

LIBERALISM-CONSERVATISM OF COLLEGE STUDENTS

A THESIS

SUBMITTED TO THE DEPARTMENT OF  
PSYCHOLOGY AND THE GRADUATE COUNCIL OF THE KANSAS STATE  
TEACHERS COLLEGE OF EMPORIA IN PARTIAL FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE

BY

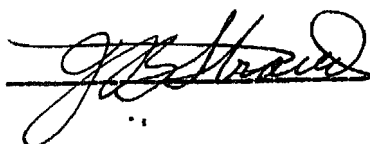
WILLIAM J. BOLDT

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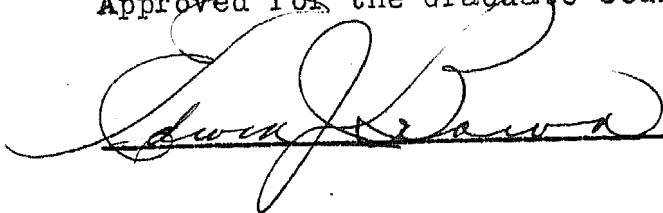
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## INTRODUCTION

Purpose. The purpose of this investigation is to determine the effect of college training upon the attitudes of conservatism-liberalism of college students with respect to certain fundamental social, religious, political, and economic issues. Specifically, do students tend to become more liberal or more conservative as they advance in their training? Are the changes in their attitudes and beliefs in any way connected with their major interests in school? Do the social sciences have more influence upon the student's beliefs than do the other school subjects? Is there any relationship between the amount of training in the social sciences and the change in attitudes? Does the type of community from which the student comes, his religious affiliation, or his father's occupation, have any determining influence upon his attitudes and beliefs? Is there any difference in the changes in conservatism-liberalism with respect to the following problems: politics, social questions, religious beliefs, capital and labor, wealth and property rights, internationalism, and government ownership? To answer these and other questions is the aim of this investigation.

The test. The measure of attitudes in this investigation was "The Harper Social Belief and Attitude Test", as modified by Arnett in his study of "The Social Beliefs



and Attitudes of American School Board Members".<sup>1</sup> This test was used because of its previous use in testing American educators and school board members, thus facilitating a comparison of results.

A good test must possess both validity and reliability. A valid test is one which measures what it set out to measure. Validity refers to the degree of exactness with which it accomplishes its purpose. Reliability refers to the degree of consistency with which the test measures whatever it measures. A test which purports to show tendencies toward conservatism or liberalism on the part of those tested must possess these two qualities, validity and reliability. We must be fairly certain that the test actually accomplishes its purpose and that it will perform its function consistently.

The validity of the test used in this study was ascertained by Harper<sup>2</sup> in several ways, two of which are described here. A group of graduate educators, engaged in a study of social problems through group discussion, were requested to judge each other as to position on a scale of conservatism-liberalism-radicalism. A rank of 1 was to be considered as the most conservative person they had ever known and a rank of 10 as the most liberal person they had ever known.

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<sup>1</sup>Claude E. Arnett, The Social Beliefs and Attitudes of American School Board Members, pp.16-28. 235pp.

<sup>2</sup>Manly H. Harper, Social Beliefs and Attitudes of American Educators, p.36-38, Teachers College, Columbia University Contributions to Education, No.294. 91pp.

They were to rank each other according to this scale. Each educator was judged by as many as five of the other educators. A few days later these educators were given the test. The correlation between the test and the median judgements as given by the educators in their ranking of each other was found to be  $.759 \pm .032$ .

Forty-seven judges, selected because of their experience, background and wide social interest, were directed to "conceive a scale of social beliefs and attitudes extending from the extreme marked C through the point marked L to the opposite extreme marked R"<sup>3</sup>, as shown below:

C	L	R
Extremely Conservative	Conservative Liberal Radical	Extremely Radical

The group of people who would fall somewhere between C and L was to be named the C Group and the group of people between L and R was to be named the R Group. The judges were then to consider each proposition of the test. If it was the opinion of a judge that the C Group would give the larger per cent of plus marks to a certain proposition, he was to write the letter C beside that proposition. But if it was his opinion that the R Group would give the larger per cent of plus marks to that proposition, he was to write the letter R beside that proposition.

There was an average agreement of over 98 per cent on the 71 propositions. One proposition was dropped because

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<sup>3</sup>Manly H. Harper, op. cit., p.37.

practically 50 percent of the judges marked it C and 50 percent marked it R. Another proposition which recieved an agreement of but 58 percent was retained "as its validity was confirmed by the reaction to it of the more liberal educators tested as compared with the reaction of the more conservative educators tested".<sup>4</sup> There was agreement among the judges relative to the other 70 propositions of the test as follows: 1 by 81 percent; 3 by 94 percent; 3 by 96 percent; 16 by 98 percent; 47 by 100 percent.

The reliability of the test was determined by Harper<sup>5</sup> in the following manner: Graduate teachers and other graduate educators, students at a school of education, were tested just before the Christmas vacation. They were given the test a second time after returning from their vacation. Three weeks had elapsed since the first test had been given. The students did not know that the second test was for correlation purposes, but merely supposed that a second set of papers was needed for statistical use. The coefficient of self-correlation was found to be .904  $\pm$ .013.

The Harper test is, therefore, valid and reliable. There was an average agreement of over 98 percent among the 47 judges as to whether an affirmative answer to each of the 71 propositions of the test was indicative of conservatism or liberalism. The reliability of a test is usually

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<sup>4</sup> Manly Harper, op. cit., p. 38

<sup>5</sup> Ibid.

found by self-correlation. Since a correlation of .90 is considered high and since the coefficient of self-correlation on the Harper test was found to be .904 we may conclude that it is satisfactory in reliability.

Additional data collected. The following information was gathered by means of a questionnaire placed at the beginning of the test: college classification, father's occupation, church affiliation, type of community from which the subject came, major and minor subjects, number of hours taken in the several departments of the college as education, psychology, sociology, industrial arts, Latin, etc.

Norms for educators as found by Harper<sup>6</sup> were also secured. Further comparative data were secured from Arnett's study of American School Board Members.<sup>7</sup>

The test used in this investigation, together with the questionnaire that preceded it, is as follows:

Name..... College Classification.....

Age..... Sex..... Father's occupation.....

Your church affiliation..... Do you live in country or town?..... If in town, give name..... If you are a freshman, what courses are you taking?.....

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<sup>6</sup>Manly H. Harper, A Social Study, Bureau of Publications, Teachers College, Columbia University, New York City, 1927. lp.

<sup>7</sup>Claude E. Arnett, op. cit.

If your classification is sophomore or above, how many hours work have you had, including those you are now taking, in each of the following departments: Education.....Sociology  
 .....Psychology.....History and Gov't.....Commerce.....  
 Physics.....Chemistry.....Biology.....Mathematics.....  
 Industrial Arts.....English.....French.....Spanish.....  
 Latin.....Agriculture.....Art.....Geology.....Geography..  
 ....Health Education.....Home Economics.....Library Science  
 .....Music..... What is your college major?.....  
 .....Minor?..... What  
 groups have been filled or planned(give by dep'ts)?.....  
 .....

### INSTRUCTIONS

If you agree with a proposition more fully than you disagree, mark it by placing a plus sign (+) in the parentheses at the right of the number.

If you disagree more fully than you agree, mark the proposition by placing a minus sign (-) in the parenthesis at the right of the number.

1. ( ) In teaching the vital problems of citizenship, teachers should so impress on the students the approved opinions in these matters that life's later experiences can never unsettle or modify the opinions given.
2. ( ) If our people were willing to try the experiment fairly, the government ownership of railroads would be for the best interests of the country.
3. ( ) The practice of democracy, as developed in the United States, has no serious or far-reaching defects.
4. ( ) As a rule, the laborer in this country has as favorable an opportunity to obtain a fair price for his labor as his employer has to obtain a fair price for the goods which the laborer produces.
5. ( ) One should never allow his own experience and reason

to lead him in ways that he knows are contrary to the teachings of the Bible.

6. ( ) The government should provide to all classes of people opportunity for insurance at cost against accident, sickness, premature death, and old age.
7. ( ) For the improvement of patriotism our laws should forbid much of the radical criticism that we often hear and read concerning the injustice of our country and government.
8. ( ) If any facts should be found favorable to socialism they should be omitted from histories written for high school use.
9. ( ) Among the poor, many more individuals fall short of highest satisfaction on account of too many desires than on account of lack of income.
10. ( ) The United States should exercise a wider and firmer control in Latin America.
11. ( ) Very large fortunes gained in this country have, in almost all cases, been obtained by proportionately large service to the common welfare.
12. ( ) The United States is justified in refusing to join the League of Nations.
13. ( ) Licenses to teach in the public schools should be refused to persons believing in socialism.
14. ( ) The measure of right and wrong in human action is in direct proportion to the measure in which the action enriches or impoverishes human experience.
15. ( ) On the whole in this country, the reward given manual laborers, as compared with the share taken by their employers, has been in just proportion to the services they have rendered.
16. ( ) The United States should avoid any extensive program of government ownership and operation in the generation, transmission, and distribution of hydro-electric power.
17. ( ) The present curricula of our schools are well suited to the development of broad and sympathetic understanding among our various economic groups -- farmers, miners, manufacturers, etc.
18. ( ) During the dangers of impending war our government should prevent any groups of citizens from opposing,

through public discussions or through publications, the government's most thorough preparation for the possible conflict.

