Making the simple complicated is commonplace; making the complicated simple, awesomely simple, that’s creativity. Charles Mingus (1922–1979)

Every so often a book comes along that fills a previously empty niche. The niche is widely recognized as being empty, and there is much talk about filling it. However, the task is daunting as there is no template to follow in constructing the book necessary to fill the niche. The author/editor of such a work must therefore have his/her feet firmly on the ground (i.e. have a complete understanding of the issues to be addressed), and head in the clouds (i.e. have the ability to imagine a work unlike any before it). When such a book is well done, when it makes the seemingly complicated topics accurately, logically simple, it becomes indispensable.

Gait Analysis: Normal and Pathological Function, by Jacqueline Perry (Slack Press, Thorofare, NJ, 1992), was such a book. Measuring Walking: A Handbook of Clinical Gait Analysis by Richard Baker is a work of similar quality and significance. Baker’s feet are firmly on the ground, based upon his education (degrees in physics and biomechanics) and professional experience (25 y in Clinical Gait Analysis, setting up and managing two world-class gait laboratories); and his head is in the clouds (developing innovative data processing paradigms, reporting tools, and templates). This reader-friendly text is also a tribute to Baker’s considerable skills as an educator and writer.

Clinical gait analysis is the process of determining what causes patients to walk the way that they do. These assessments are based upon instrumented measurement of movement and a biomechanically-based interpretation of what these measurements mean. This process can be used to inform, but not replace, clinical decision-making. Baker’s identification of impairment-focused gait analysis, and his vision for additional applications such as function-focused gait analysis, monitoring of progress, and documentation of outcomes are thought-provoking. However, the text focuses primarily on assessment of gait, leaving the messy reality of decision-making to the physicians and physiotherapists that also work in the realm of clinical gait analysis. The target audience for this text is anybody who might work in a gait laboratory and/or utilize gait analysis data in a wide range of clinical and research settings. For the reader, a basic background in anatomy, physiology, biomechanics, and measurement science is assumed.

The book consists of fifteen chapters. The first two provide an introduction to the quantitative components of clinical gait analysis (temporo-spatial parameters, kinematics, and kinetics), and consider important issues such as the effect of walking speed on data and controversies of normalization paradigms. The next three chapters describe the hierarchical conventional gait model, alternative models (6 df), and advanced modeling techniques (muscle length and velocity, moment arm). Chapters 6 through 8 consider electromyography, techniques for clinical videography, and physical examination (primarily for children with cerebral palsy). Chapter 9 considers general measures of walking ability within the framework of the International Classification of Functioning, Disability and Health. Concise descriptions of measures of walking as a physiological function, such as the Gait Deviation Index, the Gait Profile Score, and the Movement Analysis Profile are provided.

Integrating the data coming from multiple fields is one of the greatest strengths of clinical gait analysis. Chapter 10 provides guidelines and principles for relating gait data (kinematic, kinetics, and electromyography), clinical video, and physical examination. This is a complex process that has never before been described at this level of detail. The next chapter on quality assurance identifies one of the most significant technical challenges in performing clinical gait analysis: accurate marker placement. The kinematic and kinetic consequences of errors in marker placement are clearly delineated.

The final four chapters provide a template for interpretation and reporting of gait data, a summary of the literature on accuracy and variability of movement measurement systems, how to set up a clinical gait analysis service (e.g. laboratory staffing models), and how to set up/maintain a gait analysis laboratory (e.g. physical facilities and equipment). All chapters are generously illustrated (particularly those on the conventional gait model, electromyography, and the physical examination) with crisp and uncluttered graphics.

Clinical gait analysis is, by necessity, a multi-disciplinary process. Anybody who already works in a gait laboratory, would like to work in a gait laboratory, or needs to understand the processes, strengths, and weaknesses of clinical gait analysis will want easy access to this book. This includes those who refer children and adults for gait analysis in order that they can have a better appreciation of the nature of the investigation they are requesting.
The book should be available in all gait laboratories and training centers, housed in the bookcase with the other essential works in the field by Inman, Perry, Sutherland, Winter, and Gage. The proximity to these classic texts is a reflection of the quality and utility of *Measuring Walking: A Handbook of Clinical Gait Analysis*.

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