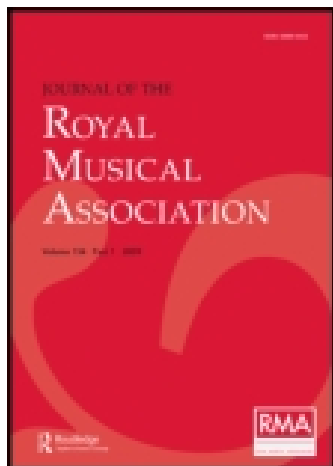


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### Why Do We Teach Harmony So Badly?

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NOVEMBER 10, 1896.

W. G. McNAUGHT, Esq., Mus. Doc., CANTUAR,  
IN THE CHAIR.

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WHY DO WE TEACH HARMONY SO BADLY?

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*Examiner in Harmony and Counterpoint, King's College, London.*

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PREFACE.

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LADIES AND GENTLEMEN,—Before beginning my paper I wish to preface it with a few remarks as to its title. Some of our professors of harmony may doubtless—through misunderstanding that title—have thought that I was casting a slight on their ability to teach. If any did think so, let me hasten to say that any such idea was absolutely groundless, and entirely foreign from my meaning. As you all know, on the title everything depends. We musicians are but mortals, and unless our attention is arrested by something startling, we are apt to pass a matter over as commonplace. Had I headed this with “A few thoughts on another method of teaching harmony,” not one in a hundred would have paid any attention to it. But call it “Why do we teach harmony so badly?” or, as perhaps it might more accurately be styled, “Why do our present methods make us teach harmony so badly?” and then the attention of at least fifty of that hundred may be secured. Pray believe me when I say I entertain the highest regard for my brother teachers of harmony—far too high an opinion to dream of hurting their feelings. Perhaps the kind words of Sir John Stainer I may be allowed to quote, addressed to me in a letter in which he regrets his inability to be present. He says: “The title of your paper amused me, I (and a good many others) flatter ourselves that *we* never taught harmony badly!! This is of course only fun. I am sure you will say something worth hearing, from your point of view.”

## WHY DO WE TEACH HARMONY SO BADLY ?

Hearing this title you may perhaps be reminded of an incident in Artemus Ward. When they formed that celebrated volunteer regiment in which there was no one *under* the rank of a brigadier-general, they started with a church parade. During the service, Artemus went to sleep, and awoke just as the preacher was giving out his text: "Why was man made to mourn?" He says: "I thought it was a conundrum, so I up and I sez—'I give it up'; but you never saw a congregation so scared." Now, though I am speaking to a regiment of brigadier-generals in harmony, when I ask my question "Why do we teach harmony so badly?"—you, too, may think it is a conundrum and give it up. Or, perhaps like the true American, who, they say, always answers a question by asking another, you may say: "But do we teach harmony so badly?" In answer to this, I propose to lay facts before you under three heads. Firstly, what is our aim in teaching harmony? Secondly, what are the means we now employ, as shown us in our text-books, such as those of Goss, Richter, Stainer, Macfarren, and Prout? Why do these, in a measure, *fail* to attain the object we have in view in teaching harmony? And thirdly, what *great* change must we make in the form of our text-books before we can consider ourselves on the right road to achieve the great object that we have in view?

Because I have opened these remarks jocularly, pray do not think that we have a light subject before us. From the highest standpoint of our art of music, the way in which the steps of the neophyte are directed is of *paramount* importance; and to stand here, as I do to-day, and dare to say that the *whole* of our standard text-books are teaching harmony in a most defective way is to place myself in no enviable position. Yet in the name of all that is highest and best in music, and in an earnest endeavour to be of some use in developing our beloved art, I say that, instead of furthering that which is the essence of music—viz., the development of a true artistic temperament, in giving the student the *real* power of manipulating the means placed in his hands, they simply make the rudiments of his art more or less—and indeed *more* than less—a mechanical and uninteresting drudgery, of no more art value than an addition sum!

Is harmony then really only musical mathematics? Are the triads the "rule of three sums of music," and is the

diminished seventh, with its missing root, only like a sum in fractions?