19. ( ) Without directly teaching religion a teacher's influence in the public schools should always be definitely and positively favorable to the purposes and activities of our generally recognized religious organizations.
20. ( ) The wage system of industry operates with desirable efficiency in promoting the interest of laborers in the work they are employed to do.
21. ( ) Some events in the history of the United States during the past 40 years show that influential groups among our people have at times swayed our government into imperialism, the selfish policy of controlling and exploiting the people of another nation.
22. ( ) Because of conditions developed by science and invention, nations that continue to grow in strength and justice will inevitably become less interdependent.
23. ( ) Most students of our high schools should give a larger proportion of their time to the study of ancient languages, in view of the benefit of general mental development and refinement to be derived therefrom.
24. ( ) Our generally recognized religious organizations retard progress by continuing to operate as the dead hand of the past, hindering, through subservience to mythical super-human authority, efficient search for truth and justice.
25. ( ) No normally healthy individual can justly appropriate and enjoy more property than he has earned by service to the common good.
26. ( ) The development of the highest welfare of the country will require government ownership of important minerals.
27. ( ) World conditions seem now to insure enduring peace among the nations.
28. ( ) In the industries of this country proper opportunity and encouragement are usually given to laborers to progress from lower to higher positions of all grades of responsibility and reward.
29. ( ) The methods and curricula now commonly employed in

teaching citizenship insure our country's efficient progress in democracy.

30. ( ) Our educational forces should be directed toward a more thoroughly socialistic order of society.
31. ( ) For the sake of our continued prosperity teachers should endeavor to give students of suitable age a firm understanding of and belief in the protective tariff policy.
32. ( ) Many more industries and parts of industries should be owned and operated cooperatively by the producers (all the workers) themselves.
33. ( ) The power of huge fortunes in this country endangers democracy.
34. ( ) In the elementary school a direct study of the Constitution of the United States has greater possibilities for building citizenship than has any study or work that can be properly undertaken in the practical arts -- such as home-making, agriculture, mining, manufacturing, etc.
35. ( ) Events since the World War have shown clearly that the permanent policy of the United States should be to let Europe settle its political problems without our government's participation.
36. ( ) Considering the present lack of respect for authority, teachers should rise to the occasion by depending less on the self-direction of students and more on the firmly enforced plans and directions given by the teacher.
37. ( ) As a rule, the time spent on Latin by the girls in our high schools could much better be spent on such subjects as music, fine arts, home-making, literature, or social studies.
38. ( ) Some form of public regulation of business or some form of taxation should be used that would make impossible the accumulation or holding of a fortune as large as some fortunes now held.
39. ( ) Reproduction should be made impossible, by segregation or by surgical operation, for all those below certain low standards of physical and mental fitness.
40. ( ) Teachers can get no practical help from psychology that cannot be better obtained from mere common sense experience.



41. ( ) On the whole, we have had too much of government interference or regulation in private business.
42. ( ) The history of protective tariff legislation in this country is a worthy record of our government's impartial and efficient devotion to the welfare of all people.
43. ( ) It should become common practice for owners of capital to share profits and management with their employees.
44. ( ) A large majority of those who usually vote the Republican ticket are influenced in their voting more by ignorance and prejudices than by rational thought. (No comparison with other parties is implied.)
45. ( ) Every boy and girl in American school should be taught to give unquestioning and unlimited respect and support to the American flag.
46. ( ) History shows no development to encourage the hope that there can ever be a practical international or world government to deal with international or world affairs.
47. ( ) Our radical papers exaggerate greatly when they say that 5 per cent of our population owns 95 per cent of all the property in this country.
48. ( ) The development of the highest welfare of the country will require government ownership of the land.
49. ( ) The members of Congress from agricultural sections should cooperate to make the laws of greatest possible advantage to the farmers.
50. ( ) There is no probability that the means of forming public opinion (especially the schools and the press) will be unfairly influenced or controlled by the wealthy interests.
51. ( ) Any self-direction by students of the elementary school should be limited to routine matters and special projects.
52. ( ) We should attempt to give students in our public schools an abiding faith in the Constitution of the United States in all its parts and principles.
53. ( ) No school, college, or university should teach anything that is found to result in tis students doubting or questioning the Bible as containing the word of God.

54. ( ) If every nation were as wise and just as the United States there would be no danger of more great wars.
55. ( ) In these days of lack of thoroughness, elementary teachers should give their attention more singly and directly to teaching the fundamentals -- in reading, handwriting, arithmetic, etc.
56. ( ) The only god we should serve is truth revealed through the interpretation of experience by clear, unselfish, rational thought.
57. ( ) In matters of citizenship the student's interests, mental attitudes, and methods of work are not so vital as his desire to remember the conclusions emphasized by the teacher and other qualified authorities.
58. ( ) Our laws should prohibit giving information, even to adults, concerning birth control, through public meetings or through the mails.
59. ( ) By legislative and executive action, government in this country has often given manufacturing and commercial interests special advantages seriously detrimental to other important interests.
60. ( ) The man whose vacant lots in a thriving city increase many fold in value because the city's homes and business grow up around those lots, should, in justice, be required to repay in taxes a large part of the unearned profits to the city that created the increased values.
61. ( ) A league or association of nations, including the United States, is the only kind of organization sufficiently inclusive to deal adequately with broader international affairs.
62. ( ) The opportunities for education offered to the young of this country show that our people are properly sensitive and loyal to the principle of equality and opportunity for all.
63. ( ) A larger proportion of time in our high schools should be given to such subjects as modern history, civics, economics, and sociology.
64. ( ) If it were true that 1 per cent of the citizens of the United States owned more property than the other 99 per cent, it would be of great importance in our high schools to seek to interest the students in a study of the causes operating to produce this unequal distribution of wealth.

65. ( ) Citizens should desire our elementary and high schools to give unprejudiced and vigorous study and discussion to important social and political issues upon which community opinion is divided.
66. ( ) It would be undemocratic for the United States to surrender any of its sovereign power to an international super-government in order to become a member of such an organization.
67. ( ) Taxes on very large inheritances should be high enough to prevent any heirs receiving huge fortunes.
68. ( ) The classroom teacher should be given a larger and more responsible share in organizing the curriculum of the school and in determining the subject matter and method of her own teaching.
69. ( ) It would be well to give a larger proportion of the time in our elementary schools to elements involved in the problem of capital and labor.
70. ( ) Histories written for elementary or high school use should omit any facts likely to arouse in the minds of the students questions or doubt concerning the justice of our social order and government.
71. ( ) The life and work of the school cannot properly be like the activities of life outside of school because the school has its own work to do in preparing young people for later life.

Subjects. The subjects tested were the students of the four college classes and of the graduate school of the Kansas State Teachers College, Emporia, Kansas. The following number of subjects was secured from the five college groups: freshman, 411 out of a possible 615; sophomores, 106 out of a possible 259; juniors, 98 out of a possible 153; seniors, 103 out of a possible 105; and graduate students, 20 out of a possible 33. This number was considered a sufficient percentage of the whole to afford an adequate sampling. Through the courtesy of the instructors, the majority of the students were tested in the class-room, the remainder being tested individually. The total number of the subjects used was 738, this being about 66 percent of the entire school population.

For matters of comparison the test was also given to a number of students of the junior and senior classes of the College of Emporia, Emporia, Kansas. 12 seniors and 20 juniors were all that were available for test purposes.

Historical summary. Harper, who designed the test used in this investigation, used it as a means of measuring the social beliefs and attitudes of American Educators.<sup>8</sup> The test was given to more than 2,900 educators representing all forty-eight states of the Union.

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<sup>8</sup>Manly H. Harper, op. cit., pp. 44-75.

The median scores of the various groups tested were found to range from 39 to 68. There was found to be a definite tendency toward greater liberalism according to the amount of education the educators had received above the eighth grade. Those educators with not more than four years of education above the eighth grade appear the most conservative, while educators holding a Bachelor's degree appear more liberal in their social attitude and beliefs.

Arnett<sup>9</sup> in his study of American school board members found that below the junior college level the amount of education does not appear significant in developing liberalism. Above this level, however, the amount of education does appear as a significant factor in the development of liberal attitudes and beliefs.

Rudycha<sup>10</sup> tested the social beliefs of the freshmen at Ripon College. The incoming freshmen were given a list of 25 propositions concerning social and political problems and asked to register their agreement or disagreement with the proposition. As a whole the freshmen appear rather conservative.

