# A C.J.O. Interview: Sharing 1¼ Centuries of Experience!

**CJO:** What do you consider to have been the most important event to have occurred in optometry during your career? Is there any major event which stands out in your mind?

**TF:** For me personally, there are several which come immediately to mind. One of the biggest was when the course was increased to four years in length. Another was when we were doing the work for the Royal Commission on Health Sciences. I'm sure that, with that, even the briefs were important; in fact, I'm not sure whether the study itself and our resultant self-examination as a profession which accompanied it weren't even more important, at least to those of us who were on the Committee. Coming to Waterloo was also tremendously important, as was our inclusion under OHIP. These are all highlights, and to single out one as most important is very difficult. I believe they are all crucial to our development.

**CB:** I agree with Ted that the most important changes have taken place within ourselves; when it became necessary for us to put together rational and believable arguments as to why optometry in Ontario should be taught in the university and why optometrists should be included in the Ontario Hospital Insurance Program. Up to this time, optometry's story had not been told to the Federal and Provincial governments, or to anyone for that matter, least of all ourselves. Our case had never been put together. No one, or so it seemed at the time, was keenly aware of the problems facing us and the Committee, which was made up of members of the Council of the College of Optometrists and the Faculty of the School, had to start from scratch. For example, I can remember how painfully slow the Committee's progress was in arriving at a consensus as to what made up optometrical services. It seems laughable now, but at the time we had to struggle with such concepts. Fortunately, we succeeded and managed to produce clear statements of what these services were and what the public's need for such services was. I believe they were well-stated in our briefs at the time. They still stand, I think. *In fact, I often wish that some of the newcomers to optometry, both in this country and elsewhere would reread those briefs.**

Of course, I can't help but add how important I think the new optometry building and its equipment and research facilities were to our profession. Until that time, the school had never had a building designed expressly for the purpose of optometric education and, of course, our research facilities had been practically zero in Ontario. This was a major achievement and did so much to boost our spirits.

**BL:** Just recalling what you said about the exercise of assembling those briefs, Clair, I think that what you're saying is that the answers we gave were more important to us than they were to the people to whom they were given.

**TF:** To qualify the "importance" of an event really depends on the circumstances of the time at which it is judged. As an example, I'm sure that putting up that front on the building in Toronto was, at that time, very important to us. And there have been many other examples of that. I think that another, more recent, event of significance is the development of our graduate program. It is, and will continue to be slow and I suspect will never play the part that it does in, say, a Physics Department, but I think it will be tremendously important for Optometry. We could go on and on with a lot of other things — the development of our library resources has been vital —

**BL:** But I don't think these small aspects, however necessary, fall into the same category as turning points. I would consider getting Dr. Balfour Sparks to come and stay with us for forty years as a very important point. We tend to forget these things and he had more influence than we generally recognize, a tremendous influence on faculty and students alike.

**CJO:** The full story behind our move to Waterloo is known to only a handful of optometrists. Since all of you were involved in the event, perhaps you could provide some of the background.

**CB:** I think Waterloo was right for the time. I really believe that it was a good choice and I think we were fortunate. It was actually Ted who started the wheels rolling some ten years prior to our actual move to Waterloo.

**TF:** Well, by way of background, the university actually started here in 1957 and was called at that time the Associated Faculties of Waterloo University. The Associated Faculties was started in order to provide engineering training. The Lutheran Church didn't feel that it wanted to pay for that kind of training because it was very costly. You needed a lot of expensive equipment and the science background was costly. As a result, the Associated Faculties ultimately became a separate institution about a year-and-a-half later. The story is well-written elsewhere.** When it became a separate institution, of course it would not do just to offer an Engineering faculty. As a matter of fact, the government had made a very

*(Editor's Italics)

**Of Mud and Dreams: University of Waterloo 1957-1967, by James Scott. Published 1967 by Ryerson Press, Toronto.

clear pronouncement — and we ran into this in Toronto — that it would never provide financial assistance to a one-faculty institution. It would only fund multi-faculty places. It wasn't very long before they said that if we were going to teach engineering, then it's obvious we have to have a science faculty. And from science it went to arts — we ought to have some "cultural" subjects in here as well. And that was how the University of Waterloo developed.

