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A Survey of State Aid for Scholarships For Prospective Teachers

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One of the great problems facing educators today is that of supplying an adequate number of well-trained teachers for the public schools. According to the annual report of the Office of Education, submitted to the President and Congress on March 23, 1952, by Oscar R. Ewing, Federal Security Administrator, the nation will need 130,000 additional teachers to take care of the expanding school population by 1957. The report described the situation as "... rapidly approaching a major national catastrophe."¹

With certification requirements set to the point where four years of college are required in order to become qualified for the profession of teaching, how can educators compete with the leaders in industry and the professional groups which are now offering scholarships to young men and women, enabling them to attend college in preparation for positions in chemistry, engineering, medicine, law, and business administration. Feingold ² lists scholarships available in various fields and from many donors, but it is very noticeable that no mention is made of plans whereby people preparing for teaching are aided. Perhaps offering scholarships to young people preparing to teach is the answer to this competition for high school graduates.

It is generally admitted that the income of future teachers as compared to future business leaders, members of the medical and legal professions, and government executive employees is less, although the cost of preparation is comparable in many instances. Therefore, it is being argued by some authorities today that the expense of preparation for teaching should be borne by the com-

¹. "Education and the Nation." School and Society, LXXV (April, 1952), 250.
². S. Norman Feingold, Scholarships, Fellowships and Loans, p. 254.
munity and the state, since teachers render service to society as a whole.

As early as the eighteenth century, it was conceded that education was a function of the state. By the end of the 19th century, this theory had been formalized by inclusion in the basic laws of most of the states. Today it is commonly accepted that education of the young for citizenship, for economic effectiveness, and for personal well-being should be the principal object of the expenditure of public money.9

Since, then, education of teachers may be thought to be the responsibility of the community as a whole, and since some states in the United States are financing scholarship programs for the education of prospective teachers, it was thought that a survey of the plans in various states would be beneficial to those interested citizens of Kansas who may at some future time apply to the legislature for a consideration of appropriations for similar aid. A recapitulation of the survey of the states follows.

SCHOLARSHIPS AT STATE EXPENSE FOR TEACHER EDUCATION

The practices within the various states in providing scholarships or financial assistance from state funds for college students preparing to teach is reported in the following statement. The information was received from questionnaire replies within the past month from representatives of teacher educating institutions within each of the states. Massachusetts is not included in the report.

No state funds are available in the following states: Arkansas, California, Georgia, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Missouri, Montana, North Carolina, New Mexico, Nevada, South Dakota, Tennessee, Texas, and Washington. A summary of reports for the other states where scholarship grants are available follows:

Alabama: There is an appropriation of $25,000 in $100 scholarships given to five of the colleges training elementary teachers. Selection of recipients is by grade ranking and financial need. There is no repayment required, but students are obligated to teach three years in Alabama upon completion of training. The scholarship law is administered by the State Superintendent of Education and the President of each institution. Only the state-supported teachers' colleges participate in the program, and only those students preparing

for elementary teaching may secure a scholarship. Students are expected to do satisfactory work toward completion of a degree. The plan has been in effect ten years. Scholarships are renewable for a period of three years.

**Arizona:** High-ranking students in each high school of the state may apply for a scholarship. The scholarships are renewable for four years if grades are high. The payment takes the form of a waiver of fees. Grade ranking, financial need, and the recommendation of the high school principal are required for receiving the scholarship. One is granted from each high school (74) for attendance to each of the three state schools, making a total of 222 each year. The waiver of fees amount to $64 per year. At least a B average must be maintained. Each college and the university administers the program on regulations set by the Board of Regents. The plan has been in effect ten years, with no change having been made from the original regulations. Scholarships are granted without regard to curriculum.

**Colorado:** Students who receive scholarships must pass qualifying examinations and be recommended by their high school. The scholarships are available only for teacher education, and students must attend state supported institutions to qualify. Tuition is waived, and no repayment is required. The colleges administer the program in accordance with regulations of the Board of Trustees. Students may enter teacher education or any other professional school at the university, but teacher education college awards require enrollment in teacher education.

**Connecticut:** Approximately 100 scholarships of $300 each are available each year. They are renewable and are offered only to students in the four teachers’ colleges. Candidates are screened by a local scholarship faculty committee in each of the four teachers’ colleges, and the screened candidates are selected on the basis of scholarship, promise as teachers, and financial need. Any number of individuals may participate each year. The State Scholarship Committee requests local committees to suggest about thirty-five from which final selections are made and recommended to the State Board of Education for final approval. No repayment is required by the students, although when the law was first enacted in 1909, students were required to pledge to teach for a period equal to their course of training. Students must have been top notch in high school work. The number of scholarships and the amounts have been increased during recent years from 50 to 100.
Delaware: Qualified residents of Delaware may apply for scholarships, which are renewable. Recipients are selected on the basis of high-school record, aptitude test scores, need, and an interview to determine teacher aptitude. Approximately thirty are available each year. The scholarship is for $300 and the recipient is expected to teach in Delaware for at least two years following graduation. The Dean of Students and a Faculty Committee on Teacher Education Scholarships administer the program, which is applicable only to the University. Although the recipient need not be enrolled in the School of Education, he or she must meet the minimum requirements in education for teacher certification. Also, at least a C average towards the degree must be maintained. The plan has been in effect four years, and has not as yet been amended since its origin.

