

Dr. Jay Enoch Interview
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Conducted by Dr. Carl Kupfer
ARVO Meeting

Dr. Kupfer: I will be interviewing Dr. Enoch who played a very important role in the period of transition between having a National Institute of Neurological Diseases and Blindness (NINDB) and establishing a National Eye Institute (NEI). Well Jay, thank you very much for coming by and taking time from the ARVO meeting, but it suddenly dawned on me that you had played a very critical role in writing this report. Bernie Becker referred to it and thought you had done an exceptionally good job and to throw some light on the transition from NINDB and the development of the NEI. I think that this should be our focus but you are free to wander into other areas that must have taken place. The interesting thing about the period of 1963-64 leading up to 1968 with the establishment of the Eye Institute was the tremendous amount of work and effort on the part of many members of the ophthalmologic and optometric community to bring about a separate National Eye Institute. So I think you played a major role and I'd like to hear what transpired during those very interesting days.

Dr. Enoch: Basically, I was still a relatively young investigator with Bernie Becker at the time. I was already an Associate Professor when the material was published, but at that time I believe I was an assistant professor. Anyway, Bernie Becker was on the NINDB Council along with Everett Kinsey. Father Carroll was also a member of that NINDB Council as well.

Dr. Enoch: Carroll was also appointed to Council at that time.

Dr. Kupfer: Correct.

Dr. Enoch: No one ever said to me that our purpose is to establish a separate NIH institute. But it became very clear that was the desired goal. I will try to document that point or give you the material that will document what transpired. At any rate, I was told that they were concerned about underfunding of eye, and vision research. There was a comparable situation in ear, nose, and throat. At the time within NINDB and I get the feeling that the two groups, eye, and ear, nose and throat, (and Bernie can speak better to this because he was there) pushed to have an evaluation made of the two fields. There was a parallel committee in ear, nose and throat chaired by the then Chairman of Ear, Nose and Throat at Washington U, a gentleman named Joseph Ogura, MD. Thus, Bernie Becker was on the 11,

12th floor of McMillan Hospital and Joe Ogura was on the 10th floor of the same building. We were all friends. Washington U was a much smaller institution then. As a community, collectively and individually, we (I'm trying to separate my role and everybody else's role) came to the realization that we had not been well-treated for some years and there was very strong movement at several levels through RPB and Jules Stein, for the beginnings of legislation. They all felt that a *raison d'être* was needed to support such actions. We had to justify our needs for a National Eye Institute. So saying, this was not stated to me in such terms. I learned this in time. This point was made to me by everybody on the Committee, there was no single exception and I'll explain how that came about. But I was told that we wanted to see where we were, how we got there, and to justify further development of our roles within NINDB when I was taken on by Bernie. I do not want to misrepresent the atmosphere. Bernie didn't say we sought a separate institute. When I came aboard the committee had been formed. After I was invited to join the committee, I was pulled at least partially away from, but never fully stopped doing my research. My research was clearly damped down for the full two years that we compiled and wrote our major report. The one volume I brought here with me is the light one. The other two are each 3 ½ inches thick. We summarized the state of eye research at that time and sought to indicate as best possible opportunities for further development of eye and vision research. You may have seen that part of the report? But it was similar to the 5-year plan reports that the NEI published every five years. At that time, it was a first for eye and vision care and my job was to supervise the whole enterprise, and I was not given a fixed budget. I needed staff support, i.e., I needed two typists working full time and after some months we hired some, what some call "science writers" to assist in this program. They also worked part time for Prof. Barry Commoner. At the time he was a candidate (3rd party) for president. Although Commoner was thought of as left-wing, these writers adapted their efforts to meet the needs of their employer—i.e., our documents sought a middle ground and all materials were edited closely by me! In other words they did not bring to our task the sorts of material produced by Dr. Commoner.

Dr. Kupfer: Who's funding this by the way?

Dr. Enoch: I don't remember.

Dr. Kupfer: Oh, you didn't know that.

Dr. Enoch: I was not managing the funding but I would justify requests for funds regularly to Bernie and he would in some way provide the money. Compared to other such documents, we operated on a very limited budget.

Dr. Kupfer: So presumably he was getting it from NINDB, I would guess.

