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SYNTONOGRAM

# MOTION COMBINED WITH SYNTONICS

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The motives which prompted me to incorporate motion with Syntonics are as follows: The very first time I gazed in the Syntonizer, it appeared to me that it should be in motion. Certain things occurred in my first six months experience with Syntonics which contributed a sufficient number of reasons for me to reduce it to practice. I am presenting my views for discussion.

The supporting theory to the main reason for incorporating motion with Syntonics involves a very deep subject is psychology. In order that I may better illustrate why I believe in motion in the Syntonizer is advantageous, with Dr. Spitler's permission, I will quote from the Syntonic manuel, page 9. It has been clearly determined that there are four different changes that take place when Syntonics is applied: a. physical, b. chemical, c. physiological, and d. psychological. Dr. Spitler states that the psychological reason to visual stimulus is the most poorly understood reaction. I have been convinced that his statement is very true, and believe it is the "HANDLE" to the situation involved in effecting a better and quicker, physical, chemical and physiological effect. Quotations from manuel, page 10: We recognize, however, that the function of the central nervous system and the internal secretions, constitutes the essential mechanism. The action of the two the vegetative nervous system and the endocrine are so intimately related and their processes so inter-dependent that it is impossible to consider on without the other, for the tonicity and the irritability of the vegetative system is regulated through the endocrines.

We are all interested in a good reaction, but as I see it there are impediments to this good reaction, which sometimes may act adversely. We may be ever so careful in typing our case, and applying the indicated frequency, and begin to feel pretty good over adding a new treatment case, and have the case blow up after the first treatment, and not return.

This is what can, and really does happen to syntonists, and I believe it is a worthy discussion. In the cross-section of any syntonist's clientele there may be a patient come to our office suffering from any one of the following disorders:

Psychanopaia – psychic blindness, or psychic deafness.
Psychastenia – neurasthenia, with marked psychic symptoms.
Psycholepsy – a mild and temporary attack of confusion.
Struma's exophthalmica – blindness occurring in nervous, or hysteric persons.
Psychology – the science of the mind, and of mental operations.
Phychologic – the state of mind, and the psychologic reaction is produced in the Psychocortical centers of the brain. It is best to insure this psychologic reaction by removing as much as possible any obstacle which may retard this reaction.

Any or all of the nervous symptoms above may be present in a case of nervous break-down, which Optometrists are confronted with. In many cases they may be mild, but just severe enough to

doubt you very much if an attempt be made to discuss with them some of the actual facts about syntonics. We are taught that harmonious balance of the autonomic nervous system is maintained though the brain stem and thalamus but is easily disturbed.

I believe that it is best not to mention what really takes place when we apply Syntonics to these nervous cases. Some of these patients do not wish to have their nervous systems tempered with. Most say things can happen to those patients who are suffering from the conditions mentioned above which could be co-incidental with their visits to our offices, and the syntonists could be blamed. They come to us about their eyes. We are optometrists to them. I believe it is best to confine our discussions to the orbits when the occasion demands in these cases.

I do not mean that we should not give a very good account of the techniques, or hide our lights in a bushel by any means. Syntonics should have an outlet for publicity, but there are those in our clienteles to whom it is best for all concerned if Syntonics were handled more nonchalantly.

It has often happened in my own practice for the patient to say: "Doctor, what is this light doing to my eyes, or what is it supposed to do for my eyes." I believe that this is the critical moment to remove the aforesaid impediment to a good psychologic reactions.

If syntonists were sure that the same answers to the above questions would effectively apply in all cases, in my mind everything would be lovely, but unfortunately many different answers are given.

Most of these nervous cases have plenty of that gift of tongue which can be harnessed to pull for us, and will make the best boosters proving that the answers to their questions are not too much for them to comprehend. Mild stimulus is best for them. I do not believe that we would try to teach them some of the things we would like to have them know, especially on the first visit. Those things are best explained after a good psychological effect has been accomplished.

Motion in the syntonizer is the answer that will fit all cases. When they ask, "Doctor, what is this light supposed to do for my eyes?' I tell them to just follow the light with their eyes, that it is the movement of their eyes which will bring about increased circulation to their orbits, and all internal, and external structures of their eyes, including the optic nerves, and the particular color is used for a target. I try to stay off the subject of Syntonics, and postpone answering their first questions until I am sure that I have effected a good psychologic reaction.

When the questions were asked about the frequency standing still, there was only one subject to talk about, and that was the color. It seemed to me that in my anxiety to explain what the color was used for, in some cases, I believe was an impediment which retarded the psychologic effect.

