

Older Adolescents' Thinking About Academic/Vocational and Interpersonal Commitments

Kathleen M. Galotti¹ and Steven F. Kozberg²

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Sixty-eight college students listed the factors they consider or would consider when making the following commitments: choosing courses, choosing a major, choosing a career, choosing a friend, choosing a romantic partner, and choosing a lifelong partner. In addition, subjects provided their own definition of commitment in an unstructured essay. Subjects listed more factors, more distinct types of factors, and more original factors for interpersonal commitments than for academic/vocational commitments. There were few gender differences found in these measures, contradicting the idea that men and women think differently about different commitments. In addition, few gender or class year differences were found in the themes present in the essay defining commitment. Conceptions of commitment, as described in essays, predicted thinking about specific commitments only slightly.

INTRODUCTION

Important developmental tasks of late adolescence involve making or preparing to make a variety of interpersonal and educational/vocational com-

¹To whom reprint requests should be addressed. Department of Psychology, Carleton College, Northfield, Minnesota 55057. Received Ph.D. in Psychology and M.S.E. in Computer Science from the University of Pennsylvania, and has research interests in the areas of cognitive development and reasoning and decision making.

²Counseling Psychologist and Assistant Professor of Psychology at Carleton College. Received Ph.D. in Counseling and Guidance from the University of Wisconsin, Madison, and has research interests in adolescent development and adolescent psychopathology.

commitments (Erikson, 1968; Havighurst, 1972; Marcia, 1966). Indeed, commitment has been described as an essential ingredient for the attainment of a mature identity (Marcia, 1966, 1983). Although research on ego identity assesses adolescents' commitments to occupations, ideologies, or interpersonal relationships (Orlofsky *et al.*, 1973; Rowe and Marcia, 1980; Schiedel and Marica, 1985), few studies have examined the reasoning involved in making any particular commitment. Thus, little is known about how adolescents face these tasks and what issues they identify as relevant when making different commitments.

The present study investigates college students' thinking, both about the general nature of commitment, and about six specific commitments. In particular, the following questions define the focus of our work: What factors do college students typically consider when making academic/vocational and interpersonal commitments? Are there gender or age differences in the kinds of factors considered for different kinds of commitments? Does the complexity or structure of this thinking depend on the type of commitment under consideration? What qualitative differences exist in thinking about the general nature of commitment as a function of age or gender? Finally, how do such qualitative differences in conceptions of the nature of commitment relate to the reasoning about specific commitments, and what are the implications of such relationships?

Two traditions in psychology are relevant to these questions. The first is the literature on decision making under uncertainty (see Pitz and Sachs, 1984, for a review). Typically in such studies, a subject is given a small set of probabilistic information, and asked to make a prediction of outcomes or a choice among alternatives. Data from many trials are collected and measured against formal prescriptive models held to govern rational judgment. Typical findings show that subjects exhibit biases that lead to nonoptimal decisions (Baron, 1985; Fischhoff, 1975; Kahneman and Tversky, 1973; Nisbett and Ross, 1980; Pollard, 1982; Tversky and Kahneman, 1981). For example, subjects have been shown to over- or underweigh certain pieces of information, to rely too heavily on untutored intuitions, to resist refutations of or ignore counterexamples to favored theories, to ignore relevant normative models, and to arrive at impulsive decisions.

This methodology has several advantages for investigating decision making. Subjects are given all relevant information ahead of time, so the problem of different knowledge bases in different subjects is controlled. In addition, much work goes into the preparation of unambiguous items or questions, so subjects are relieved of the responsibility of making sense of the question or defining unclear terms. Subjects make a single response, and their task is clear to them.

On the other hand, this methodology has limitations when it comes to explaining thinking about commitments. First, no attempt is made to assess

the complexity of thought that goes into making a choice. In addition, problems of personal relevance or significance to the subject are rarely used. An important aspect of commitment, the personal interpretation of terms and obligations, is precluded by the tight experimental control characteristic of this research. Thus, the kind of ongoing set of decisions regarding life choices implied by the term *commitment* has received no attention in this literature.

A second tradition—this within developmental psychology—has specifically examined adolescents' conception of the nature of commitment, especially within the context of epistemological development. Perry (1970), in a seminal work, examined the intellectual and ethical development of college men. He divided intellectual development into nine positions that can be aggregated into three major periods.

