Dynamic Chiropractic

CHIROPRACTIC (GENERAL)

Subluxation Complex and Nerve Interference, Part 1

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1927

In Stephenson's 1927 *Chiropractic Text Book*,[1] he defines subluxation as "the condition of a vertebra that has lost its proper juxtaposition with the one above or the one below, or both; to an extent less than a luxation; which impinges nerves and interferes with the transmission of mental impulses" (1, p.2). On page 5, Stephenson says that mental force is called "mental impulse," which comes from Innate Intelligence. On page 275, Stephenson states:

"... mental impulses are immaterial messages and not a material something which can be damned [sic] back in the nerve by an interference, as by the flood gate."

One need only be a casual reader to find the obvious contradiction with the original definition of subluxation. Somehow, we are supposed to believe that a slightly misaligned vertebra will interfere with the transmission of immaterial impulses, which Stephenson himself says is impossible, as mental impulses are immaterial and incapable of being dammed back by something physical.

The 1980s

In 1994, Joseph Strauss published the third edition of his "blue book," *Chiropractic Philosophy*.[2] (He did not provide the date of his first edition, so one is led to believe that it was published in the 1980s.) In the third edition, Strauss advances the exact same definition of subluxation that Stephenson provided back in 1927. We are then told that for a subluxation to exist, the following criteria must be met (p.77-81):

- spinal misalignment;
- occlusion of the intervertebral foramen;
- impingement of the spinal nerve (the contents of the intervertebral foramen must be encroached upon); and
- interference with the transmission of mental impulses.

Concerning the last criterion, Strauss never explains how we determine if there is mental impulse interference, which should not be surprising, as Stephenson stated that they are immaterial and immeasurable. Strauss even says that innate intelligence is immaterial; it can't be seen, touched, felt or measured (p.51). In short, we can't measure the existence of innate intelligence, and therefore, cannot measure fluctuations in its activity. Clearly, we have a problem with this theory of subluxation that is often mistakenly referred to as philosophy. Since innate intelligence and mental impulses cannot be measured because they are immaterial, how, then, could the criterion of interference have ever been satisfied so as to claim that a subluxation is present? Perhaps Keating should initiate the production of his innatometer,[3] to help foster the endeavor of measuring the immeasurable.

Strauss continues to speculate why interference has been kept as a requisite for determining the presence of subluxation, stating "one possible reason for this fourth criterion is to maintain the vitalistic component of the vertebral subluxation," then described as "the philosophical, vitalistic emphasis of the vertebral subluxation."[2] Perhaps without knowing it, Strauss makes a surprising admission, quite revealing in the context of his presentation of subluxation.

Consider the fact that the first three criteria, i.e., misalignment, IVF encroachment and spinal nerve impingement, represent the extreme of physical and mechanistic thinking. There is no mention of cell biology, biochemistry, physiology or neurophysiology - the "life" sciences. There is also no mention of well-known health-promoting methods of care, such as nutrition or exercise, which are considered by many to be vitalistic. Instead, we are treated to a bone out of place that disrupts things immaterial, immeasurable and indescribable; the bone goes out, and we're supposed to put it back in place, which seems exceedingly mechanistic, rather than vitalistic. As the only way to keep this bone-on-nerve mechanistic subluxation somehow vitalistic, Strauss and others tag to it a story about vitalistic immaterial universal forces that are blocked by subluxations and liberated after an adjustment.

1993

Despite the longstanding and obvious problems with the mental impulse interference theory, the *Practice Guidelines for Straight Chiropractic*[4] defined vertebral subluxation as:

"A misalignment of one or more articulations of the spinal column or its immediate weight-bearing articulations, to a degree less than a luxation, which by inference, causes alteration of nerve function and interference to the transmission of mental impulses, resulting in a lessening of the body's innate ability to express its maximum health potential."

This description of mental impulse interference is typically referred to as "nerve interference," which is really a misnomer, as the interference is supposed to involve the blockage of the immaterial material impulses, which cannot happen according to Stephenson. Nonetheless, for the remainder of this article, we will pretend that nerve interference refers to something physical, rather than immaterial.

Nerve Interference

To begin, we should appreciate that nerves do not transmit impulses. Nerve fibers conduct action potentials, which are sometimes referred to as nerve impulses, when speaking in a nonspecific and general sense. As discussed in my last article (Feb. 12), the human body has several different nerve fibers, including A, B, and C, which represent both afferent and efferent fibers that are classified according to size and conduction velocity. We also have a Roman numeral classification system that is reserved exclusively for afferent fibers (group I-IV).

A nerve is made up of fibers housed in three layers of connective tissue, including the endoneurium, perineurium and epineurium. Numerous cell types and blood vessels are found in the connective tissue of a nerve. In short, nerve fibers conduct action potentials or nerve impulses - not the nerve. For example, the epineurium is just as much "nerve" as the nerve fiber, and the epineurium cannot conduct nerve impulses. With this information alone, we can see that the term "nerve interference" is extremely nonspecific, and when taken at face value, nerve interference cannot occur, as a "nerve" does not transmit impulses.

Let's be more specific and pretend that the advocates of "nerve interference" really mean nerve impulse, or more specifically, "action potential interference" or even "nerve fiber interference."

Even with this clarification, we still encounter troubles. For example, what kinds of fibers are suffering from interference? The human body has both afferent and efferent fibers, and in spinal and peripheral nerves, we have general somatic afferent fibers, general visceral afferent fibers, general somatic efferent fibers and general visceral efferent fibers. Which ones are interfered with? The advocates of "nerve interference" never discuss any of these details, so it remains a vague conversation at best.

Nerve Interference in the Clinical Setting?

Clearly, if nerve interference were common, we would readily see it in the clinical setting. Next to the common cold, back pain is the leading cause of absenteeism in the workplace. The common cold, which represents an acute phase response, is due to increased immune and nervous activity.[5] Pain of any kind occurs only when there is increased nociceptive activity; that is, increased activity in group III and group IV afferents.[5] So, the most common conditions from which we humans suffer are both promoted by increased nervous activity - not nerve interference.

References

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3. Balmer EM, Keating JC Jr. Interexaminer reliability of the innatometer. *J Manipulative Physiol Ther* 1990;13:229-33.
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5. Watkins LR, Maier SF. The pain of being sick: implications of immune-to-brain communications for understanding pain. *Ann Rev Psychol* 2000;51:29-57.
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