Surely, that which is to lead the student to the production of music which, as *art* work, is to appeal to *art* lovers, must be of a different sort, and must approach the subject of harmony, not as dull dead mathematics, but as living music. So much by way of introduction.

Our first object is to see what is our aim in the teaching of harmony. Our music consists of pillars and layers: pillars of notes forming chords, which by their simultaneous sounds agree or disagree together; layers of notes—*i.e.*, parts, each forming a melody and proceeding, like so many streams of water flowing in the same direction, which though individual yet form together a river of sound. I apprehend we shall not be wrong if we say that the science of harmony treats primarily of the "pillar" aspect, and only secondarily of the "layer" aspect, while counterpoint treats primarily of the "layer" aspect, the part-writing, and secondarily of the "pillar" aspect.

Taken, then, from one standpoint, music consists of chords—*i.e.*, of groups of notes simultaneously sounded. The object of harmony is to give to the student the power of manipulating these chords—to give him the ability to *use* these chords himself. He is to obtain a *practical* skill, so that—either when creating music on paper—*i.e.*, when composing, or when creating music at his instrument—*i.e.*, in extemporizing—he may so use these chords that they may produce a true art work, agreeable to the ear. To be able to sit down and puzzle out the upper parts to a figured bass exercise on paper is absolutely insufficient, and in no way attains the desired end, since it brings about no artistic result.

If harmony is the science of manipulating chords artistically, then until the student can weld those chords together himself he has not attained his real object. It is the entire ignoring of this "creative" side of harmony that has tended to degrade that beautiful aspect of art into musical mathematics of the driest sort. I presume now we fully understand that the end to be attained by the study of harmony is a complete knowledge of, and a practical power in the manipulation of the note-groups we call chords.

The second point to which we said we would direct our attention was, what are the means adopted by the writers of our standard text-books to attain this end—the personal power of manipulating chords? Let us take Goss, Richter, Stainer, Macfarren, and Prout as representing our best authors on harmony. Firstly, let me draw your attention to the fact that Goss's *Harmony* was not intended to teach *written* harmony alone. You will see on consulting all the exercises that it was also written to teach young organists

how to play from figured bass. Hence the first exercise in the chapter on triads says: "Play a triad in three positions"; while the exercises at the end of the same chapter say: "Score and play triads in four parts to the following basses." Through the increase of choral music in which the organ accompaniment was fully written out, the art of figured bass playing has almost died out, and the accompanist has become perhaps a more perfunctory creature.

Here, in Goss's book, the student had, at all events to a certain extent—even if, as we shall see later, only to a limited extent—to consider the artistic effect of his work.

Richter's excellent manual was written, at the request of Mendelssohn, for use in the then newly formed Conservatoire of Music in Leipzig. Sir John Stainer's two books were written—the one as the simplest of primers for the veriest tyro, and the other, which contains much absolutely original thought, is (as its preface states) intended as a "classification of chords." Sir George Macfarren's work—now thirty-six years old—was a more practical development of the theories of Alfred Day, while Professor Prout's book, so excellent in its way, is a modern work whose chief object is to bring the study of harmony into greater consistency with the works of classic and modern composers.

In the choice of these works from which to learn how harmony is taught, we are reviewing the authors of the last fifty years, and may therefore rightly claim that we are taking a sufficiently wide view of our subject.

Now in the whole of these books, the authors have practically but *one* way of teaching the student how to manipulate his chords, and that is—by always writing the bass for him, and placing figures over such bass notes, to show him exactly what chord he is to use; that is to say, in almost every case he never has to exercise even the slightest judgment as to the chord he is to employ.

Just as the infant opens its mouth and swallows the spoonful of pap held to its lips without any further consideration, so the musical student complacently swallows the fraction of musical truth, and, in a more or less infantile way, puts above the figured bass the chord that its harmony-mother has given it. There is no choice in the diet, there is no consideration of harmonic pabulum—what its master gives it, that it takes; for the first thirteen chapters of Goss, we find no mention even of the student making a selection of the chords he would use; and then in that fourteenth chapter, he is only given a table of chords to choose from, and the most meagre advice on the progression of his bass notes, while in Chapter XX. a few more facts are stated. Roughly speaking, one may say that in the bulk of the book the teaching is by means of figured bass exercises.