In broad outline, Perry's proposed scheme of development is as follows: The first major period (positions 1 and 2) involves a dualistic orientation toward epistemological issues. The student views the world in terms of right and wrong answers, and sees his task as coming to find the right answers through conscientious hard work. The second major period (positions 3 and 4), known as complex dualism or multiplism, consists of a radical break with the earlier one. The student comes to doubt the existence of a solitary truth, and as a consequence, ceases to judge any intellectual or moral argument, maintaining that "it's all a matter of opinion."

The ability to make a mature, examined commitment, Perry held, appeared only in the last period, after the student has developed an appropriate epistemological outlook. In the final five positions that make up this period of relativism, the student constructs a set of principles against which intellectual and moral arguments can be judged. These principles are seen to have applicability to real-life choices and problems. The student sees the need to make a personal affirmation of self in various domains—for example, career, marriage, religion, and politics. Such affirmations are made after consideration of many alternatives, no one of them clearly "right." "Commitment," to Perry, is synonymous with personal affirmation; true commitments are not unexamined choices, but are made only after a period of doubt and struggle in which the student strikes a balance between action and contemplation (Perry, 1970, 1981).

Support for the general developmental sequence has been provided by studies based on Perry's work (Clinchy and Zimmerman, 1982; Clinchy *et al.*, 1977; Kitchener and King, 1980; Kniefelkamp and Slepitzka, 1978). Clinchy and Zimmerman (1982) described the development of agency or personal efficacy accompanying epistemological development. In general, their data validated the Perry scheme with a sample of undergraduate women, although some differences were obtained. For example, they found that few women "dug in their heels" at position 3, in contrast to Perry's male subjects; their

women subjects at position 4 (actually 4b) were less aggressive than Perry's subjects, and more willing to "enter into [another's] mind to engage in contextual reasoning" (p. 178). It is not clear whether the differences found reflect a sex or cohort difference, or result from different methodologies. However, it is worth noting that Clinchy and Zimmerman scored some of their seniors' protocols at Perry's positions 6 and 7, and speculate that "It may be that at the highest positions men and women are very similar" (p. 178).

Related work by Gilligan (1977, 1982) also supports the notion that development of thought does indeed occur after early adolescence, in contrast to orthodox Piagetian theory. Gilligan examined gender differences in moral reasoning, a topic sharing many features with the topic of commitment. She found that the central focus differs for men and women faced with moral dilemmas: Women construe morality in terms of conflicting interpersonal responsibilities, men in terms of competing rights (Gilligan, 1977). Gilligan states:

The moral imperative that emerges repeatedly in the women's interviews is an injunction to care, a responsibility to discern and alleviate the "real and recognizable trouble" of this world. For the men Kohlberg studies, the moral imperative appeared rather as an injunction to respect the rights of others and thus to protect from interference the right to life and self-fulfillment. Women's insistence on care is at first self-critical rather than self-protective, while men initially conceive obligation to others negatively in terms of noninterference. (p. 511)

Recent debate and discussion in response to Gilligan's work (e.g., Kohlberg *et al.*, 1983; Walker, 1984) take issue with some of her interpretations, but Gilligan has forcefully made the point that psychologists need to be sensitive to the fact that women and men may construe important facets of experience in different ways.

Scheidel and Marcia (1985) also proposed gender differences—these in the development of ego identity. They suggest that "for females . . . the emphasis is on interpersonal tasks, and . . . identity and intimacy struggles merge, whereas for males . . . interpersonal issues dominate and . . . intimacy follows identity resolution" (p. 149). Taken together with the conclusions of Gilligan, and of Clinchy and Zimmerman, this predicts the following: Men and women will tend to have different focuses and emphases in their thinking, both about the nature of commitment and about the relevance of various factors in making specific commitments.

Although this developmental work addresses thinking about the nature of commitment and related issues, it has not examined thinking about specific commitments. An issue that remains to be addressed by either the developmental or the decision-making literature is the following: How do changes in conceptions of commitment relate to, influence, grow out of, or predict thinking in the context of any particular commitment?