I believe that if an attempt is made to prepare the patient for something you are not sure you can deliver, by discussing with them before, or at the time of the treatment some of the actual facts about Syntonics a bad psychologic effect may be affected.

Remembering that harmonious balance of the central nervous system is maintained through the brain stem and thalamus, and is easily disturbed, I believe that a disturbance can be set up of a sufficient degree in certain cases to neutralize a well directed syntonic treatment. Especially with neurotic patients who have a cardiac disturbance which causes them to fear everything, and they suffer from this more or less constantly, should this be done.

When Dr. Spitler started his thee day lecture course on Syntonics, he lectured to what were supposed to be trained minds who came for the sole purpose of learning. Some say this was a two year college course. He started his lecture in such a way that it was possible for these trained minds to assimilate the fundamentals of Syntonics. I believe that should Dr. Spitler have mentioned what could be accomplished with syntonics on the first day, that it would have been considered too far-fetched by these trained minds. In each Syntonic class there were students with different capabilities of understanding. Do you not suppose that psychology was a vital factor of varying degree with Dr. Spitler had to deal with?

He did not pt the cart before the horse or let the tail wag the dog. Oh, no, he started at he bottom, and gradually worked up. He bombarded our psycho-cortical centers for three whole days and nights in such a manner which made it possible for us to comprehend. We can't all be teachers, but I believe the time is not far distant when this matter should be taken in hand for the proper course to pursue when our patients come right out bluntly and ask for knowledge which may be bad for them under certain conditions.

With the frequency standing still I found it very difficult to answer these questions in a manner which my patients would comprehend. When the patients question me about the color, especially on the first few visits, I confine my discussions to the color fields, the ductions and phorias, etc., and tell them the motion of the frequency is aimed to enlarge their color fields, and bring about harmonious relation between the two eyes.

From the forgoing I hope to make myself clearly understood that it hardly behooves us to expect our patients to understand the deep complexities of Syntonics. That is one of the reasons I prefer to have the frequency in motion, to more or less insure that all important psychologic effect by side-tracking the real issue at the beginning of each cases.

After I am absolutely sure that the patient has been materially helped through Syntonics there is not much danger in discussing with them the associated and supportive function of vision which would involve a discussion of the central nervous system. These talkative patients can have good things to say about us on the outside and this is about our only outlet for publicity. It is the duty of every syntonist to pursue this all-important task of creating a demand for our service, and satisfactorily answering their patients' questions in a manner which will not be asking too much for them to comprehend so that our services will bear fruit and not result in one of those adverse boomerangs. We may apply through the second cranial nerve a mild stimulus and destroy or place an obstacle which may retard, or neutralize the effect by blabbing in their ears something which may create doubt or suspicion.

All of our conversation must be mild. Syntonics cannot be satisfactorily forced upon any one and make them like it. There is also a technique in administering a technique. Some neuratic patients will blow up if the word treatment is mentioned.

Motion in the Syntonizer transforms the technique from its original character ino a dynamic form for the purpose of insuring a greater number of good psychological reactions, and the by-products of an orthoptic syntonizer.

The length of time spent on orthoptics and Syntonics with each patient was another factor which contributed support to this idea. I was confronted with the problem of giving my patients all the time I felt necessary on orthoptics, and following with Syntonics. Necessity was the mother of this invention to reduce the length of treatment periods by combining orthoptics with Syntonics, which would be appreciated by my patients and increases my earning capacity.

The possibilities of an orthoptic syntonizer are many. I have been experimenting with this for quite some time. My results so far have been gratifying.

Like most optometrists who undertook the difficult task of straightening cross eyes – I had my share of failures. When Syntonics was first presented to me I was more interested in getting something which was particularly aimed at the squint problem. When I took Dr. Spitler's course I could see the great advantages of Syntonics in my practice, but for the squint cases there was something missing and I decided to work the thing out and see if Syntonics could be combined with orthoptics.

When I designed this instrument, simplicity of operation was uppermost in my mind. A brief description of the instrument will be necessary.

The motion is provided by a small double reduction motor mounted on top of the instrument with a vertical shaft pointing downward four inches from the patient's head. It operates through gears which are so close to the eyes and so small that they are not visible to the patient. These gears drive a pair of 10Δ D. plano lenses with the bases in the same direction. The rotating prisms are mounted in the end of the instrument leaving just enough room for nascentizing lenses and auxiliary prisms. The motor is very quiet with reversible motion and speed control. The instrument does not move. It looks exactly like the first syntonizer except for the motor on top.

