

## INTERVIEW

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# The Story Behind the Modern Language Aptitude Test: An Interview With John B. Carroll (1916–2003)

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John B. Carroll

The following is an interview with Dr. John Bissell Carroll, who was considered by many to be the premier psychologist in the 20th century in terms of contributions to educational linguistics. In retrospect, this occasion has very special significance, as it was one of the last interviews that Dr. Carroll granted near the end of his illustrious career.<sup>1</sup>

Dr. Carroll was lead developer of the Modern Language Aptitude Test (MLAT). The MLAT has been used for selection, placement, and guidance by schools and U.S. government agencies for more than 40 years, and Dr. Carroll's associated research and writings on language aptitude are widely considered the most comprehensive and authoritative treatment of the subject even today. Yet, not all of the story behind the

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<sup>1</sup>John Bissell Carroll died of cancer on July 1, 2003. He was 87 years old. Although he did not have the opportunity of seeing this interview in print, he enthusiastically edited the manuscript in great detail during the early Spring of 2003.

MLAT has been previously recorded. One of the main purposes of this interview was to augment the documentation of this important part of language testing history.

John B. (Jack) Carroll was born in 1916. During his long and distinguished career, he made many contributions to the study of Intelligence, verbal abilities, educational psychology, factor analysis, educational measurement, and language testing. In August 2002, just a few months before this conversation, Carroll traveled to Chicago to attend the American Psychological Association's 110th Annual Convention where he received the American Psychological Foundation's "Gold Medal Award for Life Achievement in the Science of Psychology" (Carroll, 2002). At the time of his death, he lived in Fairbanks, Alaska with his daughter, who is a Russian-English interpreter, and her husband, who is a professor of ecology at the University of Alaska. The interviewers, Stansfield and Reed, are affiliated with Second Language Testing, Inc., which republished the MLAT in January 2000 and the elementary school version, the MLAT-E, in fall 2002.

The MLAT was originally published in 1959, and although it has remained in continuous use ever since, the perceived appropriateness of the test faded for a time, at least in fields such as second language research and pedagogy, as more "communicative" approaches to second and foreign language learning were developed. Remarkably, however, the test has proven to be relevant even in the most current teaching and research contexts. For example, validity coefficients based on data collected in the communicatively oriented classrooms of the U.S. Foreign Service Institute are approximately at the same levels as reported in the original version of the test manual, largely in the .40 to .60 range (Ehrman, 1998). In fact, there has been a resurgence of interest in the aptitude construct and related research, some of which is reported in a recent book edited by Robinson (2002). Readers might also wish to compare these more recent treatments of aptitude to Carroll's earlier vision of how aptitudes, general intelligence, motivation, quality of instruction and other variables interact in school learning (Carroll, 1963). The MLAT has also been employed extensively in the study of learning disabilities that appear to affect language learning, and in the exploration of the possible existence of a "foreign language learning disability".<sup>2</sup> Although conceptualizations of language aptitude are evolving, much of the new research builds on, or supplements, the original notion, rather than refuting it. Skeehan summarizes his own conclusions, which presumably are shared by other researchers, by saying "traditional views of aptitude are still relevant to applied linguistics and SLA ... [and] post-MLAT research into aptitude ... has added to our understanding in significant ways" (as cited in Robinson, 2002, p. 92).

To learn as much as possible about the history of the MLAT, the interviewers arranged a 45-min telephone conference call with Carroll on October 30, 2002. The

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<sup>2</sup>See Elena Grigorenko's chapter in Robinson (2002). Also see Sparks and Javorsky (2000) and Reed and Stansfield (in press).

recorded call was transcribed, and a version of the transcription with footnotes and references, edited by Carroll and the interviewers, is presented here. The interviewers and the interviewee are identified by their initials, prior to each turn in the conversation. Notes and references provide additional background information.

CS and DR: How did you come to develop the MLAT? We know that's a long story, but a little bit of background information would be helpful.

