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ABSTRACT

In determining whether an increase in student cognitions in the content area of international trade is correlated with an attitudinal change toward policy issues surrounding that subject, a microeconomics principles class at Riverside City College was used to test the hypothesis that a change in the cognitive component will cause a change in the affective component. Prior to and following instruction on foreign trade, the class was given a cognitive meaning device to test student knowledge of the subject and an attitudinal survey related to free trade and tariffs. Three control groups were used: an introductory college psychology class given no instruction on foreign trade but given the pre- post-tests, a small subset of the experimental group measured by post-test only (to control for "sensitizing" as a result of the pre-test), and a class of graduate students in economics (to check on the hypothesis that an increase in knowledge about foreign trade should result in an attitude supporting free trade). It was concluded that cognitive and attitudinal changes had a strong positive correlation and that perhaps just a basic understanding of facts about free trade is sufficient to elicit a definite change and a very "pro-free trade" attitude. (GC)

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THE INTERACTION OF COGNITION AND
AFFECT: THE ISSUE OF FREE TRADE

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Introduction

Educational psychologists have divided all aspects of observable human behavior into three taxonomic structures: (1) cognitive, (2) affective, and (3) psychomotor. The cognitive domain deals with the recall or recognition of knowledge and developed intellectual abilities and skills. The affective domain classifies interests, attitudes, values, appreciations, and psychosocial adjustment. The psychomotor domain deals with manipulative or motor-skill aspects of behavior.*

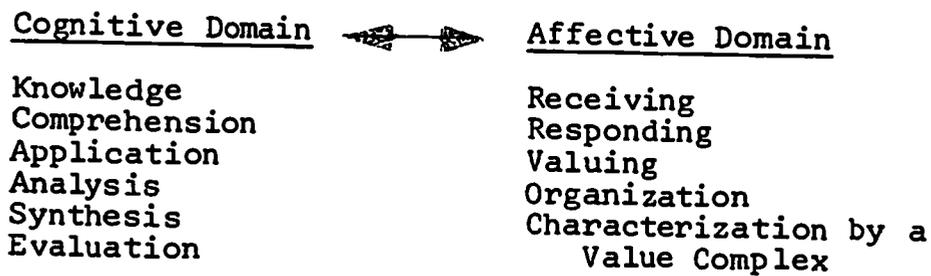
The set of social phenomena which may be properly ascribed to the discipline of economics may be viewed as consisting of two aspects: (1) the knowledge and skills through which the discipline is rendered apprehensible and comprehensible, and (2) the attitudes and values which enter the decision making process. The former I will denote as "cognitive," consisting of a hierarchy of cognitions whose existence is not predicated upon the perceiver. The latter I will denote as "affective," being subjectively acquired through socialization, indoctrination or inquiry.

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The major hypothesis of this study is that the cognitive and affective domains will interact. The affective acts on the cognitive through the backdoor of assumptions and postulates, or explicitly or implicitly when policy conclusions are made based upon criteria external to the discipline of economics. On the other hand, a change or alteration in the cognitive set resulting in an inconsistency between an individual's cognitions and his value structure will bring about a reorganization of the two components until both cognition and affect are again consistent. Like Rosenberg's theory of affective-cognitive consistency, it is proposed that instruction alters both by its effects on either.



Since changes in both structures are likely to change behavior (the predisposition to act), the educator must be concerned with the consequences of his instructional treatments in their entirety.

Examples of Interaction Between Cognition and Affect

The interaction between knowledge of specifics or ways of dealing with specifics is affected by the receptivity of the subject to external stimuli, i.e., his awareness, willingness to receive, and the extent to which attention is directed toward the stimuli. Obviously, "knowledge" will be absent to the extent that certain phenomenon are selectively ignored or "tuned out" by the perceiver. None is so blind as he who will not see.