In treating squint cases which invariably involve the suspension problem, a septum is placed before the eyes which is made of black paper of sufficient width to cause the eyes to see only on their respective temper sides. Nascentizing lenses are placed in front of the rotating prisms, a base in prism for convergent squint is placed before the squinting eye which is usually amblyopic. The rotating prisms provide motility, and the septum in front of the prisms acts as a flasher which forces attention to the amblyopic eye. It is not expected that the patient will fuse the base in prism, or fuse around the septum. The prism is used to stimulate the macular area, and cause diplopia in the beginning of the treatment of a convergent squint case, and break up suspension. The spherical element of the refractive condition can be added to both eyes.

The second step in the same treatment is to remove the nascentizing lenses and apply the selected frequency. The septum can be used if the flasher is desired, but the base in prism should be used

throughout the treatment and have the patient advise when there are not two images present. As soon as diplopia has been established, visual acuity in the amblyopic eye can be expected to improve.

It is my belief that when Syntonics is applied to a convergent squint case without the base in prism to bend the rays toward or on the macular area, that this will further develop a false macular region, and will be a stumbling block. A convergent squint has developed retinal fibers, and also other neurons associated in the light reflex arc toward the nasal area, or toward the blind spot. In some cases the blind spot is positioned to receive and interpret that which the blind spot can do so well. It is my belief that the suppression habit is first learned and practiced in this way.

Divergent squint is handled the same way except the base of the auxiliary prisms are pla e base out. I have mentioned only he first steps in treating mono-lateral squint with motion in the Syntonizer.

Those of you who use the squint corrector successfully will at once grasp the similarity. My theory in treating squint is not new but I believe the application of Syntonics is original.

A convergent squint of 25 P.D. measured on the stereocampimeter, we will say that the left eye fixes, and the visual axes are parallel. The right eye is turned in 25Δ D. This blind spot is positioned to receive distant objects. When applying Syntonics with the frequency standing still and with no provision for placing auxiliary prisms to bend the frequency on the macular area, I do not believe that Syntonics would ever budge the squinting eye. While there was never any claim that it would it appeared to me that this frequency should be harnessed.

Theoretically figured, the size of the projected 1 ½ inch square exposure of the frequency image is 1 ½ mm. The size of the macular area is 2 ½ mm. I believe that the macular area is a very important factor to consider in all squints, and heterophorias, which are mild cases of squints.

In the embryological development retinal fibers were accurately positioned to be relatively stimulated by light. This relative positioning is accurately maintained throughout the entire chain of the light reflex arc. In other words, the visual cortex has an area, likewise all the centers involved in the light reflex arc which accurately correspond to retinal areas.

In esophoria or esotropia the impulses from the nerve fibers which correspond to the temporal portion of the macular area are at fault. This may be in the retina or any of the associated centers involved in the light reflex arc. That is why base in prism treatment will reduce esophoria, or esotropia. The light is bent toward that area which is at fault, and responds to light stimulation.

In any form of orthoptic treatment, light stimulation on these retinal areas is the handle to the situation. Syntonists are interested in the particular kind of light that is used when applying Syntonics. Why not be just as particular with orthoptics and harness that frequency which we believe to be superior to the light frequency which the various forms of orthoptic techniques provide.

In view of certain marked success I have had with orthoptic Syntonics I ran into a problem which I believe worthy of discussion. This paper is not all theory, in fact I am practicing what is written hereon. I noticed a great improvement in an alternating squint case after using base in prisms to bend the frequency so that the patient would have diplopia in the syntonizer. His fellow had many Syntonics treatments before I adopted any base in treatment, and the frequency was standing still. With the Squint

Korrector and my stereo-orthoptor, I kept everlastingly as it. The progress was slow. After the first treatment with the frequency in motion, and base in prisms, he made a big improvement.

In view of the small projected area on the retina which is 1 ½ mm. square, and would be the retinal image of the frequency, I ran into a problem which is worthy of discussion, syntonically. This small projection of the frequency is only 60 percent of the macular area. I always believed that the retinal fibers were principle ones to be stimulated, and yet just what part the nerves of the cornea, the iris, and ciliary played in the results obtained through Syntonics left me somewhat in doubt until I made this experiment which leads me to believe that the frequency light can be considered as a target, and the projected rays are the most important. After having similar success with heterophorias, I went a step further. It appeared to me that if the frequency exposure would be larger it would cover a larger retinal surface, and more nerve fibers would be stimulated and probably syntonics would be more effective.