Rudycha<sup>11</sup> also tested the freshmen of Ripon college on religious beliefs. A questionnaire was used dealing with

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<sup>9</sup>Claude E. Arnett, op. cit., pp. 189-206.

<sup>10</sup>George J. Rudycha, "The Moral and Popular Beliefs of college Freshmen", SCHOOL AND SOCIETY, Vol 32, July 12, 1930, pp. 69-72.

<sup>11</sup>ibid, "Social Beliefs of College Freshmen", SCHOOL AND SOCIETY, vol. 32, Dec. 20, 1930, pp. 846-849.

such issues as, the ten commandments, existence of God, Bible as the word of God, immortality, virgin birth of Christ, etc. Those students affiliated with the Congregational church were found to be the most liberal in their religious beliefs, followed in order of liberalism by those affiliated with the Methodist, Presbyterian, Lutheran, and Catholic churches.

Kornhauser<sup>12</sup> endeavored to measure the change in the information and attitudes of students in an economic course. The students at Chicago University were given the test before and after a course in "the Economic Order". The test consisted of 94 statements or controversial questions of economic policy. The average median change of the students taking the course was 8.8 points. On some items the change was more than 20 points. There appeared to be a tendency toward slightly increased radicalism. About 60 percent became more radical, 20 percent became more conservative, and 20 percent remained unchanged.

Vetter<sup>13</sup> constructed a test consisting of 36 divisions with 5 questions in each division dealing with such issues as government ownership, birth control, hereditary wealth, minimum wage law, etc. The test was given to the students at Washington Square College, University of Washington,

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<sup>12</sup>Arthur W. Kornhauser, "Changes in the Information and Attitudes of Students in an Economic Course", JOURNAL OF EDUCATIONAL RESEARCH, vol 22, Nov. 1930. pp. 288-298.

<sup>13</sup>George B. Vetter, "The Measurement of Social and Political Attitudes and the Related Personality Factors", JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, vol 25, July-September 1930, pp. 149-189.

Syracuse University, and Dartmouth College. At the right of each statement were the following descriptive labels: reactionary, conservative, neutral, liberal, radical. The subjects were requested to draw a line beneath that label which most described their position. The women were found to be more conservative than the men. There were differences as to family incomes, the conservatives and reactionaries being more prosperous than the liberals and radicals. The oldest children in a family were the liberals and the younger children were more conservative. Those affiliated with the Republican party were dominantly more reactionary and conservative. There were reactionaries and conservatives among Christians, and more liberals and radicals among Jews.

Bain<sup>14</sup> presents the following discoveries concerning the religious attitudes of students in elementary sociology at Washington University: men and women do not differ greatly in their religious attitudes; men appear to be more liberal on all questions except persistence of personality after death; the traditional views on God, Jesus, immortality, inspiration of the Bible, hell, Sunday observance, etc., appear to receive only a small acceptance in this group of college students.

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<sup>14</sup>Reed Bain, "Religious Attitudes of College Students", AMERICAN JOURNAL OF SOCIOLOGY, vol. 32, March, 1927, pp. 762-770.

Jones<sup>15</sup> tested a group of 248 college freshmen, 76 upper class students (almost entirely seniors), and 94 students in their second year of law. The test consisted of 25 statements dealing with social issues and the subjects were asked to score them according to a scale of 2 1 0 -1 -2. The seniors appeared more conservative than the freshmen on the economic questions and far more liberal than the freshmen on the religious issues.

Hornell Hart<sup>16</sup> has also used the questionnaire in testing social attitudes and interests. The purpose of his test is to measure the degree of socialization of the individual. The questionnaire deals with things which people like or dislike to do or be, for example, stub your toe, turn a page, be seasick. The subject is asked to put a circle around the plus sign after each thing that he is sure he likes and a circle around the minus sign after each thing he is sure he dislikes. Things about which he has a neutral opinion are to be skipped. A line is to be drawn under the five things he feels most strongly about and a double line under that thing he feels most strongly of all. The test was given to a group including thieves, employed boys, grade and high school boys, business men, junior "medics", and other college men.

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<sup>15</sup>Edward S. Jones, "The Opinions of College Students", JOURNAL OF APPLIED PSYCHOLOGY, vol 10, Dec. 1926, pp. 427-436.

<sup>16</sup>H. N. Hart, A Test of Social Attitudes and Interests, University of Iowa Studies in Child Welfare, 2, No.4, 1923. 40 pp.



It was found that the two groups gave markedly different reactions on 93 of the 149 stimulus words.

Symond<sup>17</sup> has constructed a test on current social issues consisting of 115 items. A questionnaire consisting of a great many items was submitted to a sociologist, an English professor, two psychologists, and to Symonds himself. They were asked to answer each question according to their belief as to its liberal, progressive or radical position. The 115 items considered most definite were retained in the test. The score is the percentage of liberal answers given by the subject.

G. Watson<sup>18</sup> designed a set of tests purported to determine the fairmindedness of subjects on certain social issues. The object of the test is to determine the degree to which an individual tends toward extreme conservatism or extreme radicalism. Form A is a "Cross-Out Test" in which a list of words are given, e. g., big interests, capitalists, Ku Klux Klan, etc., and the subject is directed to cross out the words which suggest more that is disagreeable than is agreeable. The assumption is that if the subject crosses out any of these words he tends to oppose the established economic order.

Form B. is a "Degree of Truth Test" in which the subject taking the test is directed to approve or dis-

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<sup>17</sup> P. M. Symonds, "A Social Attitudes Questionnaire", JOURNAL OF EDUCATIONAL PSYCHOLOGY, vol. 16, May 1925, pp. 316-322.

<sup>18</sup> G. B. Watson, The Measurement of Fair-Mindedness, Teachers College Contributions to Education, Columbia University, New York, No. 176, 1925. 97 pp.

approve the statement according to a scale of 2 1 0  
-1 +2.

Form C, an "Inference Test", gives certain social situations followed by several conclusions which might be drawn from those situations. The subject is asked to check the conclusion or conclusions which most agree with his opinion. These conclusions contain both radical and conservative opinions. The subjects marking a conclusion extreme in either direction are considered biased or prejudiced.

Form D, a "Moral Judgement Test", is based on the belief that persons tend to be more prejudiced on personal, contemporary affairs than on impersonal, historical affairs. Paired statements are given dealing with both historical and possible contemporary events with several radical and conservative opinions following each statement. The subject is asked to mark the conclusion that most agrees with his opinion. The subject's tendency toward economic radicalism or conservatism is then determined from his responses.

Form E. assumes that those with extreme opinions tend to belittle the arguments of the opposition and to stress arguments upholding their own position. Statements dealing with social situations are given and the subject is asked to underline the degree to which he believes the statement to be true.

In Form F certain statements dealing with social issues are preceded with the words: All Most Few No. The subject is asked to underline the degree to which he believes the statement to be true.

G. Watson<sup>19</sup> is also the author of a test dealing with attitudes toward the Orient.

Symonds<sup>20</sup> has used a modification of the technique used by Hart to test students' interests and attitudes. The test contains items concerning things one would like to own, occupations, activities, places to go, magazines, social activities, and things to be judged right or wrong. Three symbols, + - 0, are placed before each item and the subjects asked to encircle the plus sign if he likes the idea expressed, the minus sign if he dislikes it, and the neutral sign if he has no definite opinion.

Thurstone<sup>21</sup> has constructed a questionnaire dealing with "Attitudes toward the Movies", which includes such statements as "The movies occupy time that should be spent in more wholesome recreation", "The movies are just a harmless pastime", etc., and the subject is asked to register

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<sup>19</sup> G. B. Watson, Orient and Occident, RELIGIOUS EDUCATION, vol. 24, March 1928, pp. 322-328.

<sup>20</sup> P. M. Symonds, "A Studiousness Questionnaire", JOURNAL OF EDUCATIONAL PSYCHOLOGY, vol. 19, March 1928, pp. 152-167.

<sup>21</sup> L. L. Thurstone, "A Scale for Measuring Attitudes Toward the Movies", JOURNAL OF EDUCATIONAL RESEARCH, vol. 22, September 1930, pp. 89-94.

*his agreement or disagreement with the statement.*

Thurstone<sup>22</sup> also made a study of nationality preferences. The twenty-one races or nationalities were presented to the subjects in pairs, as, American-Hindu, Englishman-Swede, etc. Each subject was asked to underline the one race, or nationality, of each pair he would rather associate with. The object of his study was to show that psychophysical formulations used in discriminatory judgements of simple physical stimuli can be applied as well to discriminatory judgements involving social values.

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<sup>22</sup> L. L. Thurstone, "An Experimental Study of Nationality preferences", THE JOURNAL OF GENERAL PSYCHOLOGY, vol. 1, July-October 1928, pp. 405-428.