JC: Somehow I got interested in languages when I was very young. As you know, I was born and raised in Hartford, Connecticut. I don't know why I got interested in language, but I know that as a young boy I found it enjoyable to visit the public library and look at books on languages, and I got fascinated with all the languages that had different kinds of characters and writing systems. Then I started reading books about language. Actually, it happened that I got acquainted with a gentleman named Benjamin Lee Whorf, who got me further interested in language. In Hartford, my home was located near a children's museum, and every Sunday afternoon, the museum could present lectures or other events that would be of interest to children. When I was about 12 or 13 years old, I often attended these lectures. One Sunday afternoon this Benjamin Lee Whorf came and talked about his experience studying languages in Mexico, and I was particularly interested in what he had to say. So, I listened to him very carefully, and after his lecture, I went up to talk with him. I told him I was interested in studying languages, particularly native American languages, and I asked how I could help him, or whether there was any way I could participate in his studies. He was very generous and immediately said that yes I could come around and work with him. He mentioned that he often worked in a certain library in Hartford, and so we could arrange to meet there periodically, or perhaps every other week while he was in town.

So from that day on (as noted in footnote 2, page 6 of my collection of Whorf's writings; Carroll, 1956), it was December 1, 1929, when I was about 13 ½ years old, in my first year of secondary school, I got to know Whorf and worked with him quite frequently and intensively for two or more years before I went to college. We'd meet in the library he mentioned and work for several hours. I learned to help Whorf in various ways, like looking up words in a Mexican dictionary of the Aztec language published in Spanish. At that time, Whorf was working on Maya hieroglyphs, but he also thought he should teach me as much as he could about linguistics. He was himself studying linguistics with Edward Sapir at Yale and getting quite well versed in linguistics. So I learned a lot about phonemes and linguistics. So Whorf taught me a lot about phonetics, phonemics, grammar, and other linguistic topics. From that standpoint, I got more and more interested in linguistics. Incidentally, I was studying Latin and Greek in high

school at that time, so it was very early in my life that I got further interested in languages and their structures.

Several years after I started working with Whorf, we took a drive down to New Haven, Connecticut, where Whorf introduced me to Sapir. Eventually, I asked Sapir whether I should study linguistics at Yale. Well, Sapir didn't think that I could study linguistics as an undergraduate; it would be more appropriate, he thought, to wait until graduate school to do this. He recommended that I go to college wherever I could. The best place for me to go was Wesleyan University, which was in Middletown, Connecticut not far from my home. My mother had enough funds from my grandfather to pay part of my expenses there, and I got some scholarships.

CS: What did you study as an undergraduate?

JC: I minored in psychology, but my major was in Classics—Latin and Greek. Unfortunately, a lot of my time had to be spent reading classical literature in the original, rather than studying the linguistics of Latin and Greek. When I was in high school, I got interested in foreign language aptitude, and also in undergraduate work that I did at Wesleyan University. But, I didn't really start serious formal study of linguistics until I was ready for graduate school. Ultimately, I decided not to study linguistics for my PhD, but to do it in psychology instead. Sapir pointed out that linguistics students had trouble finding jobs in those years of the depression, and felt that I would be financially better off as a psychologist. However, in the summer of 1937, just before I entered graduate school, the Linguistic Society of America conducted its summer linguistics institute at the University of Michigan. So I went out to the University of Michigan to study linguistics. I took four courses, perhaps more than I should have, two with Sapir, and another two with a professor of Sanskrit (one of these was a course in Pali, and the other was a course in the history of Indo-European languages). With Sapir I had a general introduction to linguistics and a course in field methods in linguistics, in which we studied Navajo (unfortunately not with a native informant; Sapir himself acted as the informant). So I got to know something about the structure of Navajo and even wrote a paper about it, which Sapir awarded a grade of A. In the meantime, studying at the Linguistic Institute was later valuable to me in that I was able to meet and talk with a number of students who later became prominent linguists.

CS: Where did you go to graduate school?