I lined the inside of the entire syntonizer with thin mirrors which appeared to me was a better reflection of the true frequency than the light that was reflected from the sides of the wooden box. I was surprised at the size of this exposure of the frequency when I made this experiment. It appeared to me that if the macular area could stand it that the lens sensitive retinal areas would not be adversely affected, and perhaps it would stimulate para-central and peripheral vision, so I put it to work. I first tried it on myself, of course. I have used it on some very important cases, among these was cataract, which I was exceptionally successful with. I was somewhat uneasy about this at first. I knew I was giving them an "eye full" and watched results and reactions very closely. I was ready to remove the mirrors on several occasions, but things happened which prompted me to leave them in, my theory being that more retinal fibers would be fired and quicker results would be obtained. I was working entirely on the project retinal image theory.

It will be somewhat difficult for a discussant to follow the next phase of this thesis without first having had the experience of the performance of the instrument. The rotating prisms give a by-product which I believe very good. If you can imagine the reflection from the edges of polished lenses in your spectacles you can better follow me.

A circular ring is mirrored from the frequency which first is noticed up close to the eyes. Some patients do not see it at first, but notice it when the peripheral retinal fibers become stimulated. Some see it double at first for a while. After watching the frequency go around for a few minutes this circular ring expands to the size of fourteen inches in diameter, and seems to move backward or away front the eyes until it appears to be back of the frequency. The large ring is seen indirectly while watching the frequency. The width of the circular ring appears about two inches. Some describe it as a large tire, and some call it a life saver.

On the edges of the lenses is ground a flat place co-incident with the bases of the prisms. This flat place mirrors a small image of the square frequency which is used for a target, and when following this target increased motility is provided, and para-central, likewise peripheral retinal fibers are stimulated. When following the frequency straight ahead less motility is provided, and peripheral vision is being stimulated from the light which is mirrored from the des of the rotating prisms.

This arrangement makes Syntonics much more interesting to the patients. I have no difficulty in holding the interest of children. They like it ever so much better than with the frequency standing still. I have intentionally stopped the motor to find out for myself which is liked the better, and have not found any one who does not like the motion better.

I have only started at the beginning in this thesis. I could write many more pages than I am assigned, on the advantaged of orthoptic Syntonics. Finances have prevented me from having the instrument built with Risely's prisms, and adjustable rotating prisms which I have not discussed.

I should like to have discussed the spherical element of the refractive error to be used when applying Syntonics. My reason for their use is that the frequency being more sharply focused appears to be more effective. Also when it is necessary to stimulate accommodation, and inhibit accommodation spheres are used in orthoptics by me and other with very good results.

Alternating squint is nicely handled by pursuing the Arrenson-Peckham technique in the orthoptic syntonizer. This paper does not include any report of cases handled with the frequency in motion, but reports can be supplied upon request.

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## DISCUSSION OF MOTION COMBINED WITH SYNTONICS

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I wish to compliment Dr. Humphrey for having the patience and persistence to develop this idea of motion combined with Syntonics and then to carry it through to a point where he can give some clinical evidence in support of the same. Too many times we are too mentally lazy to use properly the ideas that come to us, excusing ourselves with the argument that it may not amount to anything anyway, where if we would work persistently and consistently we might develop a technique that would be of great value in our efforts to be of assistance to the most important function of the human body.

This paper seems to stress the psychological reaction, indicating that motion combined with Syntonics is a supportive influence. I believe that most of you will admit that the mental attitude of the doctor has a like psychic influence on his patients. That one practitioner who is sold on the idea presented will have an entirely different end result another practitioner who is not sold on that particular idea. This will be true with practitioners of like or equal educational background, equal personality, etc. Further, the same practitioner will find in many cases that two patients who seem to be nearly the same will not react the same. All this being true it will be necessary for many practitioners to use motion with Syntonics before we can arrive at any definite conclusion; therefore, any statement we may make relative to the use of motion combined with Syntonics will, of necessity, be theoretical. There is in the minds of many of our co-workers the firm belief that after all the results attained from any technique are measured by the correct or in-correct manner in which the patient is led up to his or her own final conclusions. Thus, when

we have an adverse reaction in the use of Syntonics as now used, it is quite possible that the same result would follow if the same practitioner would use motion combine with Syntonics so that if our case should "blow up" the cause may be and probably is in the psychological effect of the practitioner and not in the instrumentation.