In Richter's harmony this is perhaps even more the case ; for it is not till the seventeenth chapter has been reached that one word is said as to the choice of chords in harmonizing a melody ; that is to say, after the whole of harmony has been studied by means of figured bass exercises in which every chord has been chosen by the author, and in which the student has never been asked to select one chord for himself, then he is to begin harmonizing a melody—that is, manipulating a chord.

In Sir John Stainer's Treatise on Harmony, we find the *whole* of the exercises without *one* exception are figured basses, so that the student has not a single chance of making choice of one chord to follow another. In Sir George Macfarren's book we come to Chapter V.—after having dealt with all the concords and their inversions in major and in minor keys, together with the chromatic triads in a key, and then—in the chapter on “pedals”—we read : “The student should write exercises of his own on common chords, and first and second inversions, introducing examples of dominant and tonic pedals.” This is his first start at choosing and using chords ! In other words, after putting that pap to the boy's mouth till he is ten, you suddenly turn him loose in a pastry-cook's shop ! Can you fancy the harmony student, who has under Macfarren's system never chosen *one* single chord progression for himself, and to whom the scantiest knowledge of how to make that choice has been vouchsafed, making his first start with dominant and tonic pedals ! From the fifth chapter onwards to the fourteenth, we find no exercise but figured basses ; but in the fifteenth and last chapter, the poor youth is told to “write exercises of his own, illustrating the several rules in this chapter.” But the oddest and strangest thing is yet to come, for in comment on this concluding chapter, Macfarren adds : “The end of study is not to fill up the chords upon a given bass, but to invent harmonic progressions ; and enough has been already shown to enable the student thus to prove his talent.”

Pray, how has enough been shown ? Can a student who has never had to select one single chord—triad, seventh, ninth, augmented sixth, or what not—for himself, who has never been made to practise how to approach such a chord and frequently not even how to leave it—how is he suddenly to jump into this ability ?

I speak feelingly, for I well know personally how many a long month's work was entirely wasted before it dawned on me that each of those chords had its own duties to fulfil, and, if I was to learn to use them, I must do something more than work figured bass exercises.

In that wonderful little compendium of Mr. Banister's, truly the *multum in parvo* of music, we find more attempt

made to explain chord progression, while the student is urged in all the fundamental discords, as a preparatory exercise, to write out and resolve each of them. This is a step in the right direction, but here again all the exercises in use while the student is learning his chords are figured basses. When, however, he has completed his study of chords, then Mr. Banister urges him to harmonize unfigured basses and then melodies, thus showing that our author truly recognised what the end of harmony ought to be, even though it had not occurred to him that before a student can write the *ten* chords necessary to harmonize the melody of a single chant he must know how to use two chords properly and must know the individual duty of every one of those chords.

Next, in considering the methods of our authors, we turn to Professor Prout's work, for which I entertain the highest respect. In its letterpress, and its examples, apart from its exercises, it has done very much towards spreading a higher and nobler tone over the study of harmony. But what do we find? Of all books by which the student can be made to manipulate chords, this is the very worst, for he is not allowed to use one single chord himself, they are all selected for him by our esteemed and revered friend. I can find not even *one* word about harmonizing a melody, yet, after having shown the student the magnificent examples that Professor Prout has selected with such great judgment and such wide range, how easy would it have been to have shown him how to "go and do likewise." It is true that in the preface to the book he says: "It was originally intended to have included in the present work chapters on Cadences and on Harmonizing Melodies. The volume has, however, extended to so much larger dimensions than was at first contemplated, that the chapters which belong rather to practical composition than to harmony in its strict sense have been reluctantly omitted." In other words, Professor Prout, the artist and composer, would have liked to show the student how to *use* his chords; but Professor Prout, the pedagogue, tied him down to figured basses and used them for him.

