Central nervous system involvement in perceived joint stiffness

Sir, Haigh et al. [1] state that measurement of objective joint stiffness does not relate to that experienced by the patient in rheumatoid arthritis (RA). This premise underlies their paper on phantom limb stiffness in amputees who have RA. However, more recent studies by our group have shown that objective joint stiffness does correlate with subjective stiffness providing appropriate correction for muscle wasting is made [2]. Furthermore, the changes observed can reflect local joint inflammation and the response to intra-articular steroids [3]. People may also use a variety of descriptors to relate the deterioration they experience after a night in bed and may, in some cases, find it difficult to distinguish between stiffness and pain [4]. I agree that cortical plasticity may explain some of the symptoms experienced in the presence of chronically inflamed joints, but the physical evidence suggests that joint stiffness is a real phenomenon and that distal sensory function in large fibre afferents is normal in this group of patients [5].

The author has declared no conflict of interest.

P. S. HELLIWELL

University of Leeds, Rheumatology and Rehabilitation, Leeds, West Yorkshire, UK.
Accepted 18 July 2003
E-mail: p.helliwell@leeds.ac.uk


Central nervous system involvement in perceived joint stiffness

Sir, Haigh et al. [1] state that measurement of objective joint stiffness does not relate to that experienced by the patient in rheumatoid arthritis (RA). This premise underlies their paper on phantom limb stiffness in amputees who have RA. However, more recent studies by our group have shown that objective joint stiffness does correlate with subjective stiffness providing appropriate correction for muscle wasting is made [2]. Furthermore, the changes observed can reflect local joint inflammation and the response to intra-articular steroids [3]. People may also use a variety of descriptors to relate the deterioration they experience after a night in bed and may, in some cases, find it difficult to distinguish between stiffness and pain [4]. I agree that cortical plasticity may explain some of the symptoms experienced in the presence of chronically inflamed joints, but the physical evidence suggests that joint stiffness is a real phenomenon and that distal sensory function in large fibre afferents is normal in this group of patients [5].

The author has declared no conflict of interest.

P. S. HELLIWELL

University of Leeds, Rheumatology and Rehabilitation, Leeds, West Yorkshire, UK.
Accepted 18 July 2003
E-mail: p.helliwell@leeds.ac.uk


Central nervous system involvement in perceived joint stiffness

Sir, Haigh et al. [1] state that measurement of objective joint stiffness does not relate to that experienced by the patient in rheumatoid arthritis (RA). This premise underlies their paper on phantom limb stiffness in amputees who have RA. However, more recent studies by our group have shown that objective joint stiffness does correlate with subjective stiffness providing appropriate correction for muscle wasting is made [2]. Furthermore, the changes observed can reflect local joint inflammation and the response to intra-articular steroids [3]. People may also use a variety of descriptors to relate the deterioration they experience after a night in bed and may, in some cases, find it difficult to distinguish between stiffness and pain [4]. I agree that cortical plasticity may explain some of the symptoms experienced in the presence of chronically inflamed joints, but the physical evidence suggests that joint stiffness is a real phenomenon and that distal sensory function in large fibre afferents is normal in this group of patients [5].

The author has declared no conflict of interest.

P. S. HELLIWELL

University of Leeds, Rheumatology and Rehabilitation, Leeds, West Yorkshire, UK.
Accepted 18 July 2003
E-mail: p.helliwell@leeds.ac.uk

proposed a threefold division into theory of signs in order to account for sociological aspects [3]. He scientific and natural languages. Morris adapted Peirce's famous that deals especially with their function in artificially constructed, domains. In this domain, symptoms and laboratory results, the behaviour of doctors and of patients, personal expectations and messages in the media, language and organization, are co-evolving in a number of looping processes.

Such a concept has to fulfil three functions: (i) a descriptive one, i.e. analysing what makes fibromyalgia such a popular syndrome; (ii) an implicative one, i.e. analysing how, in a different therapeutic domain, a different syndrome would result from the same symptoms; and (iii) an intentional one, i.e. the recommendation to withdraw fibromyalgia from the list of 'serious' syndromes.

The concept of the therapeutic domain is, in the view of Hazemeijer and Rasker, and also in my view, very fruitful, but does have two disadvantages. First, it is difficult to handle in empirical research because of the overwhelming number of interacting factors and looping processes. Secondly, it is problematic in transcending the line between descriptive and implicative analysis on the one hand and the intentional conclusion on the other hand.