We see a gap between the two literatures described above. The decision-making literature examines single decisions on matters often of little relevance

to the subject, but describes the specific information people consider when making a decision. The developmental studies, on the other hand, allow subjects to structure the issues as they see fit and to provide an account of thinking about personally significant issues. At the same time, this research does not yield a detailed description of the kinds of information people spontaneously consider in making specific decisions.

Some attempts to bridge this gap are beginning, however. Recent work by Leslie (1986) does center around personally relevant issues: the importance subjects (all female) attach to various factors when considering future career and family plans. Subjects in this study, however, were not allowed or asked to generate the relevant issues on their own.

Our study examines the factors students spontaneously consider when making commitments of two types: academic/vocational and interpersonal. These types were chosen to be representative of the types of commitments college students face or begin to face. Within each of these two types, students were asked about three commitments of different levels of significance and duration. The six specific commitments chosen for study were *academic/vocational*—choosing courses, choosing a major, choosing a career; and *interpersonal*—choosing a friend, choosing a romantic partner, choosing a lifelong partner. For each of these commitments, students were asked to list the factors they typically consider in making a decision among alternatives. They were also asked to rate the importance of each of these factors. Finally, they were asked to present their own definitions of the term *commitment*.

This work had four specific goals. The first was to describe the factors students listed for the six specific commitments chosen for study. The second was to investigate gender and age differences in thinking about those six specific commitments. That is, do males and females, or do students in different classes, actually think differently (either quantitatively or qualitatively) about specific commitments? Our third goal was to describe qualitative differences in personal conceptions of the nature of commitment, and to examine gender and age differences therein. Finally, we examined relationships between conceptions of the nature of commitment on the one hand, and performance when thinking about specific commitments on the other.

METHOD

Subjects

Two hundred and forty-nine randomly selected Carleton College students received an invitation to participate and a blank questionnaire through campus mail. Sixty-eight students returned completed questionnaires. The final sample consisted of nine freshman women, eight freshman men,

eight sophomore women, eight sophomore men, ten junior women, six junior men, ten senior women, and nine senior men. Although low, the return rate was unsurprising given that students were not offered remuneration for their participation. Thirty-eight percent of the women invited to participate returned their questionnaires, as did 21% of the men. Twenty-nine percent of the freshmen, 32% of the sophomores, 23% of the juniors, and 28% of the seniors returned questionnaires.

Materials

Subjects received a cover letter that described the study and appealed for participation, and an eight-page questionnaire. On the first six pages, subjects were instructed to list all the factors they consider in making the following commitments: choosing courses, choosing a major, choosing a career, choosing a friend, choosing a romantic partner, and choosing a lifelong partner. Subjects were additionally asked to rate each factor they had listed on a 100-point scale in terms of its personal importance (e.g., 100, that factor is very important; 0, that factor is very unimportant). Finally, subjects were asked to indicate whether they had previously made that commitment, and if so, how many times, and/or whether they were currently in the process of making such a commitment. The seventh page asked subjects to define *commitment* in their own terms, considering issues such as what it takes to make a commitment and whether commitments can ever be broken. Finally, subjects were asked to give background information, such as class year, major, and their own current status with respect to the commitments described in the earlier items.

Procedure

Questionnaires were sent out and returned through campus mail. We anticipated that it would take subjects about 30 minutes to respond to all items, and the subjects who spoke with us confirmed that estimate.

RESULTS

In this section we first describe the factors that subjects typically listed for each of the six commitments, then explore class and gender differences in their responses to these six items. Next, we describe qualitative differences in subjects' thinking about what a commitment is. Finally, we analyze the predictability of qualitative differences in thinking about commitment in

general from the structural measures used to characterize thinking about the six specific commitments.

Descriptive Results for the Six Specific Commitments

The factors that subjects listed for each commitment were compiled into a single list, eliminating redundancies and collapsing highly similar items. Responses for each commitment were classified into a taxonomy developed by the authors. (There was a separate taxonomy for each of the specific commitments.) Table I presents these taxonomies. A third rater who had not participated in the creation of the taxonomies also classified these items. Interrater reliabilities between her classifications and those of the authors, averaged over all the categories within a taxonomy, are presented at the beginning of each section. We report these reliabilities both as the proportion of agreements to total, and also using the more conservative kappa measure (see Applebaum and McCall, 1983, for a definition and discussion).

