THOUGHTS ON SKEFFINGTON

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The concepts of A. M. Skeffington significantly influenced the direction that I took in practice. While others also contributed to shaping my approach to clinical optometry, it was his broad scope that had perhaps the greatest influence on the way that I treated patients, permitting me to integrate classical optometric and vision science training with a functionally oriented model of human behavior.

I first heard him lecture while still studying optometry at Columbia University. The "official" policy of the school was that the OEP group was somewhere beyond the fringe, not to be taken seriously. Professor Dan Woolf, one of the giants in the field, introduced some of the OEP material into his optometric theory course over the objections of the director of the program. One other clinical instructor followed OEP methods. Save for these two, OEP didn't exist. When the first OEP-sponsored Eastern States Optometric Congress was held in New York City, a small handful of students attended. Fortunately, I was one of them.

My optometric training at Columbia was excellent. It was based on solid grounding in physiological and geometric optics. The clinical methods that we were exposed to were essentially similar to those taught at schools which espoused Graphical Analysis, emphasizing the interaction of accommodation and convergence. The objective of clinical optometry was to provide clear, comfortable and efficient single binocular vision. We were responsible for delivering a clear image to the retina; what transpired after this was the domain of the psychologist, not the optometrist. This model of clinical care was consistent with an optometric program which began in the Department of Physics of Columbia University.

As I accumulated clinical experience, and particularly because I always had an interest in vision training, I began to be bothered by limitations of the clinical model and inconsistencies in patient behaviors that could not readily be explained. Patients diagnosed as having convergence insufficiency often behaved, during vision training, as if they were esophoric rather than exophoric. They would place pointers in a stereoscope activity in a manner indicating a tendency to overconverge rather than underconverge. During treatment, the blur, break, and recovery components of the prism vergence measurements sometimes changed in ways that seemed unrelated to one another. Esophoric patients might show low base-out vergence ranges; exophoric patients low base-in measurements. Some intermittent exotropes showed base-in prism vergence break measurements which were less than the exophoria they demonstrated. Symptoms did not seem to relate to the degree of departure from clinical norms.

Then I heard Skeffington offer a clinical model which reconciled a number of things which Graphical Analysis did not address. The more I

probed, the more fascinated I became of the logic and beauty of the model Skeffington offered. Instead of considering vision as something that functioned in isolation as a closed system, he placed it within the context of a live, functioning person. This opened the way to consideration of the interplay between information derived from the retina and other sources of data available to the patient for controlling behavior. He viewed vision as guiding behavior and, in turn, itself being shaped by the interactions between the specific mechanisms associated with vision and other sensory-motor systems. He emphasized the malleability and plasticity of the visual system. Borrowing from other disciplines, Skeffington brought new dimensions to clinical care. He integrated the principles of homeostasis and adaptation with more classical optometric concerns about clear vision and efficient interaction between accommodation and convergence. He offered a model which treats these measurements as probes of the patient's adaptations to stresses placed upon the visual system rather than as measurements of a static optical system. Most importantly, he felt that appropriate intervention could maximize the efficiency of the visual system and even forestall or minimize adverse adaptation. Skeffington was talking of prevention long before this was a popular concept.

The Skeffington model offers a set of "expected" measurements. Although these are very similar to other standards, such as Morgan's norms, they are quite different conceptually. The OEP expected measurements are not offered as norms, but rather as ideal measurements which should be present unless something has interfered with the normal operation of the visual system. He felt that our cultural demands, with emphasis on prolonged nearpoint activity with high cognitive loading, was inimical with the evolutionary biological development of the visual system and therefore stress producing. This leads to predictable changes within the system to permit continued activity. The specific measurement changes follow several major patterns which form the basis of the "21 points" OEP examination sequence and the "check, chain and type" case analysis for lens prescribing. While this method is a useful way of analyzing case data, it is my belief that too much emphasis has been placed on the mechanics of the OEP system and far too little on the theory underlying it.

The beauty and major utility of what Skeffington brought to optometry emerges from his conceptual model. He bridged between the physiological and psychological domains and, while not using the term, was clearly concerned with the perceptual aspects of vision. The key factor is that vision is purposeful: to gain information to guide action. This information is obtained by a synthesis of retinally received data and input from haptic, postural, proprioceptive, auditory and other sensory data. Prior experience also contributes to the way in which the information is organized and interpreted. The "Four Circle" model which Skeffington presented (Centering, Identification, Vestibular-Anti-gravity, Speech-Auditory) begins to illustrate the complexity of vision.

This has been a springboard for my thinking, although the four circles should not be taken literally, nor be limited to the four types of input Skeffington delineated. (I do not think that he would have expected the model to remain static for well over half a century.) It is fascinating to note that Skeffington conceptualized parallel processing of visual information long before the scientific community. His "centering" and "indentification" circles are quite similar to what is now referred to as focal and ambient vision. In a private conversation with him, when focal and ambient visual systems were being introduced in the vision science literature, I asked him how he had come to this concept decades before there was any accepted physiological basis. His response was a succinct testimony to his genius: "It couldn't be any other way."

Skeffington was always "ahead of the curve" in his thinking. He coined new terms which at first seemed to be pretentious, but on closer inspection were absolutely necessary. His terms were well defined and consistently used. He was current with the basic vision science of his era. At no time did he violate the standard wisdom—but he often went beyond it. Those of us who had the opportunity to know and learn from him were indeed fortunate. Few people have been as effective in shaping a profession as was Skeffington. He changed optometry even more than he himself was aware. Much of what was originally considered to be heretical is now part of the common wisdom. Skeffington spent a lifetime preaching for an enlightened approach to clinical care, emphasizing the pervasive role of vision. His work has benefited untold numbers. I am thankful that I was one of those who learned from him.

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