Dr. Enoch: I suspect. I do not know. Bernie would know. I didn't know at the time. Thus, I had a staff of two part time—two science writers and two full time typists. Commoner and I did some research on retinal receptor magnetic resonance. He and his associate, Dr. Townsend were very good scientists. His science writers helped him with his speeches and the like. They themselves weren't particularly left-wing; I want to emphasize this point. And there was no revolution being plotted here. They were very decent and very able people and they helped also with much of the editing, syntax and technical issues of these very large volumes. They did some of the research on arguments I had to prepare, research on some of the data that I needed on NIH supported programs. And I have to say that Eldon Eagles, Associate Director of NINDB was extremely helpful in getting whatever data I sought/needed. There was never any restriction placed on information we sought for our report.

Dr. Kupfer: He must have been—was he acting head of Neurology or a part of the Masland already?

Dr. Enoch: I don't know, Masland was Chief. I rarely saw him during visits to NINDB. No, Masland was not out at that time or on leave or whatever—I don't remember the details of what happened with him during this time period. In other words—I dealt with Dr. Eldon Eagles, rarely with Dr. Masland.

Dr. Kupfer: Okay.

Dr. Enoch: In my role as Executive Secretary generally through Dr. Eagles (of course with the support of Dr. Becker).

Dr. Kupfer: Do you have any rough idea what year that was?

Dr. Enoch: We could look it up, it is in the forward of the Report..

Dr. Kupfer: I see.

Dr. Enoch: We can look it up, there's no sense in stopping at this point. There was a two-year period during which we prepared this document for submission. When I first came aboard as Executive Secretary of the Subcommittee, Bernie instructed me to visit the departments and laboratories of each individual member of the committee and spend at least two days at their departments in order to develop understanding of their programs, their research, as well as opportunities for development, to review administrative and other constraints, etc. These committee members were regarded as exemplars.

Dr. Kupfer: Now the members of the committee would be the ophthalmologists and the ENT people.

Dr. Enoch: No, the ENT group had their own committee operating under Dr. Joseph Ogura.

Dr. Kupfer: Oh, I see this is just the ophthalmologists.

Dr. Enoch: We also had Matt Alpern and Father Carroll as members. I knew Joe because our sons were playing soccer at the time (laughter)—he also helped me with my allergies to grasses, etc. in the summer months! But I think Sooy, Francis Sooy—he became chancellor later—I think—at UCSF. There was another chap, Micky Nagune (sp) on the NINDB Council.

Dr. Kupfer: Um-hum, but they weren't part of the Subcommittee on Vision and its Disorders.

Dr. Enoch: No.

Dr. Kupfer: No, but they

Dr. Enoch: No the Subcommittee on Vision and its Disorders* was a separate group. (**Special Note:* I don't remember the names here, please copy from the list in the front of the Volume One I left with Carl—he copied it off.) Here I mention one of the visits to member institutions I made to Johns Hopkins University Dept. of Ophthalmology—Ed Maumenee was Chair of Ophthalmology. I went to all their institutions, I saw the sheep they had at Hopkins—I was surprised to see this rather sizeable group of animals in the attic. They were doing research on them and I was surprised to see quite a number of sheep in their attic where they were stored/housed. [I am referring to the attic at Wilmer Institute.] I went from attic to the basement and I really got a good feeling from their operation. They were all very cooperative they wanted me to understand what each member of the Subcommittee was doing, and why they

were doing it. I visited with to get their input and ideas. I went around the country and visited with committee members at length. That is when I really got the sense that they all wanted an independent eye institute. But I want you to understand that Bernie never overtly said when I started working for the committee that that was my role. My role was to assemble the committee and make recommendations as to how eye and vision could be strengthened. Each individual was assigned specific topics about which to write. Bernie for example was assigned to write about glaucoma; Leopold wrote on ocular pharmacology; and Zimmerman, addressed research on ocular pathology, etc. and so on—not doing the whole list, Breinin (NYU Chair) about motility, etc. And their well-prepared chapters, in turn, are, were reproduced in the two-layer volumes of our report.

Dr. Kupfer: Right.

Dr. Enoch: There was editing for grammar, spelling; we eliminated repetitions, etc. We did not meaningfully alter their original treatment of their assigned topics. Separately I wrote and organized much of the somewhat thinner third volume. I was more or less responsible to organize this material. So saying, I do not want you to think that I worked wholly independently from the sub-committee. My task between committee meetings was to work on specific chapters and then bring these drafts for consideration and careful discussion at the next committee meetings. I have to say, I was amazed throughout by the excellent support I received from the Subcommittee, and that goes for the recommendations as well. I formulated the plans that were put forth, and only constructive comments were made by the group. Because I really was trying to reflect what they wanted and I came to understand and accept the position they all took. I did not start with an initial bias. I approached much of this material *de novo*. That is, I was a scientist and clinician-scientist who worked in my lab and this was wholly a new world for me!