Another example will illustrate the crucial interdependence of cognitive and affective at higher levels of complexity. Rational evaluation may be carried out at two levels: (1) evaluation based upon criteria internal to scientific inquiry (positive evaluation), and (2) evaluation based upon criteria external to scientific inquiry (normative evaluation). Positive evaluation focuses upon "what is" without considering whether it is "good" or "bad." Normative evaluation is based upon "what ought to be" and involves values determined outside the scope of economics as a science. A simple schemata will illustrate evaluation criteria in each case.

I. POSITIVE CRITERIA

A. Internal Consistency

- 1) premise validity
- 2) logical continuity

B. Predictive Accuracy

- 1) testability of hypothesis
- 2) operationally defined terms
- 3) available and acceptable data base
- 4) statistically determined predictive power

C. Simplicity and Generality

- 1) necessity of assumptions
- 2) general applicability

D. Pragmatic Considerations

- 1) further avenues of inquiry
- 2) application to problems

II. NORMATIVE CRITERIA

A. Identification of Normative Aspects

- 1) explicit objectives, goals, or desired states
- 2) implicit objectives, goals, or desired states

B. Consistency

- 1) consistency of value set
- 2) consistency of values with cognitions

C. Policy Formulation--Good or Bad Policy

- 1) judgment revision in light of evidence
- 2) resolution of affective - cognitive conflicts

Note that positive evaluation is based upon certain normative aspects, the most general of which is the "scientific ethic," i.e., there are certain objective criteria which may be applied to evaluate phenomena -- these criteria being independent of the object of evaluation and the subject who evaluates. In this sense, the fact that economics ought to be an objective science (in the same way that physics is an objective science) is based upon criteria external to the discipline itself.

There is also the question of the selection of criteria by which the study, analysis, or conclusion is to be evaluated. Of the four possible criteria listed above, what relative weightings are to be given to ascertain the relative importance of each? A normative guide is needed.

Internal consistency is a standard for evaluating scholarly endeavor, but often fraught with value judgments. Apriorists may deny that assumptions are subject to empirical verification, while empiricists may reject any proposition that is not empirically verifiable.

In evaluating a posited relation, the logical positivists will acknowledge that assumptions are not

always susceptible to empirical verification (therefore internal consistency may be disputed), and that the most important characteristic of a theory or explanation is its predictive power. However, the margin of error acceptable in prediction (e.g., standard error of estimate) can only be determined by normative appeal -- scientific standards applied to methods, techniques, and procedures notwithstanding.

The usefulness criterion eschewed by pragmatists implies ends. Ends must be given, assumed, or developed according to individual or collective preferences. Such ends are invariably fraught with normative objectives, goals, or desired states of the world.

While it has been argued that a "value free" science is dubious, and that the preference exhibited for that state of affairs is in itself a value, it must also be pointed out that normative statements are not independent of cognitions. For example, the preference for a value may be developed or reinforced by positive evaluation. Knowing the trade-off between full employment and inflation and the fact that changes in the rate of inflation redistributes real income would certainly reinforce or alter one's views of policy goals. Knowing that perfect competition

and free trade lead to an efficient allocation of resources would certainly alter or strengthen one's preferences in the area of political economy. In short, scientific inquiry also leads to acceptance, preference, and commitment to values which may be organized to form a value complex. The interaction between cognition and affect is established, i.e., neither has a wholly separate and distinct existence.

One may candidly separate the cognitive and affective without denying interdependence, and without abandoning objectivity. The bifurcation of economics into normative (policy) and positive (scientific) aspects has run its aseptic course.

The Issue of Free Trade

Several studies in economics education have explicitly treated the interaction of cognition and affect.* The aim of the following experimental study was to determine whether or not an increase in student cognitions in the content area of international trade and payments are correlated with an attitudinal change towards the policy issues surrounding that subject.* This study attempts to evaluate the possibility of such a correlation by presenting an educational experience

to students and measuring the cognitive and attitudinal changes that result. The hypothesis is that a change in the cognitive component will cause a change in the affective component.