Well, in 1957, I had already taken over Dr. George Keevil's practice and it had been my custom to work a couple evenings a week rather than work on Saturdays, and to take the weekend for my holidays. One evening a chap brought his daughter into my office from Waterloo for contact lenses. A contact lens fitting in 1957 is something that would take quite a bit of time. You would see the patient eight or ten times and not think much of it, at one week intervals. At any rate, in the course of the conversation with this gentleman, on the very first visit, I said, "What do you do in Waterloo? It's a foreign country for me." And he said, "Oh, I'm the Dean of Sciences for the new university out there." I said, "You're the Dean of Science. Isn't that interesting? Have you ever thought of teaching optometry?" About three days later, I got a letter from Dr. Hagey who suggested I come up and talk with him sometime, so I decided to take him up on it. They were in their first building at that time and had just moved into it — the Chemical Engineering Building. I talked to him and a couple other people and was quite impressed with the enthusiasm I found. I also met the Dean of the Associated Faculty over at Waterloo Lutheran. Well, one thing led to another — we made several trips down and the Board even held a meeting here. We stayed at the Conestoga Motel, held a meeting and also met with Dr. Hagey.

There was some reluctance on the part of our Board, however, to make any move because this university was just starting up and nobody at the time knew what it would become. It could turn out to be just a small, insignificant institution. Perhaps we just didn't have the vision to see that it was going to go ahead. At any rate, this went on for about four years, and it wasn't until 1961 or 62 that our Board decided, we'll stop this nonsense. We won't even consider a move up there. Period. We had briefs to prepare for the Royal Commission on Health Services, which took a lot of extra energy and work. Drs. Baker, Langer, Bobier and myself met week after week from seven at night until one in the morning getting this brief ready, and the Waterloo talks just sort of crept onto the back burner. They weren't really revived until 1965, when the University of Toronto told us they wanted the property we were occupying.

**"If what we are doing and giving is good for people, they'll come to optometry for vision care . . . What's good for the public is good for optometry."**

In the meantime, university affiliation had remained a dream of mine. When I was first made Dean, in October of 1948, I was the speaker at the student banquet that year, and there were about 300 in attendance. We had a lot of students, faculty and friends. It was at the Club Top Hat in Toronto and it had just been announced that night that I was now to be the official Dean. I had set out four goals: to extend the course to four years; to grant the O.D. degree; to improve the existing building facilities; and to become affiliated with, or part of, the university system within the province. So I had been given the O.K. by the Board to visit some of the heads of the universities just to talk to them. I talked to President Hall at Western and he was the first one to give me a lot of encouragement. I talked to the President of McMaster, to the heads of the University of Ottawa and Carleton. None of them seemed to be interested in expanding. McMaster, for example, had said that if we wanted to, we could set up across the street but as a completely separate institution. And our one concrete opportunity at Waterloo was turned down initially by our Board because we weren't sure, in 1962.

To get back to 1965, it was abruptly revived very strenuously when we were told by Toronto that we had to move. At that time, we had to clear any move with the Ministry of Health, because the Optometry Act fell under that Ministry, and the Minister of Education had already said, "Obviously we should try and find a place for you people." The U of T had clearly said in a letter they had no interest in undergraduate optometric training, and that was really the incentive for the Board to authorize us to proceed. We came to Waterloo and a committee† was established to look into the worthiness of optometry as an academic discipline within a university. The report was actually for any university in Ontario. The government actually gave us a grant to set up this committee and conduct a study. There were two briefs prepared, the first to show that it was a worthy discipline for university inclusion. As part of their research, the committee actually went to Ohio State and Indiana. They were well-received by both and were shown how worthy optometry really was. A very good brief resulted from it, which the Ontario government accepted and approved. Waterloo was then asked

†The committee was an ideal amalgam of backgrounds to investigate the worthiness of optometry. It consisted of Chairman W.A.E. McBryde, Dean of Science; Professor C.H. Fernando, Biology; Professor H.M. Morrison, Physics; and Professor G.E. MacKinnon, Psychology, all from the University of Waterloo. Representing Ontario's College of Optometry were Drs. I. Baker, C.W. Bobier, W.L. Lyle and W.S. Long.

if, having participated in the committee which did the study, would they accept a School at Waterloo? At the time, we had met some opposition to the idea of a separate school. The feeling was that, yes, optometry should be taught at a university, but in a health science centre. So the government approached all five health science centres, none of which expressed any degree of interest. We had already felt that such a setting was undesirable because, in competition with medicine and other professions we could see budget constraints and restrictions, so we put together a position stating that, although we would be willing to go to such a place, what we really needed was physics, biology, chemistry, psychology and mathematics, all of which are found at the University of Waterloo.