Dr. Kupfer: Just so I have it straight in my mind, does this 3 volume report represent the sort of publication that was made public?

Dr. Enoch: This was prepared by us as a the public publication. The report was later accepted by the NINDB Council and the NINDB but it's release to the public was limited in distribution by Dr. Masland not Eldon Eagles. Finally, in the end Dr. Masland told me and (our committee) how many copies we could Xerox. I was shocked when this happened. Each member of the committee received only one copy, including me. Each was accounted for on Dr. Masland's instructions. No added

copies could be made or distributed. (Note: Only one of the three volumes was on the table at the time of this interview, the one prepared largely by Enoch.)

Dr. Kupfer: This is it.

Dr. Enoch: This is it.

Dr. Kupfer: You said there were three volumes, what was the third one?

Dr. Enoch: No, this is volume one which contained the summary of research funding and recommendations for the future.

Dr. Kupfer: Right.

Dr. Enoch: And we go systematically here through what is an eye...

Dr. Kupfer: What is in here that you think that Masland didn't want to have distributed?

Dr. Enoch: Basically in addition to a summary of the research its needs and suggestions for future research, which largely came through, there was a chapter on support of eye research (and this was compared to research funding of other parts of NINDB), as well as other areas of the NIH. There was a chapter on recommendations of the subcommittees. Through the urging of Father Carroll, whom I never met before his death—we have a chapter on needs in the area of low vision. He was a very interesting and dynamic gentleman, I don't know if you got to know him?

Dr. Kupfer: No I didn't.

Dr. Enoch: Pity. He was bright, a lot of fun and quite lively!

Dr. Kupfer: Really?

Dr. Enoch: But basically, in this volume there is included a chapter of the causes and cost of visual impairment. This was influenced by Father Carroll but prepared by me with help on data from the science writers. And I believe much of that—not all of it—was later included in the public document. What was excluded was the extensive chapter which followed on research support, that's the title of the chapter on eye and vision research—just reading the table of contents; research support vision and its disorders, vision research and how it was funded over a

period of years, increasing costs of research, other sources of support (non-NIH, other governments as well and private support). That chapter was suppressed because frankly the NINDB had a dismal record of support for eye and vision research.

Dr. Kupfer: The statement keeps coming through in our reading that there was a percentage, somewhere around 15-16% of the overall NINDB budget that was reserved for eye research. No matter how much additional funds would come in, no matter how many opportunities there were in vision research as compared to neurology research but percentage was sort of...

Dr. Enoch: Actually towards the end, the last seven years you're going to find there was little or no increase in support for eye and vision research. I'm planning to leave this document with you.

Dr. Kupfer: Oh, okay.

Dr. Enoch: When you have had opportunity to review it, I would appreciate receiving it back.

Dr. Kupfer: Of course.

Dr. Enoch: But, it tells the story dramatically and these were the real issues and how much support "we" were getting at the time. These data were very influential as regards judgments and actions which followed at all levels.

Dr. Kupfer: So Masland just didn't want the details of research support to be made public?

Dr. Enoch: Apparently so. We did obtain unequivocal data on our support levels based on government records and you will find, we carefully justify our findings in considerable detail.

Dr. Kupfer: So this doesn't appear in that document?

Dr. Enoch: None of the data appear in the published report. And here we show the percentage that we were getting of the money.

Dr. Kupfer: Oh, that's even less than some of the other.

Dr. Enoch: Yes, yes, and these are real numbers—excepting that is, the President's budget was a proposal later modified by Congress, etc.

Dr. Kupfer: I see. These tables extend to 1965.

Dr. Enoch: That's right.

Dr. Kupfer: I think it improves a little with time.

Dr. Enoch: Actually, no, it didn't improve; our support structure was decreasing each year (as regards % of monies received, with no correction for inflation, etc.)

Dr. Kupfer: Really?

Dr. Enoch: It was going down, and table after table demonstrating this point. And we used only NIH data to support arguments and recommendations of the subcommittee. That is, those chapters to provide the basis for our recommendations. I include in the volume (loose) a letter to the editor which I wrote which further considers those issues. It appeared in the Journal of ...

Dr. Kupfer: Optometric Education.