The measurement of attitudes and attitudinal changes is extremely complex because these phenomena are very sensitive to numerous extraneous influences. Such sensitivity makes it extremely difficult to isolate the desired variables when measuring attitudes. The steps that were taken during this project to control for exogenous variables will be discussed in the next section of this paper. The point is that despite such precautions, one can never control for all the influencing variables when it comes to attitudes. One's response may vary depending on the mood he is in, his physical state at the time he is questioned, the way the assessment is conducted, etc.

The first difficulty encountered is one arising from the nature of attitudes. An attitude is usually thought of a "a hypothetical construct, not directly open to observation but inferred from verbal expression or overt behavior." [7, p. 68] To measure such an abstract phenomenon one must find a method by which

to tap information which will permit justifiable inferences to be made concerning attitudes. Usually this is done by using a series of carefully constructed standardized statements. "The respondent is given a set of fixed responses from which he must choose, such as by specifying 'agree' or 'disagree'. Usually statements are assigned 'scale values' in some fashion, so that a quantitative index of the attitude may be obtained." [7, pp. 100-101] There are two basic methods of constructing such "attitude scales." The Thurstone method is one possibility. This involves assigning a scale value to each statement presented to the respondent. The value is determined by submitting the statements to a large number of judges and having them place each statement on a scale containing eleven categories that appear to cover equal portions of the scale. The scale runs from strongly favorable toward the attitude object to strongly unfavorable toward it. The median of all the judgements on a particular statement becomes the assigned value. A second method yields similar results in terms of the reliability and validity of attitudinal measurement, but uses quite a different method of construction. The Likert-type scale presents the respondent with carefully constructed

statements pertaining to the attitude object in question. In reference to each item the respondent must choose one of five possible responses, namely: strongly agree, agree, no opinion, disagree, strongly disagree. Weights are assigned to the respective responses with, for example, a high score indicating a favorable attitude toward the object and a low score indicating an unfavorable attitude.

Even given these seemingly clear-cut methods, however, there are difficulties in carrying them through. The statements presented to the respondent must be constructed very carefully. Since they are intended to measure feelings on just one attitude object, one must avoid using words in these statements which might introduce irrelevant biases or feelings. The questions, for example, should not contain any "leading" words which might influence the respondent's answer.

The "experimental class" used in the project was a microeconomics principles class at Riverside City College. The attitude object chosen was the issue of free trade vs. the use of protective tariffs. This issue was chosen because it was a topic scheduled to be covered during the course of the class, and because it is an issue which involves a rather clear-cut pre-

ference pattern among those who are knowledgeable in the area of economics. The experimental class was given two assessment instruments, each of which was administered twice; once before the topic of foreign trade was covered in class and once after the topic had been discussed.* One instrument was a cognitive meaning device, i.e., it tested the students knowledge of the subject. This test consisted of a 10 point, standardized multiple-choice quiz. The other assessment instrument was an attitudinal measuring device.* The nature of this attitudinal measuring device is the next issue that must be dealt with.

The "attitudinal survey" used consisted of 66 statements concerning free trade and tariffs. Most of the statements were taken from scale number 18 ("Attitude Toward the Tariff") in the Thurstone series, as reprinted in [7]. Test-retest reliability of this scale was estimated at .84, however, since the scale was not used in its original form during this project this rating of reliability may not be accurate. The balance of the statements used were selected quotations from an economic text and one quotation from an AFL-CIO pamphlet.