To sum up the methods adopted by the standard authors on harmony of the last fifty years, we find that their one method of training the young student in the use of chords is to give him a figured bass exercise. Similarly, when the future generation wants to teach its children to walk, they will buy them motor cars; for the main object of the harmony master seems to be to get over the ground as quickly as possible, and give the student the least amount of personal and independent thought: When you consider that a student on this method never selects a single chord, never has to consider one single progression of his bass, that most



important of all parts in music, am I wrong when I maintain that in spite of all the otherwise excellent books on the subject we at the present time do teach harmony badly? What would be thought of a system of carpentering that only *showed* the use of the tools and never let the pupil handle and use those tools himself? What should we think of an engineer who had never been made to use any engine? What must we think then of a harmonist who cannot use his harmonic tools, who has never worked for himself in the school of creative harmony?

This leads me to another branch of the subject. With few exceptions, how utterly uninteresting, how hideously ugly most harmony exercises are!

It is true that in some of Goss's and some of Richter's the selection of chords is pleasing to the ear; but how gruesomely ugly are many of Macfarren's and of some others I could name! Sir John Stainer makes no claim to be otherwise, for in the conclusion of his treatise he says: "Little more need be said on the subject of 'figured basses,' except, perhaps, to warn the student against expecting to find exercises interesting as specimens of musical composition. No schoolboy ever yet had much personal interest in the history of Balbus, nor must the enthusiastic musician hope to be moved to delight by the soulless pages which follow" (*i.e.*, the exercises).—"Manual of Harmony," page 183.

But why is this necessary that exercises should be hideous? They are the progression of chords which may be developed into a musical movement. Richter has a most interesting chapter (No. 19) on what he calls "melodic development," in which he takes the harmony underlying the exquisite *Adagio* in A flat from Beethoven's E flat Quartet. Surely there is not the slightest reason why a harmony exercise should sound absolutely unmusical. I would go farther than this, and say that all exercises in harmony should be little examples of art, and all framed to lead to a true art development. They should be real music, but not the hideous sounds which might have been used to depict the sufferings of the wounded in the famous old "Battle of Prague."

As regards the exercises chosen by our authors—the figured bass exercises—and as regards their general ugliness, I would claim to have fully justified my assertion that we do indeed "teach harmony badly."

Now let us turn to the last part of our subject, and consider what great change must be made in the method of teaching harmony before we can consider ourselves on the road which will lead us to the end we desire—the power to manipulate our chords.

Firstly, the student must be made—from the moment that the tonic and dominant triads have been explained to him—

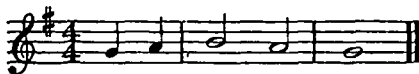
to make use of those chords *himself*. To begin with, give him his bass *and* his treble. For instance—



Then give him his bass only, leaving him to supply treble, alto, and tenor, as thus—



Thirdly, give him next *melody* only, leaving him to choose his own bass to it. For instance—



Fourthly—and this is most important—give him nothing at all, but tell him, after explaining the construction of a short phrase, to write a passage in D major on the tonic and dominant triads. These four sorts of exercises—treble and bass given, bass given, melody given, nothing given—must be used as each fresh chord is learnt. The next chord to follow would, of course, be the subdominant, and he would have such a set of exercises on tonic and subdominant; and then would be shown the uses of the three primary triads in the major, and another set of exercises would ensue. Now compare for a moment the results that will ensue: while under the old figured bass exercise he would know nothing whatever about *how* his bass moved, but only of how he was to fish out the notes for his three upper parts, he will now have learnt how to manipulate each chord himself, and to adequately realise what are its duties and what its usual progressions. After the primary triads would follow those most useful—but to the student often perplexing—secondary triads, and one by one he must learn the use of the super-tonic triad and its special functions, the use of the mediant triad, of the submediant triad, and of the diminished triad on the leading note. In the use of each one of these chords he must have a set of four, or at least the last three, of the kinds of exercises mentioned—*i.e.*, bass given, melody given, nothing given.

I need not follow on farther, step by step, all the details that must gradually be unfolded to him. I would, however,

strongly urge that when he has had any special chord—say the dominant major ninth or the augmented sixth—to use for the first time, before he has them in a longer exercise, give him first the chord alone and say “Introduce and follow this chord in various ways.” He will by this have learned the special uses of this particular chord.

But, together with this method of giving a three-fold set of exercises on each point of his study, I would most strongly urge that all exercises be made musicianly and interesting. Let natural modulation be introduced as soon as he has learnt the inversions of the seventh, and let passing notes be also explained soon after, so that freedom and ease may come to him.