## PROCEDURE

As a means of showing the influence of college training upon the attitudes of college students, the average scores of the four college classes and graduate school will be compared. By determining whether or not there is any progressive change in the attitudes of the students, as measured by the test, as they progress from class to class, it will be possible to draw some conclusions regarding the influence of the training received. By dividing the subjects into groups according to their major and minor interests and comparing the averages, it will be possible to determine, by making the appropriate comparisons, whether or not students whose major interests lie in one group of subjects change more than those whose interests lie in another group. For this purpose the courses of the curriculum are divided into three groups as follows: Social sciences, including commerce, education, history and government, psychology, sociology, and economics; Humanities, including art, English, Latin, library science, mathematics, modern languages, music, speech; Physical and Biological sciences, including agriculture, biology and geology, chemistry, geography, health education, industrial arts. If the students who major or minor in one group of subjects show more change than those who major or minor in another group, this fact will be of interest not only for its own

sake, but also because of the fact that it will indicate that any change in attitude which may be observed is due to school training rather than to maturation or some other spurious factor.

As a further means of determining whether any difference observed between the five college groups is due to college training rather than to other factors, the subjects are grouped according to the number of hours taken in the social sciences and their averages compared, since the social sciences may be presumed to have the greatest effect. In making these comparisons, the classification in college will be held constant by considering the students of each class separately.

Forty of the 71 items which are classified into certain homogeneous groups and the responses of each class to these groups are compared. Also, some of the more significant items are considered singularly, and the responses of the students of the five classes to them are determined. This procedure will make it possible to determine the issues with respect to which the attitudes of the students in this institution undergo the greatest change.

Incidentally, in order to throw light upon another matter of interest, the subjects will be compared according to the type of community from which they come, according to their father's occupation, and according to their religious affiliation.

The difference and the PE of the difference between these various averages will be obtained and the probabilities that the differences are true differences will be indicated in order to show whether the differences are statistically significant or due to sampling errors.

## RESULTS

Comparison of the five college groups. There was found to be a definite progression toward liberalism from the freshmen level through the graduate level. It can readily be seen from Table I that there is a significant difference between the scores of each of the five academic levels. The average score of freshmen is 42.23 and for graduates, 56.70, a difference of 14.47 score points. The sophomores, junior and senior groups fall between the freshmen and graduate groups in order.

TABLE I

## AVERAGE SCORES OF THE FIVE COLLEGE GROUPS

Classifi- cation	Number of cases	Average score	S. D.	PE(av.)
Freshmen	411	42.23	7.120	.236
Sophomore	106	45.81	8.755	.573
Junior	98	52.00	7.741	.527
Senior	103	54.32	6.858	.455
Graduate	20	56.70	7.163	1.080
Entire School	738	45.85	8.770	.217



In computing the average scores in this investigation the liberal responses were considered, thus, the higher the score the more liberal the tendency. The average score for the entire school is 45.85. The average sophomore score, 45.81, is but .04 of a score lower than the average for the entire school. The average junior exceeds the entire school average by 6.15 score points, the average senior exceeds this school average by 8.45 points, and the average graduate student exceeds it by 10.85 points. The average freshman score is 3.62 score points lower than the entire school average. The greatest difference between the average scores of any two consecutive classes is 6.19 score points, the difference between the sophomore and junior scores.

The average score of the College of Emporia seniors tested is 46.50, or about .69 of a score above the average sophomore of the Kansas State Teachers College and but .65 of a score greater than the Teachers College school average. The average score made by the Teachers College seniors was 54.32, a difference of 7.82 score points between the seniors of the two schools. The average score of the College of Emporia juniors tested is 44.90 or .91 of a score lower than the Teachers College sophomore. The average score made by Teachers College juniors was 52.00, a difference of 7.10 points between the juniors of the two schools.

American school board members as studied by Arnett<sup>23</sup> appear much more conservative in comparison. 1,076 school

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<sup>23</sup>op. cit., p. 66

board members, representing forty-five states of the union, filled out and returned the questionnaire sent to them by Arnett. Their average score was found to be 31.23, or 14.62 score points below the average Teachers College student, 11.00 points below the freshmen average, and 23.09 points lower than the senior average. Arnett<sup>24</sup> found those school board members with a formal education of 14-15 years and less to be the most conservative with average scores ranging from 28.29 to 31.98. Those with a formal education of 16-17 years or more were more liberal with average scores ranging from 32.10 to 38.28.

According to the norms compiled by Harper<sup>25</sup>, educators having a Bachelor's degree but not a Master's degree made a median score of 49, or only three points higher than the average Kansas State Teachers College student and three points lower than the average junior. Educators holding a master's degree have a median score of 53 or only 1 point higher than the average Teachers College junior and 4 points lower than the Teachers College graduate student. Harper<sup>26</sup> also found that educators in the Middle and Far Western section of the United States holding a Bachelor's degree only made an average score of 48, or only 2 higher than the Teachers College school average, and 4 lower than

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<sup>24</sup> op. cit., p. 194.

<sup>25</sup> Manly H. Harper, Social Beliefs and Attitudes of American Educators, pp. 44-47, Teachers College, Columbia University Contributions to Education, No. 294. 91 pp.

<sup>26</sup> Manly H. Harper, A Social Study, Bureau of Publications, Teachers College, Columbia University, New York City, 1927. 1 p.

the average junior. He found that extensions of the undergraduate education was accompanied by slight increases in scores.

Educators holding a Bachelor's degree only in the South made an average score of 44, or 2 points lower than the Teachers College school average and 2 points lower than the average sophomore.

Statistical significance of the group averages. The question naturally arises as to whether the differences between the average scores of the five classes are true differences or are due merely to chance selection. As a means of throwing light upon this question the statistical probabilities that the differences are valid have been computed. Table II shows the differences, their PE's, and the chance in 100 that the differences obtained <sup>are</sup> true differences.

TABLE II

DIFFERENCES BETWEEN THE AVERAGE SCORES OF THE FOUR COLLEGE GROUPS, PE'S, AND PROBABILITIES.

Classifications	Difference	PE(diff.)	Chances in 100
Freshmen-Sophomore	3.58	.620	100.
Freshmen-Junior	9.77	.578	100.
Freshmen-Senior	12.09	.513	100.
Freshmen-Graduate	14.47	1.123	100.
Sophomore-Junior	6.19	.779	100.
Sophomore-Senior	8.51	.732	100.
Sophomore-Graduate	10.89	1.222	100.
Junior-Senior	2.32	.699	99.
Junior-Graduate	4.70	1.201	99.5
Senior-Graduate	2.38	1.172	91.

It can readily be seen from the data given in Table II that in every instance except one there are practically 100 chances in every 100 that the difference between these averages is a true difference and not due to errors in sampling. The difference between the averages of the senior and graduate classes is also significance, there being 91 chances in 100 that this is a true difference. There are 99.5 chances in 100 that the sophomores will make a higher score than the freshmen and 100 chances in 100 that the

juniors, seniors and graduates will be more liberal minded than will be the sophomores. There are 99 chances in 100 that the seniors will be more liberal than the juniors and 99.6 chances in chances in 100 that the graduates will be more liberal than the juniors. There are 91 chances in every 100 that the graduates will be more liberal than will be the seniors. Thus, there are for all practical purposes 100 chances in every 100 that there will be, in a similar sampling, a definite progression toward liberalism from the freshmen level through the graduate level.

Influence of kind of academic training upon the test scores. The sophomores, juniors and seniors were grouped according to their major interests. They were placed in one of the following classification as indicated by the students specified major and minor, or, as in the case of the sophomores, the majority of whom had not as yet declared their majors and minors, by the number of credit hours already taken: social science, social science-humanities, social science-physical and biological sciences, physical and biological sciences, and humanities-physical and biological sciences. Table III, IV and V show the averages of the subjects grouped in this manner.

TABLE III

THE AVERAGE SCORE OF SOPHOMORES GROUPED ACCORDING  
TO THEIR MAJOR INTERESTS.

Major Interest	Number	Average	S. D.	PE (av.)
Social Science	9	49.67	10.370	2.331
Social Science- Physical and Bio- logical Sciences	30	47.87	9.390	1.156
Social Science- Humanities	29	46.87	8.040	1.453
Humanities	17	43.35	7.157	1.170
Physical and Bio- logical Sciences	9	43.22	7.539	1.695
Humanities-Physical and Biological Sciences	12	40.83	6.348	1.236

TABLE IV

THE AVERAGE SCORE OF JUNIORS GROUPED ACCORDING  
TO THEIR MAJOR INTERESTS

Major Interests	Number of cases	Average	S.D.	PE (av.)
Social Science	13	54.12	4.270	.798
Social Science- Humanities	36	53.76	8.221	.924
Social Science- Physical and Bio- logical Sciences	19	52.89	6.910	1.069
Humanities	16	49.00	7.937	1.338
Physical and Bio- logical Science	10	48.40	4.968	1.059

TABLE V

THE AVERAGE SCORE OF SENIORS GROUPED ACCORDING TO  
THEIR MAJOR INTERESTS.

