

A Technique for Musicians

by Frank Pierce Jones

Part I - Awareness, Freedom & Muscular Control

There are musicians---some say there were more of them in the past---who get as much pleasure from a performance as they give, who always perform easily and well, and who use themselves so efficiently that their professional lives and their natural lives coincide. There are others, however, with equal talent and training, to whom performance and even practice are exhausting, and whose professional lives are cut short because they lose the mastery of the skills they have acquired. They put forth more effort in solving technical problems than the results warrant, and ultimately discover that they have used up their reserves of energy. If they understood the use of themselves as well as they understand the use of their instruments, such breakdowns would be far less frequent.

In practice and performance, however, a musician's attention is given almost exclusively to what he is doing with his hands or his feet or his vocal organs, and to the sounds they are producing. Of what he is doing with the rest of his body, he usually knows very little. In attacking a difficult problem of technique, the average performer uses two approaches: He "tries hard" to master it, using all the skill at his command; if his trying builds up too much tension and fatigues him, he "relaxes." In both cases he is working on a trial-and-error basis. He has no way of knowing exactly how much tension is needed, or how to limit it to the time and place where it is wanted.

To take a concrete example, a double-bass player, in order to get the force and control he wanted for finishing the down stroke of his bow, habitually built up so much misdirected tension in his arm that he could not start the upstroke smoothly. Furthermore, he built up a corresponding overtension in other parts of his body---back, neck, and legs. Since he concentrated his attention upon his arms and hands, he was unaware of what was happening elsewhere until it showed up in the form of pain and fatigue.

Any performer who continues in this way runs the risk of becoming progressively more muscle-bound, and of losing his freedom of movement. If he recognizes the trouble and attempts to remedy it by relaxing, he runs into the danger in reverse. Either he becomes limp and relatively incompetent, or in achieving relaxation in one part he pays for it by becoming overtense somewhere else. I know a pianist who succeeded in getting almost complete freedom in her arms, so that her fingers showed a truly remarkable sensitivity and power of fluid movement. But in the process she developed an extraordinary amount of tension in her neck and an aching heaviness in her back and legs. Her attention was given exclusively to her arms and hands, and she did not realize that what she was doing with the rest of her body exhausted her.

It has often been said that our senses deceive us. This statement is especially true of the sense of muscular movement, or kinaesthesia. Often it can be shown that a person is doing something quite different from what he thinks he is doing. A pianist, for example, once complained to me that in playing he had a sense of great weakness in his hands, which increased whenever he struck certain chords, until it seemed as though he scarcely had the strength to push down the keys. I discovered that just at the moment of attack he was tightening the muscles of his lower arms in such a way that his hands were actually drawn back from the keys. To overcome this backward pull and strike the chord, he had to exert a tremendous amount of force. What he sensed was resistance in the keys and weakness in his hands. The cause, which he failed to recognize, was misdirected strength. As in the other examples I have cited, the muscular misuse was not confined to his arms and hands. He "got set" all over, with an increase of tension through his neck, shoulders, and back, so that the

tension in his lower arms was literally "locked in" from above. The amount of tension and the pattern of its distribution were determined by his past experiences in using his arms, both in playing the piano and in other activities, and he did not know that there was any other way of using them.

In most cases, I am convinced that it is futile to attack these problems directly, because the use of the hand or any other part of the body is so closely linked to the manner in which the body as a whole is used. But if a person can be made aware of his muscular movements as a whole, and learn to distinguish their general, overall pattern, he can make constructive changes and corrections on the basis of knowledge rather than trial and error. Armed with this knowledge, a musician can become, in effect, his own "expert."

This new approach to the problem of change has been made possible by an important discovery F. Matthias Alexander, of London, made about the nature of reflex action. To my knowledge, Alexander was the first expert, working with human beings in ordinary activities of life, to show and prove that there is what he called the "primary control" within each individual. He defines the primary control as a "certain use of the head and neck in relation to the rest of the body."