We calculated the proportionate use of each category within each taxonomy. For example, if a subject listed 10 factors for the commitment of choosing courses, and five were related to the category of college requirements, that subject's proportionate use of that category would be .50. We calculated this measure in order to investigate individual differences in the *types* of factors typically considered. These measures were subjected to 2 (gender) \times 4 (year) \times 2 (previous experience with that commitment, yes or no) \times N (number of categories for a particular commitment minus one, since proportions were involved³) mixed factorial analysis of variance (ANOVA) with repeated measures on the last factor.

We also calculated the frequency with which individual factors were listed by subjects, and we present the most frequent individual factors in Table II.

There were almost no gender, class year, or experience level differences in the proportionate use of any categories within any of the six taxonomies. The two exceptions were in the taxonomies for choosing a major and choosing a friend. For choosing a major, there was a gender difference in category use [$F(9, 513) = 3.17, p < .001$]. Specific comparisons (Tukey's [a] tests) revealed that males had a significantly lower proportionate use (.09 vs .20) of the category of reputation of department and instructors. Proportionate use of each category also varied by experience level [$F(9, 513) = 1.99, p < .05$], but specific comparisons did not reveal any reliable differences in the use of any category as a function of this factor.

³One category from each taxonomy was arbitrarily dropped for the purposes of the ANOVAs.

Table I. Categories of Factors Listed by Commitment

| Factor | Mean proportion of use |
|---|------------------------|
| I. Choosing courses (interrater reliabilities ranged from .91 to 1.00, median .95; kappa ranged from .67 to 1.00, median .82) | |
| Relationship to college requirements | .23 |
| Difficulty and appeal | .21 |
| Specific aspects of course (e.g., schedule, classroom) | .21 |
| Reputation of instructor and department | .14 |
| Applicability to future goals | .07 |
| Advice of others | .06 |
| Balance in education | .04 |
| Other students in course | .03 |
| II. Choosing a major (interrater reliabilities ranged from .85 to 1.00, median .93; kappa ranged from .20 to 1.00, median .66) | |
| Difficulty and appeal | .26 |
| Applicability to future educational/career goals | .22 |
| Reputation of department and instructors | .15 |
| Past record of success/enjoyment | .15 |
| Major requirements | .10 |
| Prospects for long-term interest | .03 |
| Meshes with personality/fulfills personal needs | .03 |
| Advice of others | .02 |
| Benefits (nonspecific) | .02 |
| Others in the major | .01 |
| College pressure to decide | less than .01 |
| III. Choosing a career (interrater reliabilities ranged from .78 to .98, median .97; kappa ranged from .36 to .83, median .64) | |
| Working/job conditions | .21 |
| General appeal | .18 |
| Income/compensation | .15 |
| Prospects for personal impact/general importance | .11 |
| Long-term outlook, security, prospects | .11 |
| Meshes with talent, education, abilities | .09 |
| Co-workers | .04 |
| Prospects for long-term interest | .03 |
| Altruistic concerns | .03 |
| Attitudes of/compatibility with friends, family | .02 |
| Concerns over future relationship with friends, family | .02 |
| Moral concerns | .01 |
| IV. Choosing a friend (interrater reliabilities ranged from .91 to 1.00, median .99; kappa ranged from .39 to 1.00, median .78) | |
| Personality | .55 |
| Mutual feelings/compatibility | .15 |
| Interests and activities | .12 |
| Communication skills | .05 |
| Similar values/philosophies/goals | .03 |
| Attitudes of/compatibility with other friends/family | .02 |
| Looks/physical characteristics | .02 |
| Benefits (nonspecific) | .02 |
| Habits | .01 |