Major Interests	Number of cases	Average	S.D.	PE (av.)
Social Science- Physical and Bio- logical Sciences	18	56.87	6.44	1.02
Social Science	7	55.79	5.61	1.43
Social Science- Humanities	36	54.11	7.12	.81
Humanities	13	53.47	5.44	1.02
Humanities- Physical and Bio- logical Sciences	8	53.25	6.96	1.66
Physical and Bio- logical Sciences	18	52.56	7.50	1.19



As seen from the above-named Tables those students whose major interests lie in the social sciences or some combination of the social sciences with either the humanities or the physical and biological sciences are consistently more liberal in their attitudes and beliefs than are those students whose major interests do not include the social sciences or any combination of the social sciences with one of the other two groups. Those sophomores and juniors whose interests lay almost entirely within the social science group made the most liberal scores. The most liberal scores made by any group of seniors were made by those majoring in the social science-physical and biological sciences group. The most conservative group of juniors and seniors were those majoring in the physical and biological sciences. The most conservative group of sophomores were those majoring in the humanities-physical and biological sciences. The number of students in the junior class with major interests in the humanities-physical and biological sciences group was not sufficient to classify.

The sophomores, juniors and seniors were then grouped together according to their major interests and the averages of the six groups determined. This was done because it seemed probable that the larger number of cases obtainable for each division would insure <sup>more</sup> reliable results. The students with major interests in the social sciences or some combination of the social sciences and another group show a

greater degree of liberalism than do those students whose major interests do not include the social sciences. Table VI shows the averages when the three classes are grouped together.

TABLE VI

THE AVERAGE SCORES OF SOPHOMORES, JUNIORS AND SENIORS WHEN GROUPED TOGETHER ACCORDING TO THEIR MAJOR INTERESTS.

Major Interests	Number of cases	Average	S.D.	PE(av.)
Social Science	29	53.28	7.53	.94
Social Science-Humanities	101	51.87	8.36	.56
Social Science-Physical and Biological Sciences	67	51.66	8.81	.73
Physical and Biological Sciences	37	49.11	7.93	.879
Humanities	46	48.18	8.17	.812
Humanities-Physical and Biological Sciences	20	45.80	8.98	1.354

The social science group appears the most liberal in their attitudes and beliefs with an average liberal score of 53.28. The humanities-physical and biological sciences group appear the most conservative with an average liberal score of 45.80.

Statistical significance of the averages when subjects are grouped according to major interests. The probabilities are very great that those students whose major interests lie in the social sciences or some combination of the social sciences and another group will upon repeated tests, be found to be more liberal in their attitudes than those students whose major interests lie in some other group or combination. The data given in Table VII show that these differences between the groups containing the social science subjects and the groups not containing the social sciences are true differences and not due to sampling errors and, therefore, of some statistical significance.

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TABLE VII

DIFFERENCES BETWEEN THE SCORES OF SOPHOMORES,  
 JUNIORS, AND SENIORS GROUPED TOGETHER  
 ACCORDING TO THEIR MAJOR INTERESTS,  
 PE'S, AND PROBABILITIES.

Major Interests	Differ- ence	PE (diff.)	Chances in 100
Social Science:Social Science- Humanities	1.404	1.097	80
Social Science:Social Science-Physical· <i>Biological</i> Sciences	1.619	1.195	82
Social Science: Phys- ical and Biological Sciences	4.167	1.289	99
Social Science: Human- ities.	5.097	1.631	100
Social Science: Human- ities-Physical and Biological Sciences	7.475	1.631	100
Social Science- Human- ities:Social Science- Physical and Bio- logical Sciences	.214	.917	56
Social Science-Human- ities: Physical and Biological Sciences	2.763	1.042	96
Social Science-Human- ities:Humanities	3.692	.987	99
Social Science-Human- ities-Physical and Biological Sciences	6.071	1.464	100
Social Science-Phys- ical and Biological Sciences:Humanities	2.548	1.140	93

TABLE VII(continued)

DIFFERENCES BETWEEN THE SCORES OF SOPHOMORES,  
JUNIORS, AND SENIORS GROUPED TOGETHER  
ACCORDING TO THEIR MAJOR INTERESTS,  
PE'S, AND PROBABILITIES.

Major Interest	Differ- ence	PE (diff.)	Chances in 100
Social Science-Phys- ical and Biological Sciences:Humanities- Physical and Biolog- ical Sciences.	5.856	1.535	99.5
Physical and Biolog- ical Sciences:Human- ities.	.929	1.197	70.
Physical and Biolog- ical Sciences:Human- ities-Physical and Biological Sciences	3.308	1.613	91.
Humanities:Humanities- Physical and Biolog- ical Sciences	2.378	1.578	84

There are 100 chances in every 100 that the obtained difference between the social science group and any group or combination not containing the social sciences is a true difference. There are 99 chances in every 100 that the social science group will be more liberal minded than will the physical and biological sciences group. The obtained difference between the social science-humanities group

and the humanities-physical and biological sciences group is large enough to suggest that in 100 cases out of every 100 a similar sampling would show that the social science-humanities group is the more liberal in social beliefs and attitudes. And there are 99 chances out of a 100 that the social science-humanities group is more liberal than the humanities group. There are 99.5 chances in 100 that the physical and biological sciences group with some interest in the social sciences will be more liberal minded than will the physical and biological science group with a like interest in the humanities.

These results are about what one should expect since the problems and issues dealt with in the test are those which are the concern of the social sciences to a much greater extent than of any other group of subjects. There is no particular reason why students whose major interests lie in the physical and biological sciences and in the humanities should undergo any considerable change in their attitudes toward social, political, economic, and religious problems since the subject matter of such courses is not very closely related to these problems.

Influence of number of hours taken in the social sciences upon the test scores. The juniors were divided into the following groups: those taking 5 to 19 hours in

the social sciences, those taking 20 to 34 hours, and those taking 35 or more hours. The seniors were divided as follows: those taking 10 to 29 hours in the social sciences, those taking 30 to 49 hours, and those taking 50 or more hours. It is clearly evident from the data presented in Tables VIII and IX that the change effected in the attitudes and beliefs of students taking work in the social sciences is a function of the number of semester hours credit obtained.

TABLE VIII

THE AVERAGE SCORES OF JUNIORS WHEN GROUPED ACCORDING TO THE NUMBER OF HOURS TAKEN IN THE SOCIAL SCIENCES.

Number of hours	Number of cases	Average	S.D.	PE(av.)
5 to 19	21	47.29	6.855	1.008
20 to 34	41	51.54	7.375	.776
35 and up	34	55.18	6.868	.794

TABLE IX

THE AVERAGE SCORES OF SENIORS WHEN GROUPED ACCORDING TO THE NUMBER OF HOURS TAKEN IN THE SOCIAL SCIENCES.

Number of hours	Number of cases	Average	S.D.	PE(av.)
10 to 29	30	51.80	6.738	.785
30 to 49	43	54.67	6.953	.715
50 and up	27	57.15	6.058	.786

There is a definite progression toward liberalism through these three groups. The fewer hours the student has taken in the social sciences the more conservative he appears to be and the more hours the student has taken the more liberal he is. The juniors with from 5 to 19 hours made an average score of 47.29 as compared with an average score of 55.18 for those taking 35 or more hours, a difference of 7.89 score points. The same was true with the seniors. Those who had taken 10 to 29 hours in the social sciences appear to be the most conservative, and those with 50 or more hours appear the most liberal. The average score for the seniors with 10 to 29 hours is 51.80 as compared with an average score of 57.15 for those with 50 or more hours in



the social sciences, a difference of 5.35 points.

It is at once apparent that this difference is not due to selective factors, such as the age of the subjects. The juniors who had taken 20 to 34 hours made practically the same average score as did those seniors with a similar number of hours, 10 to 29, the junior average being 51.54 and the senior average 51.80, a difference of only .26 of a point. The same held true in a comparison of the juniors with 35 hours or more and seniors with 30 to 49 hours. The junior average liberal score was 55.18 and the senior 54.67, a difference of but .51 of a score point.

Statistical significance of the average of juniors and seniors grouped according to number of hours in the social sciences. The probabilities that a trend toward liberalism would take place as the student advances in his study of the social sciences are very great. Tables X and XI show these probabilities.

TABLE X

DIFFERENCES BETWEEN THE AVERAGE SCORES OF JUNIORS  
WHEN GROUPED ACCORDING TO THE NUMBER OF HOURS  
TAKEN IN THE SOCIAL SCIENCES, PE'S, AND  
PROBABILITIES.

