

Science investigates Laying on of Hands
By Dr. Bernard Grad

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Dr. Hahn, ladies and gentlemen, I'm going to talk to you about a series of experiments involving the "laying on of hands."

This all started when a Hungarian gentleman (Mr. E.) came to me with the claim to be able to accelerate healing in people according to his experience in Hungary. I told him I was a biologist and therefore I couldn't bring any patients to him, but we could do experiments on animals and on plants.

When I asked him how he worked, he said that all he did was to lay his hands on the people. If they had a headache, he would put his hands on the head. He would hold his hands there for a while, 15 minutes, or 20 minutes, and repeat this as required, perhaps the next day or several times a week, generally not on the same day.

When we began to think of how we would do these experiments on animals, a number of problems came up. In working with animals, I preferred to work with mice. They're small and therefore inexpensive to maintain, but the question was:

How were we going to lay hands on mice? And ... I assume from your reaction that some of you don't care to.

However, we decided to construct a little metal box divided into 10 or 12 compartments, each big enough to accommodate a mouse, and when these were in the box to cover them with a wire screen. The first slide will just show you a picture of the one we used at the very beginning.

Working with mice

Now, there were several things that we found to be necessary in working with these mice.

The first thing to remember is that mice are nervous little creatures and their only defense, except for biting you, is to dart away as you reach out to get hold of them.

When you confine them therefore, in a small space like that, they're restless at first, but if left there for an hour every day for one or two weeks, after a while when they see that they are only in there for a short time and that no harm is coming to them, they will settle down and even go to sleep.

In fact, we had some evidence that it was necessary to get these animals to be quiet during the treatment period. Just putting them in the box, with them twisting and turning, trying to get out of the box, is not the state that we felt was the right one for them to accept

the treatment. That kind of attitude of agitation and anxiety corresponds to what we would consider to be a negative attitude in people.

To further quieten the animals, one or two weeks before the proper experiment began, we would gentle them; that is, we would quietly stroke their fur on the back. All mice were gentled in this way before it was known whether an animal was going to go into the control or the treated group.

I want to emphasize that when we did these experiments, I used the same kind of experimental design as if I would have been testing a drug or food. In other words, we tried to make these experiments conform to the best that we knew how in biological experimentation. My problems at that time were to learn how to apply this laying on of hands treatment to the animals so as to give the treatment a fair trial.

We started our experiments by having Mr. E. lay hands on healthy adult mice to see if the growth of the mice would be accelerated, but we failed to see any remarkable change.

From that time on, we began to work with animals that were sick in some way and in the first series of experiments we tested the effect of laying on of hands on the development of goiters in mice. We began here because Mr. E. said that he had success with this type of patient during the ten years he had worked in Hungary.

Now, our mice were healthy to start with, but I made them goitrous artificially by giving them a diet, which was low in iodine, and also by incorporating into their diet a chemical (thiouracil), which prevents almost all of the iodine, which may be present in the animal's body from getting into the thyroid gland.

So the combination of both the diet and thiouracil really caused the gland to grow.

This was an artificial kind of goiter, and although it bears a resemblance to the type that you get in the human, in the latter there probably are factors other than just iodine deficiency to account for the appearance of the goiter. However, we didn't know of any goiters spontaneously arising in large numbers of animals and so we had to proceed as follows:

On Day 0 of the experiment, we sacrificed six mice and we found that their normal thyroid weight was around two milligrams. Then I put them all on an iodine deficient diet for about 11 days, during which time the animals were still not separated into control and treated groups.

On the eleventh day we sacrificed five more mice and we noted a slight increase in weight of the thyroid at this point. Then we put thiouracil in the drinking water, and from here on they had both the iodine deficient diet and thiouracil. We found earlier that if we gave both the diet and the chemical at the same time, the animals became ill with diarrhea and so had to gradually adapt them to this dietary treatment, which they were given until Day 39 of the experiment.

