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AUTHOR Titley, Robert W.; And Others
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ABSTRACT

The purpose of this report is to explore a student's change in major as it relates to the ongoing developmental process of occupational choice. College students changing their declared major were asked to specify what job or career they were "headed for" in both their old major and in their new major choice. Consistent with vocational development theory, a significant number were able to be more specific about their probable career choice within their previous major. But contrary to theory, the proportion of students able to be specific in job choices declined significantly across the college class years. This downward trend holds for the degree of specificity in probable job choice in both the previous and the newly selected major. The results are interpreted as a paradoxical example of both continuity and discontinuity in the development of career choice among college students. Implications for vocational theory and for career guidance during the college years are stated.
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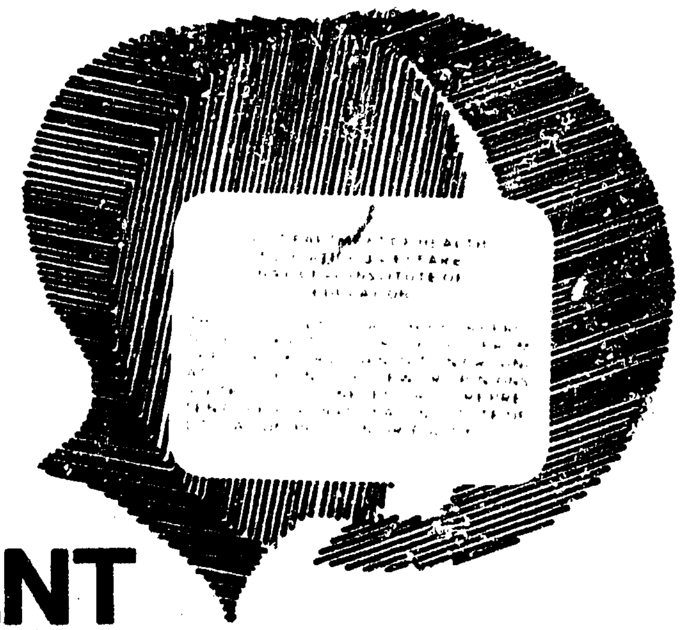

STUdENT DEVELoPMEnT SERiES

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COLORADO STATE UNIVERSITY

The Major Changers: Continuity or Discontinuity in the Career Decision Process?

By

Robert W. Titley Bonnie Titley Wirt M. Wolff

Colorado State University

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Abstract

College students changing their declared major were asked to specify what job or career they were "headed for" in both their old major and in their new major choice. Consistent with vocational development theory, a significant number were able to be more specific about their probable career choice within their previous major choice. Seemingly contrary to theory, however, the proportion of students able to be specific in job choices declined significantly across the college class years. This downward trend held for the degree of specificity in probable job choice in both the previous and the newly selected major. The results are interpreted as a paradoxical example of both continuity and discontinuity in the development of career choice among college students. The general implications for vocational theory and for career guidance during the college years are stated.

As part of a larger project designed by the authors to determine factors associated with major change among college undergraduates, a somewhat serendipitous and surprising finding emerged. The finding appears related to certain theoretical postulates concerning developmental dimensions of career decisions.

Theories of career choice which emphasize developmental aspects (Ginzberg, Ginsberg, Axelrad, & Herma, 1951; Ginzberg, 1972; Super, 1957; Tiedeman, 1961; Tiedeman & O'Hara, 1963) describe "stages" or behavioral "tasks"--stages or tasks which are hypothesized as continuous and linearly progressive over chronological age. Reviews of related research would allow the general conclusion that the existence of stages and age-related behaviors is valid and at least descriptive if not explanatory. But as Osipow (1973) points out in his evaluation of Ginzberg's theory, "The evidence is mixed, however, with respect to specifically what the stages are, when they occur, and the order in which they occur" (p. 99). Crites (1969) interprets empirical evidence as generally supportive of the stages notion, but questions whether the process is a continuous one, i.e., whether the stages proceed linearly without interruption. Wolff (1963) also found discontinuity in career patterns over developmental spans, as well as differences for the sexes. Nevertheless, Crites concludes that choices become stabilized for "irreversible" after mid-adolescence and that "exclusion"--the narrowing and ultimate selection of a career via the elimination of alternatives--operates continuously through adolescence and early adulthood until arrival at a chosen career.