Florida: The scholarships in Florida are given to high-school graduates preparing to teach, and to college students preparing for teaching if vacancies occur in the number applied for by high-school graduates. Competitive examinations by counties are given for Negro and white students. Approximately 1,050 persons may participate each year. The amount of grant available is $400, and one year of teaching is required; otherwise, repayment is necessary. The State Department of Education administers the program, and students may be enrolled in any teacher training institution approved by the state, as well as in the University. The recipients must be enrolled in the Department of Education and maintain an A average. The program has been in force six years and has been amended to extend eligibility from state supported schools only to state approved schools.

Idaho: Application forms are provided and reviewed by a committee, which chooses about twenty per year. Recipients must be prospective elementary teachers. The amount is about $250 per student per year, and requirement is made that one year of teaching be done after graduation for each scholarship granted, or repayment as a loan is requested. The scholarships are available at the University and the students must be enrolled in elementary education. No academic requirements are fixed. The plan has been in effect two years.

Illinois: Illinois awards scholarships at high-school graduation covering all fees except book rental. Students to qualify must be in the upper one-third of their high-school class and must desire to teach. Three students are chosen from each high school in the state with an enrollment of 0 to 500; four each from those with an
enrollment of 501 to 1,000, and five from schools over 1,000. The $90 fee for nine months is waived, and summer fees are waived if it is desired to attend summer sessions. No repayment is required. The State Superintendent of Public Instruction administers the funds, and only students in state supported teachers' college may qualify. The recipients of the awards must enroll in a curriculum leading to teaching, and graduation average grades maintained. The plan has been in effect twenty years, and was recently amended to add one scholarship for each level of high-school enrollment size.

Indiana: Scholarships are available to high-school seniors and they may be renewed if proper academic averages are maintained. A state-wide examination is taken by interested high-school seniors. Rating on the test, rank in school, need, promise as teachers, and interest in teaching are determining factors in awarding of the scholarships. All high seniors may apply. Each of the two teachers' colleges may grant two scholarships in each of the ninety-two counties of the state. Each of the two Universities may grant at least two or more. However, the University scholarships are not necessarily for prospective teachers. Approximately eight scholarships in each county are available each year. No curriculum is prescribed, and academic standards are set locally. The original appropriation was provided in 1935.

Iowa: Scholarships are granted to those residents of Iowa who expect to teach and who are good prospects for teaching. They must also be in need of some financial assistance. Scholarships are for four years. They pay all of the tuition and fees except $33 a year, which is charged for student activities and special fees for applied music lessons. Scholarship examinations at forty centers are given. A student is not required to take the examination to be eligible for a scholarship, but most do so. Students are expected to have been in the upper one-third of their high-school class. There are 350 allowed, and they are renewable for the four years of training. These are awards, and not loans. Students must maintain at least a C average. Originally the plan stipulated ten scholarships, but has been amended to include the number shown this year.

Maine: Recipients of scholarships in Maine must show evidence of self-help, must prepare a personal budget, and must receive recommendations and be available for personal interview. The number varies from year to year, as well as the amount of the funds available. However, it is usually about twenty-five percent of the student body who receive the grants. No repayment is required,
but it is expected that public school service will be returned by the recipients. The President of the College administers the grants, and the teacher preparatory program must be followed, with average grade maintained. The program has been in progress for four years, and has been amended to increase the amount of funds available.

**Maryland:** All Maryland residents have a full scholarship for four years. There is no limit to the number of individuals who may participate in such a scholarship program each year. However, students are required to sign a pledge to teach two years in the state of Maryland upon completion of their training. The individual college, under the supervision of the State Board of Education, administers the program. A course of study leading to state certification must be followed, and the scholarship holds as long as the student is retained in the student body. The policy of little or no tuition goes back for many, many years in Maryland. In the '30's, a tuition of $100 per year was charged. It was removed in the early '40's.

**Michigan:** This year there are 693 students in the three state teachers' colleges who are being granted scholarships, which represents a waiver of tuition fees. Recipients must have been in the upper third of their graduation classes and must excel in leadership as well as scholarship, and must show financial need and probable teaching success. The State Board of Education directs the program and requires that courses be followed which lead to a teachers' certificate. A B average must be maintained. Since 1934 there have been changes made in the program, as originally only prospective rural teachers could apply. Later it was expanded to include all prospective teachers. The numbers have been gradually increased as the shortage of teachers became more acute.