In the melodies chosen, from a very early point let them be *bonâ-fide* melodies, selected from old standard songs or from the slow movements of lesser known classic compositions. In short, in everything try to give the student an artistic and musical aim in his work. Oh! how sadly is this art-view neglected by our teachers and our pupils of to-day! To the average piano pupil there are two things—Etudes and music; and so to our harmony pupil we also give the view that there are two things—absolutely distinct and in no way bearing on each other—viz., harmony and music.

In making these comments on the works of our great living exponents of harmony, I feel I need make no apologies to them, for they are themselves such great artists that I have no doubt they will, on reflection, endorse the remarks I have made.

Until the student is thus able to use his own chords, to create his own harmony, he cannot be said to come up to the standard that we required of him at the outset of this paper. It is this creative side of his work that has been so greatly overlooked, and which must be cultivated, that he may learn that harmony is art and that chord-making must result in music.

In conclusion, I ask you—considering what I have laid before you—do you think that I was wrong when I implied, by my question, that we *do* teach harmony badly?

To that query I can, perhaps, myself supply the answer. We teach harmony badly because we have taken a low view of its aims, and because we have not given it a thought that our present plan might be improved upon.

I claim no originality for these remarks, and I shall not be at all surprised if half-a-dozen of you rise to say that, though it is not the text-book method, you have always taught on this plan.

Let us place before ourselves the highest artistic aims in teaching harmony, and we shall then, in a short time, have no more need to ask ourselves the question: “Why do we teach harmony so badly?”

## DISCUSSION.

THE CHAIRMAN.—Ladies and Gentlemen, I have great pleasure in moving that a hearty vote of thanks be given to Dr. Sawyer for his paper. The title is a very attractive one, but I think it might have been "Why do we teach bad harmony?" I thoroughly agree with Dr. Sawyer that the ordinary methods of tuition are not often satisfactory in their results. Pupils learn to "fill in," but they do not learn to harmonize. As examiner to the Society of Arts, I come across many evidences of such teaching, admirable "fillings in," but the harmonization of given melodies are generally ghastly failures. I wish Dr. Sawyer had said something about the training of the ear. If we teach harmony rationally we should be constantly appealing to the ear; otherwise it is like teaching botany without seeing a plant, or agriculture, as it is often taught in towns, to pupil teachers who have never been in a field. Young people tell us that they have "passed in harmony"; what does it mean? Hardly anything, for the great majority cannot tell one chord from another by the ear. They look at notational signs month after month, but there is no felt association of sound and appeal to the ear. It is said to take too long! I have one children's class just now in which I have taught the pupils only chords they can recognise by ear; so far the plan has worked satisfactorily. This is the plan worked out by the late John Curwen in his "Commonplaces of Music." I have no doubt that Dr. Sawyer, in advocating the use of only a few chords at a time, would arrive at much the same result, and I feel sure we shall all agree with him that the filling up of figured basses is generally overdone by a great many teachers.

Dr. BOWDLER.—I think nobody need defend Professor Prout. He goes so fully into that very subject of harmonization of melodies in his "Counterpoint," that the book is not complete without it. In fact, his "Counterpoint" contains the counterpart of harmony.

Mr. BANISTER.—I suppose I am one of the defendants in the indictment. I must acknowledge that when I read the title of the paper I read it with perfect equanimity, but not because I wish to appear with a jaunty air as prisoners sometimes do, but because the discussion of such a subject might prove stimulating rather than irritating. Moreover, the lecturer has included himself in the charge; as he says: "Why do *we* teach so badly?" This is almost like turning Queen's evidence upon his companions in crime; but we shall condone it in Dr. Sawyer's case. Does he really mean that, notwithstanding all his ability and knowledge, he

