists are called upon to sing music possessing the original national distinctive attributes, the special qualities of these must be vocally defined: Ernesto in 'Don Pasquale' calls for a method of delivery as different from that adapted to Masaniello or Tannhäuser at the present hour as before the growth of German ideas on Italian and Gallic soils.

Now, though it must be conceded the fixation of a national type in the music of an opera rests essentially with the composer, its interpretation in fitting form is reserved for the artist. And the power of identifying different national styles through distinctive vocal expression is an unquestionable attribute of genius. It is only singers of the highest form of endowment who are capable of conceiving, much less of executing, the task imposed upon them in giving to each its specific characteristic in parts of such divergent nationality as Arturo ('Puritani'), Masaniello, and Tannhäuser.



The subjoined scale may be suggested under the present head :

Maximum.	Mean.	Minimum.
+10	0	-5

The numerical values of the different divisions of dramatic expression are grouped together in the table below :—

(a) Adaptation of style to character of sentiment signified		(b) Adaptation of style to the character portrayed		(c) Appropriateness of delivery to the national type of the music		Totals	
Max. +20	Min. -10	Max. +20	Min. -10	Max. +10	Min. -5	Max. +50	Min. -25

And the grand totals of the three main heads adopted will stand thus :—

I. Voice		II. Vocalisation		III. Dramatic expression		Totals	
Max. +70	Min. -70	Max. +52	Min. -76	Max. +50	Min. -25	Max. +172	Min. -171

That dramatic music will, with the progress of time, rise to nobler flights than any it has yet reached, seems a matter of extreme probability. In point of fact Wagner has already demonstrated that the



highest models of fifty years ago, long held to have arrived at the Ultima Thule of tone-development, may be surpassed in their power of at once intoxicating the musical sense and deeply impressing the intellect and more earnest emotions. Parts of 'Lohengrin' and 'Tannhäuser'—those ideal orchestral songs—do, more than other operatic music, positively transport the hearer to another and a loftier sphere than that in which he daily lives and moves and has his being, impressing him the while with an indefinable sense of no longer belonging to the commonplace existence around him. Music more touching there may be, nay, there is: music so exalting there is none. The writer, when he first heard the introduction to Lohengrin, wrapt in dreaminess by its weird charm, vividly experienced the mystic feeling, that something like the passing events had occurred before, that the tones he heard were a reminiscence of bygone harmony, that he had already lived a life of which such music formed an integral part. Every one has at times felt this singular impression even in regard of ordinary daily affairs; but the explanation of the freak of consciousness has baffled philosophers, from Plato, for whom 'all knowledge was recollection,' down to the psychologist of to-day. Meanwhile, that the writer cannot be held singular in having been cozened by poetic orchestration into



fancies of the sort, that on the contrary a like form of day-dream has been recognised as even an habitual outcome of enthralling music, appears from the following lines of Leyden's 'Ode to Scottish Music:'

Ah! sure, as Hindoo legends tell,  
When Music's tones the bosom swell,  
*The scenes of former life return.*

But the writer must confess these higher developments of idealised emotion are, so far as his own experience goes, rarely evolved by music even the most rich in imagination and perfect in technical construction. The music of 'Semiramide,' of 'Fidelio,' of 'Don Giovanni,' of the 'Huguenots,' of 'Faust,' of 'Romeo,' impressive and faultless as it is in each instance, does not rise to the ecstatic point of kindling emotional reverie such as this: he that doubts should listen to any one of those, or of a number of other, *chefs d'œuvre* that might be mentioned, the night after his musical sense has been enraptured by 'Tannhäuser' or 'Lohengrin.'

Now it is most important to add that comparison is here ventured upon solely in respect of the power of producing the deeper forms of serious emotion; of the relative merits, scientific, technical, and æsthetic, of the Wagnerian scores, it would be worse than ridiculous on the writer's part to even hint at an opinion. On the latter question the musical expert



is alone entitled to hazard a solution ; concerning the former the humblest amateur may claim the right of private judgment. And yet, were an utter novice in the mysteries of the craft self-sufficient and reckless enough to assert an opinion on that which in truth lies wholly beyond his province, he would be sure, no matter how startling that opinion proved, to find some technical testimony sustaining his views. For, in point of fact, what form of musical as of every other heresy, may not find skilled supporters?<sup>1</sup> Has not Beethoven been most sharply criticised by von Weber, and, by the admission of critics competent to judge, not without at least a show of justification? Still to suggest the possibility that the imperial Beethoven could be excelled seems a venture almost rivalling in the realms of art the heterodoxy of Strauss in the field of religion, when he dared to foretell the probable advent in time to come of a more exalted faith than Christianity.