JC: When I was at Wesleyan, I tried to consider what I should do. I was advised by one of my psychology instructors that if I wanted to study psychology, I should go to Minnesota to study with a promising young researcher, B. F. Skinner, who was said to be interested in the psychology of language. So I went to Minnesota. There I soon found that it was going to be difficult for

me to study under Skinner, because I was not interested in his particular approach to learning language. And as you will read in my biographical statement recently published in the *American Psychologist*, I couldn't really continue studying with Skinner, so I changed my advisor. In effect I had as my advisor L. L. Thurstone at the University of Chicago. I got acquainted with him because he came to Minnesota to give a lecture. I got so interested in his discussion of verbal abilities, I thought, well this is a way of studying language through psychology. So I decided at that point to learn any mathematical approach that I could apply to language. One of the approaches Thurstone mentioned was factor analysis. And that was how I got interested in factor analysis, and more generally in measurement problems in psychology.

CS: What did you do after graduate school?

JC: My first teaching job was at Mount Holyoke College in South Hadley, Massachusetts. I started teaching psychology, and I taught courses in psychological measurement and in the psychology of language, among other things.

I want to introduce you to John Gardner. This was the John Gardner who later became president of the Carnegie Corporation in New York. You can find out a little more about Gardner. There is an article about him in the *American Psychologist*.<sup>3</sup> Now a lot of my life has been a matter of chance, strange events that just happen. One of them was the fact that John Gardner was teaching at Mount Holyoke when I went there in my first teaching job. But while John Gardner was at Mount Holyoke, he got called by someone in Washington DC who knew he was interested in personnel selection problems. And I remember he went off to Washington. You might say Gardner was one of the founders of the CIA, because he developed methods for selecting people who worked for the CIA. I got to know him quite well when we were both at Mount Holyoke, him and his wife.

CS: You know, talking about John Gardner for just a second, I know the Carnegie Corporation was involved in the founding of ETS, with the College Board too. He must have known Henry Chauncey, the first president of ETS.

JC: That's right. John Gardner was involved in the founding of ETS. And both he and I knew Henry Chauncey very well. But I won't go into that; let's skip ahead to 1949.

Well, that was when I first found out I was going to be teaching at Harvard. Thus again, chance did this. I was on a plane going to Denver in the fall of 1949 to go to the APA convention there. It just happened that sitting

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<sup>3</sup>The September 2002 issue of *American Psychologist* contains a two-page obituary summarizing the life of John Gardner (Takanishi, 2002).

next to me was my old friend John Gardner, with whom I had been on the faculty at Mount Holyoke some nine years earlier. Anyway, I told John that I had just accepted a job in the School of Education at Harvard. It was not long after that, when he was back in New York in his office, that he became interested in funding for linguistics. He knew that I was a psychologist who had done a lot of work studying linguistics. He offered me the chance of doing a survey of linguistics and its uses and relations with other disciplines. I did that survey with funding from John Gardner's Carnegie Corporation, taking about a year or two for research and travel, and writing a book called the *Study of Language*, which was eventually published by Harvard University Press (Carroll, 1953). Shortly thereafter, John Gardner made a visit to Harvard—and he deliberately came to my office and said, “We have a problem. We've got to select a lot of government people who could easily learn foreign languages.” This is still true today in the government, in the Foreign Service Institute, in the Peace Corps, and in the CIA.

So anyway, John Gardner asked me whether I would be interested in conducting a project on language aptitude. I said “of course.” So I started working on that subject shortly afterwards. It was probably 1950 or 51 when I was still working on the book that I was doing for Gardner. But anyway, Gardner emphasized that the government was sadly in need of good foreign language aptitude tests. Well, actually the government had already become motivated, and it announced a competition for funds for the study of language aptitude. So I submitted a proposal for that through the Department of Education. Several people submitted proposals. Above all, the Army played a role in this process. It had a research division, a personnel research division, or something like that, and it awarded a contract for research on second language aptitude to a professor at the University of Southern California rather than to me. The argument was that the project needed to be located somewhere near the DLI,<sup>4</sup> the Defense Language School in Monterey, California. But the project conducted at the University of Southern California turned out not to be successful, not producing tests that well predicted success or failure in second language learning. So eventually I was able to get a grant of \$65,000 from the Carnegie Corporation, through John Gardner, in the hope of developing a satisfactory second language aptitude test.