Although the majority of the statements used in the survey were taken from a Thurstone-type scale, the scoring procedure used was not the Thurstone, but the Likert method. Since the reliability and validity of the two methods are comparable, we chose the Likert method because it was a more direct method of scoring, and therefore, would be easier to compute for large groups. In addition, we thought this easier for the respondent to follow than the Thurstone method. There was one further variation made in the scoring procedure. It seemed to us that a stronger statement in the survey should carry more weight in scoring than a weaker, more neutral statement. In other words, if a respondent "strongly agrees" with a statement like "Free trade is the solution to our economic problems," this deserves a heavier weighting than if he "strongly agrees" with the statement, "The benefits of free trade are somewhat greater than the evils." In accordance with this view the statements were split into two groups. The "regular weightings" were 5,4,3,2, and 1, with 5 indicating the most favorable attitude toward free trade and 1 indicating the most unfavorable attitude toward free trade, or, in other words, a favorable attitude toward the use of a protective tariff. The

score of 3 always represents a neutral position, i.e., no opinion. The "heavier weightings" for the "stronger" statements were 6,5,3,1, and 0, with 6 being the pro-free trade end of the scale and 0 being the anti-free trade or pro-protective tariff end of the scale. The weighting values had to be applied either directly or in reverse depending on whether a statement as it was presented in the survey was for or against free trade. For example, if a person strongly agreed with a statement that was in favor of free trade that question would be scored 5 or 6, depending on whether it was a "regular" or "heavily" rated item. On the other hand, if a person strongly agreed with a statement which was in favor of protective tariffs, the question would be scored 1 or 0, again according to the weighting classification into which the item fell. Each item had to be scored for each respondent. The total of his 66 scores was the measure of the respondent's attitude. 198 was a neutral score. Scores below this were pro-protective tariff, scores above this were pro-free trade.

In addition to the experimental group (the economics class), there were a few other groups involved in the research. First of all, there was a control

group. If any change in attitude was recorded for the experimental group, we wanted to make sure that this was a result of the instruction received in the economics class. To control for any influence on attitudes that might be felt from outside events such as reading the news or performing any other normal activity, a control group in the form of an introductory psychology course at Riverside City College was tested and retested at approximately the same time interval as the experimental group. The psychology class was chosen because it was a general education class with no prerequisites, and therefore, it was assumed to be a fairly representative group. The next group involved was a rather small subset of the experimental group which was not given the attitude survey before the subject material was presented in class, i.e., they were measured on a post-test basis only. This was done to control for possible "sensitizing" that might occur as a result of pre-testing the class. In other words, we wanted to allow for the possibility that giving the students a test before the material was covered would make them more aware of the issues, thus causing them to react differently to the presentations in class than otherwise.

The final group that was involved was a class of graduate students in economics at the University of California at Riverside. This group was used as an additional check on the hypothesis that an increase in knowledge about the subject of foreign trade should result in an attitude score that was pro-free trade.

Table 1

Attitudinal Assessment

<u>Control Group (sample size 103)</u>		
	<u>Mean</u>	<u>Standard Deviation</u>
Pre-test	193.64	40.22
Post-test	193.27	41.14
Individual Difference	22.55	20.88
<u>Experimental Group (sample size 24)</u>		
	<u>Mean</u>	<u>Standard Deviation</u>
Pre-test	198.08	61.70
Post-test	255.41	59.31
Individual Difference	69.16	50.92
<u>Experimental Post-Tested Only (sample size 12)</u>		
	<u>Mean</u>	<u>Standard Deviation</u>
Post-test	218.33	64.44
<u>Graduate Student Group (sample size 16)</u>		
	<u>Mean</u>	<u>Standard Deviation</u>
	277.43	38.53

Cognitive Test

<u>Experimental Group</u>		
	<u>Mean</u>	<u>Standard Deviation</u>
Pre-test	5.2	1.4
Post-test	6.9	1.7

Discussion of Findings

There was no significant difference initially between the means of the control group and the experimental group so we are starting from the same base. Concentrating on the control group's scores we find that the average score does not change significantly from the first test to the second. An interesting observation is that the average score for the control group, for both testing experiences, was very close to a perfectly neutral position on the issue. We can tentatively conclude, therefore, that there were no significant outside forces which influenced attitudes on foreign trade during the interim between the two tests. A problem arises, however, due to the very large standard error of the measuring device. This is represented by the mean and standard deviation of the sum of the individual respondents' differences between their pre and post scores. From this data, the probability is .68 that on a test-retest basis an individual's scores will be within 42 points of each other. This seems like a very wide spread! But perhaps our faith in the reliability of the measuring device can be somewhat restored by considering that the range of possible scores on the attitudinal test

was quite large, 0 to 371 to be exact. Also, the control group sample size was 103. With such a large sample the deviations are "washed out" to a considerable extent.