There is another aspect from which the question of musical advancement may be considered—the scientific. Now musical physicists hold that the *temperate scale* at present in use constitutes an abiding cause of harmonic imperfection. Blaserna

<sup>1</sup> 'Who shall decide when doctors disagree' is a perennial joke against the profession to which the writer belongs. But which is the profession—which the art—which the science—it may be asked, whereof the learned pundits *do* agree?



thus puts the case: 'It follows that music founded on the *temperate scale* must be considered as imperfect music, and far below our musical sensibility and aspirations. That it is endured, and even thought beautiful, shows that our ears have been systematically falsified from infancy. . . . The wish may then be expressed that there may be a new and fruitful era at hand for music, in which we shall abandon the *temperate scale* and return to the *exact scale*, and in which a more satisfactory solution of the great difficulties of musical execution will be found than that furnished by the *temperate scale*, which simple though it may be, is too rude.'<sup>1</sup> This possible change of scale is the only common ground on which science and art are likely to meet in constructing a reformed music of the future. For obviously the mathematical relationships of tone will never be the direct and immediate guide of the composer. The idea of a composer concerning himself with the numbers and ratios of tone-vibrations, as he sits before his piano, and with rapid inspiration works out his score, instead of listening to its melody, its rhythm, and its harmony, as conceived by his brain, seems too absurd for contemplation.

Admitting then, be it only *argumenti gratiâ*, that dramatic music will acquire grander and yet grander

<sup>1</sup> *Op. cit.* pp. 140-141.



development as time wears on, may it be inferred that the reach and grasp of vocal expression will advance *pari passu* or advance at all? What of the dramatic song of the future? Now there is certainly no fair motive for believing that the elementary basis of vocal art will reach among our posterity a pinnacle of perfection hitherto unattained; though on the other hand, to pronounce it an impossible effort of nature to produce a tone-apparatus superior to any yet created would be logically indefensible. Certainly, however, if such effort is ever accomplished, it will be with infinite rarity. Few events in the musical sphere are less probable than that the *timbre* of Mario will be excelled, or even for long long years to come, equalled; it is almost as unlikely the polished inventive facility of Persiani will be outdone,<sup>1</sup> or that the vocal feats of Catalani will be thrown into the shade by the performance of any successor,—that her traditional chromatic scale-runnings, her leaps of two octaves, and her laryngeal gymnastics in general, will ever be distanced. But on the other hand it does seem possible that a further evolution of ex-

<sup>1</sup> There was one very peculiar attribute in the excessive nimbleness of Persiani's vocal play. Even when producing a slow passage the voice seemed as if it must break through the trammels of the *adagio* and disport itself in *presto fioriture*; as of a bird's movements, so might it be said of her vocalisation—*même quand l'oiseau marche, on sent qu'il a des ailes*.



pression in singing may ultimately be attained through other agencies. Both statically and dynamically no more potent brain is accorded to the philosopher of to-day than in days of yore fell to the lot of Plato; but the brain of the present hour works from an enlarged stand-point, and achieves results in the domain alike of fact and speculation, which may be called marvellous in comparison with those attainable by the immortal Greek. So the singer of the far future, though working with no better organs than his forefathers, will be enabled by utilising ever-growing experience, to evolve more refined, more idealised forms of vocal expression, and probably even to strike out new fashions of formulating tone into the significance of thought and emotion.

Accumulative national culture, in truth, must widen the range, and thereby stimulate the power of vocal expression; and that power must be intensified in accordance with general law by hereditary transmission—that is, hereditary transmission from generation to generation of a people, not of a family or stock. Indeed we have no reliable information as to the frequency with which exceptional vocal ability is transmitted in families. Singularly enough, Galton in his ‘Hereditary Genius’ has no reference to dramatic singers, though a large enough place is accorded to



musicians, among whom the gifted Bach family holds so prominent a place. To what extent vocalising power of high order runs in families the writer possesses no sufficient evidence to decide; the only family largely endowed in this way he happens to know of is that of the Garcias. Persiani's father was an eminent tenor, Tacchinardi. Giulia Grisi and her less celebrated sister Giudetta, were nieces of the great soprano Grassini. The sisters Patti, Pyne, Marchisio, and Badia, Braham the highly endowed English tenor—with two sons, one a tenor, the other a baritone—Lablache and his son, and Sims Reeves, the career of whose son is just commencing, furnish a few illustrations of the influence of blood. Doubtless multitudes of similar instances might be found. But negative cases probably abound also: thus though the children of Mario and Grisi are reported to be musical and to sing well, their attainments have not made the social mark fairly to be expected from parentage so exceptional.