**Nebraska:** One scholarship is available to a high-school graduate in each of the high schools of the state. The applicants must rank in the upper quartile and be selected by the high-school principal, who starts at the top ranking student and moves downward until he finds a graduate who will use the scholarship. The total available is valued at $240, $ yearly. No repayment is required. The Secretary of the Board of Education for the State Normal Schools administer the program in Nebraska, and the student must be enrolled in a state supported teachers' college. The holder of the scholarship must maintain a C average. The grants have been made for twenty-five years, and the value raised in 1953 from $150 to $240, and eligibility raised from the upper ten percent to the upper quartile.
New Hampshire: The most recent legislature appropriated funds for scholarships at the two teachers' colleges in the amounts of $22,000 and $15,000. The President and a committee at each institution grant the funds to applicants who can show financial need, high rank in their class, and potentialities as teachers. No stated amount is granted to individual students, but that amount which is felt equitable to the students upon recommendation to the President by a committee. Most of the scholarships, however, amount to $150 for a year. Students sign an agreement to teach in New Hampshire as many years as they receive the aid, or repay the amount prorated in accordance with the number of years of teaching done. Each college administers its own program. Students must complete student teaching requirements. The year of 1953-1954 is the first of the program.

New Jersey: Ten percent of the students of each freshman class are granted scholarships amounting to the tuition ($100 per year). These grants are renewable for the four-year course, provided scholarship is kept up to a B average. These scholarships are granted on the basis of the objective part of the entrance examination given in the spring prior to entering. Financial need must be shown. No repayment is required. Administration is by the State Department of Education, and the plan is only applicable to the teachers' college, since a different plan is operated for the university. The plan in the state has been effective for seventeen years, with a change from the original not having been made.

New York: New York offers to high-school graduates a total of more than 1,600 college scholarships. These are issued on the basis of grades made in the scholarship examinations which are administered through the schools by the Board of Regents of the State. The recipients of these scholarships, each of which amounts to $350 a year for a four-year period, may use them in one of the teacher-training colleges for the purpose of pursuing a college course leading to teaching. However, it is not necessary that they use the scholarship in this way. It may be used as the basis for pursuing a liberal arts college course or some other program if desired.

North Dakota: Scholarships are available only to students taking one-year and two-year courses and willing to teach in one-room rural schools. The County Superintendent of Schools, the teachers, and the principal must recommend the applicants. There must also be an indication of aptitude for teaching. There are 265 scholarships given each year, which represents five from each county. Teach-
ing one year in a rural school is required. If no teaching is done, repayment of the amount of the grant is required, with interest at four percent. The amount of the grant is $100 per quarter. A Scholarship Board, appointed by the Governor, administers the scholarship plan, which has been in effect five years. The scholarship may be available for the second year students if they have been on it for their freshman year, taught at least one year in a one room school, and mean to teach in such a school following completion of the two year curriculum. At least an average of C must be maintained.

Ohio: Scholarships are offered to beginning students interested in a two-year elementary school preparation, known in Ohio as the "cadet" program. They are renewable for one year. The State Department of Education assigns the number of grants available to each county each year. Recipients shall have financial need, must be in the upper half of their high-school class, and be interested in teaching in the elementary schools. $750,000 was appropriated for the present biennium, which would establish a figure of 500 in 1953-'54 and 1,000 (including 500 new ones) for 1954-'55. Each payment is $500 in cash and a note is signed for each year, which is cancelled on expiration of each year of teaching if begun after the two-year program. Students may attend any approved teacher training college. The current year is the first that the plan has been in operation.

Oklahoma: One-half of one percent of the total amount appropriated for the budget is assigned to scholarships, which amount to be about twenty per year. Students make application and must be recommended by their high-school principal, as well as show a financial need. Forty dollars per semester is granted as a fee waiver, and no repayment is required. The Board of Higher Regents and the local college administer the grants, and the students must appear on the Dean's Honor Roll before being eligible for a second semester scholarship. No changes have been made in the regulations since their origin.

Oregon: The State Board of Higher Education may grant full tuition scholarships to elementary teacher education students in the three Colleges of Education. The ratio is: ten percent of students enrolled in elementary teacher education the preceding year. The waiver of fees and tuition amounts to $120 for the academic year. It is an outright waiver of fees and does not require repayment. Administration is by the institution and the High-School-College Relations Committee, composed of institutional and school repre-
sentatives. Course work must be taken in a state-supported teachers' college and students must pursue the curriculum for the preparation for elementary teaching. Students must maintain a minimum of the average grade obtained by all college students enrolled in each institution. No change has been made in the plan during its five years of existence.

Pennsylvania: The Department of Public Instruction annually awards scholarships on the basis of competitive examinations held on the first Friday in May of each year. These are awarded in each county and senatorial district in the state. Each scholarship is worth $100 per year for four years and may be used at the state teachers' colleges. Any number of individuals may receive the grants who qualify in the examinations. The amount of the grant is not required to be repaid. The Chief of Pre-Professional Credentials, Department of Public Instruction, administers the law. All colleges in the state may enroll students under the law, and the students may follow any curriculum. An average of C must be maintained. The grants have been given over a period of twenty-five years.