By observation and experimentation upon himself, "using," as [John Dewey](#) said, "the strictest scientific method," he learned that the mechanism that determines the character of all reflex action lies in the reflexes governing the relation of the head to the neck. When the primary control is functioning as it should, it is sensed as an integrating force that preserves freedom of movement throughout the system, so that energy can be directed to the place where it is wanted without developing strain either there or elsewhere. Misuse of the primary control, on the other hand, is always reflected by misuses somewhere else; this appears in the form of awkwardness, fatigue, and what Wilfred Barlow, a London physician and pupil of Alexander, calls "maldistributed muscle tension," or overtension at one place accompanied by undertension (lack of tone) at another.

G. E. Coghill, the American biologist, has pointed out that Alexander's findings agree with what is known of animal movement in general. The importance of the head in animal movement is well known, and the dominance of the head-neck reflexes in the reflex pattern was established experimentally by Rudolph Magnus and others.

Alexander showed that in human beings under civilized conditions the head-neck relationship is unconsciously interfered with, to a greater or lesser degree. His great contribution to education was the discovery of a means by which a person can become aware of this interference and regain the normal use of the primary control. From this discovery and the deductions he made from it, Alexander established, as Bernard Shaw said in the Introduction to the volume entitled *London Music*, "the beginnings of a far-reaching science of the apparently involuntary movements we call reflexes." John Dewey, who introduced Alexander's work in this country [U.S.A.], said that the discovery was "as important as any principle that has ever been discovered in the domain of external nature."

The principle is general in its application, and not confined to the problems of musicians. In my experience, however, musicians have been unusually quick to grasp its significance and put it to practical use. Perhaps this is because musicians as a class are keenly aware of the kinaesthetic side of experience. In this article I have directed attention to the problem of instrumentalists; but the principle can be used equally effectively by singers and conductors. Sir Adrian Boult studied with Alexander in London, and many singers have made use of his teaching. The value to singers lies in the fact that the primary control, when it is functioning as it should, prevents interference in the reflexes that control the vocal organs and the breathing mechanism. In this connection, it should be noted that Alexander made his original discovery when he was seeking to find the cause of his own loss of voice in speaking. An account of his procedure is given in *The Use of the Self* (1932).

In teaching the principle to a musician (or to anyone else, for that matter), the aim is to increase the pupil's awareness of himself as a whole, until he can detect the interference in the head-neck relationship, which is the first link in the reflex chain of "getting set" to do something---to sit down, to pick up a bow, or to strike a chord. In order to accomplish this, the teacher helps the pupil to carry out the activity without the habitual interference, and to realize by actual experience the lightness and freedom of movement that come when the primary control operates normally. Through repeated experience of this kind, the pupil gradually builds up a new standard of kinaesthetic judgment. With this standard he has the power at any time to know whether he is obtaining the maximum of freedom and control in what he is doing. If he is not obtaining it he learns how to find the cause of the trouble and eliminate it.

Because the principle is general in its application, a musician is learning something he can use to advantage in whatever he is doing. And conversely, his improved use of himself in everyday life will be reflected in his music. The double-bass player of my first illustration reported, as the first tangible results of his lessons, that he had mowed the lawn without tiring his back, and had kept his equanimity while asking trespassers to leave his property. The same kind of conscious control appeared in his playing and in the ease with which he learned to adapt himself to the demands of his instrument.

I have not meant to suggest that a primary knowledge of the primary control can take the place of natural talent or eliminate the need for technical training and practice. But as a complement to professional study, the musician will find it invaluable. Over a period of years I have watched the progress of musicians who have learned to use this new approach to their problems, and have witnessed the increasing gain it has brought them in ease of performance, lessened fatigue, and the confidence that comes with a true self-knowledge.

Bibliography

- Alexander, F. Matthias: *The Use of the Self*. Dutton, 1932
 Alexander, F. Matthias: *The Universal Constant in Living*, Dutton, 1941
 Barlow, Wilfred: "Anxiety and Muscle Tension," in the *British Journal of Physical Medicine*, May-June, 1947
 Coghill, G.E.: *Anatomy and the Problem of Behavior*. Macmillan, 1929
 Coghill, G.E.: "The Educational Methods of F. Matthias Alexander," in *The Universal Constant in Living*
 Dewey, John: *Introduction to The Use of the Self*.
 Magnus, Rudolph: *Korpersellung*. 1924
 Shaw, Bernard: *London Music in 1888-1889 as Heard by Corno di Bassetto (Later known as Bernard Shaw) with some Further Autobiographical Particulars*. Dodd, Mead, 1937