Again, having been asked by the government, the Senate set up a local committee to look into it, and it happened to have the same Waterloo members who had examined the worthiness of the profession for academic inclusion. They reported back that yes, Waterloo could teach optometry. No action whatsoever came from the government. We thought it might have been put aside and we got no response to our further inquiries. At the end of June that year, I was at the AOA meeting in Portland, Oregon. On the second or third morning, I got a phone call from Irving (Dr. Irving Baker, C.O.O. registrar — ed.) which suggested I'd better get back to Toronto for a meeting scheduled with the government the next day. Well, the only plane out of Portland that would get me back left about an hour after that phone call, and I was on it. Dr. Douglas Wright, who is now the University of Waterloo President, was in the Department of University Affairs, and had just been appointed literally a couple days earlier, had arranged a meeting. A group from the University of Waterloo, a group from optometry and three government representatives met at 9:00 a.m. about the 28th of June and it was finally decided that, as of the first of July, we'd be part of the University of Waterloo. It was an exciting time, a very vigorous summer, and we did a lot of work —1967.

**"I think we have begun to lose our sense of dependency on one another. Perhaps we have lost some of that tightly knit community spirit which served us so well . . ."**

**CB:** Ted stated that there were several advantages to the University in having a School of Optometry. These were listed in the Senate Committee's report but I would like to point out one advantage that, at the time of the report (1966) wasn't known. Inadvertently perhaps, the School has had a tremendous effect on the overall calibre of science student found at the University of Waterloo. Since roughly 1970, optometry has been recognized by Canadian students as a highly desirable career. The total annual admissions are limited to 60 students and the competition in academic achievement is fierce, since it is understood that high academic standing is the main criterion for acceptance into the program. Also, for one reason or another, students believe that their chances for getting into the program are enhanced when they take their science training at Waterloo. As a result, science enrollment at Waterloo increased. Even more importantly, because of the competition generated by the limited enrollment in optometry, many of the students entering have high academic standing. Those who do not get into optometry tend to remain in science, so the university has received this additional benefit.

**TF:** I think, too, one of the slogans our committee worked on is that we must not forget that what is good for people in general is going to be good for optometry and I feel this must be put as our first goal. If what we are doing and giving is good for people, they'll come to optometry for vision care, and there'll be no problem, we won't have any difficulty. What's good for the public is good for optometry.

**CJO:** What do you consider were the most important benefits to derive from the integration of the Ontario College into the University for a) the university, and b) the profession?

**CB:** I think that, even with the clear advantages, one of the problems we have had in the past 15 years, and to some extent still face today is that once we had achieved our goals of being included in the university system and the health insurance program, we no longer had the stiff winds of opposition to rise against. In our relatively becalmed situation we had become less anxious about our future. We felt more comfortable and individual goals tended to replace those of the group. I think we have begun to lose our sense of dependency on one another. Perhaps we have lost some of that tightly knit community spirit which served us so well during the years 1950 - 1970. *If so, we do so at our peril**. In saying this, I certainly am not detracting from the recent advances that the school has made under the leadership of Directors Fisher, Woodruff and Long. The school's development in its clinics and graduate programs has been exceptional and has a bright future. And in a similar vein, the work of Dr. Baker and his colleagues on the C.O.O. Council in formulating the Ontario Health Disciplines Act must rank high in any record of professional achievement. I would just caution against letting our guard down because of what we have accomplished in the past.

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*(Editor's Italics)

**TF:** Well, by way of a distinct advantage, there is the fact that, because of the school's location, the University of Waterloo is known worldwide in places it wouldn't otherwise be known. For example, we are very well known in Australia, and the English Universities, because of the School of Optometry. More locally, we've had very good public relations; in fact, I heard the previous President, Dr. Mathews say very definitely that optometry has the kind of public relations in this community that the rest of the university ought to have.

**BL:** I can recall a statement made the first year we were here, when the then head of biology said to me, "I can easily tell the optometry students; they are the bottom 30 students in the biology class." Now optometry students are among the very top science students, and many of the top students in science have come into optometry.

**CB:** Because of the desire to register in optometry, they worked hard in order to fulfill the qualifications.

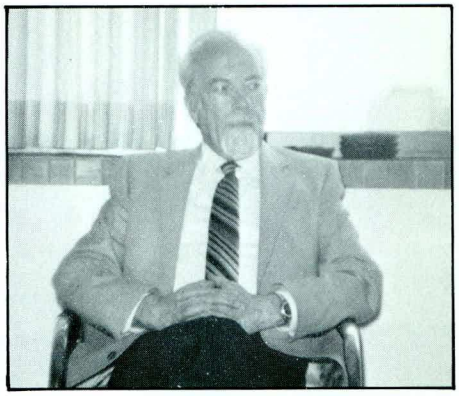
**TF:** I know each year we draw some of the top science faculty students into optometry.

**BL:** Science has about four or five hundred students. At least 150 of those are here because of optometry.

**CB:** When we first came here, the people in the other university departments treated us very well. They bent over backwards to help us, and we received real benefits from them. Because they weren't aware of just how an optometry program operated as opposed to, say, a chemistry program, they gave us the benefit of the doubt so that we had a great deal more freedom in the university than would be expected in other departments. And we shouldn't forget that.