In the experimental group's results we find a significant change in the average attitudinal score and in the average cognitive score, both scores increasing for the post-assessment. In addition, there is fairly strong positive correlation between the two scores. The coefficient of correlation between the two scores was +0.5887. These results definitely seem to support the hypothesis that an increase in knowledge tends to change attitudes! As the students learned more about foreign trade their attitude scores went from a neutral 198.8 to a pro-free trade score of 255.41.*

When items on the cognitive test were weighted by difficulty based upon the cognitive taxonomy (task analysis was evaluated in terms of the educational experiences of the students), the simple correlation between the weighted cognitive test score and the attitudinal score fell to +0.2389. This seems to indicate that attitudinal change is relatively easy to effect, or a little understanding goes a long way.

Increasing interaction between the taxonomic levels of the cognitive and affective domains seems doubtful.

The next comparison is between the regular experimental group's post scores and the post-tested only group's scores. Here we find a significant difference between the average scores (for alpha level .05) but it is very close, i.e., the null hypothesis is just barely rejected. This difference leads us to the conclusion that giving the class a pre-test may have sensitized them to the issue and the problems involved. Such sensitizing could have resulted in the higher scores of the regular experimental group when compared to the post-tested only group. This finding does not enable us to draw any definite conclusions. There are many variables that could have affected this post-tested only group. For example, since these were the students who were present in class for the pre-test one possibility is that they could be students who did not attend class regularly. We can, however, consider some implications that arise from this difference between the two groups. The most useful implication involves a possible recommendation for a teaching method which somehow pre-tests the students on

material to be covered. If "sensitizing" really acts the way it seems to in our study, the results of pre-testing could prove very beneficial in terms of material presented having a greater effect on students.

The final comparison is an interesting one. The average score for the post-experimental group test was not significantly different than the graduate student group's average score! As one can see from the means of the two groups, the graduate students' average was some 20 points higher than the experimental group's average, but the test for significance showed that this variation could have been due to chance. One could draw many implications from this result concerning either the quality of the graduate students, the quality of the experimental class students, etc. We leave it to the reader to draw his own conclusions.

As in all experiments of this kind there were many problems. One difficulty was that many individuals in the control group apparently guessed at responses or randomly marked their responses to the statements on the survey. This problem was discovered when the control group responses were checked for consistency. Three different statements were selected from the survey. Both statements in each pair made

the same statement, but in a slightly different way. If a student's answers were inconsistent for two or more out of the three pairs then it was probable that he had not really given any thought to the statements before marking them. Another possibility, of course, was that the individual simply did not know enough about the subject of free trade and tariffs to give an intelligent and consistent response. Whatever, the cause, such inconsistency caused wide fluctuations in the pre and post scores of many individuals. Such response patterns definitely worked contrary to the desired outcome for the control group, i.e., very little change between pre and post tests. But the sample size was quite large (103) and this fact seemed to overcome the difficulty of some inconsistency. The large sample allowed the individual differences to be balanced out somewhat and the results were quite in line with the expected outcome.