Table I. Continued

| Factor | Mean proportion of use |
|---|------------------------|
| Demographic variables | .01 |
| Compatible schedules | .01 |
| Intuition | less than .01 |
| V. Choosing a romantic partner (interrater reliabilities ranged from .85 to .99, median .99; kappa ranged from .31 to .94, median .78) | |
| Personality | .37 |
| Mutual feelings/compatibility | .23 |
| Looks/physical characteristics | .11 |
| Interests and activities | .06 |
| Communication skills | .05 |
| Similar values/philosophies/goals | .04 |
| Length of/prospects for the relationship | .04 |
| Attitudes of/compatibility with friends/family | .02 |
| Sexual compatibility | .02 |
| Habits | .02 |
| The other person's past experiences | .01 |
| Fortuitous circumstances | .01 |
| Demographic variables | .01 |
| Benefits (nonspecific) | less than .01 |
| VI. Choosing a lifelong partner (interrater reliabilities ranged from .83 to 1.00, median .98; kappa ranged from .14 to 1.00, median .72) | |
| Personality | .33 |
| Mutual feelings/compatibility | .25 |
| Looks/physical characteristics | .07 |
| Similar values/philosophies/goals | .06 |
| Interests and activities | .06 |
| Issues related to raising a family | .04 |
| Issues related to career/education | .04 |
| Length of/prospects for the relationship | .03 |
| Attitudes of/compatibility with other friends, family | .03 |
| Religious issues | .03 |
| Demographic variables | .02 |
| Communication skills | .02 |
| Sexual compatibility | .01 |
| The other person's past experiences | .01 |
| Habits | .01 |
| Benefits (nonspecific) | less than .01 |

Eleven subjects complained about the wording of the item, "choosing a friend," arguing in one case that "Actually, you don't *pick* a friend, they pick you." Another said, "I had never really thought of *choosing* a friend. Friendships seem either to happen or not to happen naturally." Proportionate use of each category in this taxonomy varied by year [$F(30, 590) = 2.80$, $p < .001$]. Specific comparisons revealed a difference in usage of the category of Personality, with freshmen, sophomores, juniors, and seniors having a mean proportionate usage of .72, .51, .56, and .43, respectively. Freshman

Table II. Individual Factors Most Frequently Listed by Commitment

| Factor | Number of subjects (out of 68) who listed the factor |
|---|--|
| I. Choosing courses | |
| How interesting the course is | 47 |
| Time period the course meets | 46 |
| If there are plans to take other courses in the department | 45 |
| If it fulfills distribution requirements | 31 |
| If it fulfills major requirements | 25 |
| II. Choosing a major | |
| How much I care for the subject | 54 |
| Something I do well in | 37 |
| Something with good career opportunities | 31 |
| What I want to do with this major after college | 22 |
| A department with good instructors | 20 |
| III. Choosing a career | |
| Income | 50 |
| How interesting that career is | 36 |
| Availability of jobs | 22 |
| Expected level of fulfillment/completion | 15 |
| IV. Choosing a friend | |
| Common interests | 38 |
| Sense of humor | 23 |
| Fun | 21 |
| Honest | 17 |
| Reliable | 17 |
| V. Choosing a romantic partner | |
| Appearance | 44 |
| Friendship | 29 |
| Sense of humor | 17 |
| Trustworthy | 16 |
| Intelligent | 16 |
| VI. Choosing a lifelong partner | |
| Physical attractiveness | 28 |
| Similar interests | 20 |
| Whether person wants to have children | 16 |
| Intelligence | 15 |
| Friendship | 15 |

usage was reliably higher than that of the other groups at the .01 level; no other differences were significant.

Structure of Responses Across the Six Specific Commitments

To investigate similarities and differences in responses across the six specific commitments, we used three measures: fluency, flexibility, and

originality. These measures were originally derived in the divergent thinking literature and were designed to examine subjects' responses to items calling for them to generate many responses (Torrance, 1972; Wallach and Kogan, 1965). They are used here because they appear to capture structural (i.e., content independent) aspects of a subject's responding across qualitatively different items (i.e., specific commitments). *Fluency* is simply the number of responses given. *Flexibility* is the number of different *types* of responses given (in our case, the number of different categories used, as defined above). *Originality* is computed in the following way: Subjects' responses are pooled into a single list and the number of subjects giving any single response is tallied. A particular subject's originality score is the average frequency of generation of all the responses given. This measure presumably reflects a subject's ability to move away from stereotypic responses.

To think deeply and carefully about a particular commitment, one presumes, is to consider a wide range of factors and to move beyond the obvious ones. These three measures represent a means for capturing these aspects of thinking. Specifically, they describe both quantitative and qualitative aspects of the list of factors a subject generates: how many factors are thought of, how many different types of factors are considered, and how stereotypic the factors generated are.