Dr. Enoch: That's that one. Sometimes referred to by an acronym "JOE." Published by the "Association of Schools and Colleges in Optometry." The letter to the editor responded to an article in that Journal to which I responded. It appeared in the spring issue. The letter which was published was edited a bit. But it also speaks to the fact that this material was suppressed at a critical time vis-à-vis the legislative development of the new institute.

Dr. Kupfer: So, now there was a history of the National Eye Institute that Ruth Harris wrote, you probably are familiar with that, no? You're not?

Dr. Enoch: No.

Dr. Kupfer: That's interesting. Ruth Harris was asked by NIH to write a brief history of the development of the NEI from NINDB, a period from about 1950 to 1968 and she had charts that the Neurology Institute had provided her with where the percentage of overall money from NINDB going to ophthalmology research hovered about 15-16%. That's where we picked that number those figures are much lower.

Dr. Enoch: All of these (our) data were received from Eldon Eagles and I'm—I mean all of our data were public data. Allocations were broken down by year, by study topic. There were no “private data” in the sense that they were secret! Rather certain of these data were not published in regular printed publications but the NIH was the data source or perhaps NINDB—tables were presented to us. To my memory virtually all were provided to us through Dr. Eldon Eagles. There was no coercion on our part. That is, it was freely printed. [In later years these types of breakdowns were published by NEI.]

Dr. Kupfer: Okay, that will be very interesting to review.

Dr. Enoch: And here basic support—HEW support for basic research here and vision slightly falling off. But [unintelligible] is big here and we really weren't growing. And it contains data after data. Here is the NINDB appropriation, the eye appropriation. (Here, I was no doubt comparing data sets and charts here.) There are data sets after data sets. Here is the NINDB appropriation, the eye appropriation. We site NINDB appropriations and eye and vision allocations and compare them to NIH funding and other allocations.

Dr. Kupfer: NINDB.

Dr. Enoch: But we have all the details and percentages and the same data appears repeatedly in different analysis.

Dr. Kupfer: Okay.

Dr. Enoch: We really have the data on how limited our resources were that time. Now I should say add—although Masland sought not to reveal the facts, somebody (or more than one individual on the distribution list, Public Health Service, NIH, NINDB or limited other groups) shared the volumes and it entered the Congressional Record in total and in part several times.

Dr. Kupfer: Oh really?

Dr. Enoch: Oh yes. This was very important in the development of the legislative battle. This was the justification used (or as I was told).

Dr. Kupfer: It was not me.

Dr. Enoch: It was this volume in particular and that was sought. I assumed you had seen this. This is essentially what I would call the plan for the National Eye Institute.

Dr. Kupfer: I hadn't seen that at all.

Dr. Enoch: Really?

Dr. Kupfer: Maybe if I read it something will come back, but it doesn't ring a bell.

Dr. Enoch: Anyway, recently I was asked to make a copy for Paul Sieving and I made a copy. And I assumed you had it. Had I known you did not, I would have provided a copy for you. You should have one as Director. I urge you to read it carefully. The subcommittee was unanimous in support. Sorry. I really am very sorry. But anyway if you read it for example I tried to highlight for you some of the key concepts and here where some of these little markers I talk about what they wanted and one of the arguments addressed by the subcommittee—things that I didn't conceptualize but you can bet the tenor of the committee that was one of their ideas. They wanted the committee to advise the NINDB Council on eye needs and eye care problems. They recommended essentially setting up their own sub-council—I assume in anticipation of making a move for a separate NEI. You can read the recommendations on the summary sheets. You will find all arguments carefully justified. Oh, here (I am referring to specific key data)—column four of column—percent of column four and of column 2. Column 4 is NINDB funds the specific areas and column 2 is for total research grants and you see the awful proportion, this was basically out of proportion relative to support in other areas of NINDB and NIH.

Dr. Kupfer: It keeps dropping off.

Dr. Enoch: The vision was 6, top percent of column 6 of Column 4 and this was that percentage that you had—but this is just the special area money that was the 16-17%.

Dr. Kupfer: See, that was the figure 16-17%.

Dr. Enoch: Yes, that's of specific areas.

Dr. Kupfer: I see.

Dr. Enoch: Most of the specific areas were being restricted and the rest of it was going to Neurology because Neurology had very active lobbying groups at the time and we didn't. That was part of it. We couldn't speak as one, because we had no unified voice. And this long discussion of that is in here? Remember there was an article by Frank Newell.

Dr. Kupfer: Right.