Rhode Island: Tuition is free at Rhode Island College of Education and the University. There are teacher education programs at both institutions. The state appropriates $25,000 annually for scholarship assistance to students enrolled in the business education course at Bryant College. In addition, the state appropriates varying amounts annually for scholarship assistance to students at Providence College, Brown University, Rhode Island School of Design, and Salve Regina College. All of these institutions have teacher education programs, but the scholarship assistance is available to all students at these institutions and is not restricted to students enrolled in teacher education. The institutions and the program are under the direction of the Board of Trustees. The program has been in effect since the state colleges were established, and about twenty years at Bryant College.

South Carolina: Scholarships in the School of Education can be sought in the same fashion as assistantships and fellowships in other divisions of the University. These fellowships are financed in part by State funds, and are awarded by the Graduate School.

Utah: One hundred scholarships, consisting of $100 deduction in tuition each year for four years, are granted to high-school seniors. High scholarship must be displayed, and approval gained of the University of Utah faculty. Recipients are required to declare their
intention to complete the prescribed work and, after completion, to teach in the public schools of the state. The program is administered jointly by the President of the University of Utah and the State Superintendent. A curriculum leading to certification is required. Students receiving the grants may be rejected by the University President if found to be unqualified. The plan has been in effect thirty years, and has been amended since its origin. The amount of the grant has been raised from $25 to $100.

**Vermont:** Any Vermont resident preparing for teaching may receive a scholarship if preparing for elementary or junior high teaching. About 550 grants are made each year, and they are renewable for four years. They represent full tuition. The student pledges to teach in Vermont for a number of years equal to the years for which tuition has been received, or repay the grant amount. The State Board of Education administers the law, and no scholastic average is required except retention in college. One change has been made in the thirty years of the law: from two to four year degree program, with the amount of grant increased accordingly.

**Virginia:** $400 is given during the first and second years to those preparing to teach in the public elementary schools of the state. $300 is given during the junior and senior years for all prospective public school teachers except in social studies. Notes are signed for repayment, plus three percent interest if students do not enter the teaching field. Scholarships are awarded by the State Department of Education on recommendation of the college president and approval of the Governor. Awards are based on high-school record and results of ACE tests in the case of freshmen; on college record in cases of upper class college students. Students may attend the public or private colleges in Virginia. Approximately 850 such scholarships are available each session. Courses must be followed which lead directly to teaching. At least a C average must be maintained, and financial need of the students is also considered when awarding the grants. When the law was passed four years ago, it was required that two years, rather than the present one year, were required in the teaching field for each year the grant was accepted.

**West Virginia:** Tuition is waived annually for five students preparing for elementary teaching. Selection is made by the Teacher Education Committee and recommendations made to the W. V. Board of Education. Cash value of the award is $82 per year, and recipients agree to teach within the state. No repayment is required. A college committee administers the grants, and an average
of B must be maintained in elementary education courses. An increase of from three to five in number of recipients has been made since the original plan of four years ago.

**Wisconsin:** There are three forms of scholarship or loan plans: Scholarship under section 12, Wisconsin Statute; section 13, Wisconsin Statute; and Loan, Wisconsin Statute. Under section 12, freshmen, the scholarship is nonrenewable; section 13, freshmen, nonrenewable; Loan, freshmen, juniors, seniors, graduate students, renewable. Section 12, high ranking in grades through high school is required; section 13, financial need and qualifications for leadership; for Loan, financial need only is required. For ranking under section 12, the student must be first in a school with enrollment less than 250; first and second in an enrollment of 250 to 750; first, second, or third in a school with an enrollment over 750. Section 13, fifteen percent of the 1940-1941 college freshmen enrollment. For the loans, there is no limit as to number who may participate. For section 12 and section 13, all incidental fees ($45 per semester) are paid, and with the loans, up to $100 for fees per semester, up to $120 for partial maintenance per semester, with a maximum of $440 per year. Section 12 and 13: no repayment is required, but for the loans, repayment plus four percent interest from date of last attendance in college. Loans mature two years following last attendance date. Section 12 and section 13 are administered by the State Board of Regents of the State College; loans are administered by the Department of Public Welfare. Students acquiring loans may enroll at any public or private institution, but those under sections 12 and 13 must attend the state supported teachers' colleges. Students must show evidence of satisfactory progress in course work. Interest rate on the loans has been reduced from the original five percent in 1933 to four percent. Originally, only eight percent of freshmen in the class of 1940-'41 could have grants; now 15 percent may acquire them.

**Wyoming:** Annually there are thirty scholarships given in Wyoming to students preparing for rural and elementary teaching. Selection is made by the State Department of Education. The grants amount to $300 for the year. One year of teaching service is required for each year scholarships are granted. Students may be enrolled in the university, the state supported teachers' colleges, and the junior colleges within the state. Requirements for granting the scholarships are that the student be in the upper half of the high-school graduating class and be recommended by the high-school principal. The plan has been in operation for one year.
Illogical Logic
J. D. HAGGARD

Almost daily we read magazine articles, newspaper editorials, or listen to radio and TV commentators, in which various conclusions are reached, based on certain evidence available to these writers. Quite often we read the conclusion of a certain discourse only to be a bit skeptical of the validity of the final result. Somehow it doesn't seem to follow from the facts that are known, but to put our finger on what we think brought about the false nature of the final conclusion is more often than not quite difficult, if not impossible.