has been unable to teach well, on account of the hopeless inadequacy of the books in use? or for the want of a book that is adequate? I venture to think that the charge, as formulated by him, is based upon a mistake, or misconception as to the nature and use of a text-book. A text is the thesis upon which a discourse is based and elaborated. One chapter contains that which has to be said on one subject: one chord, &c. At least, that is so in my own little text-book, to which Dr. Sawyer has generously alluded, notwithstanding its alleged inadequacy. To match each chapter, exercises are given at the end of the book, to match particular paragraphs. Unfigured basses and melodies are also supplied, to be used at such points of the progress as the discretion of the teacher may dictate. If the teacher has not this requisite discretion, or is so lacking in—shall I say? investigation of the book, as to defer all use of these latter till all the other, figured, exercises have been worked—I suggest that the alleged bad teaching is not because of the inadequacy of the book. I regard a text-book as a magazine of material—I will not say ammunition—to be adapted to the various requirements of pupils, and used in just such order as the teacher judges to be necessary. If the teacher cannot select and arrange the work in the proper order, the teaching may be bad and inadequate, not necessarily the book. Moreover, a book needs to be very large in order to be adequate; if by that is meant that it shall include an adequate supply of all exercise work to meet all requirements, without any supplementing on the part of the teacher. If the teacher is incompetent to supplement as well as to expound the material in the text-book, undoubtedly his teaching will be inadequate. I speak as a harmony teacher of forty-six years' experience. I give my pupils melodies and basses, by dictation, in addition to those supplied in the text-book; and other work, analysis, ear-tests, &c., as time and opportunity permit, and the needs of the pupils suggest. It should not be supposed that we are to teach and use only that which is in the book. However good the book, such teaching would be bad. I say to my pupils, listen to all that I tell you, as though there were no book to study; then study the book as though there were no class lessons; between the two, you may surely gain considerable knowledge. But may I be permitted to quote a few sentences from an address delivered by myself ten years ago? [The speaker here read from a paper "On some methods of musical study," published in "Musical Art and Study."\*] "I am almost saddened, sometimes, by the thought of how long, too long a time is spent needlessly in the study of *harmony*, and those

\* George Bell and Sons.

elements of musical grammar which inevitably precede or accompany that study; and of how needlessly repellent and perplexing it is rendered by the way in which it is approached, taught, and studied. I think it is so, partly because, in general, it seems to be assumed that the end, the goal of it all, is to *compose* music instead of to *understand* it. And partly, also, because even with regard to the exercises that students are set to work, on the assumption that writing, or at least harmonizing, if not composing, is the end to be aimed at, so large a proportion of the directions given are *negative* rather than positive; directions as to what *not* to do. It reminds me of the elder sister saying to the younger, 'Polly, do go and see what baby is doing, and tell him he mustn't.' And students seem only too naturally to fall into the habit of regarding the study of harmony as the training to remember and observe a number of prohibitive rules. They seldom say, 'I have aimed at such and such a result; is there any way in which I can still better accomplish it?'—but they ask, 'Is it wrong?' and if one is legally compelled to say 'No,' they seem satisfied. Positive beauty seems scarcely thought of as attainable or even desirable; perhaps because of the dryness of the exercises set them. But to return to the remark with which I set out as to the long process which the study of harmony is turned into. Sterndale Bennett used to say to me, and to others, 'All that is essential about harmony may be written upon a sheet of paper'; and latterly he reduced his estimate to half a sheet. And really how has it come to be possible that so very extended and complicated a business has been made of it? When once the elementary matters of scales, keys, and intervals have been mastered—and surely that need not take a very long time—the few chords that there are in music, with their usual context and treatment, can be tabulated and illustrated in, at all events, a few pages. And granting that the complications of combinations and contexts arising from suspensions and unessential notes do considerably add to the intricacies through which a student has to thread his way, yet, if the essential chords (so few) have but been clearly set forth, these additional matters, after all, need not be woven into such a tangled web as to require so lengthened a drudgery to disentangle it. At all events, my own growing conviction is that, keeping the training of composers out of view for a while, something like a rapid survey, a bird's-eye view of the ground, in the first instance with only such few exercises as will just fix and consolidate the knowledge so gained, would in many cases be much more satisfactory, at all events, as a preliminary proceeding, than the long drawn out—I had almost said dreary—plodding through a host of rules, positive and negative, with an equal host of exceptions, and little in the

way of thread kept hold of throughout." In addition, however, to all this, we have to ask ourselves: "What object have we to attain?" and, also, "what object has each pupil to attain?" There are three supposable objects. Is it to be a composer? This is rarely the case. Is it to be a fairly intelligent musician? That, the average case, is fairly attainable. Is it to pass an examination? Then one is fettered by having the "fads" of examiners to deal with. Anyhow, if Dr. Sawyer has not been hindered from teaching harmony well by the inadequacy of the text-books, none of us need be.

