A PRIMER ON SKEFFINGTON

■ IRWIN B. SUCHOFF, O.D., D.O.S.

Abstract

During the 1950s and 60s Skeffington's clinical rationales and methodologies were given scant attention in the curricula of virtually all the schools and colleges of optometry. In the vast majority of these institutions, Graphical Analysis was the preferred method to determine the diagnosis and treatment of binocular dysfunctions. Nevertheless, many practicing optometrist were attracted to Skeffington's teachings because they treated some patients who did not attain visual comfort from the interventions indicated by Graphical Analysis. Similar to Graphical Analysis, Skeffington's methods were based on the physiology and interrelations between accommodation and convergence. However, he went beyond Graphical Analysis by proposing an environmentally-based etiology for binocular dysfunctions, and hence the possibility of prevention. He also felt that there was a developmental aspect to binocular problems, and recommended a system of diagnosis that indicated the level of the problem's development, along with interventions tailored to the particular patient's adaptation to the problem.

Key Words

graphical analysis, checking-chaining-typing, Optometric Extension Program, binocular dysfunctions, convergence, accommodation, prevention, development

Not long ago I was engaged in a discussion with optometry students from several of the schools and colleges. They raised the question of "Who was this Skeffington, and what did he really do?" I began with a knee-jerk answer, and found that the more I talked the more confused the students became. They were very polite, but I really didn't help them too much. It bothered me, and I subsequently gave the question a good deal of thought. I now hopefully have a more coherent answer, and I dedicate this article to those students.

My answer is based on two levels with the first relating to my personal development as an optometrist. In optometry school I was not taught the Skeffington, Optometric Extension Program (OEP) philosophy per se. Rather, the then dean of the Massachusetts College of Optometry, Dr. Ralph Green, explained visual problems on a neuro-physiological basis. While we were taught neither the more classical Graphical Analysis nor Skeffington's Checking and Chaining and Typing methods, Dr. Green's use of syndromes actually incorporated portions of both philosophies.

When I joined the staff of the Optometric Center of New York (O.C.N.Y.) I found myself among a group of exciting peers who were strong adherents of the Skeffington philosophy. Interestingly, virtually all of these optometrists were graduates of schools or colleges where only Graphical Analysis had been taught. They became receptive to Skeffington's method because they found that once in practice, there were frequently situations where Graphical Analysis didn't provide long term patient satisfaction. I became caught up in their enthusiasm, and embarked on a serious reading of material prepared by Skeffington and his associates. However, I soon became frustrated for several reasons; I found the material quite difficult to understand because it was written in a language foreign to me. Further, by and large, my assessment of the patient's visual problems and subsequent management plan were virtually the same as that of my O.C.N.Y. colleagues who were more oriented to the Skeffington methodology. We came to the same conclusions by somewhat different means.

At some point in the 1960s I was given the opportunity to present a series of seminars in the Summer Internship Program, conducted by the O.C.N.Y. for the benefit of optometry students between their third and fourth professional years. It soon became evident that I needed to establish a common ground with these students who were well versed in Graphical Analysis, but had not been exposed to the "syndromizing" that formed the basis of my patient care philosophy. Since Dr. Green had not committed his method to print, I was at a loss. Quite fortunately, I became aware of a book by Dr. Leo Manas, a faculty member at the Illinois College of Optometry.1 This work effectively bridged the gap between Graphical Analysis, the Syndrome method I had been taught, and the Skeffington philosophy and methodology. Over a period of years

that I was involved with this seminar I was forced to reread the chapters I had assigned. I found that my understanding of Skeffington increased with each reading and that it was not the Checking, Chaining and Typing that brought a respect and admiration for the man, but rather the foresight and consequent ideas behind his method. For me, Manas had served as the great interpreter of Skeffington.

So, the first level of my answer is based on the fact that I came to learn from Skeffington in a somewhat unorthodox fashion. I have never fully adopted his language, nor his methods. To this day I have never analyzed a patient's findings by Checking, Chaining and Typing (but neither have I ever completely done a Graphical Analysis). At times I have become skeptical of the claims of some of his staunchest adherents. Nevertheless, Skeffington along with a number of his more devout followers, have had a profound effect on my clinical thinking and subsequent patient care.

The second level of my answer requires an historical view of what is essentially the growth of optometric knowledge regarding binocular problems. It is in the context that I believe Skeffington's contributions become most apparent.

