

## Working Relationships Between Psychology And Optometry

Guest Editor, Rosamond Gianutsos, Ph.D.

**I**t was refreshing to see "Psychology and Optometry: Interaction and Collaboration" in the Table of Contents of the December 1990 issue of the *American Psychologist*,<sup>1</sup> the flagship journal of the American Psychological Association. The article describes a growing collaboration between clinical psychologists and optometrists at Pacific University which has developed ever since both disciplines moved their training clinics to the same setting. The history of conjoint efforts is recounted, beginning with Beach and Kavner's<sup>2</sup> 1977 article on a cooperative psychotherapeutic-optometric approach. Work is cited on visual factors which can underlie learning disabilities and, in turn, lead to socially unacceptable behavior patterns ("juvenile delinquency") in adolescents. In other examples, the authors describe how hypnosis has been used to improve vision in myopes and to promote adaptation to contact lenses. Psychologists and optometrists have also worked together on psychosomatic and hysterical vision dysfunctions: visual and neurosensory impairments must be carefully specified or ruled out before appropriate psychological intervention is brought to bear.

Fascinating as these examples are, they do not capture the full scope of clinical practice in which optometrists have been working productively with psychologists. Developmental and educational psychologists have collaborated with optometrists in helping children contend with learning disabilities, including dyslexia. Clinical scholars such as Spache,<sup>3</sup> Suchoff,<sup>4</sup> and

Flax<sup>5</sup> have long appreciated the importance of visual system dysfunction in dyslexia and, accordingly, have been involved in intervention. At the Learning Disabilities Unit of the State University of New York, State College of Optometry, psychologists and optometrists have worked closely together serving large numbers of children.<sup>6</sup> Koslowe,<sup>7</sup> drawing on his training in both school psychology and optometry, recently reported research showing interrelationships among binocular function, classroom achievement and performance on "coding" (symbol substitution) tests used widely by psychologists. Neuropsychologists, such as myself, and occupational therapists have been seeking out optometrists for a number of years to help people recovering from brain injuries. This application has received recent recognition with the establishment of a Task Force on Head Injury by the College of Optometrists in Vision Development. In the early phase of my development as a neuropsychologist I discovered and eagerly cited the writings of optometrists Suchoff and Flax. Along with a generation of other rehabilitation workers, I was introduced by the teachings of occupational therapist Mary Jane Bouska to the practical value of collaborations with optometrists in her Clinical Vision Assessment workshop. Occupational therapists have been especially active in collaborating with optometrists. The intensity of their interest is reflected in the fact that a recent all-day seminar in Occupational Therapy and Optometry was fully registered weeks in advance and

would-be attendees were turned away. Within the Veterans Administration Medical Center system (VAMC), special regional low vision centers have pioneered rehabilitative optometry, including a strong emphasis on such psychological services as training and counseling. It is no accident that Edwin B. Mehr,<sup>8</sup> author of an article criticizing the use of finger counting acuity assessment based on its adverse psychological impact on the patient (e.g., "Your vision is so terrible that you cannot even see the chart!"), is Chief Optometrist at the Western Blind Rehabilitation Center in the Palo Alto VAMC. Optometrist Robert Perlin, who has worked for several decades in the Eastern Blind Rehabilitation Center in the West Haven, Conn., VAMC, has collaborated with me and other rehabilitation workers in clinical research on "rehabilitative optometric" services for survivors of acquired brain injury (including brain

*continued on page 36*



Rosamond Gianutsos, Ph.D.

*EDITORIAL continued from page 30*  
trauma and cerebrovascular accident).<sup>9,10,11,12</sup> In our first study, we found that nearly half of the persons admitted to a residential facility offering long-term rehabilitation to survivors of serious brain injuries had visual system deficits, most frequently binocular and accommodative disorders.<sup>9</sup> While these conditions would adversely affect a person's response to rehabilitation therapies, virtually all would lend themselves to treatment, if not correction. In subsequent publications we described methods of clinical collaboration which we had found most effective,<sup>10</sup> including particular rehabilitative optometric services for persons emerging from coma.<sup>11</sup>

My experience has been that patients who come into rehabilitation after a serious brain injury need basic optometric attention, and there is a real delivery system vacuum. In acute care, vision is usually not a priority and if addressed at all is considered from a strictly medical perspective. In the medical world many people do not know what optometry has to offer; indeed the myth persists that optometry is somehow a lesser form of ophthalmology. While optometrists are trained to detect problems which require ophthalmologic attention, the converse is apparently not true and referrals to optometrists are infrequent. Many of my colleagues in neuropsychology, who routinely evaluate visual perception, are unaware of the complexity of the total visual system. Although they may not seek optometric consultation, they are usually perceptive. Finally, because some patients do not realize they are having visual problems, and after a brain injury may be unable to articulate their concerns, they may not be supplying the impetus for referrals. The moral of the story is that interested optometrists should not wait to be asked; rather they should reach out to people in need and show what they can uniquely offer. Lectures and other educational efforts are very much in order. The word has to get out that behaviorally based optometric examinations address different and more rehabilitation-relevant issues than other types of eye examinations. It would be premature to prescribe or proscribe the forms that optometric intervention must take. It is quite possible that the effect of some of the innovative

strategies currently being used is simply to draw the patient's attention to unappreciated problems, and that it is the attention, rather than the specifics of treatment, which is important. At this early stage in the development of these approaches we need to understand better why our efforts are helpful. Sometimes treatments work for reasons other than originally conceived. For example, I was once inspired to treat hemianopia by forcing use of the affected side through occlusion of the intact hemi-fields. I constructed a pair of goggles with half-circle occluders in corresponding fields of each lens. For a variety of reasons, I could not convince my hemianopic patient to wear the goggles for any extended period of time. But what did happen is that for the first time in the nearly seven years since her occipital injury, she and her family had a real understanding of homonymous hemianopia is. On this educational foundation, reinforced by reading exercises and counseling, it was possible to construct an edifice of awareness and compensatory abilities on which she could rebuild a meaningful career. The broad perspective of behavioral optometry seems particularly appropriate for involvement in brain injury rehabilitation. There is a fascinating interplay between the visual information processing system and performance which has dramatic implications when one or more of these systems is ravaged by central nervous system injury. The fact that brain injury also may compromise awareness of changes creates important challenges for rehabilitation. Optometrists are most helpful when they take time with recovering brain injured patients and make particular efforts to communicate effectively with them, their families and with other members of the rehabilitation team. (If technical terms and abbreviations are used, reports have to be typed so that non-optometrists can look them up!) Survivors of brain injury are often intriguing, viz., the popularity of *The Man Who Mistook His Wife for a Hat*,<sup>13</sup> and most need behavioral optometric services. Most members of the rehabilitation team, especially occupational therapists, welcome optometric participation. The resulting benefit to the patient far exceeds the sum of the contributions of the individual practitioners, especially when

all communicate frequently. In conclusion, while I can only applaud Biaggio and Bittner's<sup>1</sup> call for close working relationships between clinical psychologists and optometrists, I must draw attention to the fact that clinical psychology, in the conventional sense, is only one area of psychology responsible for clinical service. Developmental and educational psychologists concerned with learning disabilities have worked closely with optometrists for nearly a quarter of a century. Optometrists specializing in "low vision" have been concerned with psychological issues for about as long. The most exciting new development is the joining of behavioral optometrists with clinical neuropsychologists in the diagnosis and treatment of visual information processing impairments caused by brain injury.

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