CS: That was Carnegie money?

JC: That was Carnegie money, yes. And it came just as the army found that the test that they tried to have developed by this guy at the University of Southern California was invalid, and they couldn't use it. So I was now

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<sup>4</sup>This is a reference to the Defense Language Institute (DLI), located in Monterey, California. During World War II and for some years afterward, the DLI was called the Army Language School.

in the position of developing tests. I sort of worked with the Army-Air Force—it was still an army-air force at that time,—which had a program where they tried to select highly successful language learners from volunteer soldiers in the army or air force by giving one-week courses in Chinese or Japanese and selecting the students who turned out to be the best learners in these short courses. But these selection courses were expensive and difficult to manage, so it was hoped that a system of second language aptitude tests could take their place. After several months of hard work developing new language aptitude tests, my associates and I traveled out to one of the language learner selection centers somewhere in the state of New York, and gave our tests. The story is told in a publication, “The prediction of success in intensive foreign language training” in *Training Research and Education* edited by Bob Glaser. It was published in 1962.

CS: Yes, that was like the first handbook of research in education?

JC: Yes, but there’s a long history of handbooks of educational research, all the way back to near the end of the 19th century. Glaser’s book was published by the University of Pittsburgh. I have a long article in it (Carroll, 1962).

CS: This was after World War II, right?

JC: Yes, that’s right, but during the war, there was great importance in selecting people who could do various tasks requiring mastery of a foreign language. For example, they had people who could listen, over long hours, to radio broadcasts in various foreign languages to gain information that would be of use in planning military actions on land or sea. Actually these people were very important in our winning the war in the Pacific. The army and air forces were interested in getting more people who could attain mastery of one or more foreign languages. I mention this because in a sense that’s the real origin of the MLAT, and the primary reason for funding my research in foreign language aptitude.

In my study in one of the Army-Air Force language learner selection centers, they taught Chinese for a week. I gave my aptitude tests on the first day of the week. It was only a few weeks later that I found that my aptitude tests could predict the outcome of the Chinese language training with a correlation in the .90s, or the high .80s anyway. That was what convinced me that it was useful to work on language aptitude. Later, a lot of my work was actually done for the Psychological Corporation. That is, the Psychological Corporation was going to produce my test, but the Psychological Corporation had a very strict procedure about publishing any test. They had to do a lot of the tryouts and things like that. Dorothy Clendenning, who worked at the Psychological Corporation in New York City, and I worked out all this stuff; we developed the research that was reported in the manual.

- CS: So Psych. Corp. essentially used to insist on having control over the data collection. That must have been when Harold Seashore was president.<sup>5</sup> The Psychological Corporation first published the MLAT in 1959. So it must have been in the late 50s that you were collecting the data that is reported in the MLAT manual (Carroll & Sapon, 2002b). Did the Psych. Corp. pay for the data collection or help out in any way?
- JC: Yes, they did. It was all at their urging. Of course my funds from the Carnegie Corporation supported the original selection, design and validation of the tests that I and Stanley Sapon wanted to investigate, but The Psychological Corporation supported the data collection reported in the manual. I don't think they paid me anything. They designed the tests; they had a lot to do with deciding how the test should be scored and things like that. My impression is that this was the regular procedure of The Psychological Corporation in publishing all its tests.
- CS: I had the sense that you had developed the MLAT on a grant from Carnegie, or perhaps from Carnegie and the CIA, but those were studies that you were doing with other kinds of measures, is that right?
- JC: That's right. I did a lot of studies of my own. But that was not what the Psych. Corp. considered appropriate to publish in the manual. They believed it was their responsibility to do the final study that supported the test.
- CS: So in a sense, the test was designed and developed jointly with them. Who did the item writing for the test?
- JC: To a large extent, I did the item writing, or Stanley Sapon and I did it. You see I got a grant from Carnegie, and with that grant, I hired Stanley Sapon. Well, anyway, that's the story of MLAT.
- DR: We have a small question on the MLAT manual. It talks about data from grade 12, but grade 12 data doesn't appear in the tables. Do you happen to know why grade 12 doesn't appear as a separate column there?
- JC: I guess it's just that they didn't get enough information on grade 12. I don't know why that is. It makes sense that they wouldn't be interested in giving the test in grade 12 when people were about to graduate. You couldn't readily get predictive validity for grade 12 groups. You would want to know about people who were going to take the test at let's say junior high school age. I think the lack of information on grade 12 students was not