There are two general causes of false conclusions in an argument. First, the data on which the results are based are themselves false. Second, the data used in the discourse may be valid, but the method of argument employed—the logic—may be in error. It is the latter of these two courses of erroneous conclusions that is most difficult to detect.

Alex Driar, in his early morning commentary not long ago, declared in a rather facetious moment that, "All chickens have two legs, and since man has two legs, man is thus a chicken." Now all of us recognize the conclusion as being false, and at the same time the premise, "All chickens have two legs," is true. Where, then, is the error?

The type of error in the above proposition is one which has appeared very frequently in recent months, and therefore it deserves our attention so that we may come to recognize it for what it is.

That we might get at the root of the difficulty, let us examine a term the logicians call the "converse" of a proposition. In its simplest form the converse of a given proposition may be formulated by merely switching places with the subject and predicate of that proposition. For example, the converse of "All men are animals" is "All animals are men." Similarly the converse of "If the man is Mr. Smith, he will be wearing glasses" is "If the man is wearing glasses, he is Mr. Smith."

Now note that in both these examples the original proposition is true, while the converse proposition is false. But on the other hand consider the proposition "If Mr. Smith is my father, then I am his son." The converse would be, "If I am the son of Mr. Smith, then he is my father." Note here that the converse will be true exactly
when, and only when, the original proposition is true. Now we have just illustrated the fact that the converse of a true proposition may be true, or it may be false. That is to say, just because a statement is true does not justify a claim that the converse is true. It may be so, but it also may not. A proof independent of that for the original proposition must be given.

Mr. Driar’s earlier argument can now be examined in light of the above discussion. Note that the proposition “All chickens have two legs” is of course true, but the converse, “All two-legged animals are chickens,” is not true. Now in Mr. Driar’s argument he tacitly assumes the converse to be true, so that he may argue from “All two-legged animals are chickens” to say that “Man, being two-legged, is thus a chicken.” Of course Mr. Driar was not serious in his claim, and no doubt was well aware of the point of breakdown in his argument, but this same error—assuming the converse of a true proposition to be true—is all too often consciously or unconsciously made in a much more serious and pertinent argument.

This is exactly the point of breakdown in much of Senator McCarthy’s conclusions. It is not that he has incorrect evidence. In fact the validity of the data he has obtained is more often than not unquestioned. But the logic he uses makes for false conclusions. For example, Mr. McCarthy knows that “If Mr. X were a communist he would read communist literature, have associated with communists, have joined certain groups, etc.” But knowing that a man has joined one of these groups or associated with a communist does not in itself make the man a communist.

The latter assertion is the converse of the one known to be true, but we have seen that this is no conclusive proof of its validity.

A Missouri newspaper of rather wide circulation recently carried an editorial in which the argument was made that “If a person had wished to precipitate a war with the Japanese in the early 1940’s, he would have handled the diplomatic situation just about as President Roosevelt actually did handle the matter.” And the article went on to conclude that “since Roosevelt did the very things which unquestionably should have brought the Japs to attack us at Pearl Harbor, he therefore desired the war with Japan.” This again is not a valid conclusion on this evidence alone, for it, like the other arguments above, assumes the converse of a true proposition to be true.

And in the same vein it has been argued by many that “Roosevelt desired to bring the banks of the country to the brink of ruin in 1933 before having his administration step in and play the role of savior.”
They argue as follows: "Had a person desired to ruin the banking system, he would have done much as F. D. R. did." There seems to be little doubt of this, but the converse, "If one handles the banking situation as F. D. R. did, he is desirous of causing the banks to fail," does not follow. And thus the argument breaks down.

A lawyer arguing a court case often finds himself using the converse procedure, especially after he perceives that he has little chance to take the decision on the principles involved. The juryman will quite often make no distinction whatever between a statement and its converse. To him they are one and the same statement since they are constructed of identically the same words. But just as often as he makes this innocent mistake, that often also will injustice be done.

We are faced in these critical and complex times with a variety of alternatives of action on our part as individuals, and it is difficult at best to select the more appropriate action when we are not confused by high-sounding and yet false arguments. We are not availing ourselves of the freedoms we cherish when we become victims of such malicious and misleading thought.
Paraplegic Professor

By Eldo Frederick Bunge

A plate of spaghetti neatly balanced in his lap, Terry maneuvered his wheel chair from one group of men to another and eagerly joined in the conversations about volleyball. He mentioned the time we had gone to Des Moines with only six players, including a substitute some of us had never met before, and laughed as he reminded me how a garrulous stranger had spilled coffee all over my shirt in a swanky St. Louis athletic club. Completely at ease, he appeared not to notice that the others carefully avoided mentioning that fateful national tournament of May, 1951.