**BL:** It helps that the university physician Dr. Don Andrew has given us 100% cooperation. He has spoken publicly and in legislature hearings for optometry. He wrote an article in the Canadian Journal of Public Health, too. I'm only echoing what Clair is saying; but everybody on campus, even when we made mistakes, said, "Well, they're new. Let's give them a chance to learn the system. Maybe that's the way things are done in optometry."

**CB:** Now it's only natural that they're expecting us to balance our budgets, and do things like every other department. In the long run, I think that's a good thing.



**"I have found that in the last two or three years, I've had to raise the level of my approach to the class by several notches."**

**CJO:** Do you feel that student recruitment problems were solved by coming to Waterloo?

**CB:** Our recruitment problems have been resolved, but I don't know if it's necessarily because we're in Waterloo. We likely would have the same kind of demand had we remained an independent institution. I think that with the recognition of our services by OHIP, there was an increase in the demand for our services and a resulting higher income for the optometrist. I think that as soon as you get higher incomes, whether you're in a university setting or not, there is a tendency for people to be attracted, which puts an economic "supply and demand" element into our consideration.

**BL:** But all health care personnel, whether they're lab technicians, or whatever, have seen a huge explosion in the number of people involved in some aspect or another of the whole field.

**CJO:** Are academic records the sole criteria that should be used in selecting students? Do the best academic records necessarily lead to the best practitioners?

**BL:** It's not the sole criterion, and it's not an easy question to answer, in any case. The main advantage of marks is that they provide a relatively objective criterion. As soon as you start making the other kind of decisions, you enter a subjective area. You could be accused of not liking slanted eyes, religion, the length of the hair cut, or something like that. You are into a highly subjective area.

**TF:** Of course, I think it should be recognized too, that we do supplement this with an interview. Perhaps that doesn't exclude very many people, but it does rule out those people who would be considered to be totally unacceptable in the health professional field. It's a difficult thing. I may not like people who wear beards, but that can't be a criterion. The fact is, as Bill said, marks are objective. If we could have some objective measurement of what makes a good optometrist, or physician, or dentist, or whatever, —if there were some good objective measurement to recognize them —but there seems to be none. Some of the most unexpected people turn out to be the best practitioners. There is no gauge that you can apply regarding a successful, useful practitioner on any scale, not necessarily the most wealthy, but on a successful, professional scale.

**CJO:** . . . personality test? . . .

**TF:** They don't seem to work very well. Psychometrists use them as a guide, but not for absolute decisions.

**CB:** Besides, students don't put up with it any more. The only way we can select students without getting into trouble with them and the law, etc. is on the basis of academic standing. Now sometimes, sometimes an interview will indicate where someone is totally unfit for the work of meeting the public. Occasionally, there are those kinds of people, in which case the interviews are likely very worthwhile; but on the whole,

An Original Article

# A Study of 250 Varilux 2 Prescriptions

André Bétournay, O.D.

**Various characteristics of the patients are studied in relation to successful fit of Varilux 2® lenses.**

This study summarizes the re
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and defines a policy for correctio
presbyopia in future patients. A metho
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# PREFERRED PROGRESSIVE ADDITION LENSES

Harry O. House, OD

Although progressive addition lenses have been popular in Europe for years, they are new in the United States. This article reports a clinical study of 20 patients that was conducted to learn more about the effectiveness and patient reception of these new multifocal lenses.

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of the progressive lenses.
Patients were told that after
had tried each pair of lenses,
could either retain the type of len
they preferred for regular wear or
turn all three sets in exchange for
standard bifocal or reading prescri
tion.

**PATIENT INFORMATION**—Th
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patients with the following distribution:
14 women, 6 men, 14 professional
workers, six nonprofessional workers.
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as follows: six emmetropic, one myop-
ic, seven hyperopic and six were al-
ready wearing reading glasses. Pre-
scription types dispensed were as fol-
lows: five emmetropic prescriptions,
six hyperopic prescriptions, seven low
myopic (0 to −3.00) and two high
myopic (above −3.00) prescriptions.
The following prescription add powers
were noted (Note: No previous bifo-
cals): Seven, +1.00 add; five, +1.25
add; five, +1.50 add; three, +2.00
add.