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<sup>5</sup>Until 1982, the offices of the Psychological Corporation were located in New York City. Subsequently, the company moved and eventually settled at its current site in San Antonio, TX. Harold Seashore was the president of the Psychological Corporation for many years, before it was purchased by Harcourt, Inc., which continues to own it. A distinguished psychologist and psychometrician in his own right, Harold Seashore developed the Seashore Test of Musical Abilities. Prior to development of the MLAT, the Seashore test was sometimes used to predict success at foreign language learning.



- deemed very important. There's nothing evasive about not giving grade 12 information.
- DR: Why does the average score go up every year? Is it because of maturity? Why do you think each grade does so much better than the earlier grades?
- JC: I think it's mainly just a maturity factor. I mean, most test scores rise with age—the average. The psychologists and educators that are working on the Flynn Effect<sup>6</sup> are the people who know about this.
- CS: In an earlier conversation, you mentioned a second form of the MLAT, which has never been done. You did mention you have written some items for it.
- JC: Yes, I did write some. I don't know whether I could even find the stuff. But, I just never had time to do it. I know that it would have been very valuable and even now I suppose it would be valuable.
- CS: Oh yes, absolutely, because Form A has been used for 40 years. And people ask me, "When are you going to do a second form?"
- JC: I would encourage you to develop it. If I can ever find the items I wrote, I will send them to you.
- CS: You hired Stanley Sapon to work with you on the MLAT. Why did you select him? What was his role in the project?
- JC: Well, he was a linguist and an experienced foreign language teacher. He helped develop the tests. Remember that language-learning test that I tried to include in the MLAT? Sapon published an article on it (Sapon, 1955). We weren't able to use this test in the final version of the MLAT, because it was too long and complicated. And it didn't sufficiently increase validity, though it did add some, I think.
- DR: But it was too cumbersome.
- JC: That's right...too cumbersome to be included in the test. So, that was just an interesting sidelight that we developed. It was possible to develop that kind of test; it might contribute something to aptitude validity, but it wasn't feasible to include it in the published test.
- CS: I know at some point, there was talk about the Kurdish language. Is Kurdish used anywhere in the test?<sup>7</sup>
- JC: Not really. We had these nonsense syllables and words, but we just wanted to call it Kurdish to give the impression that we had a real language on the test. But no, it's not real Kurdish at all. Maybe we were wrong in using that name. I forget how it got to be called Kurdish; I just don't remember.

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<sup>6</sup>In a study of IQ tests scores for different populations over the past 60 years, James R. Flynn found that IQ scores increased from one generation to the next for all of the countries for which data exists. This phenomenon is called "the Flynn Effect." For a summary of his research see Flynn (1994).

<sup>7</sup>In part V of the MLAT, the examinee is directed to spend 2 min memorizing a Kurdish–English vocabulary list consisting of 24 paired associates. Then, the examinee must select from among five English words the correct translation of a given stimulus.