Part II - The Organization of Awareness

Studies of awareness and of such related topics as consciousness and attention have recently begun to appear with increasing frequency in the psychological literature. For a long period of time---roughly from the 1920's to the 1950's---such concepts were rejected by psychologists as too vague, subjective and mentalistic for scientific study. I have never understood the logic of this position. To me the great appeal of psychology as a science has always been the prospect of achieving a more rational control of human behavior---I do not mean other people's behaviour (which is the way the term is generally used); I mean one's own. But if "control" is expanded to include "self-control" you have to have a concept of awareness. So I am glad the term is becoming scientifically respectable again.

To start out with a tentative definition---awareness is knowledge of what is going on while it is happening---of what you are doing while you are doing it. It is a generalized alertness to present events. It must be admitted, however, that awareness of what you are doing is not

everybody's primary goal. Many people on the contrary prefer to be unaware of what they are doing. They aim at a kind of learning that will give them automatically the right response for any situation. The advantage of learning something so well that you can do it automatically is, they say, that you can think of something else while you are doing it---something that is more interesting or more important. I have a colleague who always drives the ten miles to school by exactly the same route at exactly the same time in the morning. With his mind thus freed from making decisions he can plan his lectures for the day. Some musicians have told me that they do better when they do not have to think about what they are playing. An old Bostonian who had been a concert pianist when she was young but gave up her career after her marriage was asked to play at a small dinner party given by Koussevitsky. Searching for something Koussevitsky did not know she chose a piece which she had not played since the turn of the century. All she remembered was the opening chords, but by abstracting herself and looking steadily at a picture of a mountain lake which hung behind the piano she was able to finish the piece without a flaw and with the warm applause of the host. Had she thought for a minute of what she was doing, she said, the feat would have been impossible.

Countless examples could, I am sure, be cited of this ability to carry out smoothly a skilled and well-learned performance while following a totally different train of thought. It is not always an advantage, however. Stories about absent-minded professors are legion. In most of them the professor appears as a lovable eccentric who does something inappropriate or ridiculous while his mind is on higher things. Such episodes are less funny if they happen to you. Once you are in the habit of thinking of other things than what you are doing it may become hard to stop. And there is no guarantee that these other things will be "higher." Another musician with the ability to play automatically was not so successful as the old Bostonian in keeping his mind on peaceful scenes. Halfway through a concert performance he started thinking about a quarrel he had had that morning with his wife. This train of thought became so absorbing that by the end of the second movement in the piece he was playing, his attention was engrossed completely. He was unable to start the third movement and had to leave the stage with the piece unfinished.

In my view the chief disadvantage of automatic performance is that without awareness it cannot be changed. Socrates when asked whether it was better to do wrong knowingly or unknowingly shocked his listeners by replying that it was better to do it knowingly. If you know that it is wrong, he explained, you can change. Otherwise, you cannot.

Even if a habit is good, it loses something if it becomes unconscious and stereotyped. People grow older, circumstances change, fashions change and a manner of responding or a style of performance may cease to be appropriate. It is not enough for someone else to point this out, however. You have to know yourself what you are doing in order to change it.

I should like to discuss a method for reorganizing awareness in such a way that a performance can be well-learned without becoming stereotyped and mindless, and hence incapable of change. The key is to be found in the relation between awareness and another conscious state, attention. Awareness, as I conceive it, is a general, unfocused condition in which a person is wide awake and alert to whatever may be going on without being concentrated on anything in particular. Attention, on the other hand, is focused on some particular aspect of the field. It has been compared to a spotlight on a dark stage. William James defines it as "the taking possession by the mind" of one out of several possible objects or trains of thought. (1) (Physiologists say that attention can be distinguished from inattention by measurable differences in brain waves, heart rate and other indices.) The ability to give attention---to concentrate---is much sought after and is often valued in proportion to its intensity and the degree to which everything else is shut out. The often cited examples of Archimedes drawing circles in the sand, unaware that the city of Syracuse had been captured; and of Scaliger intent upon his commentary of Homer while the Massacre of St. Bartholomew took place outside his window, are extreme cases, to be sure, but they illustrate the common notion of concentration as a narrowing of the field of attention. They also illustrated the danger in

concentration---the danger that something important is happening outside the field of attention without being observed. The spotlight may be too bright and the rest of the field too dark to make the observation. In the method which I am going to describe, attention instead of being narrowed is expanded to take in certain key relations in the body as well as the activity on which attention is focused. To use the figure of the spotlight and stage again, this time the spot is still bright but the stage is merely dim instead of blacked out.