Number of hours	Difference	PE(diff.)	Chances in 100
5 to 19: 20 to 34	4.249	1.273	99
5 to 19: 35 and up	7.889	1.284	100
20 to 34: 35 and up	3.639	1.111	98

TABLE XI

DIFFERENCES BETWEEN THE AVERAGE SCORES OF SENIORS  
WHEN GROUPED ACCORDING TO THE NUMBER OF HOURS  
TAKEN IN THE SOCIAL SCIENCES, PE'S AND  
PROBABILITIES.

Number of hours	Difference	PE(diff.)	Chances in 100
10 to 29: 30 to 49	2.874	1.062	97
10 to 29: 50 and up	5.348	1.111	100
30 to 49: 50 and up	2.473	1.062	94

There are, for all practical purposes, 100 chances in 100 that the juniors will become more liberal in their social attitudes and beliefs as their training in the social sciences is extended. This tendency also holds true of the senior groups, the differences being large enough to insure a true difference.

Responses to related items. Forty of the 71 items were classified into several homogeneous groups. The forty items were arbitrarily chosen. This classification follows in general principle the classification used by Arnett in his study of American School Board members.<sup>27</sup> The classification used in the present investigation is as follows:

- A. Wealth and Property Rights - numbers 11, 25, 33, 38, 47, 50, 60, 67.
- B. Internationalism - numbers 12, 27, 35, 46, 61, 66.
- C. Political - numbers 10, 21, 41, 44.
- D. Government Ownership - numbers 2, 16, 26, 48.
- E. Capital and Labor - numbers 4, 9, 15, 20, 28, 32, 43.
- F. Social - numbers 6, 8, 13, 30, 39, 58.
- G. Religious - numbers 5, 19, 24, 53, 56.

As has held true throughout this investigation, there appears to be a definite progression toward more liberal attitudes on the part of students as they advance in their college work. There is one decided exception in the case of religious attitudes. The students show a decided increase in liberalism from the freshmen level through the

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<sup>27</sup> Claude E. Arnett, op. cit., pp. 49-50

senior level, but the graduate students tested dropped to a more conservative position. Only 39 percent of the graduate students made liberal replies to this group of items as compared to 60 percent in the case of the seniors and 43 percent in the case of the juniors. Table XII shows the percentage of liberal responses made to the forty items as a whole.

TABLE XII

PERCENTAGES OF LIBERAL RESPONSES TO THE ENTIRE FORTY ITEMS.

Class	Percent	Class	Percent
Freshmen	59	Senior	76
Sophomore	64	Graduates	80
Juniors	73	Entire School	65

Table XIII shows the liberal responses made to each homogeneous group

TABLE XIII  
 PERCENTAGES OF LIBERAL RESPONSES MADE TO EACH  
 GROUP OF RELATED ITEMS.

Homogeneous group	Percentage				
	Fresh.	Soph.	Jr.	Sr.	Grad.
Wealth and prop- erty Rights	68	70	75	77	90
Internationalism	59	63	69	66	77
Political	72	76	85	88	90
Government Ownership	52	53	58	63	60
Capital and labor	56	61	74	78	85
Social	71	76	85	85	91
Religion	30	36	43	60	39

The most liberal attitudes were expressed on questions regarding political and social issues and wealth and property rights. Liberal replies to the six social questions were made by 71 percent of the freshmen and 91 percent of the graduate students. Seventy-two percent of the freshmen made liberal replies to the four political questions and 90 percent of the graduate students responded in the same manner. Liberal replies to the eight questions concerning

wealth and property rights were made by 68 percent of the freshmen as compared with 90 percent of the graduate students. The religious issues received the most conservative replies. Only 30 percent of the freshmen made liberal replies and 60 percent of the seniors. Figure 1 shows the distribution of the percent of liberal replies made to these seven groups of related items. A gradual trend toward liberalism is at once apparent.

In Table XIV the data is given for the percentages of liberal responses made to each of the forty items. In the majority of instances this same gradual growth toward a more liberal attitude can be seen. By referring to pages 6-12 the reader may find the test item which corresponds to each of the numbers given in the column on the extreme left of Table XIV.

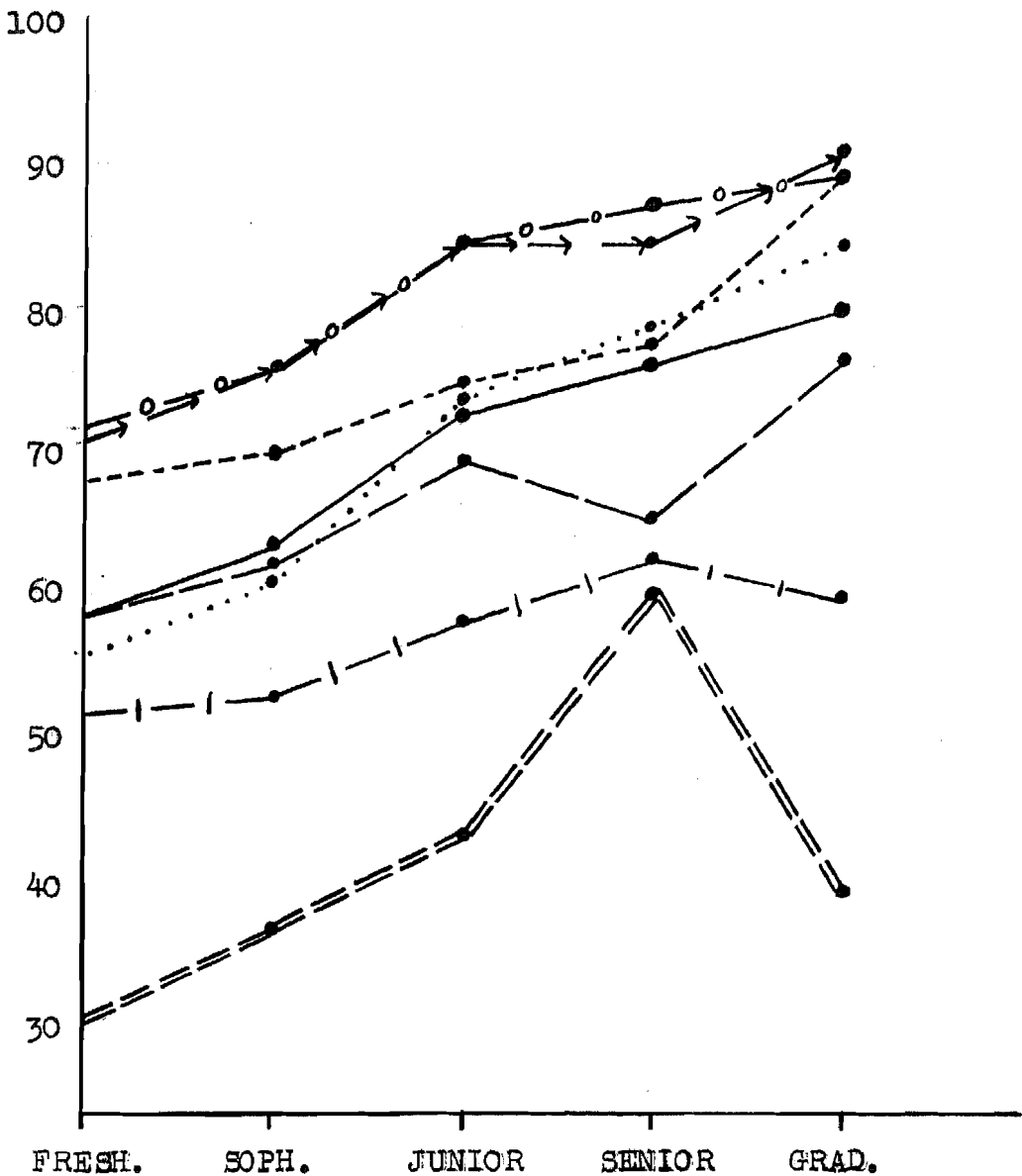


Figure 1. A graphic representation of the change in attitudes from class to class toward seven homogeneous groups of test items.

Legend

- Entire school —————
- Wealth and Property rights -----
- Internationalism —————
- Political issues —○—○—
- Government ownership —|—|—
- Capital and labor .....
- Social issues →→→
- Religious issues == == ==

TABLE XIV  
 PERCENTAGES OF LIBERAL RESPONSES MADE TO  
 EACH RELATED ITEM.

ITEM	PERCENTAGE				
	Fresh.	Soph.	Jr.	Sr.	Grad.
12	38	49	57	55	67
27	92	91	89	98	100
35	27	32	38	25	55
46	66	68	73	65	80
61	74	78	78	69	90
66	56	62	79	86	70
10	80	85	91	94	95
21	80	81	82	90	80
41	76	78	85	83	100
44	53	51	74	72	85
2	74	71	78	84	74
16	65	70	76	87	89
26	50	59	59	57	75
48	20	20	20	23	30
4	48	58	71	77	85
9	44	52	64	58	79
15	74	73	90	91	95
20	57	64	77	84	90
28	39	52	70	70	70



TABLE XIV (continued)  
 PERCENTAGES OF LIBERAL RESPONSES MADE TO  
 EACH RELATED ITEM.