This failure to feel resentment toward the sport which indirectly resulted in his paralysis is typical of Terry. Changed in an instant from an athlete with hundreds of interests into a paraplegic with no control over most of his body, he has made the adjustments with such supreme success that he gives all who know him pride in human capabilities. Hamlet's "what a piece of work is a man" takes on deeper meaning when we observe Terry.

"It is important that you know the trials and heartbreaks and still understand that life is sweet to taste, that each day is filled with anticipation for tomorrow's unrevealed adventures, that the juices and saps of awareness and controversy still run strong, that the climate of hope and quiet optimism still prevails." ¹

Just how great an achievement such a philosophy of life represents for a paralyzed person, we who have normal control over our bodies cannot fully comprehend. We can move freely. Putting on a pair of trousers or entering an automobile is not comparable to the scaling of a mountain peak. Our serenity is not constantly challenged by physical problems of locomotion or elimination. We don't perpetually have to fight skirmishes like this: "When I first began to sit up in a wheel chair, I tried every day for six weeks to get into the chair from my bed without assistance. The day that I achieved this now simple maneuver was as great as the day Columbus sighted land was for him or the day Byrd first flew over the South Pole was for him."

In fact, the average person does not even know exactly what a paraplegic is, nor how much worse his lot is than that of the polio

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victim. A paraplegic has been paralyzed by an injury to his spinal cord. The paralysis is complete below the level of injury; in Terry's case this level is about three inches under his armpits. All hope of recovery is denied him. No March of Dimes makes research and therapy available; for that matter, the paraplegic knows that no amount of therapy can restore the functions of his paralyzed members. Unless some degree of sensation returns within a year after his injury, the paraplegic is paralyzed for the duration of his life.
Further, his life is constantly threatened by bladder and kidney infections, which find him easy prey.

The students in Terry's math classes at Washburn University know little of this. As they listen to his pleasant, slow baritone, they regard him as they do any other young instructor who assumes a comfortable posture in the classroom. His pullover sweaters, fit in well with his casual manners, and he is so matter-of-fact in his handling of the wheel chair that they accept it without further thought, nor do they wonder why his black hair is liberally sprinkled with gray. Most of the students, in fact, never knew Terry before the accident and rarely ask what he was like before it happened, three years ago. It is different with us on the faculty.

Terry and I became well acquainted in the fall of 1950. Because our Y. M. C. A. volleyball team needed another passer, a friend persuaded Terry to try out for the squad. Since both of us were on the Washburn faculty, it was natural for us to drive down together to practices several times a week.

His sense of humor enlivened many of our conversations. Some of his best quips were at his own expense: at his tendency toward plumpness, and his occasional failure to "set" the ball just where our All-American spiker liked to have it. Yet he was doing so well in his first year as a regular player on the team that he helped win the five-state area championship for Topeka and was asked to play in the National Volleyball Tournament in Springfield, Massachusetts, during May of 1951. He and I flew to the tournament together.

As we roared in our Stratoliner high above the clouds between Chicago and New York, Terry talked about his good fortune in being assigned to Washburn for his V-12 training during the war. He spoke of the satisfaction he had derived from commanding a small minesweep in the Pacific, then of his graduate work in mathematics at Chicago, and of his subsequent appointment to the Washburn faculty. Inevitably he returned to the subject of Washburn, and how to make that school, back there in Kansas, even better than it was.

Terry thoroughly enjoyed the national volleyball tournament. Because our only substitute was pressed into action by an injury to one of our passers in our very first match, Terry had to play every minute of every contest. He darted everywhere to pick up hard smashers, leaped high to block, and passed remarkably well, putting the balls up with a "soft" touch, so that our spikers had lots of chances for kills. After our elimination on the second day of
the tournament, with a tie for ninth place, Terry could rightfully feel that he had played well in his first national tournament, and could look forward to volleyball stardom in the years to come.

Sunday morning he got up first. Because our sponsors had raised enough money for only one of us to fly back, Terry, not bound to a teaching schedule that spring, was returning with two other players in a Cadillac. While I watched him, shaving energetically and combing his thick black hair, I told him how much I wished that I were driving back with him in the car instead of having to fly. "Yep, doc, we're going to have a fine trip back, and see lots of beautiful country. You ought to be with us." He zipped shut his suitcase and turned once more at the door. "See you in Topeka," Then he chuckled and was gone.

The following night Terry was jarred out of his sleep on the back seat of the automobile. He was picked out of the wreckage of the car on an Ohio highway. Five vertebrae near his shoulders were mangled.

Pall hung over the Washburn campus on Monday. As reports began to trickle in, we heard that Terry couldn't live; then we heard that he had a chance because, by rare luck, one of the best orthopedic surgeons in the country happened to be in Springfield, Ohio, where he had been taken. Blood donors volunteered; money was raised toward meeting the colossal expenses which were bound to ensue. We sent telegrams, then waited.