Dr. Enoch: That was a very beautifully written article. And I think there was another one by Maumenee, I'm not sure. There was a second one about a year apart, they were presidents of the Academy.

Dr. Kupfer: Um-hum.

Dr. Enoch: And they spoke of these things and they talked about the weakness of public giving and organizational structure, of eye— that is the fractured National Foundation, private eye sector versus the powerful National Heart, National Cancer, and so on.

Dr. Kupfer: Um-hum. That's good.

Dr. Enoch: Anyway, these are the data and I think this is spelled it out in the document.

Dr. Kupfer: And interestingly enough Masland took the job at Columbia just about the time the NEI came into being (chuckles).

Dr. Enoch: Yes, and he was on the RPB board for I don't know how long.

Dr. Kupfer: Yes he was on the RPB board.

Dr. Enoch: But the fact is he was opposing our getting an independent institute to the best of my knowledge. However, note I did not enter into this particular set of issues outside of the report.

Dr. Kupfer: Oh, sure.

Dr. Enoch: That was his job.

Dr. Kupfer: Lots of people were opposing it. NIH, Building 1 was opposing it, Shannon.

Dr. Enoch: Perhaps that's why he had to reflect that position.

Dr. Kupfer: That's right. But Eldon Eagles as I recall was a very, very nice fellow. The only thing that concerned me was that he smoked an awful lot (chuckle).

Dr. Enoch: Yes. A very nice chap.

Dr. Kupfer: Yes, very nice.

Dr. Enoch: I don't know if I answered your questions but if you read this document and that opening section of the document, there's a letter here that would talk to the restriction being placed on distribution. Note, it was accepted but never released. It was accepted by Council but then, essentially it was treated as if it was classified.

Dr. Kupfer: Well that's par for the course for Washington, so that's not surprising.

Dr. Enoch: I've been around that.

Dr. Kupfer: But these two go together, right? This is the article and that's the rebuttal.

Dr. Enoch: This is the original article, this is not a rebuttal it's an addition because he (or wasn't it written by a woman?) never really covered optometry.

Dr. Kupfer: I see.

Dr. Enoch: I pointed out that optometry was there. There was a critical meeting early on in Philadelphia which I didn't attend [before I was recruited for this activity]. Interestingly, I think Art Keeney was there. Maybe he was down at Wills because we used to talk about that meeting, but Fry and Morgan attended and participated in that meeting. They represented optometry at that meeting and that was a key meeting for instigating or instituting action vis-avis NIH, NINB, establishing an NEI. Both ophthalmology and Fry/Morgan for optometry were in attendance. I refer to the meeting, but I don't have the details but I heard about it many times. It was apparently decisive.

Dr. Kupfer: This was before ...

Dr. Enoch: Before the sub-committee was formed. Bernie Becker must know about it.

Dr. Kupfer: The organization to create a NEI was really solidified.

Dr. Enoch: I think it was important in bringing all the groups together to act in unison.

Dr. Kupfer: Right.

Dr. Enoch: Anyway I refer to the meeting in here but I was not there. I don't know if Bernie was, I forget. I know I talked to Art Keeney before he died about it, I'm sure.

Dr. Kupfer: Now there were Congressional hearings on the NEI and optometry did present.

Dr. Enoch: And they supported?

Dr. Kupfer: We were very supportive, that's correct. I've read that testimony.

Dr. Enoch: They were supportive but I have to tell you while I was preparing this I did not have any input from either Fry or Morgan, but I knew they had been supportive.

Dr. Kupfer: And they were on the Council when it finally was organized, that is the first National Eye Institute Council.

Dr. Enoch: That is correct.

Dr. Kupfer: Let's just change the uh—not the subject, that's going to stay the same, just a different approach. I have always been more than satisfied that the National Eye Institute really looked upon our constituency as being both ophthalmology and optometry and that was done in several ways. For instance, one of the first things we did when the NEI was created was have George Brooks as the head of Extramural Affairs? Sam Herman was the first fellow but he just stayed for about a year or two and then George Brooks came.

Dr. Enoch: I remember George.

Dr. Kupfer: George was a very quiet, considerate individual who was very knowledgeable about the government, had been at one of the outposts of NIH when NIH had outposts in Brazil and uh...

Dr. Enoch: I didn't know that.

Dr. Kupfer: Yeah. And when he came back he said to me, Carl, there's a job that I would like to be able to do. And I said what's that? He said I want to be the contact person for optometry. And I said, that's great. And that's what he—didn't spend all of his time on—but he was the point man. Are you familiar with this?