Internal reliabilities (using coefficient alpha) for the three measures across the six specific commitments were, for fluency, .89, for flexibility, .85, for originality, .56. We examined gender and year differences in these three measures across the six commitments, by performing 2 (gender) \times 4 (class) \times 6 (specific commitment) mixed ANOVAs, with repeated measures on the last factor.

For fluency, there were significant differences in responding as a function of the specific commitment [$F(5, 285) = 26.33, p < .001$], gender [$F(1, 57) = 5.13, p < .05$], and an interaction between the two [$F(5, 285) = 2.69$]. Table III presents the relevant means for the interaction and the main effects. Specific comparisons (Tukey [a] tests) showed significant gender differences in fluency for the specific commitments of choosing a friend, choosing a lifelong partner ($p < .01$), and choosing a romantic partner ($p < .05$). For the main effect of specific commitment, the means for choosing a romantic partner and choosing a lifelong partner were significantly higher than all others, but did not themselves reliably differ. In addition, the mean for choosing a major was significantly lower than that for choosing a career or choosing a friend ($p < .01$). No other main effects or interactions emerged.

For the flexibility measure, the only significant effect to emerge was for the factor of specific commitment. Subjects used an average of 4.45, 3.95, 4.66, 3.32, 4.34, and 4.88 types of factors (i.e., categories) for the specific commitments of choosing courses, a major, a career, a friend, a romantic partner, and a lifelong partner, respectively [$F(5, 285) = 14.91, p < .001$].

Table III. Mean Number of Factors Listed (Fluency) by Gender and Commitment

| | Commitment ^a | | | | | | Overall |
|---------|-------------------------|------|------|------|------|-------|---------|
| | Cou | Maj | Car | Fri | Rom | Lif | |
| Gender | | | | | | | |
| Men | 5.39 | 4.90 | 5.81 | 5.68 | 7.48 | 8.00 | 6.21 |
| Women | 6.94 | 5.35 | 7.18 | 7.97 | 9.62 | 10.79 | 7.98 |
| Overall | 6.20 | 5.14 | 6.52 | 6.88 | 8.60 | 9.46 | |

^aKey: Cou, choosing courses; Maj, choosing a major; Car, choosing a career; Fri, choosing a friend; Rom, choosing a romantic partner; Lif, choosing a lifelong partner.

Specific comparisons showed that the mean for choosing a friend was reliably lower than every other mean ($p < .025$) and the mean for choosing a lifelong partner was significantly higher than that for choosing a major ($p < .01$).

For the originality measure, a main effect for gender emerged, with women having a lower score (thus showing more originality) than men, with means 14.78 and 16.55, respectively [$F(1, 57) = 4.24, p < .05$]. There was also a main effect of the factor specific commitment, with mean originality scores of 23.76, 22.71, 17.27, 10.70, 11.13, and 7.78 for the specific commitments of choosing a course, a major, a career, a friend, a romantic partner, and a lifelong partner, respectively [$F(5, 285) = 79.11, p < .001$]. Specific comparisons showed that the mean for choosing a career differ reliably from all others ($p < .01$); the means for choosing courses or choosing a major were significantly higher than all others ($p < .01$), but did not differ reliably themselves; and the means for choosing a friend, choosing a romantic partner, and choosing a lifelong partner all reliably differed.

All subjects reported having previously chosen courses and friends. For the other four items (choosing a major, a career, a romantic partner, and a lifelong partner), it was possible to examine differences between subjects who had previously made those commitments and those who had not. No differences were found in the fluency, flexibility, or originality measures for any of the items, with one exception: Subjects who had chosen a career ($N = 8$) listed significantly fewer factors than those who had not [$M = 4.75$ vs $M = 6.71$ ($N = 59$); $t(65) = 3.36, p < .001$].

Qualitative Aspects of Conceptions of the Nature of Commitment

The essays that subjects wrote defining the term *commitment* were first scored for the presence or absence of various themes, discovered by the authors through several readings of all essays. These were obligation, promise/word of honor, mutual trust, expression of self/values, contract, ordering of priorities, perseverance, and devotion of self/contributing effort. A

single essay could incorporate many themes. Interrater reliabilities between the two authors, calculated as a percentage of agreements to the total, ranged from .85 to .98, with a median of .95. Using the more conservative kappa (again, see Applebaum and McCall, 1983, for a definition and discussion of kappa) the reliabilities ranged from .47 to .94, with a median of .77. Interrater reliabilities between the first author and a third rater, who had not participated in the creation of the taxonomy, calculated as a percentage of agreements to the total, ranged from .88 to .98, with a median of .93 (kappa ranged from .45 to .94 with a median of .77). Interrater reliabilities between that rater and the second author, calculated as a percentage of agreements to the total, ranged from .86 to 1.00, with a median of .93 (kappa ranged from .41 to 1.00 with a median of .70).

