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LETTERS

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Diagnostic criteria as separate from classification criteria: a perpetual motion machine? Comment on the article by Aggarwal et al

To the Editor:

"In the year 1775 the Royal Academy of Sciences of Paris passed a resolution not to entertain communications which claimed to give solutions of any of the following problems: the duplication of the cube, the trisection of an angle, the quadrature of a circle, or any machine announced as showing perpetual motion" (1). We find out from the thoughtful paper by Aggarwal et al (2), recently published in *Arthritis Care & Research,* that the American College of Rheumatology (ACR), from now on, will not support any studies about formulating diagnostic criteria for any disease; only proposals for classification will be considered. Why did this new statement from the ACR remind us of the 240-year-old resolution? Simply because we had recently suggested that our zeal for formulating diagnostic criteria was rather similar to the humanities' centuries-old zeal for the perpetual motion machines (3).

We will not go into the various ways diagnostic criteria differ, or don't differ, from classification criteria. These have been well discussed in the study by Aggarwal et al. However, we would like to bring up one important issue that perhaps explains the common zeal for formulating diagnostic criteria as separate from classification. This important consideration has not been adequately expressed or discussed in the said paper.

In the heated discussion mainly centered, understandably, around sensitivity, specificity, and pretest probabilities, we seem to forget the importance of probabilities in general in our trade. We refer to the study by Fries et al (4) in saying when criteria are 100% sensitive and specific, then diagnostic and classification criteria are one and the same. This statement is rather problematic, being prone to be interpreted as, "when criteria are 100% sensitive and specific, *only* then are diagnostic and classification criteria one and the same" (2,5). That is, when we make a diagnosis we expect it and ourselves to be foolproof. Although we would surely like to be foolproof, we rather infrequently achieve that. The same statement also suggests that, if we are clever enough, we should have a diagnosis for every ill that our patients present with. We all know this is not so, not only because on occasion we may fail to diagnose a disease we should recognize for myriad reasons, but, again on occasion, our patient's illness would not fit any disease we know about, i.e., a new disease nobody taught us. The sensitivity/specificity and the pretest probabilities are of no help in this instance.

We propose that our zeal for formulating diagnostic criteria directly stems from our zeal for and perhaps presumption of being correct in every diagnosis we make and, more worrisome, our assumption that this is what our patients and the public demand from us. This centuries-old paternalistic attitude and gross misunderstanding are not helpful and should change. Why not share with our patients not only what we know but also what we do not know? The same sharing surely should hold true in our relations with the public or private financial supporters of health care.

The cerebral activity in formulating classification and diagnostic criteria are one and the same. Once we decide not to be, or not pretend to be, 100% accurate in our diagnoses, then the perpetual motion machine we seem to be stuck with will take its proper place in history.

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Reply

To the Editor:

We read with interest the comments by Dr. Yazici and colleagues, and we fully agree with the authors that it is unreasonable to expect diagnoses to be "foolproof," as they have stated. However, it is important to note that classification criteria are intended for use in clinical research and trials, not for diagnosis in clinical practice. As such, we disagree that the "activity in formulating classification and diagnostic criteria are one and the same." Classification criteria are a set of standardized measures that are to be applied to a patient population of interest, often to individuals who are already diagnosed with the condition of interest. These criteria enable clinical studies to enroll patients with a standardized, clearly defined set of fea-