The organism has at various times been divided and subdivided into a great many parts and categories---the mind and the body, the five senses, the vascular system and the like. Though for purposes of study these categories are convenient and perhaps necessary, there is always a danger of thinking that the divisions are real, and it is customary nowadays to start any treatise on human behavior by affirming the unity of the organism. There is one division, however, that is seldom questioned---the division between self and environment. It is regularly assumed that attention must be directed either outward into the environment or inward into the self. Gibson in a new and stimulating book on *The Senses Considered as Perceptual Systems* rejects completely the traditional classification of sense data. He keeps, however, the dichotomy of "outward" and "inward" using the term "perception" for one and "proprioception" for the other. (2) "Perception," he says, "has to do with the environment. Proprioception with the body."

I should like to take a strictly unitarian approach to the problem and deny the necessity for making any such division, even for convenience. Information about the state of the body and the state of the environment is being recorded in the brain at one and the same time. Attention is ordinarily directed either one way or the other but there is no reason why this need always be the case, since the organism is capable of selecting the stimuli to which it will respond.

A scientist in a laboratory bent over a microscope tends to give his attention exclusively to the specimen he is examining. If in the course of time he becomes aware of pain or discomfort in his neck and back he either ignores it or stops what he is doing in order to give it attention. It is perfectly possible, however, to integrate the two fields, inward and outward, into one, by selecting elements from both for simultaneous attention. When the two fields are integrated in this way, the stimulus pattern and the response pattern can be recorded within the same spotlight of attention, so that cause-and-effect relations between them can be perceived.

When you start making observations in this way you discover that your sensations of muscular tension, heaviness, stiffness, and their opposites are not chaotic and meaningless but have a central pattern which changes in response to the changing pattern of stimuli from without or to the changing thought-images or "free-associations" within. Finding this pattern is like finding the clue that leads out of a maze. It introduces order where confusion prevailed.

If a response is delayed as it is in waiting for a light to change in traffic, you are often aware that muscular tension is building up in preparation for the movement to come. Preparatory activity or "set" is presumably present before all learned responses, whether delayed or not. A set in this sense of the term is an attitude of expectancy which facilitates a learned response. You are most apt to become aware of a set when the expected does not occur as when a shovel full of snow is heavier than it looks, or there is one less stair to climb than anticipated.

Sets differ from one another according to the expected character (the "idea") of the response and the previous experience of the subject. There are sets for speaking; for picking up a pencil; for getting up from a chair; for smoking a cigarette; for playing the piano. Sets speed the response and make it easier to carry out automatically. They do not always make the response better, however. Sometimes they get in the way. This is especially noticeable in complex, sequential activities. A pianist may blur the execution of a measure because he is already getting set for the next. Or a string-player may have difficulty bowing because he becomes set too soon for the reverse movement of the bow. So in reading aloud the eye may get ahead of the speech organs and impose a set for another word before the first has been

completely articulated.

A set may be imposed very quickly after the stimulus is given, but it is never instantaneous. It starts with a change in tonus or tensional balance in the neck and trunk and spreads from there to the limbs so that there is a general postural change before the particular goal-directed part of the pattern appears. (3)

The postural component can best be studied in another response pattern, a pattern which is not goal-directed and is presumably unlearned. In response to a sudden loud noise an involuntary postural change takes place. Though the response is sometimes over in half a second it has a regular time sequence, starting in the muscles of the face and neck and passing down the body. When it is complete it always involves the muscles of the neck. (4) Without them apparently the response cannot be propagated, or spread.