This patient cross-section also in-
cluded five patients who were receiv-
ing hormone therapy, four who had
hypertension and were taking medica-
tions and three who had glycemic
problems. In addition, one patient had
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REVIEW of optometry

## CHANGING A 'HAPPY' TRIFOCAL WEARER TO PROGRESSIVE ADDITION LENSES

R. Michael Daley, F.N.A.O.

*Many practitioners hesitate to prescribe progressive addition lenses for patients who have been wearing bifocals or trifocals without complaint. They don't want to press satisfied wearers too closely for details because they worry that the patient will express some dissatisfaction with his prescription. The fact is that many patients aren't truly satisfied with their multifocal glasses. While progressive lenses might greatly*

copy to the typewriter to check what she had written. Finally, she said large areas of her vision were blurred because of the lines separating the segments.

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ichard S. Hubler, O.D.

With any new product, knowledgeable people make our work easier. Our recall message by telephone or mail includes, "... and we want to show you something new." To make it easier for
about Varilux 2. M
facture

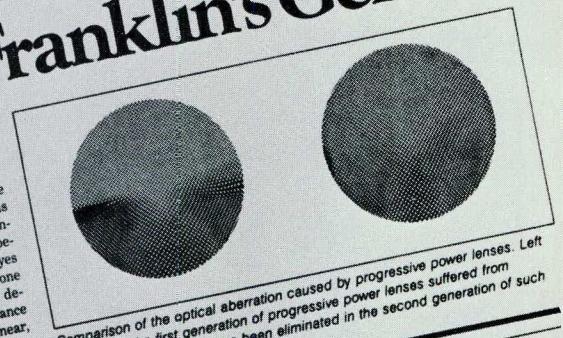
# The Varifocal Extension of Ben Franklin's Genius

By Philip Mullins

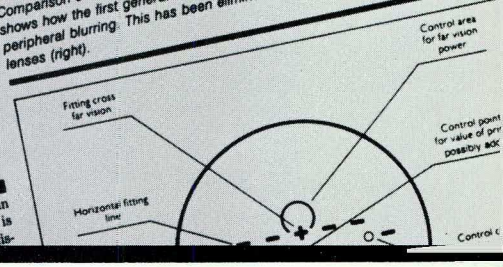
Benjamin Franklin gained a place in optical history by applying his practical genius to the problems encountered by those in middle age experiencing difficulty focusing their eyes on near objects. By combining in one lens the two halves of a lens designed to correct vision at distance and a lens to correct vision at near, he is widely acknowledged as the inventor of the bifocal.

Ametropes of middle age and over have universally come to rely on bifocal, trifocal or varifocal corrections for their everyday visual needs.

## ACCOMMODATION IS THE KEY



Comparison of the optical aberration caused by progressive power lenses. Left shows how the first generation of progressive power lenses suffered from peripheral blurring. This has been eliminated in the second generation of such lenses (right).

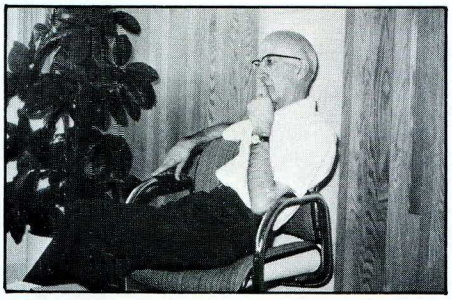


since human nature is very complex and unpredictable, formulae do not work. Academic ability is likely our best index. I think that if you have good students who are capable academically, at least you can provide a demanding program, and I would think that there would be just as many people who would turn out well as in any other group.

**TF:** There's another thing that happens, and that is that in the four years of university from age 22 to 26, people change. I know I changed even in the last four years — four years ago, I thought it would be great to retire, and now I hate the thought. So you can judge someone on any basis at age 21, and see later, that at age 26, that person has changed, has matured, and is a competent, thoughtful, conscientious individual. Looking at them at 21, you'd have said, "Oh, boy, these people are scatterbrains." People do change in four years, and we hope that some of the change is induced by our teaching, some of it by association with their peers, and some due simply to maturation. Someone once said that even a bad teacher can hardly spoil a good student.

**CJO:** Even though this could be a delicate situation, I'm going to ask it nonetheless. What about the presence of women in optometry?

**TF:** Well, when I graduated, women in the classroom was the exception. Women's lib has changed the whole status of women in society, and the perceived position of women in society. I think we're in line with what is happening in other professions and vocations. I think women have a great contribution to make; women have skills, women have patience. Let me tell you this, ten years ago, few men would have tolerated a woman who was a barber, — I don't need one very much now —but nevertheless it's now an accepted thing and they do just as well as the men who have been at it for a lot longer. I think our concepts have changed. I think that something good has, and will, come from it. There are some very fine women in optometry who have taken executive leads in some directions, and I could name a few. There's the other problem, of course, and that's the woman who is married with a husband working in Timbuktu and she's got to work in Smithville. What do they do?



**CJO:** Are males likely to be outnumbered by females? It has happened, for example, in Montreal. 2/3 of the students are female and 1/3 or less are male.

