Readers respond to nociceptive considerations

To the Editor:

I am commenting on the article "Nociceptive considerations in treating with counterstrain" (*JAOA* 1992;92:334-352) by Drs Bailey and Dick.

Dr Korr's concept of segmental facilitation with an elevated central excitatory state (CES) would seem to have included nociceptive stimuli. I understand that all afferents impinging on the anterior horn cells modify the CES and thereby facilitate this particular segment, making it liable to fire at various intensity levels. This firing produces different levels of tonic changes in the muscle.

This CES-facilitated-segment concept would include all afferents from the infrasegment and suprasegment area as well as those afferents originating from the same or opposite side of the body. Of course, those autonomic afferents associated with this area also would be included.

Identifying nociception as a factor in somatic dysfunction and as a partial explanation of strain-counterstrain treatment affords additional physiologic evidence for somatic dysfunction. Does it not simply contribute to the general body of understanding of this concept, rather than provide a whole new perspective as the aforementioned article implies?

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Response

To the Editor:

We would like to thank Dr Harakal for his thoughtful comments concerning our article. Dr Harakal points out the importance of Dr Korr's concept of the facilitated segment, a viewpoint that we share. We agree that nociception is but one of the myriad afferents that could influence the genesis and maintenance of a facilitated segment.

However, we intentionally emphasized the role of nociceptive input in relation to another of Dr Korr's concepts—the role of the proprioceptive gamma-gain circuit in somatic dysfunction and how counterstrain treatment affects it. We believe that a nociceptive component should be recognized when the decision to treat with counterstrain techniques is made. As we stated in our article, physical examination findings may actually be opposite to that predicted by a strict interpretation of Dr Korr's original concept. This outcome depends on which afferent components—pain or proprioception—predominate. To this end, we think that we have provided a new, and dare we say it, painful perspective on somatic dysfunction theory.

It was our purpose to reexamine an important physiologic concept as it pertains to somatic dysfunction and its treatment with counterstrain techniques. Counterstrain techniques represent an important component of the osteopathic physician's treatment options, and Dr Korr's gamma-gain model is currently the accepted physiologic explanation behind counterstrain.

Certainly, we do not claim special importance for our observations. Our sincere and sole desire was to contribute to the general body of thought and information concerning somatic dysfunction.

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LORANE DICK, DO
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Response

To the Editor:

Professor Harakal's criticism of Drs Bailey and Dick's article is valid in my opinion. Their article reflects a common misperception of the purpose and content of my 1975 article, "Proprioceptors and somatic dysfunction,"[1] cited by Drs Bailey and Dick. A similar misperception occurs in the excellent and prize-winning article by Dr Van Buskirk.[2] I think the first example of the misunderstanding was that of Dr Lawrence Jones, who adopted the hypothesis as the theoretical basis for strain-counterstrain.[3]

The problem has been that readers have given my 1975 article a much broader significance than I intended. It was never meant to be a comprehensive explanation of somatic dysfunction, that is, a "model of somatic dysfunction" as expressed by Drs Bailey and Dick. Nor did the article assert that the muscle spindle is the sole sensory input responsible for segmental facilitation. My article addressed only the *muscular component* of somatic dysfunction, namely, the basis for resistance to joint motion in specific planes and directions.

As for facilitation, I think it is an error to seek to ascribe it to this or that afferent input. As I have written in other *JAOA* articles, the central nervous system is continually receiving reports from countless sensory endings, receptors, and organs that *collectively* report on "what is going on out there." (Included, of course, are the nociceptive endings when trauma or pathologic change occurs.) The central nervous system responds adaptively according to the total picture.

However, when "static" occurs or conflicting reporting from different sources—such as joint receptors and muscle spindles indicating joint motion in opposite directions—the central nervous system cannot make an adaptive response to the garbled, unintelligible picture. It calls for a "hold-tight" response. Because the garbled sensory input is comparable to what happens at higher levels of the nervous system in seasickness, I have described somatic dysfunction as "vertigo at the spinal level." The "static" or "garbling" can be brought on by various afferent inputs or combinations thereof, including the proprioceptive, nociceptive, and many others such as those Dr Harakal mentions.

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1. Korr IM: Proprioceptors and somatic dysfunction. *JAOA* 1975;74:638-650.
2. Van Buskirk RL: Nociceptive reflexes and the somatic dysfunction: A model. *JAOA* 1990;90:792-809.
3. Jones LH: *Strain and Counterstrain.* Newark, Ohio, American Academy of Osteopathy, 1981.

Reorganizing 'traditional' case presentation enhances learning, clinical experience

To the Editor:

In his article, "Case presentation as a teaching tool: Making a good thing better," (*JAOA* 1992;92:376-378), Dr Brose outlines the "traditional" approach to case presentation. The author states that a limitation of this approach is that it "does not permit the interns and residents to work through the problem in the same way as the managing physician did."

We agree that great limitations accompany the use of the traditional approach as outlined by Dr Brose. However, these limitations can be easily overcome by changing the order of presentation as outlined. Not only will changing the order of presentation enhance this method as a learning tool, but it will facilitate the development of a more logical approach to a particular diagnosis and treatment plan. It will also facilitate the development of a justifiable rationale for the ordering of various