For both reasons I would suggest that the authors use the smoother tools of semiotics put forward by Charles William Morris [2]. Semiotics is a philosophical theory of signs and symbols that deals especially with their function in artificially constructed, scientific and natural languages. Morris adapted Peirce's famous theory of signs in order to account for sociological aspects [3]. He proposed a threefold division into interpreter, designatum and frame of interpretation, which are in interaction with each other. Let us take as an example the group consisting of road users (the interpreters). When a member of this group sees a red traffic light (designatum), traffic rules (frame of interpretation) tell him or her to stop. Looking at a red bicycle will be completely unimportant within this specific frame of interpretation. The interpreter Robinson Crusoe saw some footsteps in the sand (designatum) and on the basis of his theory of natural causality (frame of interpretation) he concluded: 'There must be a Friday'. These examples are illustrated in Fig. 1.

Characteristic of this model is its dynamic structure. Changing one angle necessarily has repercussions for the other angles. A change in the frame of interpretation (for example, the introduction of the syndrome of fibromyalgia) changes situations in reality (for example, insurance policies) and also creates a different image of persons (for example, somebody having complaints that are difficult to explain is transformed into the bearer of a well-defined disease). In a similar way, a change in reality (for example, a new device for diagnosis) redefines the social community (patients and non-patients) as well as the frame of interpretation about what counts as a disease. And so on. It will be clear that the reflections of Hazemeijer and Rasker on interactions and power effects are in accordance with this kind of dynamics.

This dynamic model is also apt for analytical purposes. Let us start with a doctor. She is a member of a particular school or group within the community of physicians; her frame of interpretation contains the theories and classifications of that school; the element in reality is a patient having some complaints. This doctor tries to explain and treat complaints according to the ruling theories of the school she belongs to. Business as usual. By accepting the complaints as elements in reality (as Hazemeijer and Rasker do), semiotics leads to different strategies of further investigation: (i) analysing the same situation from the viewpoints of the other parties involved (e.g. the patient himself; his family; his insurance company; but also different schools of physicians); (ii) analysing the rules of and relations in the group of physicians the doctor belongs to (by drawing a new triangle in which the group is the element in reality, the interpreters are sociologists, or the doctor in the role of a sociologist, and the frame of interpretation contains sociological concepts and theories); (iii) analysing the frame of interpretation of this school of physicians (with the help of another triangle, in which the doctor in the role of a philosopher, or philosophers themselves, conceptually scrutinize the theories and presuppositions at hand). Of course, strategies (ii) and (iii) might also be applicable to the other parties, mentioned in (i).

From this theoretical perspective, critical as well as constructive comments on the paper of Hazemeijer and Rasker may arise. The critical comment is on their discussion of symptoms and diseases. According to the semiotic model, a 'neutral' or 'positivistic' description (i.e. a description without some relation to an interpreter) of reality is out of order. In their section on this topic, the authors accept the difference between a nominalist (a syndrome is just a name for a complex of symptoms) and an essentialist (a syndrome mirrors something in—physical—reality) notion of disease. In accordance with their non-reductionist stance, they might be expected to accept the nominalist interpretation. Unfortunately, they do not do so. Therefore, I would advise them to embrace a 'strong' nominalist position; this means accepting a description of a disease as 'real' if it is converging in different (scientific) frames of reference [4].

My constructive comments are on the technique of 'stakeholder analysis', i.e. the analysis of all parties that are potentially involved. Making an extensive list of stakeholders, analysing their group characteristics and fathoming their frames of interpretation is much easier than the complicated sociological approach that Hazemeijer and Rasker mention. This technique may be very helpful in bridging the gap between the observational outsider perspective, which is dominant in the concept of the therapeutic domain, and the action-oriented insider perspective, which is central in their conclusion: 'For prevention and treatment of fibromyalgia we have to start by fundamentally changing the therapeutic domain' [1]. The outsider perspective is neutral or symmetrical with respect to the different positions. It is therefore problematic in coping with the insider perspective. An insider acts on the basis of beliefs, interests and preferences. Semiotics is able to bridge this gap because the doctors themselves constitute one of the stakeholders in this approach. What are their group characteristics, and, more importantly, what is their frame of interpretation? The (implicit) answer given by Hazemeijer and Rasker is the central normativity of clinical practice: minimizing (physical) suffering and stimulating (physical) well-being. Because they observe an inverted placebo effect on the part of the patients (once the diagnosis fibromyalgia has been formulated, patients feel complaints at more and more tender points) and there is short-sightedness on the part of doctors (they do not look for
deeper causal explanations), they might be correct in criticizing the social and therapeutic effects of the fibromyalgia syndrome.