**TF:** Could be, could be. It happened in The City University, London, too, about sixty - forty.

**CB:** Particularly in a situation where you're selecting on the basis of academic records. Let's face it, female students tend to have better grades. I think that women also have a quality that makes them ideal health care people. I really think that's true.

**TF:** I do see a tendency, perhaps a possibility for more females seeking employment with some optometrist rather than establishing their own practices, because of the circumstances of the husband's occupation, or his need to move elsewhere, and I'm concerned about that aspect. But professionally, women do a conscientious job, maybe even a superior job, taking care of difficult patients, spending more time, this sort of thing.

**CB:** I don't want to overwork this. I don't think I'm convinced that if our profession were 75% made up of women, that it would necessarily be the better for it. I think women do have a better presence in the sick room; they are less aggressive, less hostile, less arrogant, all of which some men tend to be. Of course, just as many will argue that all these disagreeable male characteristics are necessary to spin the heavy world around.

**BL:** Well, as a man with three daughters, I have to be very careful what I say. I see the concern here that if you total up the number of years of service that a woman puts in, it's likely a little bit less than the male average. So that one sees the expensive training, the total amount spent by the taxpayers, as being slightly less reimbursed. I am also a little concerned, though I know of some notable exceptions, of whether or not a woman will undertake the political fight and do the hard work chores that so many people have done for years. Will women make that necessary commitment, to sacrifice their practice and their time and their evenings to fight the wars of the association for the good of the profession? On the other hand, I echo what both Clair and Ted have already said — that in no way should a woman be denied an opportunity because she is a woman. Optometry is pretty well-suited for women. It's clean; there's no heavy lifting; it's indoors and it's safe. It requires precision and skill, and I certainly echo what was said about the caring aspect. There's certainly never been any question about which is the stronger sex. Women are stronger, and they outlive us men by several years on the average. They're going to be seven years a widow on the average, and they succumb less often to illness.

**TF:** All I can say is let's not eliminate them.

**BL:** I want to say something that is quite apart from the male/female question. I have found that in the last two or three years, I've had to raise the level of my approach to the class by several notches. Students are so much more sophisticated that if you don't you find yourself teaching

below their level, and they let you know pretty fast. They'll say, "We've already had that stuff."

**CJO:** So this is influencing the teachers rather than the profession?

**BL:** Oh, very much. The teachers have to run to stay ahead of these bright people.

**CJO:** Optometry describes itself as a primary health care profession. Does this mean that we will forsake our optical heritage in order to incorporate a number of other practices and procedures that might even be considered non-optometric? And is our education going to follow this trend, or should we restrict ourselves more or less to the visual aspects only?

**CB:** I think we must carry out those functions as optometrists that our curriculum sets out. As yet, there isn't any indication that the curriculum in optometry has changed to the point where the actual work of optometrists will be different in the future. As for any thought of treating disease, it is obvious that the optometrist hasn't had training of that sort. If we were to proceed to include more of that kind of training, it would only be to the detriment of those things that the curriculum now includes, all of which makes us suited to the work that society expects of us, and that we have provided for so long. I think that it is a great mistake for optometrists to entertain any ideas whatsoever of providing drug and/or surgical care. We mustn't surrender our role. I have no objection to courses in pharmacology, — they're very useful because it's not just a matter of treatment; you have to understand the effect on the vision apparatus, and how the visual functions are affected by drugs. However, I think when we get to defining optometric practice in terms of using drugs, treatment drugs, then we are not being true to ourselves or to anyone else. No one has asked for treatment drugs in Canada, but there are such programs in a few isolated states in the U.S: and I think that's a great mistake.

**TF:** It's possible to be trained as a Doctor of Optometric medicine in one of the American colleges, and I'm disgusted with the thought!

**BL:** You may be surprised, Ted, that I spoke the same way earlier. I said that as far as I was concerned, a knowledge of pathology is a necessary defensive action; we do it to protect the patient and we do it to defend ourselves. But I say to the students, do not make the mistake of thinking that this is what optometry is about. Optometry is about binocular vision and physiological optics.

**CB:** I think I'd like to see optometrical educators designing and carrying out a strong program in optometry, and people in medicine doing the same thing with medicine. That is what is best for the public.

**CJO:** Health care planners, usually well-meaning bureaucrats, talk a great deal about productivity. They are pushing practitioners to use assistants, human or otherwise (such as automated refractors or other instruments). Is the use of assistants, or assistance, the answer to productivity and adequate eye care, or does it become an assembly line?