If occupational choice, of which major choice is perhaps a reflection, is an ongoing developmental process, it should be expected that students changing their college major would express an equal or greater degree of career specificity, at least for the new major choice, would increase with the number of years in college.

METHOD

Subjects and Procedure. The 808 undergraduate students who changed their majors at Colorado State University during the winter quarter of 1975 were asked to complete a questionnaire at the time their major change papers were being processed. Of the original sample, 27 submitted blank, incomplete or otherwise unusable questionnaires, and 156 were "special major change" categories, e.g., freshmen and sophomores making a required change from non-degree "general studies" programs to their first declared major. The remaining 625 were declaring an official shift from one degree-granting program to another and were defined as "True Changers." Of the 625 True Changers, who served as the subjects for the current study, 121 (19.4%) were freshmen, 224 (35.8%) were sophomores, 198 (31.7%) were juniors, and 82 (13.1%) were seniors. Three hundred and forty-two (54.7%) were males and 283 (45.3%) were females. There was an expected greater proportion of sophomores and juniors among the changers than in the general population of 16,636 undergraduates, but the proportion of males and females in the sample was nearly identical with the proportion existing among all undergraduates at the University.

The questionnaire included certain demographic data, a checklist of reasons for the change (providing data for the larger continuing project), and two open-ended questions which served as the basis for the present study. These questions, included originally to investigate alleged current trends away from "indecision" and toward "vocationalism," were:

1. "What specific career or job were you headed for in your old major?"
2. "What specific career or job are you headed for in your new major?"

The questions were modeled after Trow (1941) and designed to elicit

"probable" occupation or choice rather than "preference" or "aspiration," and to permit expressions of indecision.

Response Classification. The questionnaire responses were classified into two categories delineating two levels of job or career specificity. The levels were defined as follows:

> Level I: Non-specific. Unable to state a specific job or career. Statement of uncertainty or general vagueness; reference to a general interest area, without specifying any well-defined job or professional area, job title or duties, including such responses as "don't know," "?," "undecided," "work with children," "consumer protection," "public service," "business," and the like.
>
> Level II: Specific. Stated career, job, or specific area wherein the general titles or duties are defined by the job or class of jobs; specific reference to advanced study which is preparation for same. Included such responses as "clinical psychologist," "occupational therapist," "law" or "lawyer," "teacher," "CPA," "professional dance," "medical school," "business manager," "research in biology," etc.

Interscorer reliability between two of the authors' independent ratings was 94%, based on the percent of agreement on 100 randomly selected questionnaires (200 responses).

RESULTS

Figure 1 shows the relative percentages of students able to specify their career choice at Level II for the old major and for the new major. The data reveal that overall and within each academic class, a larger percentage of students reached Level II in the new major as compared to the percentage of students at the specific level in the old major. Tested by X^2 for correlated proportions, the tendency to be at a higher level of specification in the new major was

significant at all class levels (freshmen: $\chi^2 = 18.30$, $p < .001$; sophomores: $\chi^2 = 25.86$, $p < .001$; juniors: $\chi^2 = 17.20$, $p < .001$; seniors: $\chi^2 = 8.33$, $p < .01$; df = 1 in all cases). This suggests that, for most, a greater degree of specificity was present after a change of major.

The majority of freshmen are able to be quite specific in vocational choices, with 67.8% at Level II in their old major and 87.6% in their new major. However, the percentage of students able to be specific for either old or new major steadily declines across the college years. Only 54.9% of the seniors were at Level II in the major they just left, with 73.2% at Level II in the major they had just entered. A regression test for linear trends in proportions recommended by Snedecor and Cochran (1967, p. 246f) was applied to the data to determine significance of the apparent decline in specificity. The trend from the freshman year to the senior year in ability to specify at Level II in the old major showed a Z of 1.97, DF = 623, $p < .05$. The similar decline across the years in the percentage of students reaching Level II in their newly declared major was significant with a Z of 2.91, df = 623, $p < .01$.

