concerned with the relationship between the physical properties of a stimulus and the sensation it evokes. This discipline can offer an insight into the task of judging P-A mobility, suggest strategies to enhance judgments of P-A mobility, and provide methodologies to evaluate such changes. For example, there a number of studies that have investigated the ability of subjects to discriminate stiffness stimuli, and these studies may assist manual therapists seeking to develop more reliable protocols for judging P-A stiffness in the clinic.13

Others have been less reluctant to borrow from psychophysics. The food industry has frequently used this field to help develop protocols that allow raters to reliably judge food texture and so provide a practical guide for manual therapy.13 These protocols require the raters to attend training sessions where the different attributes of texture are identified and defined. In contrast to the current protocols used by manual therapists, the judgment scales are not anchored to the rater's expectation of normal but to a reference stimulus, and all ratings are made relative to this stimulus. The rating protocol is also strictly controlled so that all raters judge the food sample in the same manner. All three of these approaches could be applied to the task of rating P-A mobility in the clinic and are well worth investigating as strategies for enhancing the reliability of P-A mobility judgments.

This study by Binkley and colleagues does manual therapy a considerable service by highlighting the poor reliability of manual assessment of accessory motion. The study is convincing and consistent with other studies that have evaluated manual therapy tests. The study does not mean that physical therapists should abandon manual therapy, but it does mean that they need to recognize the inherent limitations of one of its assessment methods.

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References
ized scales for stiffness findings where normal values of stiffness for given segmental levels are clearly defined. Finally, other established and potentially new methods for determining spinal segmental mobility in all areas of the spine require our attention.

While further research progresses, the following clinical guidelines should be considered by physical therapists. The results of posterior-anterior accessory motion testing to make judgments on segmental stiffness, in the absence of corroborating reliable data, should be regarded with suspicion. The literature indicates that posterior-anterior accessory motion testing may be reliably used, however, to determine the symptomatic level of a segmental level. The decision to treat a lumbar level to alter segmental range of motion should be based on combining the results of several reliable assessment procedures to rule in or rule out competing diagnostic hypotheses. The following are examples of corroborating evidence that suggest lumbar hypomobility, or stiffness, may be at least one of the causes of a patient's symptoms: overall sagittal range of motion limited, as measured by skin distraction or double inclinometer, straight leg raise negative; and both passive physiological intervertebral motion and accessory motion testing indicative of decreased range of motion. The clinician can then go on to use accessory motion to determine the symptomatic level(s). While the process of gathering corroborating evidence is not a new concept to clinicians, ensuring that the evidence is reliable and valid is a greater challenge to us all.

We would like to thank Mr. Maher for his comments and for his ongoing contributions to this area of study. We are entering an era where it is critical that clinicians and researchers around the world communicate and work together to demonstrate that our assessment tools have acceptable measurement properties and that our interventions are effective.

References