Conclusions

Despite all the variations, imperfections, and reservations involved in the methodology, data, and data interpretation connected with this project, it still seems that there was a definite pattern established through the research. Cognitive and attitu-

dinal changes had quite a strong positive correlation evidenced by a coefficient of correlation equal to .5887. This correlation was obtained while controlling for major outside influences and sensitization by the testing mechanism. The slightly higher mean of the graduate students' scores seems to indicate that a greater degree of knowledge will be reflected by a higher pro-free trade attitudinal score, but, on the other hand, the fact that this difference was not substantially significant seems to indicate that perhaps just a basic understanding of the facts involved in the issue is sufficient to elicit a definite change and a very pro-free trade attitude.

If they serve no other purpose, the results of this project should at least provide some encouragement to the teachers involved in teaching economics. Their efforts apparently do have an effect on the way their students view the world!

FOOTNOTES

*(page 1) The best summary of these taxonomics may be found in [1]. Examples of the cognitive categories of knowledge and skills in economics may be found in [2, pp. 153-165].

*(page 7) See, for example, [3], [4], [5], and [6].

*(page 7) The author wishes to credit Mrs. Sue Morgan for her contributions and hard work in conducting the experimental phase of this study.

*(page 11) See Appendix 1 for the cognitive instrument. Instructional treatments included the Samuelson-Edwards film loop on "Comparative Advantage in International Trade," a role playing exercise involving the U.S. and the Common Market (with differing production possibilities and identical preference maps) attempting to achieve a higher standard of living through trade, assigned reading of chapters 40-41 in McConnell's Economics, 4th ed., and brief lectures dispersed throughout four class meetings (4 hours). The experiment occurred during the Fall of 1971.

*(page 11) See Appendix 2 for the affective instrument.

*(page 17) It should be noted here that the instructor of the economics class being studied did not deal dir-

(Footnotes con't)

ectly with the issue of tariffs when covering foreign trade. The results of the survey, therefore, cannot be attributed to a simple regurgitation of the instructor's views on the topic. The "Attitudinal Surveys" were administered separately by Mrs. Morgan. Students were informed that the instructor would not see their individual scores and that their responses would in no way affect their grade.

REFERENCES

1. Benjamin S. Bloom (ed.), Taxonomy of Educational Objectives, New York: David McKay Company, Inc., 1956.
2. John E. Maher, What is Economics?, New York: John Wiley and Sons, Inc., 1969.
3. George G. Dawson "Changing Students' Attitudes," Improving College and University Teaching. XIV, Summer 1966. Pp. 200-203.
4. Myron L. Joseph "Role Playing in Teaching Economics," American Economic Review. LV, May 1965. Pp. 556-565.
5. John W. Lloyd "Role Playing, Collective Bargaining, and the Measurement of Attitude Change," The Journal of Economic Education. I, No. 2 (Spring 1970). Pp. 104-110.
6. William R. Mann and Daniel R. Fusfeld "Attitude Sophistication and Effective Teaching in Economics," The Journal of Economic Education. I, No. 2 (Spring 1970). Pp. 111-129.
7. Paul F. Secord and Carl W. Backman, Social Psychology. New York: McGraw Hill, Inc., 1964.
8. M.E. Shaw and J.M. Wright, Scales for the Measurement of Attitudes. New York: McGraw-Hill, Inc., 1967.

Appendix 1

INTERNATIONAL TRADE QUIZ

1. Specialization and division of labor by nations followed by increasing international trade probably would
 - a. increase total world production of wanted goods and services.
 - b. lower living standards in the wealthy nations.
 - c. increase the likelihood of worldwide unemployment.
 - d. eliminate differences in standards of living among nations.

2. Specialization and exchange within a nation or between nations tends to have which of the following effects?
 - a. A larger quantity of wanted goods and services can be produced.
 - b. The independence of both nations and individuals is increased.
 - c. The danger of economic instability is reduced.
 - d. All costs of production will rise, but not proportionately.

3. Which of the following would make possible higher living standards throughout the world?
- I An increase in the skills of the labor force in each country
 - II An increase in the stock of capital goods in each country
 - III An increase in protective tariffs in each country
- Of the above statements
- a. I only is correct.
 - b. I and II only are correct.
 - c. I and III only are correct.
 - d. all are correct.
4. Two countries, A and B, can produce only wheat and cloth according to the following schedule.