DISCUSSION AND CONCLUSIONS

While the higher proportion of students at Level II in the new major compared to the old major is consistent with the vocational development theories, the decline across college years in ability to be specific in either the old or new majors seems, paradoxically, inconsistent with the same theories. If career choice occurs in stages and is a continuous, irreversible, and exclusive process, with crystallization and specification increasing with age, why are a greater percentage of freshmen able to be more specific than seniors? Wouldn't college students, as they progress from the freshman to the senior year, demonstrate an increasing tendency to be specific when describing the intended life work for

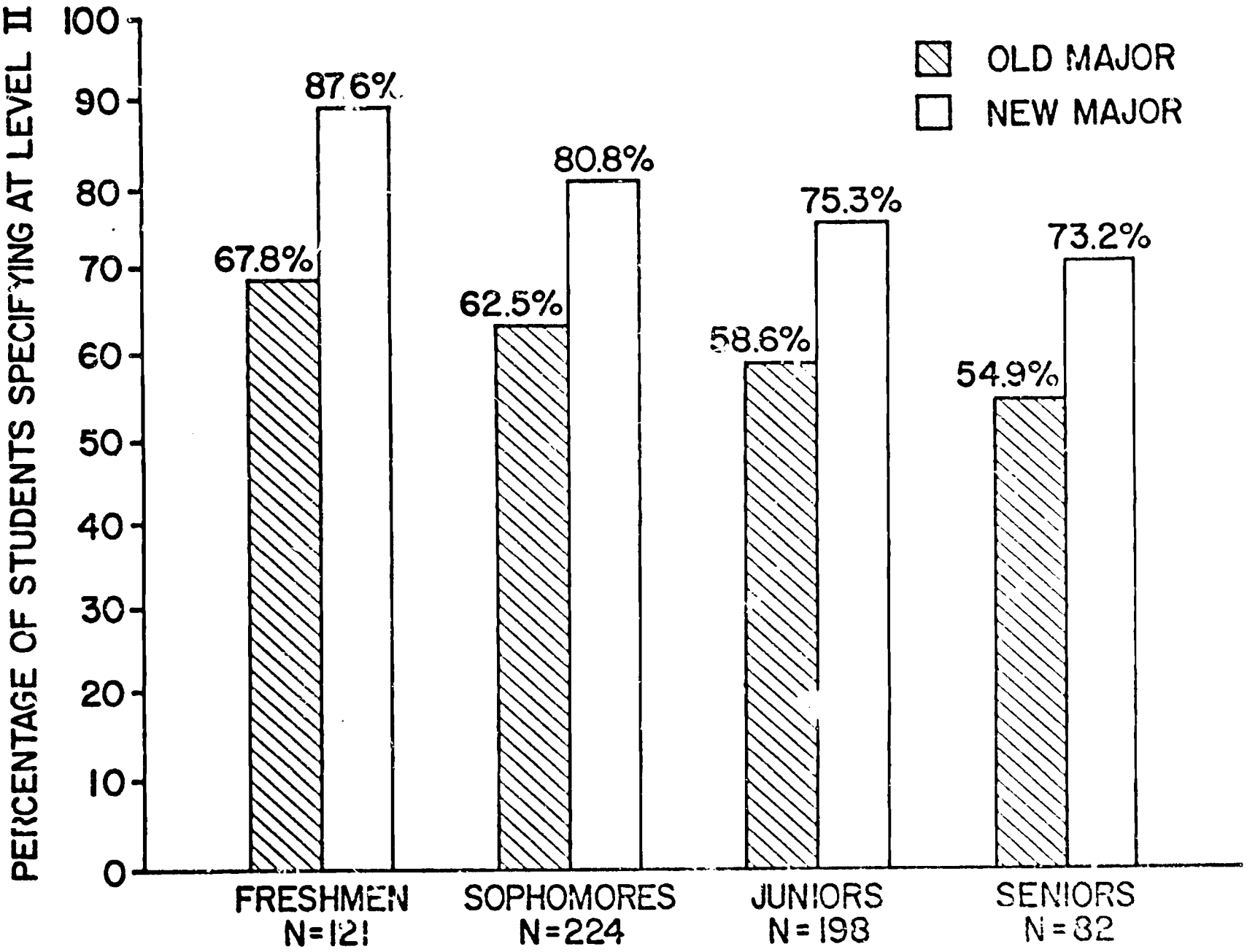

Figure 1. Percentage of students yielding Level II specificity responses in old and new college major at time of major change.

which they are preparing? Among major changers, apparently the change leads to increasing specification, but as age increases and progression through college occurs, a decreasing number of students become able to specify their probable future occupation.