**TF:** This may be an answer to productivity, but I'm not sure it's an answer to really adequate eye care. There's a lot of this in the United States, of course, but by and large, my impression of the use of assistants is simply that you can crank through more people and make more money. I think that this is the general tendency. Personally, I resent having a dental hygienist work on my gums, because I know very well I'm paying dentist's fees for her services. Sometimes I do resent that, but it's a debatable thing of course. I think that as long as there are enough optometrists to do the work, we should oppose the use of assistants. Wouldn't you prefer to see optometrists fully employed, than to see untrained people doing optometric procedures? What I'm concerned about is that the assistant will use an automatic refractor, obtain an automatic lensometer and then this person will start up across the street and hang out a shingle. They take readings on two instruments and there's nothing else to be done. Then you've got the computerized result, and not the human result.

**BL:** You will have something like 85% of the patients satisfied with a less than adequate job, simply because they can see better when they come out of the office.

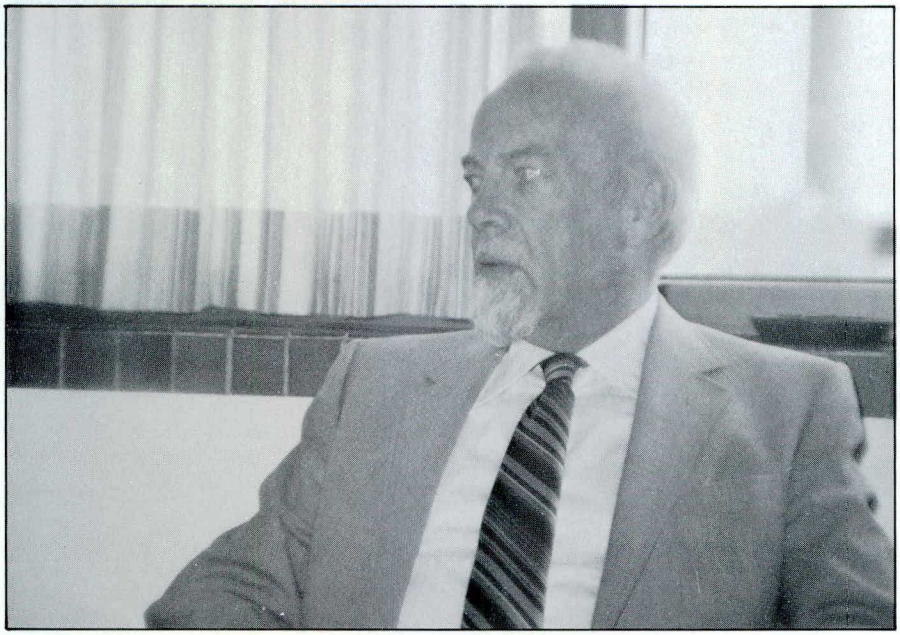
**TF:** There are good grounds for that comment. It seems to me that I read of a U.S. Army study done where they used only half dioptres in spheres, neglecting cylinder, rather than in quarters or eighths with cylinders. They found that 80% of the men could tolerate it. Whether it was a quarter off either way, it didn't matter, as long as it was plus 50, plus 1, plus 1½, plus 2, plus 2½ sphere. I'm unhappy about this and its possible implications here in Canada.

**BL:** We have to be careful in this sense, and I hope you'll agree with me, that we are biased by what we've been through in our own training and background; and maybe what we're thinking, what we're fearing, is that the solo practitioner is fading away. When I was at the peak of my private practice, I was seeing at the most eight patients a day, and usually seven, not eight. I did three in the morning, and four in the afternoon, one an hour. The rest of the time, I had the interruptions for fittings, adjustments, phone calls and so on. But I realize that optometrists need to be as efficient as they can. And maybe the use of more assistants, maybe the use of some automated gadgetry will enable a careful, conscientious and thorough optometrist to see a few more people each day, and still give them what we would all judge to be a thorough and careful assessment. We have to be careful not to be overly biased by our own training and thinking.

**TF:** I realize that is possible, and I realize that perhaps an assistant can assist, but let's not have him take over.

**CB:** I don't think one can really argue that an assistant trained to do certain procedures and techniques wouldn't be efficient. Under certain conditions, mostly having to do with numbers of patients, you might have a strong argument that services could actually be better provided with the use of assistants. However, it's altogether a different matter to say that all optometrists who practice in Canada need assistants to improve their practice, as some people would have you believe. I don't think that is true.