Dr. Enoch: Not at all.

Dr. Kupfer: That was before the time that you became involved.

Dr. Enoch: I was totally unaware of that. And I, by the way, when I was involved I was not getting any input particularly from optometry. What I was trying to do, I was attempting to broaden the research base in interest of optometry. Both—this had to be done on two fronts, one through the Academy, and one through the AOA. It's terribly important that ophthalmology—ophthalmologists (I'm sure you realize this), understand that there's a different organizational structure within optometry than there is in ophthalmology. In optometry the American Academy of Optometry (AOA) is responsible for science and in part for education, not in the sense of organizing schools or the like, but quality of education and quality of science. That's basically their role. They were told to stay away from politics by the AOA. In ophthalmology, ARVO isn't as involved in education as the AOA. The AOA serves as the strong educational arm for the profession. But they made, I think, the mistake of putting in the politics in with education many years ago, I think it was a tactical mistake when they put the—well anyway that's a different...

Dr. Kupfer: I'm not sure was the Academy of Optometry which is the scientifically important. Pardon?

Dr. Enoch: Elite.

Dr. Kupfer: And then there's the American Optometric Association.

Dr. Enoch: Political.

Dr. Kupfer: Right. Okay.

Dr. Enoch: To which the state organizations report and interact. And something that might be very strange to you but I've watched—maybe Fry interfered or entered—I don't even remember what the issue is anymore, something and I remember the AOA reducing him to tears because he dared to cross the political line. Intrusion in

politics was not encouraged among the educators at all. There were some educators who went in both directions and that was an individual choice. It wasn't like the situation where the American Academy of Ophthalmology entered into political matters and the APUO had political roles.

Dr. Kupfer: Oh, well the AUPO was created by Ed Maumenee to support the coming (chuckling) of the National Eye Institute.

Dr. Enoch: Yes, yes, yes—I'm not arguing the point but what I'm saying is for the optometric people the AOA essentially, thank you very much, but you stay in your corner, leave us alone. We're going to do our thing and you do your thing. However, it was sort of, we would like you to do your thing and leave us alone.

Dr. Kupfer: Who were they saying this to?

Dr. Enoch: I watched this play out literally against something that Glenn Fry did, I don't remember what it was. Glenn really was very upset.

Dr. Kupfer: And who was upset with Glenn Fry?

Dr. Enoch: The American Optometric Association.

Dr. Kupfer: Because they wanted to handle it (both speaking at the same time).

Dr. Enoch: It was very political—I suspect he thought we was on solid ground, and they opposed his actions in a very strong way. My jaw fell open when this occurred.

Dr. Kupfer: Okay. Well, from your point of view do you think that the NEI served the optometric community well?

Dr. Enoch: They tried. Let me say it in that way. The problem was when the NEI was formed optometry only had three institutions that were seriously doing research.

Dr. Kupfer: Right.

Dr. Enoch: And I was trying to encourage others to do bonafied, quality research as a comparable nature to the Berkley Ohio State, (Columbia? It had closed by then perhaps Indiana), and Indiana and one or two of the others to try and to raise it to a higher level and try to get more OD/PhDs into these institutional structures. Then when they would make an attempt I would try to see if I couldn't get them a

little help to get off the ground. That was basically it. The NEI tried to the extent that there was something to support but we didn't have the structure to perform in some of their schools. The situation has improved and I'd say today it's much different. You know who played a big role? I don't know if you're fully aware of it, but Izzy Goldberg (in his consulting role) has played a very important role in getting some of these schools going in research in recent years.

Dr. Kupfer: But he wasn't acting privately?

Dr. Enoch: Yes, he was acting privately as a consultant.

Dr. Kupfer: That's good.

Dr. Enoch: And he has been rather effective at a number of these schools. He worked hard for his clients and if they didn't have funds he would do it for nothing.

Dr. Kupfer: Right.

Dr. Enoch: He was NEI, the Division of Research Grants, I always get mixed up.

Dr. Kupfer: DRG.

Dr. Kupfer: Because I think optometry has really taken advantage of many areas, clinical trials being one in particular where they're really doing a very, very nice job.

Dr. Enoch: That is correct. Karla Zadnick played an important role in this area for optometry.

Dr. Kupfer: And I think their training program has in some respects been very well organized and very well managed.