The genesis of modern VT is generally thought to be in the non-surgical remediation of strabismus.2 As such, the early goal was to counteract mechanical causes in order to straighten the eye. Patching the non-squinting eye, and techniques to "strengthen the muscles" and improve acuity constituted the major portions of this approach. During the late 1800s, Maddox's paradigm of convergence, being composed of four separate, but interrelated elements, once and for all moved considerations of binocular functioning from a primarily mechanical basis to a physiological one.3 The eventual universally accepted clinical application of Maddox's work occurred with the incorporation of the Graphical Analysis method at Ohio State University, School of Optometry in 1938.4 This tool enabled the clinician to factor in the basic physiological knowledge about accommodation and convergence with the patient's refractive status in order to arrive at the most effective lens prescription for distance and near. In 1949 Hofstetter proposed that Graphical Analysis be used to determine whether VT is indicated and, if so, the type of therapy to be employed.5

The increasing knowledge about the physiological aspects of the visual system enabled Skeffington to add several dimensions that were not inherent in Graphical Analysis.6 His system of Checking, Chaining and Typing, while operationally different than Graphical Analysis, basically does the same thing; namely, disconfirms or confirms the presence of some type of binocular dysfunction in the patient. However, while Graphical Analysis then views the binocular problem as a thing of the moment, and provides for either compensatory lenses or vision therapy, Skeffington went further. He proposed that visual dysfunctions are the product of external factors; the "socially compulsive," yet "biologically unacceptable,"7 nearpoint tasks that are unique to societies based in the written and printed word. By virtue of hypothesizing a cause, he raised the possibility of prevention. The methods he proposed to implement prevention of various visual dysfunctions included lenses and VT. While these same modalities are the basic interventions in Graphical Analysis, there is a significant operational difference; in Graphical Analysis, these methods are used only when the condition is fully present, while Skeffington advocated their use before the condition completely clinically manifests itself. This required a more time sensitive diagnostic system than is provided by Graphical Analysis. Skeffington proposed that several types of adaptations are available to the human organism when confronted with visual stress, and that the chosen adaptation occurs in identifiable stages.8 By suggesting that a visual problem develops, the intervention ideally can then be tailored to the particular temporal aspect, or stage of adaptation. Thus, Skeffington recommended the use of lenses in the therapeutic sense: preventative, to shield the individual from the effects of a visually demanding situation, and developmental, to reverse an adaptation to a visually demanding situation that has confronted the individual for a longer period of time.9 He clearly differentiated these two therapeutic applications of lenses from the more classical approach of "correcting the refractive error." He termed this approach "prosthetic" and proposed that it was required when appropriate preventative and/or developmental interventions had not been instituted and ....."the whole continuum in time has been gone through and the functional impairment has been transferred into structural changes....(and) lenses must be applied to enable the impaired organism to function as best it can.....with small expectations of any improvement or change for the better in the total visual process.9

The above represents, at least to me, the very basic aspects of Skeffington's contributions to optometry. Hopefully, it will give optometric students and other interested parties a very focused but limited answer to who Skeffington was, and what he did. There are other concepts which are easily as important and innovative, and are discussed in other articles in this issue.

References

1. Manas L. Visual Analysis. Chicago: The Professional Press, 1965, third edition.
2. Burian HK, Von Noorden GK. Binocular vision and ocular motility. St. Louis: Mosby, 1974: 423.
3. Maddox EE. The clinical use of prism; and the decentering of lenses. Bristol, England: Wright & Sons, 1893.
4. Hofstetter HW. Graphical analysis. In: Schor CM, Ciuffreda JK (Eds). Vergence eye movements: basic and clinical aspects. Boston, Butterworth, 1983: 441.
5. Hofstetter HW. Orthoptics specification by a graphical method. Am J Optom & Arch Am Acad Optom. 1949; 26: 439-444.
6. Skeffington AM, Lesser SK, Barstow R. Nearpoint optometry. Optom Extension Prog; 1947-48 (3); 1948-49 (4); 1949-50 (5).
7. Skeffington AM. Nearpoint optometry. Optom Extension Prog; 1950 (6):1.
8. Skeffington AM. Introduction to clinical optometry. Optom Extension Prog; Rev Ed,1990: 39.
9. Skeffington AM. Practical applied optometry. Optom Extension Prog; Ed by Hendrickson H,1991: 83.

Corresponding author:
Irwin B. Suchoff, O.D., D.O.S.
SUNY State College of Optometry
100 East 24th Street
New York, NY 10010

Date accepted for publication:
September 24, 1996