This pattern holds generally for both males and females with the possible exception of more consistency among females in the early college years in the stated job specificity level of their first declared major. This consistency could be due to a possible tendency of females to begin college in certain majors which are more stereotyped, e.g., secretarial, fashion design, etc., wherein the specific jobs available are more obvious. However, the small N's encountered in the sex by class breakdown made the resulting slight deviations from the overall pattern difficult to interpret.

There was no significant difference in the cumulative grade point of the changers, by class or by sex, in comparison with the total undergraduate student body. The grade point data appear to contradict the findings of Warren (1951) and the conclusion of Osipow (1973) that ". . . many changes in educational and vocational plans in college reflect achievement problems, not genuine modifications in preference" (p. 252). However, some students sustain an adequate overall grade point, but encounter some difficulty in certain coursework required by their major curriculum. Because this was possibly true of some of the major changers, no conclusion can be drawn from this study on the relationship of grades to change of major.

The significant general decline across college years in students' willingness or ability to state specific job goals could possibly be interpreted as a result of "pseudocrystallization" (Ginzberg, 1951, p. 126), i.e., some students may make a false start in major selection and intended career, discover the initial choice to be unrealistic, and subsequently reject the chosen

field or career. The concept of pseudocrystallization would also predict that for some individuals the rejection is followed by a new general choice of field, but difficulty is encountered in specifying careers within the new field. This does not seem to be the case in the present study as most students were more specific in their second major selection than in their first. Further, nothing in the pseudocrystallization postulate clearly predicts the declines in specificity from the freshman year to the senior year as seen in Figure 1.

Other theoretical positions could be invoked in an attempt to interpret the findings. "Specification" is the second phase in what Ginzberg terms the "Realistic" stage (age 20-22 years); Super believes specification to coincide with age 18-21 years. Some writers (Crites, 1969; Small, 1953; Tiedeman and O'Hara, 1963) believe that there may well be certain discontinuities in the process, even though the overall direction is upwardly progressive in terms of the ability to specify and implement an occupational choice. Two rather dated studies (Anderson, 1932; Oliver, 1935) are cited by Crites (1969) as evidence for the notion that as age increases, a greater trend toward specification is manifest among college students. Hershenson and Roth (1966) present the hypothesis that certainty of choice increases with age, as the range of alternative choices decreases. Crites (1969) reviews their statement and concludes that related research lends credence to the notion of a narrowing or "exclusion" process which results in a greater ability to specify careers as a person grows older. The present data question both progressive linearity and the exclusion process as operating during the college years.

Tiedeman and O'Hara (1963) hypothesize processes called "differentiation" and "integration" as part of the developmental sequence. As career development proceeds, an individual will alternately discriminate among stimuli patterns and cognitively integrate the input in relation to vocational choice. This

concept, along with the continuity theory, may provide clues as to the most logical conclusion that can be drawn from the data obtained. The college years may produce, for some students at least, a discontinuity experience. At the outset, based on still rather limited occupational information and a relatively undifferentiated environment with respect to what careers are available across and within fields, freshmen choosing a major may be more able to specify what careers they have "chosen." As they proceed through the educational process and as they learn more differentiations among the available fields and careers, specification becomes more difficult. Perhaps adding to this confusion is the current tenuous nature of the job market for college graduates. Faced with the above realities, many students who are ready to be totally "realistic" nevertheless find themselves in a discontinuity state by the time they reach their later college years. The alternative choices are actually increasing, yet their ability to specify choices seems to be decreasing.

Another possible explanation for the results may be that True Changers represent a sub-population of students--a group whose vocational choice problems tend to increase in severity as they advance through their college years. The dimension of vocational maturity must also be considered. Some freshmen who change their majors may be doing so because of vocational maturity, rather than for reasons of immaturity. Some students who shift fields in their final year may be reflecting a chronic vocational immaturity rather than arrival at a stage wherein they would be judged as vocationally mature. Longitudinal research or studies of major changing using a random sample of students at each of the class (or age) levels and controlling for vocational maturity might yield a more adequate answer as to whether discontinuity is age progressive.