- DR: If you are done talking about test development, I want to talk about learning disabilities. The MLAT is used to diagnose foreign language learning disability. What do you think about learning disabilities in general, and the suggestion that there might be a specific learning disability that makes it harder to learn foreign languages?
- JC: Well. It's hard for me to answer that. I don't know enough about learning disabilities in general. But I do think that there are specific learning disabilities represented by subtests of the MLAT—particularly the phonetic coding sort of thing.
- CS: So you would consider that the absence of those abilities would contribute to a foreign language learning disability?
- JC: Right. I guess I consider that learning disabilities is a different field. I am not an expert in it. I stand by the results I got with MLAT and its subtests, but I don't necessarily imply that these abilities are learning disabilities in the usual sense. If people want to study them as learning disabilities, that's fine, and I guess some of them have been extensively studied.
- CS: People also complain that the norms for the first form are 40 years old. Our official position is that there is no reason to believe that the distribution of ability, foreign language aptitude, has changed in the population in 40 years.
- JC: That's my belief, but I can't cite the evidence.
- CS and DR: What do you know about the foreign language versions of the MLAT?<sup>8</sup>
- JC: Not much. I think that the Canadian version was the best done. And I think it's still in existence. The Canadian government and Canadian schools use it. I went to Canada several times and consulted for the people who developed it. And there are several people I know who are working in that area. I am trying to think of the names. There is a woman in the University of Ottawa—Mari Wesche.<sup>9</sup> She did very interesting work on different forms of the test and different ways of teaching foreign languages.

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<sup>8</sup>Adaptation of the MLAT has been and continues to be an area of considerable interest. Carroll (1981) reported adaptations for the blind, as well as foreign language versions for French, Italian, Japanese, German (Elementary version), Spanish, Turkish, Thai, and a version for international students who hoped to study English in the U.S. There is also a Dutch adaptation reported on by de Graaff (1997). Unfortunately, only the French adaptation is commercially available at present. Continued requests for such adaptations have prompted the interviewers to develop a framework to guide future adaptations. The initial version of this framework was presented at the 2003 conference of the East Coast Organization of Language Testers.

<sup>9</sup>This is a reference to the principal author of the *Test d'aptitude aux langues vivantes* (Wells, Wesche, & Wells (1982). The MLAT-F, as it is sometimes called, is used by the Canadian Civil Service Commission to assess the language learning aptitude of Francophone Canadians who are government employees. The instrument was published in 1980 by the Institut de Recherches Psychologiques, Inc. of Montreal. Wesche (1981) also reported on extensive research on the use of the MLAT by the Public Service Commission of Canada.

- CS: The other tests. Did you at one point work on a German version of the MLAT?
- JC: Yes, that was published. Somewhere in my files I have copies of it. Dr. Karlheinz Ingenkamp developed it. He was a German psychologist who worked in Berlin with a German test publisher. He worked with them, and they published the German form of the test. Whether it's still used now, I don't know. It would be interesting to find out anything you can.
- CS: How about any other languages? Spanish, nothing was ever done in Spanish?
- JC: Yes, there were people in Madrid and several South American countries I corresponded with. I don't know what's happened to the versions they developed. About five years ago, I conducted quite a lot of correspondence with a group in Madrid that was trying to do a Spanish version, but I haven't heard anything from them even though I told them to let me know what was happening. Now let's see, there was something in Japanese.
- CS: Yes, well Miyuki Sasaki did develop that test. That was a dissertation. She called it the Language Aptitude Battery for Japanese. Her results supported some of the abilities assessed by the MLAT, but not all. She went about it in a very professional way. She even published her dissertation.<sup>10</sup> There is a lot of interest in a Japanese version. Every couple of months we got an Email from Japan wondering if we have a Japanese version. And someone in Indonesia did a version in Bahasa Indonesia. Any other languages that you can think of, Italian?
- JC: Yeah, there was an Italian version. I think there was even a publisher. But that was 20 or 30 years ago. I don't remember anything now about that.
- CS: That's interesting. All these instruments have been lost to the history. At this point, people don't even know that they were developed. And, if we don't have a copy of the test, then probably no one has a copy of the test.
- JC: I do still have copies of tests in several foreign languages in my personal files in Fairbanks; if you're interested, I could send you samples.
- DR: Dr. Carroll, do people ever ask you if your idea of language aptitude corresponds to Noam Chomsky's notion of a language faculty—the genetic predisposition to learn language?
- JC: People have mentioned this to me, but I would say that Chomsky's notion is entirely different from mine. I mean I am not able to accept all of Chomsky's notions anyway. But, it's not something that I am terribly interested in pursuing.
- DR: So, it's a different line of inquiry then.
- JC: It's more introspective and intuitive, rather than research based.