Table IV shows the proportion of subjects whose essay incorporated each of the above themes, both by gender and by class. It reveals that there were no class differences in the use of any of the themes. Only one gender difference emerged: Women were more likely than men to mention the theme of promise/word of honor [correlation between gender and use of that theme $r(61) = .29, p < .05$].

Essays were also rated by ten undergraduates (five men and five women) who were unfamiliar with the study. The raters used a 10-point scale of perceptiveness and/or thoughtfulness, but were given no other instructions. In general, raters agreed with each other in their ratings; the average interrater reliability (using coefficient alpha) was .88. Male and female students rated essays similarly; the average correlation in their ratings was $r(66) = .78, p < .001$.

Average ratings did not correlate with gender of the respondent, but correlated slightly with the class of the respondent [$r(66) = .22, p < .05$]. The

Table IV. Proportion of Essays Showing Themes^a by Gender and Year

| | Theme ^b | | | | | | | |
|------------|--------------------|------|------|------|------|------|------|------|
| | Obli | Prom | Mutu | Expr | Cont | Orde | Pers | Devo |
| Gender | | | | | | | | |
| Men | .21 | .10 | .14 | .10 | .07 | .14 | .31 | .31 |
| Women | .19 | .34 | .28 | .09 | .09 | .06 | .25 | .31 |
| Class year | | | | | | | | |
| Freshman | .35 | .21 | .14 | .14 | .07 | .07 | .43 | .29 |
| Sophomore | .13 | .19 | .06 | .00 | .13 | .06 | .19 | .44 |
| Junior | .14 | .29 | .36 | .07 | .00 | .07 | .43 | .36 |
| Senior | .18 | .24 | .29 | .18 | .12 | .18 | .12 | .18 |

^aAny essay could show more than one theme.

^bKey: Obli, obligation; Prom, promise/word of honor; Mutu, mutual trust; Expr, expression of self; Cont, contract; Orde, ordering of priorities; Pers, perseverance; Devo, devotion of self/contributing effort.

average ratings of perceptiveness also correlated with the presence of the theme, "devoting self/contributing effort" [$r(61) = .30, p < .01$], but with no other themes.

Relationships Between Conceptions of Commitment and Aspects of Thinking About Specific Commitments

We also examined relationships between subjects' thinking about specific commitments and their conception of the nature of commitment. Qualitative measures of conceptions of the nature of commitment are the presence of the eight themes and the average perceptiveness rating. These were correlated with the overall fluency, flexibility, and originality measures from the six specific commitments. The correlations for the most part were small and not statistically significant. The exceptions were that the average perceptiveness rating correlated slightly but significantly with both overall fluency [$r(61) = .23, p < .05$] and overall flexibility [$r(61) = .28, p < .025$]. These two measures also correlated, negatively, with the presence of the themes "ordering of priorities" in essays [both correlations were $r(61) = -.21, p < .05$].

DISCUSSION

Five aspects of the data merit discussion. The first thing to note is that the structural measures of performance with specific commitments (i.e., fluency, flexibility, and originality) tend to increase for commitments of greater duration. That is, when thinking about a long-term commitment (e.g., choosing a lifelong partner or choosing a career), subjects tend to list more factors, to list a wider variety of factors, and to list more original factors. This pattern is unsurprising; we would expect subjects to think more carefully about commitments of longer duration. In fact, it might be argued that choosing a course or choosing a friend do not even constitute real commitments. On this argument, striking differences in thinking (presumably reflected in the structural measures) should have emerged. However, the differences in performance on the six specific commitments are not large. For example, on average, subjects list only three more factors for choosing a lifelong partner than they do for choosing a friend. Subjects may be less sensitive to distinctions between different commitments than would be optimal.