Dr. Enoch: One has to be careful not to generalize here. I didn't feel that there was a opposition toward optometry doing research. Part of it was that they weren't responding to what I would call perceived opportunities Alabama, and SUNY, of course, Berkeley, Ohio State, then Indiana, and Houston were different.

Dr. Kupfer: Yeah, I mean (both speaking at the same time). Well that's good to have you confirm that. Well, it seems to me that this is going to be my homework. (Special Note: Referring to the critical volume prepared for the subcommittee which included recommendations written by Enoch in consultation with the subcommittee.)

Dr. Enoch: I read this through—a good bit coming in on the plane coming in—it was an 11 hour trip, it was a long trip.

Dr. Kupfer: Eleven hours from San Francisco?

Dr. Enoch: The hellish thing is that Southwest has a flight—direct flights from San Francisco with several stops (laughter). Only too true. It varies with meadows, etc.

Dr. Kupfer: Did you have to change planes?

Dr. Enoch: No, no.

Dr. Kupfer: So, let's see. This I should take.

Dr. Enoch: This was the original article that this woman wrote. The sort of a NEI history. And she then talks about something that didn't discourage people that we just sort of leveled off. (**Special note:* I assume this refers to the J. Optometric Education article on NEI history and my letter of response in the next J Optometric Education issue). She had it wrong. I didn't re-read this but she's got that data.

Dr. Kupfer: Now this is the response.

Dr. Enoch: This is the response...

Dr. Kupfer: And that's the response.

Dr. Enoch: It was submitted. And this is what was printed.
(**Special note:* Here I am referring to my response—she just didn't have the facts. I believe I gave Carl both my submitted and the printed copies—they differed somewhat.)

Dr. Kupfer: Oh

Dr. Enoch: Most of it was printed. I don't know who she is.

Dr. Kupfer: She was on the Council. Someone put her on Council, yeah.

Dr. Enoch: Well, whatever and I've got to know who she was. Oh, here's the committee. This was the committee.

Dr. Kupfer: Lynn Cyert, from Oklahoma. Very impressive.

Dr. Enoch: Now there is another. I don't know if you have other questions. There is another area you may be interested, it's a whole new low vision story.

Dr. Kupfer: Okay, now should I tape this also.

Dr. Enoch: Those are my only copies also.

Dr. Kupfer: Well I will—when I return them I will send them Fed Ex.

Dr. Enoch: Whatever.

Dr. Kupfer: And I think that will be safely...

Dr. Enoch: These are the critical documents that are available.

Dr. Kupfer: Yeah, that's great.

Dr. Enoch: It is in order and not the most exciting reading, take some cups of coffee. But the motivation thing was very interesting. Father Carroll (and I have to come back to Father Carroll) played a role in getting me interested in low vision. I'd been involved with low vision for several years and I hadn't realized how bad the situation was in low vision in some ways until Father Carroll spoke to me. He made his case and I listened, basically. And I was impressed by his arguments. He gave me data on low vision, low vision requirements, low vision provision, care, etc. these are not reflected in here in great detail but it was obvious to me that, except for Eleanor Faye, the number of interested parties was very small and one or two other people in ophthalmology. I served on the Academy Committee, uh, the Academy of Ophthalmology Committee on Low Vision under Eleanor and the Optometry Committee at the same time—optometry had the stronger group at the time. Ian Bailey at Berkley was one of the optometric leaders. Let's face it, both professions (as a whole) were really not effectively serving the visually impaired. There was some degree of ambivalence in the degree of support for low vision. I always felt that some people didn't feel we should get any support because I had these arguments Mary said we should put all our money into finding only prevention of visual impairment and I argued that we owe it in a sense to our patients to try to optimize the quality of their lives and the visual capability to continue to exist in society. I don't think we can ignore them and I

didn't see any real research being in effects to ameliorate their situations. Father Carroll certainly reinforced this, point of view.

When the legislation came to the floor of Congress noticed there was nothing on low vision in the brief law. I encouraged the addition of the second paragraph (laughter) on low vision and suspect I can take at least partial credit for that and then in the first years the NEI saw not much being done in this area and from what I could see, we still had little effort being made in this field. That is, we had little activity in this area. When I was on the NEI Council, I don't remember, whether it was the first or second term. Julian Morris came to me, and said we'd better do something about low vision and the three of us tried (he will remember this surely) to get things going in this field. And you or we organized a special meeting at the NEI on low vision and in my opinion it was a near disaster. There was nothing there (laughter) and more or less confirmed what we knew already. But the few people who were active in this field were clinicians and they were trying in their way, but we had no fundamental research in this area. As a result, Julian Morris, pushed Schepens and me a bit. We worked together trying to advance basic studies in low vision—to get it started. And, started remember we obtained high program relevance for low vision research and training. Later on the Council decided they didn't want a high program relevance but there was not much there in any event it that time! This raised the question how do you start or rejuvenate in a scientific field. I had a member of discussions about this matter. Julian Morris died shortly thereafter. Connie Atwell then sought to build this program.