On Day 11, the mice were divided into three groups: Two control groups and one group receiving the laying on of hands treatment, with 19 to 20 mice per group. Treatment was

conducted in this experiment by Mr. E. between Days 11 and 20 and by Mr. B. thereafter to the end of the experiment. Mr. B. made no claims to being able to heal, but we found out in the course of these studies that laying on of hands by him also had a demonstrable effect on mice.

How they were treated

The mice in the laying on of hands treated group were brought to Messrs. E. or B. in the metal box described previously, and they used to hold it between their hands twice a day for 15 minutes, five times a week.

Now, the mice in the two control groups were also placed in metal boxes and transported to a table where they stood for 15 minutes, twice daily, five times per week, but they were not held between the hands of anybody.

We noticed, of course, that when Messrs. E. or B. held the box of mice between their hands, the temperature inside the box started to go up. Therefore, one of the control groups had heat applied to the mice in the box by means of thermal tapes so as to mimic the temperature changes taking place in the laying on of hands-treated group. The other control group was not heated.

Six to seven mice were sacrificed in each group two, three and four weeks after thiouracil was started, and the thyroids of the laying on of hands treated group were found to weigh less than those of the two control groups. Moreover, statistical analysis showed that the thyroid weights of the two control groups were really not different from each other. In other words, heat by itself did not have any definite effect at all on the development of the goiter, but the thyroids of the laying on of hands group weighed reliably less than those of the other two groups.

Thus, laying on of hands treatment definitely slowed down the development of goiter in mice.

In the next experiment we repeated the first experiment with two instead of three groups (a non treated control and a treated group) and instead of having the mice treated directly with the hands, we would place material that had been held in the hands of Mr. E. into the cage with the animals for an hour in the morning and again in the afternoon.

When the mice were sacrificed 40 days after the start of the experiment, it was found that this treatment also inhibited but did not stop the development of goiter.

The third experiment tested to see what would happen when the process was reversed; that is, we would make the animals goitrous so that their thyroid weights were about five milligrams at the start of the experiment and then they were put back on a normal diet, containing a normal amount of iodine and drinking water which did not contain thiouracil.

After 20 days the thyroid weight had declined in both the control and treated groups. However, the rate of decline was greater in the laying on of hands-treated group. And the control group, by the way, was treated by heat in the same way as described in the first experiment.

Healing wounds

When we finished this series of studies, we began a new series of experiments involving wound healing in mice.

Mice are not the best animals in the world to study wound healing, because a skin wound produced on the back of a mouse without aseptic technique will heal perfectly well with no problem of infection. However, it is different, of course, if you're working on a dog or a human. You have to work with aseptic techniques if you don't want the wound to become infected.

But still, we used mice for the reasons mentioned earlier. And so, we put the animals to sleep, shaved the hair off a portion of the back we made a skin wound about the size of a quarter.

The way we would measure the size of the wound was to outline the wound area on a piece of clear plastic placed over it, then outline the area on paper placed over the plastic and then cut out the paper and weigh it, yielding a weight that corresponded to the size of the wound.

By doing the measurements on the day before and after wounding the mice and again on the 11th and 14th day, the rate of wound healing in the various groups was followed.

As in the first experiment on goiters, there were three groups: Two control groups (one of them a "heated" group) and the third laying on of hands treated by Mr. E.

The next slide shows the outline of the wounds in the three groups. One day after wounding there is already some progress toward healing in all the groups, but too little to detect any differences between the groups.

However, by the 11th and 14th day, there were 12 obvious differences that could be seen with the naked eye and which were confirmed by statistical analysis.

Here, as in the first experiment, the wounds of the laying on of hands treated group were very much smaller than those of the two control groups, whose wound areas were not significantly different from one another.

Such studies were conducted both in our lab and in the Department of Physiology of the University of Manitoba. The results of this experiment were published in the *International Journal of Parapsychology* and in the *Journal for the American Society of Psychical Research*

In plants, we began our studies just as we did with mice. That is, we wanted to see if we could affect healthy plants.