Dr. ENNIS.—Dr. Faisst's (Stuttgart) system of harmony includes two features almost identical with what Dr. Sawyer has been recommending. Firstly, the tonic triad is explained separately, then the dominant triad; after which the possibilities of combinations of these two triads are practically exhausted; particular attention is paid to the soprano part, and the instructions as to choice of note for that voice are elaborate. The subdominant triad is then added, and afterwards the other triads, each being described separately in detail. The subject of harmonization of melodies is also carefully gone into, beginning with the use of the tonic dominant and subdominant triads exclusively, and is carefully followed up to the advanced stages of progress. I am of opinion that counterpoint should, as far as possible, be taught simultaneously with harmony, and that in our various systems we pay perhaps too much attention in finding roots for some combinations instead of laying more stress on the contrapuntal origin of chords.

Dr. GREENISH.—It should be remembered that harmony is largely taught, not with the idea of making composers, but of training musicians. I think Dr. Sawyer was very hard on figured basses. They are absolutely essential and students cannot learn to analyse music until they have mastered the analysis of choral progression. There is, in my opinion, no better method of doing this than by figured basses.

Rev. S. E. L. SPOONER LILLINGSTON.—I should like to mention Sir John Stainer's excellent little primer on Composition. If judiciously used by experienced teachers it would tend to produce the results advocated by Dr. Sawyer.

Dr. MACLEAN.—One very important subject has not yet been mentioned—namely, the philosophical or scientific side of harmony; and in their practical application of this I think the English harmonists show at any rate more common sense than is found in some recent German harmony text-books. The leading example of the latter is perhaps the "Harmonielehre" of Dr. Hugo Riemann, of Leipzig, which is such a startling work that I will, with the permission of

the chairman, here describe it. Dr. Riemann begins, like most other sound theorists, with attributing our melody and harmony system to the desire of the ear and intelligence for simple ratios between the sounds, qualified by the postulate (for which he gives a valid reason) that all octaves, double-octaves, &c., should be regarded as identical sounds. He then exposes the fallacy that the ear will only calculate ratios up from a certain note, and not also contrariwise down from it; and he shows that even the analogies in physical acoustics illustrate this, for a given sound excites by sympathy all sounding bodies standing in the relation of multiples to itself just as much as those which are in the relation of aliquot parts to itself. That there is a downward series of "harmonics" by sympathy exactly the same as the generally recognised upward series, can be verified with due management of the dampers on any pianoforte. It will be found that the downward counted simple ratios give what we call minor triads, where the upward counted simple ratios give major triads; and this is the first fundamental article of Dr. Riemann's creed, which he consistently enforces by throughout his book treating the fifth of the minor triads and not its bass note as its root. The second and more arbitrary fundamental article of his system is that the major and minor triads on tonic, dominant, and subdominant represent the complete harmony of the key; every other phenomenon being explicable by subtraction, borrowing, or substitution. So far the philosophic or scientific system is at least as good as any other yet promulgated, and it is quite logically carried out. But as developed by Dr. Riemann into a student's manual, I beg to say that the product seems to me next door to an unworkable commodity. The perpetual passing from bass to treble, so to speak, and back again for the roots, and the extraordinary complexity of the symbolization used by him to work out such a system, make a page of this publication more like a page of Differential Calculus than one of musical theory. The student has masses of this matter to digest at each practical step in part-writing. And the proof that the "system" is overdone lies in the fact that all the familiar problems of elementary part-writing usually inserted in harmony books, such as tritone, false relation, consecutives, doubling and omission of notes, resolution of discords, &c., are, though well explained, yet explained in a way which is independent of the main propositions. Dr. Riemann's work is only typical of several other German works, and this question of the balance between scientific disquisition and practical instruction is surely an important one; while we can safely say that our English harmonists act judiciously in respect of it. If the exercises given in some of our text-



books would bear a little amplification in the directions mentioned by the lecturer, I think that is all that can be said. The practical teaching of harmony in this country is, I believe, absolutely sound, and all honour must be due to leading authorities in that field who have guided it, such as Sir John Stainer, Professor Prout, and Mr. Banister.