In any case, the current findings appear relevant for both practice and theory. Any college instructor, vocational counselor, or academic adviser,

while noting the tentativeness of early choices among some students (Titley and Vattano, 1972) can also recall those freshmen who can state precisely what they are going to be some day, but who as seniors become "not sure." If the conclusion drawn from the obtained data is valid, implications for modifying college experiences and related vocational guidance approaches are clear: certain students need more assistance in dealing with ambiguity at all levels of their educational and vocational development and not just during their beginning endeavors with a university. An implication for vocational development theory and research also is apparent. The college years may well be a period of discontinuity for many students and an age-related linear progression in the process of career selection for all people in all environments should not be assumed.

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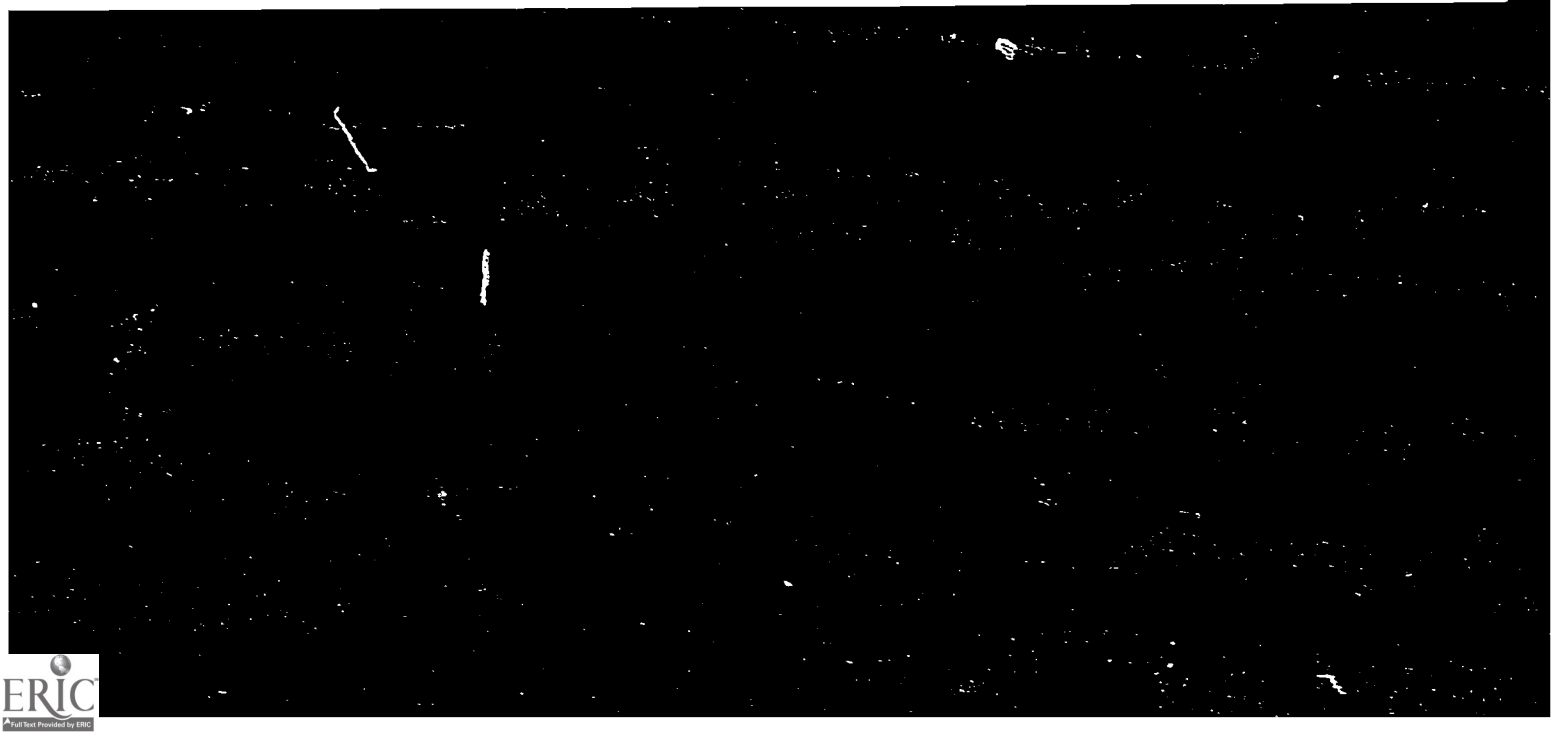

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