We started off by using barley seeds and we put them on blotting paper to see if we could see any difference due to laying on of hands by Mr. E. on the sprouting of these seeds; we did not see any differences.

The next attempt was to put these seeds in soil to determine whether there was any difference in the growth of plants in soil due to laying on of hands.

Having found an effect due to laying on of hands on sick but not on healthy mice, we felt that we ought to work on plants made sick in some way. The way we did it with plants was to inhibit plant growth by watering them with a salt solution. Under those circumstances, an effect of laying on of hands was observed.

The details of the technique are written up in publications in the two journals mentioned previously. However, the main point which should be mentioned here is that it was not necessary to have Mr. E. or Mr. B. hold the plant pots in the hands to treat them.

It was possible to treat them just by holding between the hands the 1 percent saline solution to be poured over them.

Only on the first watering was salt water used and only the salt water of the treated group was given laying on of hands. In all the subsequent waterings, ordinary untreated water was used in both groups.

After we watered the plants with salt water, they were dried in an oven at 38-40 degrees centigrade, following which they were watered with ordinary water, which was not treated by laying on of hands.

Results measured

In about eight days the seeds would come breaking through the surface of the soil, and we would count the number of seedlings coming through. We had put in 20 per pot. As these seedlings got taller, we would not only count the number but we would also measure their height and average the values per pot per group.

The first plant experiment showed that the laying on of hands treated group had more seedlings coming through the soil initially than did the controls, and that they grew faster and yielded more plant material than the controls. And all this was supported by statistical analysis.

The next few slides will show you pictures of the plants in this experiment. We had two groups, an X Group and a Y Group, and when I set them up in this particular experiment, it was blind in that I didn't know if X was the treated group and Y the control, but I did know which pots belonged to the X Group and which to the Y Group. So I was able to separate them and to take pictures of these.

Later on, when we did multiblind experiments, I was unable to tell even that. Therefore, no photographs of this kind are available. However, in the first plant experiment you can see that the seedlings of the X Group are taller than those of the Y Group from the 10th day on to the end of the experiment even though on the 13th day we didn't water them and so they were a bit droopy and it's difficult to see the difference.

New questions arise

Now, when I finished this experiment, the question that came to mind was: Did this experiment arise purely by chance? Statistically, you'd say it didn't, but I said, supposing I would repeat the entire experiment with only one change in it:

Instead of having one group a treated group and the other group a control, we would have both groups' controls. If I just ran two groups in the same way - without laying on of hands treatment, would I get the same kind of differences that I just saw in the previous experiment?

Well, when we did that, we found that we got exactly the same results in both groups. This is shown graphically in the next slide. So the difference in the previous experiment was not due to any errors in handling the material.

We now come to the last experiment, which was also done on plants. It was designed to test whether saline solutions held by a person who was positive in his feeling, and genuinely and naturally so, not psyched up to be so, would have a positive effect on plants watered with it; whereas, a person who was depressed would have the opposite effect.

Now, to test this, we did the following experiment:

There were four groups, 18 pots per group, with 20 barley seeds in each pot. That means there were 360 seeds per group and there were four such groups, that is, 1,440 seeds in the entire experiment.

Now, one of the groups was a control group, which received only untreated 1 percent saline solution, the bottle not being held for 30 minutes by anyone. This 1 percent saline, by the way, was the kind that is used by hospitals to give infusions to patients. It was sterile, non-pyrogenic and under vacuum.

In addition to the control bottle, three more were used in the experiment, each held by a different person.

The research subjects

One of these people was Mr. B. that I mentioned in the first experiment. Now, he has a passion for plants and is able to make them grow and thrive.

The other two people were depressive patients in the hospital where I worked. One of them had a psychotic depression and the other one had a neurotic depression.