Mr. TIRBUTT.—I render sincere thanks for the paper provided for us this evening. Anyone who heard that paper and the reply of Mr. Banister must feel as practical teachers that Dr. Sawyer has put his finger upon the weak spot in our teaching. The title might have been "Why do text books teach harmony so badly?" We do not teach harmony sufficiently practically. There is need for much more practical work. One of the mistakes of teachers is to cram for examination, but the result of the examination is to show the weakness of the harmonized melodies. It is much more valuable to introduce the use of chords, as Dr. Sawyer suggests, a thing which is scarcely ever brought before students in the text-books. Of course it is a great tax upon the teacher. We have entirely different classes of students to deal with, and we seldom get one who can appreciate the artistic side. There is decidedly a practical idea to be gained from Dr. Sawyer's paper.

Mr. SOUTHGATE.—I want to say a word in favour of Sir John Goss's book, known and valued for a good many years. Goss's harmony only gives basses figured, and chords, but the scheme is so arranged that you have a chance of putting in your own melodies; later on the melody is given. There is one book not yet mentioned, a book by Dr. Marks. Here one is given a melody, and you have to harmonize that and carry it on. Unfortunately, Professor Prout is not here this afternoon, but the last time he read a paper on harmony there was present an eminent gentleman, Charles Edward Stephens. I remember that there was a large blackboard in the middle of the room, and these two gentlemen were furnished with pieces of chalk, and they went for each other. On this occasion, I think John Hullah observed: "I will never read a paper on harmony again unless a policeman is outside." One more remark. Dr. Sawyer seems to me, from the tone of his paper, to think that the creative faculty can get to work very soon indeed. But children must be taught to walk before they can run; the tuition of harmony resembles the learning of steps. I dread to think of the production of untaught creative children! A knowledge of chords is like being furnished with clothes to put on. Will you venture to take away these clothes and leave the infants in the condition of Adam?

Dr. SAWYER.—In concluding this short discussion, may I first express my thanks to those who have thus entered into

it. I cordially agree with Dr. McNaught's suggestion of the immense advantage of training the ear of the pupil. This goes without saying, if, as I have urged, you are to train him to be artistic. That, after having published his celebrated text-book, Macfarren should subsequently—at the request of another—write a second work, which in some way made up for past deficiencies, hardly exonerates him from the great neglect of the creative side in the first work. I was fully prepared to hear half-a-dozen of you rise and say that you had always taught on the system I have sketched, but I was not prepared to see so excellent an authority as Mr. Banister rise and tell us that he never taught according to his book, but always on the lines here laid down. What a pity he did not make his text-book in accordance with his practice. Mr. Banister answered my question "Why do we teach harmony badly?" by saying "Because we have bad teachers"; but surely it is our bad text-books which primarily make our bad teachers. Dr. Ennis and others have asked me if I know the books of Lobe, Weber, and another; in two cases I do, but may I ask if these gentlemen wish to see on the title-page of all our harmony books "made in Germany"? Dr. Bowdler urges that Professor Prout has repaired the great omission in his harmony book as to the *use* of chords by adding a long chapter on it in his Counterpoint book. But surely the study of how to *write* and use chords is part of the study of harmony before it enters into our counterpoint. Dr. Greenish urges that all that is necessary is the power to *analyse* harmony; but here again, surely, he who can himself use and manipulate the chords will be the better able to analyse them. Lastly, Mr. Southgate has amused us by his remarks as to the dreadful results that "harmonic infants" will produce; but I would remind him that to the infant mind the creative side is always present, and the essence of the Pestalozzian system and of all modern kindergarten teaching is to turn this creative side to account in training the young brain. If we make our "harmonic infants" do the same thing—*i.e.*, use each chord himself as he has learnt it, and not simply see that chord in a figured bass exercise, we are only following in the first principles of modern education.

(The discussion then closed with a vote of thanks to Dr. Sawyer.)