The pattern of startle (which has been studied by high-speed photography) is remarkably regular. (5) It begins with an eye-blink; the head is then thrust forward; the shoulders are raised and the arms are flexed. The pattern permits minor variations but its primary features are the same. Because the startle response is brief and unexpected, it is difficult to observe and more difficult to control. Its chief interest here lies in the fact that it is a model of other, slower response patterns: fear, anxiety, fatigue, and pain all show postural changes from the norm which are similar to those that are seen in startle. (6) In all of them there is a shortening of neck muscles which displaces the head, and which is usually followed by some kind of flexion response, so that the body is drawn into a slightly smaller space. As in startle these postural responses cannot take place without the prior displacement of the head and the shortening of neck muscles. Since these responses are much slower than the startle response, they can be changed by controlling the first stage in the pattern, the head displacement, through which the rest of the pattern is propagated. Changing a response pattern in this way is quite different from suppressing it or ignoring the stimulus, which may well call for a response. Changing the postural pattern simply insures that the response will be rational and appropriate to the situation instead of an irrational stereotype. By reorganizing the field of attention both phases of the response pattern are taken in at the same time. The goal-directed phase (the learned part of the pattern) is allowed to continue, while the set is controlled by the method which I have described. Awareness of the head-neck-trunk relation serves as a framework for the learned activity. By inhibiting the set or fixation of the head, a better distribution of tonus is obtained in the trunk and limbs and better coordination and control of the specific activity, whether it is speaking, or writing, or playing the flute.

Elsewhere I have advanced the view that the physiological mechanism which makes these effects possible is the head-neck reflexes, which integrate and modulate the response of the organism to gravity. Briefly, release of neck-muscle tension, allowing surface muscles in the neck to lengthen, increases the antigravity response in postural muscles; shortening the same muscles decreases the strength of the response. It is well established that head-neck reflexes are used by animals to change the distribution of tonus in the trunk and limbs and that the same mechanism probably operates in human beings.

It is unnecessary, however, to know why the mechanism works in order to use it. The chief difficulty lies in the fact that we are not accustomed to making kinesthetic observations and prefer to accept the evidence of our other senses or somebody else's judgment rather than critically examine our feelings of tension and weight. The only satisfactory technique I know for dealing with this problem was devised by F.M. Alexander (8) some 60 years ago. By watching himself in a triple-mirror, Alexander was able to correlate changes in the axis of his head with a loss of voice in speaking. He found that by inhibiting the change in head-axis he not only regained the use of his voice but produced an unexpected redistribution of tension throughout his body which brought with it an improvement in breathing and other automatic functions. For imparting his discovery to others, he developed a non-verbal technique which is referred to as the Alexander Technique. In it the pupil learns to inhibit any tendency he may have to alter the

reflex balance of his head, while the teacher initiates some simple, everyday movement and guides the pupil through to its completion. Any movement will do: walking, shifting position in a chair, getting up and sitting down, picking up a pencil. During this kind of movement (which should be called 'reflex facilitated', rather than active or passive) postural tonus is redistributed. This is perceived by the subject as reduction in the feeling of weight and in the effort needed to move. This kinesthetic effect persists long enough after a lesson to give the pupil an opportunity to observe his own habitual actions against a new background of postural tonus. In this way he gradually builds up a standard of kinesthetic judgment for himself and can go on to make further observations and experiments of his own. In doing so he has added greatly to his resources for self-improvement.

It should be possible to make the necessary first observations without help from outside---it has been done at least once before---but most people lack the patience and insight to do so without instruction. Fortunately the instruction is easier to obtain than it once was.

To end with a quotation from the Greeks, Sophocles said:

*The ideal condition would be, I admit,
That man should be right by instinct;
But since we are all too likely to go astray
The reasonable thing is to learn from those who can teach. (9)*

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This lecture is excerpted from Frank Pierce Jones: Collected Writings on the Alexander Technique and is reprinted courtesy of the Alexander Technique Archives, Inc. It is available from [AmSAT Books\(USA\)](#)

Frank Pierce Jones was a professor at Tufts University, near Boston, Massachusetts. During the 1960s and 70s, he conducted a series of studies using electromyography and EMG equipment. These studies showed that the Alexander Technique could produce a marked reduction in stress levels. His results are included in his book Freedom to Change- The Development and Science of the Alexander Technique. Freedom to Change and a great many other books about the Alexander Technique can be ordered from [The Alexander Technique Bookstore\(USA\) in Association with Amazon.com](#) and [The Alexander Technique Bookshop \(UK\) in Association with Amazon.co.uk](#)

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