

The Relation Between the Autonomic Nervous System and Buddhism - A talk by Gudo Wafu Nishijima -

My theory about the relation between the autonomic nervous system and Buddhism is only my supposition, but I have been utilizing it in explaining Buddhism for many years. And since I first arrived at this proposition many years ago, I have not met a case that caused me to change my theory. Therefore I would like to express my primitive proposition to the audience for reference. Of course, I am only a Buddhist monk and do not have sufficient knowledge of physiology, psychology, and so forth. However, in my experience, I have found it very useful to explain Buddhism on the basis of scientific knowledge, and so I would like to express my proposition on this occasion.

1. Fundamental basis

- (1) The autonomic nervous system is divided into two parts, i.e., the sympathetic nervous system and the parasympathetic nervous system.
- (2) The two parts generally function in opposite ways. For example: In general, when the sympathetic nervous system (hereafter, I call it the "SNS") is stronger than the parasympathetic nervous system (hereafter, the "PNS"), people are prone to be tense, to have a weaker appetite, to suffer from insomnia, and so forth. On the other hand, when the PNS is stronger than the SNS, people are prone to feel dull, to have a strong appetite, to sleep heavily, to have rather high blood pressure, and so forth.
- (3) Therefore the state of having a stronger SNS is not preferable, and neither is a state of having a stronger PNS.
- (4) I guess that, in some way, Gautama Buddha found this kind of important fact by his experience in his sincere life. Of course, at that time there was no scientific knowledge about the autonomic nervous system, but I think that through his enormous efforts and his genius he knew such a kind of fact intuitively.

2. Oneness between body and mind

- (1) We Buddhists believe in the theory of oneness between body and mind absolutely. Therefore I became interested in knowing about the mutual relation between the state of the autonomic nervous system (hereafter the "ANS") and the human mind, and I arrived at the proposition that when people have a stronger SNS they are prone to be idealistic, and when people have a stronger PNS they are prone to be materialistic.
- (2) In human society there are so many people who are very spiritual and ascetic, but

sometimes they can be rather aggressive and criticizing towards others. However there is also another kind of people. These people are very attached to physical enjoyments and do not like to work so much, but tend to be pessimistic and hesitant.

- (3) When I was young I had a chance to read two books by an American psychiatrist named Karl Menninger. One was called "Man against Himself" (Harcourt, 1938,1956), and the other was "Love and Hate" (Harcourt, 1942).

"Man against Himself" explains the psychology of a person who commits suicide. The author says that a person who commits suicide is not a weak person, but usually a very strong and aggressive person. But for some reason, when his or her aggressive attack against others fails, his/her attack is directed against himself or herself. And when I read this description, I had to agree with Dr. Menninger's opinion.

However, in "Love and Hate" Karl Menninger insisted that if we want to be healthy in body and mind, it is necessary for us to maintain love and hate equally. Before that time I had been taught that only love is valuable, and hate should be avoided, but when I read Dr. Menninger's idea it was impossible for me to disagree with his opinion.

- (4) In Buddhism we believe that it is not good to be emotional, and so we should not be angry or greedy and so on. And when I compare such teachings with the theory of Karl Menninger, I can notice the reason why Gautama Buddha recommended the Middle Way to us.

3. Buddhism and the ANS

- (1) A fundamental principle of Buddhism is that it denies both idealistic belief and materialistic belief. And I think this fact suggests that we should avoid having both a state where our SNS is stronger and a state where our PNS is stronger.

We can say that ideas are only the motion of our brain cells, and therefore they are not real entities in themselves. And likewise we can say that sense stimuli are just excitement in our sense organs, and so they also are not real entities in themselves.

- (2) Therefore I think that Buddhism emphasizes the importance of equality or equilibrium between the SNS and the PNS. In Buddhism there is a Chinese and Japanese phrase, *Jijuyo Zanmai*, which explains the state in Zazen. The word *Jijuyo* is divided into two parts, one is *Jiju* and the other is *Jiyo*. *Jiju* means "to accept self," and *Jiyo* means "to utilize self." And *Zanmai* means a state in Zazen. Therefore we can interpret that "to accept self" suggests the function of the PNS, and "to utilize self" suggests the function of the SNS. So we can think that *Jijuyo*

Zanmai means a state of equality between the SNS and PNS.

- (3) But it is very difficult, and almost impossible, for us to make the ANS balanced, because the ANS originally has a function of autonomy. But in such situation, I think that Gautama Buddha has presented us with a very effective and calm method to make the ANS balanced, and that is Zazen.
- (4) Why does Zazen have such excellent power? For many years after I began to study Buddhism I didn't know the reason. Then about 10 years ago, because of the recommendation of my student, named Mike Cross, I read a book entitled "A Teacher's Window into the Child's Mind" (Fern Ridge Press) by Sally Goddard, an American psychiatrist and teacher.

In her book she explains that in our human life the important term of development is the first 7 or 8 years after birth, and in particular, the first 15 months. She says that if a child receives some unfortunate influence during that term, the child will suffer from rather serious effects on his or her personality, and it will be very difficult for the child to get rid of those bad effects during his or her life. However she says that, "Ultimately, the cerebellum is responsible for regulating the postural reflexes and muscle tone, and thus maintaining the body's equilibrium."

Reading Ms. Goddard's book I could get an outline of the reason why Zazen is useful to make us better.

4. The meaning of Zazen

- (1) Zazen is not a means to attain "enlightenment," but is just an act to experience the balance of the ANS.
- (2) Zazen is just practice of keeping the spine straight vertically in the regular posture.
- (3) The state in Zazen is called *Shinjin Datsuraku*, which means, "dropping body and mind off." And when we think about the meaning of "dropping body and mind off," we can interpret that when we are keeping the ANS in balance, the balance of the ANS can be felt like plus/minus 0, and so we sometimes feel that consciousness of our body seems to be 0, and consciousness of our mind seems also to be 0. And such a state is called "dropping body and mind off."
- (4) Therefore, by practicing Zazen everyday we can become accustomed to having balance in our ANS, and such a state is just the state of Buddhas.

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