In regard of future improvement of vocal delivery there is a subsidiary influence to be considered. If, as appears probable, operatic music is destined to maintain the general characters impressed upon it by the 'school of the future'—a music which, inverting the relationship hitherto held to be natural, in some



sense makes the voice an accompaniment to the instruments, straining laryngeal power to the point of exhaustion—the difficulty of expressive declamation will be thereby so augmented, that any improvement effected by other agencies might be more than counterbalanced. The feeble power, especially of the tenors of the day, is sufficiently taxed in emitting the notes with their proper pitch ; fitting expression can only be added when the vocal endowment becomes of higher stamp than that accorded existing artists of the class.

And now to bring to a termination this Essay, in which the writer has diverged into discussions beyond those originally intended. If it be true, as taught by Herbert Spencer, that ‘in its bearing upon human happiness, the emotional language, which musical culture develops and refines, is only second in importance to the language of the intellect—perhaps not even second to it,’—and further, that music is ‘the fine art which more than any other ministers to human welfare,’<sup>1</sup> then assuredly have we reason to recognise with gratitude the vast extension which music in its higher branches is acquiring in this

<sup>1</sup> *Essays, loc. cit.* pp. 235, 237. ‘Next to Theology, I give a place to Music,’ said Martin Luther.



country. Beyond the emotional delight it confers, there are plainly higher and more ennobling ends to which it conduces, and every effort that aids in disseminating and popularising the love of the art may be viewed as a contribution to the greatest happiness of the greatest number. The joy it gives too, will probably, as George Eliot says of the subjective faculty of happiness springing from progress in general, become '*more intense in diffusion.*' Not only will more people enjoy, but the enjoyment of those who do enjoy will be magnified. The history of musical entertainment among us for the last twenty-five years amply justifies the most sanguine expectations in the future. Opera, symphony, and the most perfect specimens of chamber music, not long since the exclusive prizes of the wealthy, are now brought within the reach of the humblest person, who may desire to share in the pure and refining delight they convey.<sup>1</sup>

But while congratulating ourselves on the probable advancement of the lyrical drama, let us not forget its exponents. If Milton—Puritan poet of loftiest epic strain—could revel in chaunting the praises of Leonora Baroni, a gifted artist of his

<sup>1</sup> The part which the Chappell family has played in popularising music of the highest class entitles its members to deeply grateful recognition from all friends of culture.



day, we assuredly shall not 'wrong our calling' by offering our meed of homage to her successors.<sup>1</sup> In truth, while composing these pages and perforce mentally communing with the long line of singers, whom it has been his good fortune to hear, the writer has been led to feel more keenly than ever the largeness of the debt of gratitude we all owe to those fortunate individuals who, endowed by nature with some of her richest gifts, are enabled to interpret with eloquent voice, æsthetic fitness, and intellectual truth, the works of the great composers. By their genius a fulness of meaning is given to those works which without such help could never be realised by the unfavoured many devoid of technical musical instruction, or even by the favoured few possessed of such learning in its most perfect forms. But yet more than for the emotional gratification conveyed

<sup>1</sup> Of Milton's three epigrams, 'Ad Leonoram, Romæ canentem,' the first commences with the following lines :—

Angelus unicuique suus, sic credite gentes,  
 Obtigit æthereis ales ab ordinibus.  
 Quid mirum, Leonora, tibi si gloria major?  
 Nam tua præsentem vox sonat ipsa Deum.

Baroni's art is spoken of by another writer as 'almost divine,' and a volume, entitled *Applausi poetici alle glorie della Signora Leonora Baroni*, contains Greek, Latin, Italian, French, and Spanish poems in her honour. (Vide *Poems* by John Milton, notes by Th. Warton, 2nd ed., p. 478, 1791.)



by their tuneful art, we owe them regard for the elevating, softening, and refining influence exercised by dramatic singing of the highest type. Long have operatic artists been assailed by professional and lay religionists, and complacently stigmatised as 'sinners' themselves, and the abettors of 'sin' in others; it seems time such Pharisaical self-sufficiency should hold its peace (in truth it grows year by year less loud of voice), and the claims of those active agents in humanising their fellows be set forth by some enlightened adept in sociological science.