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<sup>10</sup>The dissertation was published as Sasaki (1996).

CS: You know, one other question occurs to me. If you look across languages, at say tonal languages, do you have any thoughts about how one could develop a better test for specific kinds of languages?

JC: Yeah, I used to get asked about that, but I just didn't have the resources to investigate all the many questions that could be asked about aptitudes for learning languages. I never tried to develop a test for predicting success in tonal languages or anything like that. But I was never persuaded that there were any real differences among languages with respect to aptitudes for learning them (Recently, Diana Deutsch, who does research in musical abilities and performances has found evidence that people who speak tonal languages have a kind of native aptitude for learning them). The evidence that I was able to collect didn't suggest that there was any real difference as far as individual differences in learning them is concerned, except differences in languages in the time needed to learn them, on average.

DR: What can you tell us about the MLAT-E, the Elementary version?<sup>11</sup>

JC: I started that because in the 1960s, people were very much interested in FLES —Foreign Languages in the Elementary Schools. There was a big public push to teach foreign languages in the elementary schools.

CS: So this would have been the early 60s?

JC: Yes, the late 50s or early 60s, I guess. I got interested in doing something about it. So I went to John Gardner and told him I was interested in developing aptitude tests for the elementary schools. And he listened to me and eventually got the Carnegie Corporation to award me enough money to do the work. So the Carnegie Corporation supported the development of the MLAT-E. The published MLAT-E was not entirely my creation; the Psychological Corporation did a lot of work.

CS: What is the difference between the version that you developed with the grant from Carnegie and the version that the Psych. Corp. published?

JC: It would be matters of detail. I developed the four major parts of the test. Psych. Corp. wrote more items, did the field-testing, published directions for the test, and various details. They took over the work. I was terribly busy those days. I couldn't spend enough time, so Psych. Corp. did a lot of the work. Again, Dorothy Clendenning helped out.

I would say that the initial reaction to the publication of the MLAT-E was quite positive. The Psychological Corporation started selling thousands of copies of it. The Psych. Corp. was never very good about telling me what was happening to the test. Sometimes I would have to actually go

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<sup>11</sup>This test was originally published in 1967 by the Psychological Corporation under the name Modern Language Aptitude Test-Elementary Version. It was sometimes abbreviated EMLAT; other times it was called the MLAT Form E. Today it is available as Carroll and Sapon (2002a). For sample items for the MLAT and MLAT-E see [www.2LTI.com](http://www.2LTI.com).

- to the Psych. Corporation and talk to the people who managed the sale of the test and ask them who's buying it, and things like that. They didn't tell me very much, because they considered that confidential information. I always had a lot of trouble finding out how many people were buying it, what they were using it for, and so on and so forth.
- CS: I see the first copyright date on the MLAT-E was 1960 and another in 1967. What do those two dates represent? When they took over your design in 1960 and then republished the test in 1967?
- JC: I would think that the first date indicates that they were taking over the test. Nothing more than that, but they had to have a copyright in order to work on it at all. So, the second copyright, 1967, probably represents the final publication of a test designed for public use.
- CS and DR: Do you remember, or do you know where the MLAT-E was field-tested? Could you describe the history of the field-testing?
- JC: The field-testing was the responsibility of the Psych Corporation. It's pretty well documented in the published manual. I think the manual even gives the schools where the test was given. The Psychological Corporation did its own analyses. I never saw some of this material before publication but indicated my approval in a general way. (Incidentally, I think I still have copies of some of the EMLAT test material).
- DR: I think we pretty much covered the MLAT and the Elementary version. Unless you have some general words of advice for the new generation of language testers?
- JC: Well, go back to the 1950s when language aptitude tests were developed, and try to emulate the good work we did then. That's about all I can say, except that there's a lot of good advice and discussion in books, edited by Diller (1981) and by Parry and Stansfield (1990), that were the outcomes of conferences on second language aptitude testing.

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