His wife, Ann, and his parents rushed to his bedside and did their best to comfort him during his moments of consciousness.

And Terry? What thoughts haunted his mind while he lay near death? Of the first days, he says: "I do not intend to dwell on pain here. There is no adequate way to communicate the feeling of acute pain. It is a frightening, stomach-turning experience. I began to look forward to the return of blackness, Nature's remedy for blinding pain. When the idea for this account first occurred to me, the memory was fresh, and I felt that I could etch in stirring prose my fear and pain on the mind of the reader. I cannot. I shall not often mention it. Try to remember that it was awful."

Terry's surgeon told him that, after accidents like his, all that could be done was to remove pressure caused by bone splinters and foreign matter on the spinal cord and then to permit the wound to heal. If the cord had not been too severely damaged, sensation would return to his body within a few months. If it did not return, the paralysis would be permanent. Faced with such dismal prospects, he spent the next four months immobilized in a Stryker
frame, the facial mask producing sores on his face, and phlegm and blood from a punctured lung often gagging him. Every two hours, bolted between two mattresses, he was rotated "like a sandwich," to stare, alternately, at the ceiling or the floor.

How long those four months in the frame must have seemed to a person who had been possessed of such boundless vitality! Once he awoke from a hallucination that he was conversing with someone who actually was not present. After that he refused to accept any more sedatives. Now the realistic philosophy he had drawn from men and from books battled unceasingly against self-pity and fear:

"Right above my window in the hospital was a light which illuminated the hospital grounds below. It was mounted so that no light bothered me inside, but millions of insects swarmed in the rays it cast. The insects attracted bats, and I lay awake night after night and watched those bats hurtle through the beam of light, gobbling up the unsuspecting bugs. I thought about the unrelenting struggle for survival that has marked the universe since time began. I thought about the endless march of time, and it made my own allotted span seem very insignificant indeed. The important thing is not the length of life, but the way that it has been lived."

Seventy days after the accident, Terry was flown home, Stryker frame and all. As we saw him thus strapped and bolted, it was hard to maintain our composure. Little did we realize that our shamefast attitude only added to his unhappiness. He wanted to be treated as a self-respecting individual, not as an object of pity. We had much to learn.

At the end of the summer, Terry's funds were exhausted, but he was admitted, fortunately, to a veterans' hospital in Topeka. When the frame was removed, he still had not regained any sensations below his armpits. Every day that he failed to do so decreased his hopes. Now he needed every gram of courage he had, because the hope of regaining control of his body, which had carried him somehow through the long summer, was ebbing away.

Then he was told of a veterans' hospital in Memphis, specializing in help for paraplegics. In the middle of September, without the support of the Stryker frame, he endured a terrifying trip in a small plane to this hospital, faced with the biggest job of his life: to become adjusted to living without control over more than half of his body.

The ward doctor who examined Terry frankly told him the chances for recovery were very small indeed, and would be gone entirely if no sensations returned within the next two months, but
he advised Terry to try hard to learn to walk again. Instead of
giving up at this discouraging verdict, Terry admired the honesty
of the doctor. He also admired the doctor’s nervous habit of tying
and untying his shoe strings, for he noticed that the doctor had only
one arm.

We are the richer that Terry has written a book about his experi­
ences in Memphis. Through it we can gain a little insight into the
herculean tasks confronting the paraplegic and the quadriplegic,
even though Terry always speaks with restraint of his own suffer­
ings—for example, of the fear he experienced when, strapped in a
torturous device, he first tried to sit in a wheel-chair, dizzily yearn­
ing for merciful oblivion, which came after three agonizing min­
utes. He barely mentions the fact that he tried, time and again, to
support his inert body on crutches, only to crash to the gymnasium
floor. He conveys with startling realism, however, the atmosphere
of a paraplegic ward: “On the surface was a great camaraderie, a
great laughing, a great big good time, but, just underneath, an
aching sorrow, a corroding loneliness, seemed to be ready to burst
to the surface.”

As the months passed by, Terry had to accept the fact that his
paralysis would be permanent, but he also gained confidence in his
ability to return to the world in which he had once moved so freely
and effortlessly. Beside the constant support lent him by Ann, he
was reassured by the thought that he had a parental home with a
new room especially built on for him, and a job within his capabili­
ties, waiting for his return. Most important, however, was the at­
titude he had gradually achieved:

“My attitude toward paraplegia is closely related to this spirit of
adventure and discovery. Just as the barrier of sound was an ob­
stacle to the airman, the summit of Mount Everest was an obstacle
to the mountaineer, and the vast ocean was an obstacle to Colum­
bus, my handicap is an obstacle to me, an obstacle to be fought, to
be surmounted, to be defeated. The certain knowledge that if I
do not succeed in this war, I shall relegate myself to depression and
bitterness is part of the drive, but, more important, I believe, is the
immediate satisfaction of knowing that one has not let adversity get
the better of him, that he has had the strength of mind and will to
adjust even to this, that he has, more simply, come out on top in the
biggest fight of his life.”