Item	Percentage				
	Fresh.	Soph.	Jr.	Sr.	Grad.
32	62	62	72	84	85
43	68	68	77	86	90
11	70	79	85	93	95
25	74	65	64	65	80
33	87	88	87	93	95
38	84	75	80	89	100
47	63	70	81	85	85
50	70	76	88	82	100
60	46	51	48	61	70
67	48	54	67	60	95
6	53	55	71	53	80
8	88	87	98	95	85
13	75	86	93	96	100
30	35	50	56	69	70
39	88	89	94	97	100
58	86	92	99	98	100
5	38	50	66	84	65
19	10	10	20	21	20
24	29	29	47	60	40
53	32	51	75	80	74
56	43	39	46	57	37

The greatest liberality on the items dealing with internationalism was shown in item 27. One hundred percent of the graduate students and 98 percent of the seniors were sure that world conditions do not insure enduring peace among the nations. Only 25 percent of the seniors and 27 percent of the freshmen believe that the United States should help Europe settle its political problems (item 35).

One hundred percent of the graduate students believe that we do not have enough governmental interference or regulation in private business (item 41). Ninety-four percent of the seniors and 95 percent of the graduate students believe that the United States should not exercise a wider and firmer control in Latin America (item 10). Only 51 percent of the sophomores believe that a large majority of those who usually vote the Republican ticket are influenced in their voting more by ignorance and prejudice than by rational thought, while 85 percent of the graduate students believe this to be true (item 44).

Eighty-nine percent of the graduate students and 87 percent of the seniors believe that our government should own and operate hydro-electric power (item 16). Eighty-four percent of the seniors favored governmental ownership of railroads (item 2). The students registered a decided disfavor regarding government ownership of land. Only 20 percent of the freshmen, sophomores, and juniors, 23 per-

cent of the seniors, and 30 percent of the graduate students were sure the government should own the land (item 48).

Ninety percent of the ~~freshmen~~<sup>Juniors</sup>, 91 percent of the seniors, and 95 percent of the graduate students are of the opinion that the reward given manual labor has not been in proportion to the services rendered (item 15). However, only 39 percent of the freshmen believe that the industries of this country do not give proper opportunity to laborers to progress from lower to higher positions (item 28).

Eighty-six<sup>per cent</sup> of the seniors and 90 percent of the graduate students believe that owners of capital should <sup>share</sup> profits and management with their employees (item 43).

Ninety-three percent of the seniors and 95 percent of the graduates are of the opinion that the power of huge fortunes in this country endangers democracy (item 33). The large majority of the students were fairly sure of this point. Eighty-seven percent of the freshmen and juniors and 88 percent of the sophomores returned liberal opinions in regard to this item. Ninety-three<sup>per cent</sup> of the seniors and 95 percent of the graduate students are of the opinion that large fortunes **have not** been obtained by proportionately large service to the common welfare (item 11). Only 48 percent of the freshmen believe that taxes on very large inheritances should be high enough to prevent any heirs receiving huge fortunes (item 67); while 95 percent of the graduate students are of this belief.

The students as a group were overwhelmingly in favor of birth control (item 58). Eighty-six percent of the freshmen, 92 percent of the sophomores, 99 percent of the juniors, 98 percent of the seniors, and 100 percent of the graduates were in sympathy with such control. Extremely liberal opinions were returned in regard to the making of reproduction by the physically and mentally unfit impossible by segregation or surgical operation, percentages ranging from 88 in the case of freshmen to 100 percent in the case of graduate students (item 39). The most conservative replies were returned from item 30. But 35 percent of the freshmen believed that our educational forces should be directed toward a more thoroughly socialistic order of society.

Replies upon the religious items were, for the most part, relatively conservative. Ninety percent of the replies given by freshmen and sophomores concerning item 19, eighty percent of those given by juniors and graduate students, and 79 percent of those given by seniors were conservative. Less than 41 percent of the students believe that our religious organizations retard progress (item 24). Less than 45 percent believe that truth is the only god we should serve (item 56). The responses made by the members of the individual churches to the group of religious items alone may be of some interest. When the churches were compared on the whole test the students affiliated with the Congrega-

tional church appear most liberal, and the other churches are not changed essentially from their ranking on the entire test. Table XV shows the percentage of liberal replies made by each individual church to all five religious items.

TABLE XV

RESPONSES MADE BY STUDENTS ACCORDING TO RELIGIOUS AFFILIATION TO ENTIRE GROUP OF RELIGIOUS ITEMS.

Religious Affiliation	Percent
Congregational	46
Methodist	40
Baptist	37
Presbyterian	35
Christian	34
Catholic	30
Lutheran	27

Table XVI shows the percentage of liberal replies made by each individual church to each separate religious item.

TABLE XVI

RESPONSES MADE BY STUDENTS ACCORDING TO RELIGIOUS  
AFFILIATION TO THE SEPARATE RELIGIOUS ITEMS.

Religious affiliation	Items				
	(5)	(19)	(24)	(53)	(56)
Congregational	74	16	37	58	41
Methodist	54	7	36	51	49
Baptist	47	14	33	51	43
Presbyterian	49	8	29	47	42
Christian	44	15	26	37	48
Catholic	24	24	30	42	30
Lutheran	41	3	43	27	21

The students of all religious denominations appear quite conservative in their religious attitudes and beliefs. The students affiliated with the Congregational church were most liberal with 46 percent of their responses being liberal. The Lutheran students were most conservative with but 27 percent of liberal responses.

Seventy-four percent of the students affiliated with the Congregational church believe that it is proper for one

to allow his own experience and reason to lead him in ways that he knows are contrary to the teachings of the Bible (item 5). Only 24 percent of those affiliated with the Catholic church believe this to be true.

Extremely conservative responses were made to item 19. The Catholics were most liberal, however, 24 percent believing that without directly teaching religion a teacher's influence in the public schools should always be definitely and positively favorable to the purposes and activities of our generally recognized religious organizations. However, 76 percent of the students affiliated with the Catholic church returned conservative responses to item 19. The students affiliated with the Lutheran church were most conservative with but 3 percent of the responses being liberal or 97 percent of the responses conservative. Only 7 percent of the students affiliated with the Methodist church and 8 percent of the students affiliated with the Presbyterian church made liberal responses.

The Lutheran students appear most liberal toward item 24, 43 percent believing that our generally recognized religious organization retard progress by continuing to operate as the dead hand of the past. The students affiliated with the Christian church appear most conservative with but 26 percent of the responses being liberal.

Fifty-eight of the students affiliated with the Congregational church believe it proper for schools, colleges

and universities to teach that which is found to result in its students doubting or questioning the Bible as containing the word of God (item 53). Only 27 percent of the students affiliated with the Lutheran church believe this to be proper.

Forty-nine percent of the Methodist students and 48 percent of the Christian students believe that the only god we should serve is truth revealed through the interpretation of experience by clear, unselfish, rational thought (item 56). Only 21 percent of the Lutheran students believe this to be true.

Relation of church affiliation to scores. When the subjects were grouped according to their church affiliation, it was found that those students affiliated with the Congregational church appear to<sup>be</sup> most liberal, while the students affiliated with the Catholic church appear to be the most conservative. Table XVII shows the average liberal scores according to church affiliation.



TABLE XVII

THE AVERAGE SCORES OF KANSAS STATE TEACHERS COLLEGE STUDENTS WHEN GROUPED ACCORDING TO THEIR RELIGIOUS AFFILIATION.

Religious Affiliation	Number of cases	Average	S.D.	PE(av.)
Congregational	22	49.82	7.714	1.109
None	52	48.42	10.210	1.371
Methodist	318	46.32	8.823	.333
Christian	82	46.02	8.694	.647
Baptist	56	45.71	9.646	.871
Lutheran	29	45.48	8.593	1.076
Presbyterian	79	45.00	8.801	.667
Catholic	27	43.07	6.451	.837

Those affiliated with the Congregational church made an average liberal score of 49.82, while the students affiliated with the Catholic church made an average liberal score of 43.07, a difference of 6.75 points. This difference is significant, there being 100 chances in 100 that the difference is a true one and that those affiliated with the Catholic church will be, in a similar sampling, more conservative than those affiliated with the Congregational church. Those having no church affiliation ranked second in order

of liberalism with an average score of 48.42. In comparison with the Catholic students there are 99 chances in every 100 that the difference, 5.35, is a true difference.

Arnett<sup>28</sup> however, found those school board members affiliated with the Unitarian church to appear most liberal with those who professed no church affiliation or preference following in order of liberalism. As in this investigation, he found those affiliated with the Catholic church to be most conservative.