I had obtained permission from their doctors to give them each a bottle to hold, during which time the bottle was to be in a brown paper bag as part of the multiblind system of the experiment. Each person was asked to hold the bottle for half an hour.

I gave the bottle to Mr. B. with the necessary explanation and I was ready to provide the same to the two patients.

When I came to the man who was the more deeply depressed of the two, he didn't even ask me why I was giving him the bottle. I was wearing a white coat, as I usually do, and he thought I was a medical doctor coming to prepare him for electric shock therapy and he told me he didn't need any.

I tried to explain to him that I wasn't there to prepare him for this but that all I wanted him to do was to hold the bottle in his hands for half an hour, but he appeared not to believe me and didn't bother to ask what was in the bottle; therefore, I didn't bother to explain. I just asked somebody to keep an eye on him during the time he held the bottle and I said I would be back in half an hour.

This man, I want to emphasize, was definitely depressed at this point in time and certainly in a negative state of mind.

The other patient was a young woman. When I came to see her she had a neurotic depression. She was depressed, but less severely so than the man, and she was sitting somewhat forlornly in an outpatient department.

When I came up to her and asked her if she would be kind enough to hold the bottle for half an hour, she was a little taken aback and asked, "Well, why are you giving me this to hold?"

I told her that this was part of an experiment; we wanted her to hold the bottle in her hand and later on we wanted to put the saline solution on some plants.

She thought this was a great idea and she brightened right up and this upset me, because I didn't want her to become enthusiastic. In fact, I chose her for the experiment just for the opposite reasons. So there we were and the die was cast and I decided we would just go ahead with the experiment.

When I came back half an hour later she was faithfully holding the bottle, somewhat like a mother holding a child, I thought, in a kind of cradling fashion. I didn't know what to make of all of this but I was going to see what would happen in any case.

The man with the psychotic depression was still busy engaging me in conversation about his not needing electric shock therapy and I departed without further explanation.

The watering experiment

We then proceeded to do the experiments.

The multiblind system was so extensive that one of my worries was whether I could get all of the pieces of information together again without having mixed the information up. When the information was decoded, it was a source of relief that there was no mix-up at all.

What was even more astonishing to me (and I have had experience in this field) was that the results did turn out mostly as I had hypothesized.

Thus, the group that grew the slowest was the one watered by saline held by the man with the psychotic depression; the next lowest group was the untreated control, the bottle not held by anybody; and the next lowest group was that of the girl who had the neurotic depression. The best one was Mr. B.'s group.

Now, I had supposed that this girl's plants would grow more slowly than the control, but this was not so, and I attribute this to the fact that she was quite enthusiastic about the experiment.

The interesting thing is it is not the diagnosis, which is important for this experiment; what is important is the state of mind you are in at the moment.

Emotions can be stored in matter

There are quite a few implications arising from this study.

Perhaps the most critical implication of all is the fact that it says that anybody handling any material imparts to that material something that bears a relation to his emotional state.

I assume that some energy was at the core of this transfer, for it took place through the glass wall of the bottle containing the saline solution.

Our earlier experiments on goiter and wound healing also suggested that such energy transfers can occur between man and animal, and I'm sure also between man and man. If this is accepted, it would help to explain why some physicians are more effective than others (this has something to do with what we call the bedside manner) and why some nurses, for example, can have a profound effect on patients, depending on what their attitude is.

Also, we know for example in psychotherapy, where a patient comes to a doctor repeatedly, that there is a kind of relationship that develops between psychiatrist and patient which Freud called transference. Now, I believe there is an energy process at work here; and I think that this process is at work between parents and children, teachers and students, man and wife, and in the old days between the pharmacist and the medication he prepared.

Some children are very disturbed because there is a lack of ... we call it rapport.

Rapport describes an energy process, I believe - something passing between parent and child which may be positive or the opposite.

Then there is the relationship of a mother to cooking. She has a responsibility there, and I can expand further on this, but time does not allow.

Thank you.