Outwardly calm and poised in his new wheel-chair, Terry came
back to Topeka and Washburn in April, eleven months after the ac­
cident. Soon he returned to work. The University moved his office
to the basement of another building, and built a cement ramp leading down to it. There he works daily from eight to five, a picture of Dr. Collier looking down at him. He has found teaching so pleasant that he recently resigned his position as alumni secretary in order to devote full time to the classroom. He leads a useful, busy life.

At Washburn basketball games, Terry is the official scorekeeper. In the fall he cruises back and forth on the sidelines, eyes focused upon the football. Last spring he saw two plays, *Four Poster* and *Guys and Dolls*, in Kansas City; this year he was engrossed by the courtmartial scene from *The Caine Mutiny*, when it was presented on the campus of the University of Kansas.

He does not talk about the forces which are constantly battling against his peace of mind, but he mentions them in his book:

"It is a lonely life. No matter how close I am to those around me, they can never really know how it is. They can't have that feeling of futility. They can't feel the twinges of pain and the little chills and quivers that come up from the paralyzed part of my body. They can never know the shock of waking up from a sound sleep and forgetting for a moment that I am more than half dead. When I start to turn or when I accidentally touch myself below the level, I remember, and I lie there in the darkness in a cold sweat, remembering it all. And I feel so lonely.

"I know that I have been killed. No matter how long I have lived after the accident, I know the complications arising from the paralysis will someday get me. The traffic fatality statistics in Ohio will not show it, but it is true. Before the advent of antibiotics, paraplegics seldom lived more than a few months. Bladder and kidney infections soon took their toll.

"I know, too, that though my life is now a series of awkward lurchings from the bed to the chair, from the chair to the car, and from the toilet to the chair to the bath tub, and though I live with a tube constantly in me, and though other frustrations beset my peace of mind, that friends and acquaintances have their own lives to live, their own troubles to cope with, and I would not have it otherwise. In fact, there is something reassuring about the good friend who comes by to tell me about the bad cough he's been having. Suddenly he looks at me and apologizes for complaining about something so minor. But I have been so glad to have him forget for a moment, and I am sorry that he remembers. One thing is clear to me: I have not lost my ability to understand the troubles
of others and I am proud to find myself sympathetic and worried when friends have difficulties.”

It is pleasant to visit with Terry of an evening in the room which his parents built on to their house for him and Ann. Except for the trapeze over one of the twin beds, it is much like any other bedroom. One entire end of it is taken up by a well-stocked bookshelf, and numerous magazines are suspended from a collapsible laundry rack. In one corner is a collection of miniature bottles. Puzzles of every description are placed in readily accessible spots and well-worn house plans lie across a chair. Here, somewhat awkwardly, I succeeded in posing the question: “Terry, what is the secret; to what do you attribute your ability to lick this thing?”

Without hesitation he answered that his education gave him the variety of interests and the objective philosophy which now supports him. “When things get rough, I can be in the South Pacific in just a few moments,” he said, glancing at his bookshelf. “I’ll never forget how I read furiously when, just before leaving Memphis, I was told that I would have to wear a catheter. That was a blow. My latest interest is archaeology; watch out, or I’ll analyze your skull.

“As far as religion is concerned,” he went on, “I believe in a God, but I don’t hold him responsible for my injury. I don’t believe in a God who punishes evil doers or rewards ‘the elect.’ Mine is a God who has too much respect for His creation to deny man the powers of self-attainment; this would make man a robot.

“I am very much against intolerance. Many people set up a list of qualifications to which they themselves comply and then look down on others who don’t measure up. This list varies, but may go something like this: white, Protestant, American, male. If a paraplegic held to such a belief before his injury, he must reach one of two conclusions, each of which is bad. He must admit either that his list was wrong, or that he was not one of ‘the elect.’ I’m glad that I held no such theories. This thing happened to me by accident—fate had nothing to do with it.

“My training as a scientist helps. You know, I can frequently get outside of myself and look through the other end of the microscope at myself. Then I wonder how McAdam is going to get through this thing, because it’s really bad. I get pleasure from the pursuit of truth, truth with a small t, because no one has a corner on it. But I do feel that I have a real understanding of myself, and of the world and the people about me.

“I don’t consider myself handicapped, because I can compensate for lack of movement with something else. Life still has a lot to
offer. I believe in the satisfaction to be derived from achievement, such as writing a book. Above all, I try to strive for the courage and strength to act when it will benefit me; the patience to live through—I don’t like the word endure—if there isn’t anything I can do; and the wisdom to tell the difference.”

While he spoke quietly, his hands loosely clasped in his lap, and his luminous dark eyes looking right at me, I thought how well he exemplifies, with his faith in man, his self-knowledge, his breadth of interests, and his humility, my concept of humanism. The paraplegic professor is demonstrating how to solve problems much more difficult than any of those in the textbooks.