**TF:** I'd be in favour of assistants to a limited extent. But I can remember one time, for example, going to a radiologist, and I never saw him. A technologist took the findings and put the things on his desk. And a report went back to my physician. I never saw the radiologist, but I got a big bill, — for the radiologist's services. He probably spent ten minutes looking at the negatives and writing a report. And I think that's my big complaint with the idea of assistants. As long as their service is controlled, fine. But when it comes to the stage where the assistant is going to do a Humphrey analysis, is going to put the lenses in an automatic lensometer, is going to use an automatic tension screen, an automatic perimeter, and then put the findings on the optometrist's desk so that he or she can write a prescription, I think that's where the danger comes in, when you remove the practitioner from the process of actually listening to the patient, interpreting the patient's answers, the general appearance and deportment during the testing, etc.



**BL:** There is another aspect that we haven't touched on in this. At one time, the cost of training an optometrist was $5,000.00 or some such figure. Now the cost of training an optometrist must be $20 to $30 thousand. It means studying for six

years at thirty thousand dollars. The cost of the rent and everything else is very high. Maybe what we have to do is to put everything in purely economic terms. Can we afford to have a $30 thousand person doing a test, which a $10 thousand one can do, if it's done as well?

**CJO:** We realize that you have spent most of your day with us, and we deeply appreciate it, but before we end, can you possibly offer some sort of closing summary on the future of optometry, based on what you see now, and what you have seen in your long careers; are there any incidents that stand out which you'd like to share?

**TF:** About 1939, we offered a continuing education course. At that time, we made a point of bringing in ten patients with different types of ocular pathology conditions. We would bring in these ten patients, and we had a lecture on ocular pathology, with the lecturer covering each of them in turn. Then we also had ten optometrists — I was one of them —one with each patient to help the optometrists in attendance see the condition being described. One poor old gentleman, who had what could be called a financially successful practice not more than fifty miles from here, came in. I handed him the ophthalmoscope, and he leaned over the patient with the light shining in his own eye. He said, "Well, it's a little difficult to see, but I think I see it." So I leaned over, tapped him on the shoulder, and said, "It will work a little better if you do this", and I turned the instrument around so the light was in the patient's eye. Today you'd never get that kind of thing from any optometrist — they all know how to use the ophthalmoscope.

**BL:** I guess the comment I would have is really more one of concern. At this point in time, if you go to a good optometrist and say "Why do you take base in and base out measurements and what's the norm for you?", there is really very little hard data to support the limits that we choose for those findings. Most of them are empirical and may be right, but there isn't any proven scientific data to say whether we're right or wrong. It must be developed, and that's why we need Ph.D people, and that's why we need both clinical and basic research. Not so much that what we are doing is in any way wrong, but simply that it's not yet well-documented or proven that what we're doing is right or that it can be done better some other way. I have some fears as well about the utilization of contact lenses in some ways, because people are getting, and accepting a very sloppy kind of vision care. Any lens is acceptable as long as the patient isn't hurting or the eye isn't red. As a result, patients are allowed to accept reduced vision, poor binocularity and retained hyperphoria. I actually think that we have lowered the standards of optometry to accommodate the contact lens fitter. There is a real danger that the dollar will become the dominant factor in the field, and in that sense I'm a little bit depressed about what I see down the road.

**CB:** Well, there isn't any doubt that optometric education and practice have shown a remarkable evolution over the last two hundred years, even the last one hundred years. The great difference is that formerly optometrists approached vision care the same way that physicians approached other branches of health care. It was done on a strictly pragmatic basis. You did what you were taught to do, and that was what was done traditionally, whether it helped or made matters worse. Now, vision care has much more of a scientific base. Optometrists' knowledge has been extended in all branches of optics, anatomy, physiology and psychology. Professional judgement is now no longer a matter of traditional practice. The optometrist is expected to exercise a professional judgement that is, for the most part, established in fact and if he doesn't, he is expected to have to defend his position in a rational way. In our lifetime, we have experienced a great deal of these changes. In my own case, I was taught much that was merely of a recipe nature. In a way, it was simpler. One didn't have to think or be responsible for his patient's care. Now, however, that has changed. Naturally, we still don't know all the answers, but we know we must strive to learn all that the science teaches and for which we are held responsible. This, of course, is excellent from the patient's point of view, and it makes the optometrist's work much more interesting and challenging. In the next fifty years, it is obvious that we must extend our knowledge of vision in every way possible. We must also develop and keep up with an improved technology so that our new knowledge can be applied in practice. All of this is exciting for us to contemplate, and it is certainly going to be different.

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**Editor's Note**

The editor and the CJO Business Manager visited Waterloo in June, 1982, expressly to interview Drs. Clair Bobier, Ted Fisher and Bill Lyle. We interviewed each separately, and then held a general session at which all were present. Some six and a half hours of taped conversation was recorded. We apologize to our interviewees that we cannot, for reason of lack of space, print all four interviews in this issue. We begin, therefore, with the common interview in this issue, and will continue the series in subsequent issues of the Journal.