Relation of scores to types of communities. The communities from which the students came were divided into seven types as follows: cities above 50,000 inhabitants, cities between 10 and 25,000, cities between 5 and 10,000, towns between 2,500 and 5,000, towns between 500 and 2,500, villages under 500, and rural districts. There was but one student coming from a community between 25,000 and 50,000 inhabitants. Table XVIII shows the average liberal scores made by students from these seven types of communities.

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<sup>28</sup> Claude E. Arnett, op. cit., p.155.

TABLE XVIII

THE AVERAGE SCORE OF THE KANSAS STATE TEACHERS  
COLLEGE STUDENTS WHEN GROUPED ACCORDING TO  
THE TYPE OF COMMUNITY FROM WHICH THEY COME

TYPE OF COMMUNITY	Number of cases	Average	S.D.	PE(av.)
Cities between 10,000-25,000	172	47.00	8.672	.446
Cities above 50,000	26	46.62	9.511	1.258
Cities between 5,000-10,000	31	46.55	8.616	1.043
Towns between 2,500-5,000	41	46.17	9.547	1.005
Towns between 500-2,500	112	46.09	9.165	.584
Rural Districts	250	45.54	7.551	.322
Villages under 500	63	44.30	8.823	.749

Students coming from cities between 10,000 and 25,000 inhabitants appear to be the most liberal with an average score of 47.00, while students coming from villages under 500 appear the most conservative and an average score of 44.30, a difference of 2.70 score points between the two groups. The other differences are not of any great significance.

Relation of scores to father's occupation. The subjects were classified according to the kind of occupation in which their fathers were engaged. The following six classifications were used: professional, skilled labor, clerical, agricultural, business, and unskilled labor. Table XIX shows the result when this classification was made. Those students whose fathers were engaged in one of the professions appear to be the most liberal, while those students whose fathers were engaged in unskilled labor appear the most conservative.

TABLE XIX

THE AVERAGE SCORE OF THE STUDENTS WHEN CLASSIFIED  
ACCORDING TO THEIR FATHER'S OCCUPATION.

Occupation Classification	Number of cases	Average	S.D.	PE(av.)
Professional	46	47.96	9.200	.914
Skilled labor	86	47.67	7.760	.564
Clerical	100	46.40	9.297	.627
Agricultural	76	45.43	8.598	.349
Business	80	45.20	8.899	.671
Unskilled labor	39	41.62	7.794	.841

The greatest difference was found to be between the professional group and the unskilled labor group. The professional group made an average score of 47.96 and the unskilled labor group made an average score of only 41.62, a difference of 6.34 points. The students whose fathers were engaged in unskilled labor appear much more conservative in comparison with the other five groups. Those students whose fathers were engaged in some business ranked next to the unskilled labor group in order of conservatism, but even in this case there is a difference of 3.59 score points.

General discussion. It is clearly evident from the findings of this investigation that the college training does have an effect upon the conservative-liberal tendencies of the student. There is a definite progression toward liberalism from the freshmen level through the graduate level. This difference agrees with the findings of both Harper and Arnett. The more formal education the educators and school board members had, the higher score they made. The kind of training is also seen to have an effect upon the students' social attitudes and beliefs. Those students who have taken work in the social sciences appear more liberal than do those students who have little interest in the social sciences. This progression toward liberalism is seen to be due to their college training and not to maturation of other spurious factors. The fewer the number of

hours the student has taken in the social sciences, the more conservative he appears, and the more hours the student has taken, the more liberal he appears. Those students with practically the same number of hours in both the junior and senior class made practically the same score, showing that this difference in attitudes is due to the training in the social sciences and not due to other factors.

## SUMMARY

The purpose of this investigation was to determine the effect of college training upon the attitudes of conservatism-liberalism of college students with respect to certain fundamental social, religious, political, and economic issues.

The measure of attitudes in this investigation was "The Harper Social Beliefs and Attitudes Test", as modified by Arnett in his study of "The Social Beliefs and Attitudes of American School Board Members". The test possesses high validity and reliability. There was an average agreement of over 98 percent among 47 judges as to whether an affirmative answer to each of the 71 propositions of the test was indicative of conservatism or liberalism. The coefficient of self-correlation on the Harper test was found to be .904.

The subjects tested were the students of the four college classes and the graduate school of the Kansas State Teachers College, Emporia, Kansas. The following number of subjects were secured from the five groups: freshmen, 411 out of a possible 615; sophomores, 106 out of a possible 259; juniors, 98 out of a possible 153; seniors, 103 out of a possible 105; and graduate students, 20 out of a possible 33. This number was considered a sufficient percentage of the whole to afford an adequate sampling. For

matters of comparison the test was also given to 12 seniors and 20 juniors of the College of Emporia, Emporia, Kansas.

There was found to be a definite progression toward liberalism from the freshmen level through the graduate level. The average score of freshmen was 42.23 and for graduates 56.70, a difference of 14.47. Arnett found the American School Board members to be much more conservative in comparison. The average score of 1,076 school board members was found to be 31.23 points. Harper found educators having a Bachelor's degree but not a Master's degree made a median score of 49, or only 3 higher than the average Teachers College student and 3 lower than the average junior. Educators holding a Master's degree made a median score of 53 or only 1 higher than the average Teachers College junior. The probabilities are sufficiently great to show that the obtained difference between any two averages of the five Teachers College groups is a true difference and not due to errors in sampling.

The sophomores, juniors and seniors were grouped according to their major interests. They were placed in one of the following classifications: social science, social science-humanities, social science-physical and biological sciences, physical and biological sciences, humanities-physical and biological sciences. Those students whose major interests lie in the social sciences or some combination



of the social sciences with either the humanities or the physical and biological sciences were consistently more liberal in their attitudes and beliefs than were those students whose major interests did not include the social sciences or any combination of the social sciences with one of the other two groups.

The sophomores, juniors and seniors were then grouped together according to their major interests and the averages of the six groups determined. It is apparent from this grouping that the students with major interests in the social sciences or some combination of the social sciences with another group show a greater degree of liberalism than do those students whose major interests do not include the social sciences.

The juniors were divided into the following groups: those taking 5 to 19 hours in <sup>the</sup> social sciences, those taking 20-34 hours, and those taking 35 or more hours. The seniors were divided as follows: those taking 10 to 29 hours in the social sciences, those taking 30 to 49 hours, and those taking 50 or more hours. There was discovered to be a definite progression toward liberalism through these three groups. The fewer hours the student has taken, the more conservative he appears, and the more hours the student has taken the more liberal he appears. This difference was found to be due to the number of hours in the social sciences the subject had taken and not due to such selective factors as the age of the subject. The probabilities that a trend

toward liberalism would take place as the student advances in his study of the social sciences were found to be very great.

Forty of the 71 items of the test were classified according to related items. The 40 items were arbitrarily chosen. As has held true a definite progression toward a more liberal attitude as the student advances in his college work. There was one decided reversal in the case of religious attitudes. The students appear more and more liberal from the freshmen level through the senior level. But the graduate students tested dropped to a more conservative position on the items dealing with religion. Only 39 percent of them made liberal replies to this group of ~~items~~ as compared to 60 percent in the case of the seniors and 43 percent in the case of the juniors. The most liberal sttitudes were expressed on questions regarding political and social issues and wealth and property rights. The most conservative replies were made to the religious items. In the majority of instances a gradual growth toward liberal attitudes can be seen when the percentages of liberal response made to each of the 40 items are compared.

When <sup>the</sup> subjects were grouped according to their church affiliation, it was found that those students affiliated with the Congregational church appear the most liberal, while the students affiliated with the Catholic church

appear to be the most conservative.

When the subjects were grouped according to the type of community from which they came it was found that students coming from cities between 10,000 and 25,000 appear to be the most liberal while students coming from villages under 500 appear to be the most conservative.

The subjects were then classified according to the kind of occupation in which their fathers were engaged. Those students whose fathers were engaged in one of the professions appear the most liberal, while those students whose fathers were engaged in unskilled labor appear the most conservative.

## CONCLUSION

1. There is a definite and statistically reliable progression toward liberalism from the freshmen level through the graduate level.
2. The greatest change in favor of liberalism was observed in the case of those students who were majoring or minor-ing in the social sciences.
3. Those students whose major interests lie in the social sciences or some combination of the social sciences with either the humanities or the physical and biological sciences were found to be more liberal in their atti-tudes and beliefs than those students whose major interests do not include the social sciences or any combination of the social sciences with one of the other two groups.
4. The more training a student had in the social sciences the more liberal he was found to be.
5. Of the 40 items isolated for special study there were none on which there was a decided tendency toward con-servatism with advancement in college.
6. Those students affiliated with the Congregational church appear to be the most liberal while those students affil-iated with the Catholic church appear the most conserva-tive.

7. Students coming from cities between 10,000-25,000 inhabitants appear to be the most liberal, while students coming from villages under 500 appear to be the most conservative.
8. Those students whose fathers were engaged in professional work appear the most liberal, while those students whose fathers were engaged in unskilled labor appear the most conservative.

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