Dr. Kupfer: Connie Atwell.

Dr. Enoch: Connie Atwell. She was very much for it in support of low vision studies. That was a little later. Anyway we tried to get it going, tried to build something meaningful. Then I left to go to Berkley as Dean. They offered me all kinds of inducements to come there, but virtually none of them ever occurred. I tried to build a meaningful program at Berkeley but had no support from the Berkley administration.

Dr. Kupfer: I had a very interesting experience. I received an invitation from an organization in Sweden, and they were celebrating their 200th Anniversary of their Visual Impairment Rehabilitation Program. I forget where it was, what town it was in. Two Hundred years is a long history. And when I was there they pointed out to me that the only reason that they had a viable program was that there were three parts to it. There was the part that attracted patients from all over Sweden—so

they had patients. There was the part that was doing active research, in terms of laboratory work and then there was the implementation of the results of the search being tested on the patients who would come. And he said this is a three-legged stool and you cannot get rid of one of those three legs and have a viable program. And when I came back I tried to encourage...

Dr. Enoch: What were the three again please?

Dr. Kupfer: Patients, research, and—that is laboratory research, and then the testing of new developments on the patients—clinical trials.

Dr. Enoch: Yes.

Dr. Kupfer: When I came back I tried to encourage this sort of thing and even thought of certain types of grants that would be able to enforce it, but here were no takers. It was too difficult a concept to transplant from Sweden. There was one of these in the entire country and therefore they had no competition and could really generate all of the necessities, so. I couldn't translate that to the United States even though this was a very outstanding group in Berkeley and there was an outstanding group in New York and there were one or two others I can't recall.

Dr. Enoch: What's his name up in Minnesota? Blind gentleman?

Dr. Kupfer: Oh yes, right, right, he was on Council too.

Dr. Enoch: Right. Very nice man.

Dr. Kupfer: Very nice. So I had tried my darnedest and as you say we changed one of the segments of the Extramural Research Program to Sensory Motor and Rehabilitation. You remember that?

Dr. Enoch: Yeah.

Dr. Kupfer: But we never really had any takers and I don't know if it was our fault, that we didn't push it strongly enough or whether there just was not a concerted effort upon the part of both ophthalmology and optometry to do something about this.

Dr. Enoch: Optometry has a good section, I want to say that a much more active section in their Academy on low vision relative to group in ophthalmology. There is a problem in ophthalmology in this field. I hate to put it this way, and please don't

misread it, there were a member of well-meaning people, one and all. But particularly when Louise Sloan (at Hopkins) died, Eleanor Faye retired, there really was no one left to lead. There is a group of some very nice practitioners who do low vision work. Gwen Stern, of Rochester, New York, is probably one of most knowledgeable. She's a sharp lady. The group in ophthalmology is small. The field is rather stronger in optometry. Anyway, they had this much stronger in that role and there's a woman, Gorganzano (sp) or something like that somewhere in the upper Midwest or perhaps in Buffalo, NY. They are some good strong programs in the VA. They also have some very good programs in Palo Alto. I think there are others in Chicago, Alabama or Mississippi, and one in Atlanta. These are strong centers. It seems to me this is an area with an ongoing problem that's only going to get worse with the increase with the broadly-based group of the population. We owe it to these people to try to help them.

Dr. Kupfer: Sure. Darn right.

Dr. Enoch: And I don't quite know how to make it happen. But if anybody is getting the urge to do it, I'd be happy to help. I don't have a central vantage point obviously anymore.

Dr. Kupfer: Well, I think that your analysis of the ophthalmologic community is very correct. Unfortunately the thinking is as long as the patient can't be treated surgically or medically, the ophthalmologist does not see their role to pursue.

Dr. Enoch: Any practice.

Dr. Kupfer: Yeah, visual rehabilitation and that's very, very sad.

Dr. Enoch: I find it sad and I don't quite know what to do about it.

Dr. Kupfer: But anyway I just thought I should mention it, Father Carroll was pushing me a bit.

End of Interview