Costs of Production

Commodity	Country A	Country B
a unit of wheat	1 man-day	2 man-days
a unit of cloth	3 man-days	4 man-days

- Assuming no other production costs or trading restrictions, which of the following is true?
- a. Country A will export wheat and import cloth.
 - b. Country A will export both wheat and cloth.

- c. Country A will neither import nor export wheat or cloth.
 - d. The pattern of trade cannot be determined from the above information.
5. In Country A, commodity X costs \$2 per unit, and commodity Y costs \$3. In Country B, commodity Y costs 9 francs. How much must X cost in B if neither country is to have a comparative advantage over the other in producing X?
- a. 2 francs.
 - b. 6 francs.
 - c. 3 francs.
 - d. 135 francs.
 - e. none of the above.
6. Which of the following arguments comes closest to constituting a legitimate economic exception to the case for free trade?
- a. The military self-sufficiency argument
 - b. The infant industry argument
 - c. The diversification for stability argument
 - d. The protect high domestic wages argument
 - e. The increase domestic employment argument

7. All of the following statements about tariffs are likely to be true except which one?
- a. Tariffs preserve employment in domestic industries whose products they protect.
 - b. Tariffs reduce the market for our exports by reducing our imports.
 - c. Tariffs encourage the growth of our most efficient industries and eliminate the least efficient.
 - d. Tariffs benefit some groups at the expense of the national standard of living.
8. Reduced U.S. tariffs would probably
- a. lessen job opportunities in our export industries.
 - b. injure most farmers.
 - c. force some workers out of jobs in presently protected industries.
 - d. lower the average U.S. standard of living.
9. When a nation is running a deficit in its international balance of payments, it is always currently
- a. exporting more goods than it is importing.
 - b. importing more goods than it is exporting.
 - c. paying more to other nations than others are

paying to it.

d. helping less fortunate nations to develop economically.

10. Suppose that one year under a system of flexible exchange rates one pound sterling was exchanging for 2.4 United States dollars. Also suppose that the following year the rate of exchange was one pound for 2.8 dollars. Which of the following is likely to have caused this change?

- a. An increase in British interest rates
- b. An increase in United States interest rates
- c. A rise in the British inflation rate
- d. A rise in the United States unemployment rate

Appendix 2

TARIFF AND FREE TRADE ATTITUDINAL SURVEY

Preliminary Remarks

This is a study of attitudes toward free trade and the use of tariffs. There are no "right" answers. People differ in their opinions as to what is right and wrong on this issue. In filling out the survey, it is extremely important that you answer each item according to your own ideas on the subject and not as someone else thinks about it or the way that you think it should be answered. This is not a test and it will in no way affect your grade.

Marking the Answer Sheet

On the following pages you will find various statements concerning tariffs and free trade. After reading each statement you are to choose the response which most accurately reflects your attitude toward the statement. For each item there are five possible responses, namely:

SA - Strongly Agree. It means that you fully agree with the statement or that this statement expresses your attitude on the issue involved.

A - Agree. It means that you partially agree with this

statement, that you agree with the statement with reservations or that the statement is more right than wrong.

NO - No Opinion. It means that you are undecided about the statement or that you stand in the middle-of-the-road on this issue.

D - Disagree. It means that you partially disagree with the statement or that you believe it to be more wrong than right.

SD - Strongly Disagree. It means that this statement reads opposite to your attitudes on this issue or that you definitely disagree with the statement.

For each item darken in the column which most clearly represents your attitude about the statement. Be sure that you have marked in only one answer for each item.

1. Conditions which once warranted a high tariff no longer exist.
2. Although a high tariff has some disadvantages, we must have it to protect our industries.
3. Commodities which cannot be produced in this country should be imported duty free.
4. The advantages of the tariff far outweigh any possible disadvantages.