In conclusion, the idea of the therapeutic domain is an interesting and powerful one. It is applicable not just to syndromes such as fibromyalgia but also to the ‘accepted’ practice of medicine. We introduced semiotics to strengthen the analysis of Hazemeijer and Rasker, for empirical research as well as for normative and intentional analysis.

H. PROCEE

Department of Philosophy, University of Twente, Enschede, The Netherlands
Accepted 3 September 2003
Correspondence to: H. Procee, Department of Philosophy, University of Twente, PO Box 217, 7500 AE Enschede, The Netherlands. E-mail: h.procee@utwente.nl.


Rheumatology 2004;43:257
doi:10.1093/rheumatology/keh052

Comment on ‘Fibromyalgia and the therapeutic domain. A philosophical study on the origins of fibromyalgia in a specific social setting,’ by Hazemeijer and Rasker

Sir, We are perplexed by Hazemeijer’s and Rasker’s review of the fibromyalgia syndrome (FMS) [1]. We agree that FMS is controversial, but they present mainly one side of the controversy. They cite with approval Hadler’s belief that FMS is ‘a form of illness behavior’ [2]; readers familiar with the scientific literature will recognize that there are no studies to support this. Hazemeijer and Rasker present a detailed philosophical analysis ending with the suggestion that philosophy, not science, can provide ‘the solution of treating and preventing ‘syndromes’ like fibromyalgia’.

We assume that when they state that physicians are unable to demonstrate FMS as a visible disease they mean a condition in which the diagnosis is based largely on the patient’s history of distress. In this respect FMS is similar to such conditions as migraine, trigeminal neuralgia, polymyalgia rheumatica (especially in those with low sedimentation rates) [3], or idiopathic small-fibre painful sensory neuropathy. Are these entities also to be elucidated by invoking memes, therapeutic domains, matrices and looping effects? Does dynamic nominalism explain the high levels of substance P and nerve growth factor in the cerebrospinal fluid of patients with FMS [4, 5]? How does phenotypic iatrogenesis induce decreased production of growth hormone or increased somatostatin tone in FMS [6]? Labelling may provide FMS sufferers with ‘social legitimacy’. Although this has not been our usual experience, we have found that, at least, it does not worsen their function or symptoms [7]. There may be a taboo about considering contributory psychological factors in the minds of some health professionals, but we and others have actually used psychological treatment in hundreds of patients for more than a decade [8]. We agree that FMS can severely affect the patient’s quality of life and result in increased health-care costs. That is not a good enough reason to catastrophize (‘we may have created a monster’) [9], but rather should motivate a search for better treatment. As for the suggested intervention of media and politicians in preventing the ‘spread’ of FMS, we are reminded that similar measures to legislate control of disease were proposed by Samuel Butler in Erewhon [10]; we were, however, under the impression that this work is a satire.

M. HARTH, W. NIELSON
St Joseph’s Health Care London, London, Ontario, Canada
Accepted 28 May 2003
Correspondence to: M. Harth, St Joseph’s Health Care London, P.O. Box 577, 268 Grosvenor Street, London ON N6A 4V2, Canada. E-mail: Manfred.harth@sjhc.london.on.ca


Rheumatology 2004;43:257–259
doi:10.1093/rheumatology/keh046

Reply

First, we thank the philosopher H. Procee and the doctors M. Harth and W. Nielsens for carefully reading our paper [1] and their constructive comments [2, 3]. We appreciate the widening of the philosophical scope by adding different actors and philosophical contributions to the discussion about the fibromyalgia syndrome (FMS). It will certainly give the therapeutic domain more depth, and will be of added value for good medical practice. We will try to give a reply to Harth and Nielsens first, because we think it has to do with fundamental comments and maybe a misunderstanding about our statements. Then we will discuss the points as raised by Procee.

Harth and Nielsens state in their letter: ‘they cite with approval Hadler’s belief that FMS is “a form of illness behavior”. Readers