In reference to "Psychologic" and the statement thereafter, I would say it is best to insure this psychologic reaction NOT by removing as much as possible any obstacle which may retard this reaction, but by not placing any obstacle in his or her way by building a barricade of fear around ourselves, and in this way, reflect to our patient the fear and in so doing arm the patient. Optometrists DO have the ability to be of assistance to their patients, and it is by building up this fear around our work that we place these obstacles in the pathway of those who come to us for assistance. This is proved in our profession when so many of our patients have been sent to some other profession when we can better care for them than the ones to whom we send them. Not only in our neurotic cases but in all other cases we need t use great care and not talk too much. It is infinitely better to talk too little than to talk too much. If you will visit the offices of our most successful professional men you will find that they are excellent listeners. We optometrists need to take due notice and be governed accordingly.

I believe we need to give a good account of our ability to correct eye discomforts and when we so do our patients will take care of Syntonics. Let them become interested enough in the results that they ask questions and then keep them just a little in doubt and they will be a better advertisement for you, and incidentally for Syntonics.

We need to be most careful not to permit the patient to leave the office thinking they have looked at a light. It is ALWAYS A FILTER and is never a light and never a color. From a psychological point of view I believe if this thought can be put over to the patient it will be of a very great benefit to the said patient as well as the syntonist. When the above mentioned question is asked would be an opportune time for the doctor to give that information and the psychologic effect surely would be better than to present details of anatomy.

Successful professional men do not discuss details of their profession with their patients or clients so why should optometrists do so? When the patient is benefited and don't know just how it happened he is much more interested in the ability of the practitioner because some ne said "familiarity breeds contempt". If, and when the right opportunity presents itself Syntonics can be mentioned in a casual way and be more impressive than playing it up too much.

In reference to the paragraph beginning "I believe that if an attempt is made to prepare the patient for something you are not sure you can deliver", I heartily agree with this paragraph and believe it would be wise for all syntonists to make a copy of the same and place it before them on their desks until it becomes so a part of them that they discontinue making this mistake. Since it took Dr. Spitler three whole days and part of three nights to get Syntonics over to supposedly trained minds, how can we even begin to give even a slight idea to an untrained mind in the few minutes we have with the patient in our offices.

While the optometric practitioner is able to eliminate the fear of his own ability to correct a given eye disturbance the problem of eliminating fear from his patient's mind will be a great deal easier, so when the practitioner knows what Syntonics will do he unconsciously radiates this knowledge in the

confidence he manifests while applying the technique and the patient will always be conscious of this and will manifest much less fear and his sufferings from fear will be, to that extent, alleviated.

"Motion in the Syntonizer transforms the technique from its original character into a dynamic form for the purpose of insuring a greater number of good psychological reactions, and the by-products of an orthoptic syntonizer". The good doctor is making a very definite statement here and while I do not question his opinion, I do not believe he will be able to convince very many practitioners that this is true until there have been many practitioners who have used motion combined with Syntonics and are able to produce a sufficient amount of clinical evidence to support the contention. After studying this paper and comparing the doctor's experiences with some of my own cases where the myologic treatments have been applied in connection with Syntonics I do believe it to be quite probable that he has a technique that will prove of at least some value in the application of Syntonics. This, however, must be proved before it will be accepted as a definite fact. There are certain limitations on the technique which will need o be broken down before it can be very successfully used in many of the cases that present themselves to us for solution. Some of these are the inability to change the movement of the targets from a circular motion, the inability to increase or decrease the size of the circle, the inability to observe the eyes of the patient and see if he is really following the target and possibly many others which seem necessary if we are to obtain the best results for our patient's eyes.

It has been the experience in this office that when mycological treatment was given before a Syntonic treatment in cataract cases, the response was more satisfactory so that it would be easy for me to accept the theory of motion combined with Syntonics as being of value in cataract cases and also to accept the idea of the use of mirrors as the mirrors would project the frequency at different angles and thereby it might be possible, in some instances, to get around some of the opacities, and in this manner contact the rods and cones and thus carry the frequency back to the central gray, the movement of the eyes increasing the circulation and assisting the lymphatic drainage. The lining of the inside of the syntonizer with mirrors is interesting and may be a led to something better than the original. It would be interesting to know if other syntonists have used the syntonizer in this manner.

In reference to the "spherical element of the refractive error to be used when applying Syntonics", I have not been able to discern any difference in the results when the correction is worn and then it is not worn. Seriously, I doubt if there is any difference as it is not the retinal field that we are so much interested in as it is the central grey. It does not seem to me that it would make any particular difference just how this reaches the thalamus just so the impulse arrives.

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