5. The evils of free trade are somewhat greater than the benefits.
6. I am absolutely against free trade.
7. Free trade would not improve present conditions.
8. Everyone should oppose the tariff.
9. The advantages of a high tariff are exaggerated because it creates a home market at the expense of foreign trade.
10. A protective tariff is necessary for maintaining our high standard of living.
11. Free trade may be good in theory but it fails in practice.
12. America should gradually be put on a free trade basis.
13. We need a tariff but it does not have to be high.
14. We should have free trade between nations as between states.
15. More people would favor free trade if they knew something about it.
16. There would be fewer depressions under a free trade system.
17. The tariff is economically unsound in spite of its possible benefits.

18. The sooner this country adopts a system of free trade, the better for everybody.
19. The benefits of free trade have been exaggerated.
20. Free trade is the solution to our economic problems.
21. Tariffs create hatreds among nations.
22. A system of free trade will never work anywhere.
23. I do not believe in free trade even though it has some benefits.
24. The tariff is necessary to enable American producers to meet foreign competition on terms of equality.
25. A high tariff on certain articles may be desirable.
26. The tariff insures employment for our workers.
27. I believe in a tariff for revenue only.
28. The tariff is desirable because any system which decreases imports provides employment for our workers.
29. Necessities should be imported free of tariff.
30. A high tariff is necessary for our industrial progress.
31. The benefits of free trade are somewhat greater than the evils.
32. The tariff protects both capital and labor.

33. High tariffs are harmful to our export trade.
34. Protective tariff causes industry to turn to less advantageous fields, thus decreasing the efficiency of labor and lowering wages.
35. The benefits of the tariff have been exaggerated.
36. On the whole, the tariff laws have been of benefit to the country.
37. I doubt that a high tariff is wise.
38. Free trade would ruin our manufacturers.
39. There should be no tax on goods imported in exchange for domestic products.
40. Free trade is necessary for industrial progress.
41. We cannot be sure that abolishing the tariff would increase wealth.
42. The tariff robs the consumer to protect the producer.
43. Free trade would decrease wages without decreasing living costs in proportion.
44. The tariff guarantees high wages for our workers.
45. The high tariff makes for a high standard of living.
46. The protective tariff has made us the richest nation in the world.
47. The tariff rates on certain commodities should be higher.
48. The tariff benefits only certain already powerful interests.

49. Efficiency of labor and advantageous conditions, not a protective tariff, keep wages high.
50. We need high tariffs to protect our infant industries.
51. Robbing the consumer through high tariffs must be stopped.
52. Tariffs ruin our foreign trade by provoking other nations to retaliate with similar tariffs.
53. We no longer have infant industries that need tariff protection.
54. The protective tariff is a complete failure.
55. Tariffs are an unjustifiable burden on the consumer.
56. Tariffs should be high enough that foreign goods cannot compete with American goods.
57. The tariff has benefitted some individuals but has harmed the country as a whole.
58. Tariffs enable us to compete with cheap foreign labor and still maintain our high standard of living.
59. The tariff increases the cost of living faster than it increases wages.
60. Free trade increases wealth and reduces the cost of commodities.

61. Free trade makes for general economic betterment.
62. "If tariffs were eliminated, mass unemployment would ensue and our standard of living would sink to the low levels of other countries."
63. "Imports are beneficial because they provide a cheaper and greater variety of goods and they encourage greater productive efficiency through international competition."
64. "In the long run, tariffs reduce job opportunities and lower the standard of living; if tariffs were eliminated, the immediate adverse effects on employment would be minor and heavily outweighed by the favorable long run effects, while the standard of living would on the average rise significantly."
65. The benefits of free trade greatly exceed the evils.
66. "We are told that imports serve to 'discipline' prices. Often, however, the American consumer receives no benefit at all. The imports are sold at the American price, with substantially widened profit margins."