A second finding was more surprising: The performance of subjects who had made a particular commitment was indistinguishable, for the most part, from the performance of subjects who had not made that commitment, in terms of both the three structural measures and in terms of the particular types of responses made (i.e., proportionate usage of each category for each

specific commitment). One might have expected both quantitatively and qualitatively different responses from subjects who had had previous experience considering a particular issue, but few differences emerged.

A third finding was that subjects listed more factors, a wider variety of factors, and more original factors for interpersonal than for academic/vocational commitments. Except for the fluency (i.e., number of factors listed) measure, there were no gender differences in this regard. This finding may result from a belief that interpersonal commitments are more important than academic/vocational ones. It is worth noting, whatever the explanation, that this effect held for both men and women.

In fact, the fourth and most striking aspect of the data is the lack of widespread gender differences, both on the specific commitments and in the essay on the nature of commitment. This finding was quite surprising, especially in light of the work of Clinchy and Zimmerman (1982), Gilligan (1977), and Schiedel and Marcia (1985), suggesting that women often construe relationships and obligations in ways fundamentally different from the ways men do. In particular, we had expected to see women more likely to define the nature of commitment in terms of categories such as mutual trust and devotion of self/contributing effort, and men in terms of promise/word of honor and contract, but we did not. In fact, the one gender difference observed in the essays went against our expectations: Women's essays were more likely to express the theme "promise/word of honor." Few gender differences were found for any of the six specific commitments, whether the measures were the structural ones or the types of categories a subject's responses encompassed.

Two theoretically uninteresting accounts of the lack of gender differences must be addressed. The first is that the subjects who returned questionnaires came from a particular subset of the population, and any individual differences present in the population were obscured. It is impossible to rule out such an account. Our study did demand a significant amount of time and therefore the final sample of subjects can be presumed to be nonrandom. In addition, the response rate for men was significantly lower than that for women.

On the other hand, it is not clear to us whether our sample was less random and/or representative than samples of subjects used in the epistemological, moral, or ego identity developmental studies. The interviews conducted in those studies seemed to place similar demands on subjects' time and privacy, and we have no reason to believe our sample differed in any essential respect from those described by Clinchy and Zimmerman (1982), Gilligan (1977), Perry (1970), or Schiedel and Marcia (1985).

A second potential problem could be with the measures themselves. Lacking evidence to the contrary, we believe the measures of the essay are sound. First, interrater reliabilities in coding essays were very high, and most

(61 of 66) essays were scored with at least one theme. The structural measures showed acceptable internal reliabilities, and on the face of it seem to comprise a reasonable means for examining important aspects of thought. However, little evaluative work has been done on such measures outside their use in tests of divergent thinking (e.g., Torrance, 1972).

A more theoretically interesting account of the lack of gender differences is that men and women in fact construe the nature of commitment similarly, and do not behave differently when considering different commitments. We note in this regard that all coding of all data was performed blind to gender or class year, by both male and female coders and raters. Moreover, because the instrument used was a questionnaire rather than an interview, the chance for an interviewer to "lead" the subject toward or away from any particular topic was reduced.

Indeed, the finding that men and women do not differ in important aspects of their thinking is not a new one. Walker (1984), in a review of 108 studies of the development of moral reasoning, concluded "contrary to the prevailing stereotype, very few sex differences in moral development have been found" (p. 688). Our findings also appear to contradict expectations coming from previous work.

A fifth aspect of the data meriting attention is the lack of strong relationships between the structural measures on the six specific commitments and the qualitative aspects of the essay. Simply stated, differing conceptions of the nature of commitment did not predict differences in any of the structural measures. Indeed, even the average perceptiveness rating of the essay correlated only slightly with the fluency (number of factors) and flexibility (number of types of factors) measures.

Again, problems with a nonrandom sample or problems with the measures might account for the lack of relationships. It may also be that the task of listing factors one considers when making a particular commitment does not really represent the thinking that goes on when that commitment *is* really made. Thus, the lack of correlation between the essay measures and the structural measures comes about because the structural measures do not assess the real thinking behind making a specific commitment. It is our hope to address this issue in future work by surveying subjects who are actually in the process of making some of these commitments. For the present, however, it can be argued that the task of listing factors for a specific commitment taps ideal thinking, uncontaminated by performance factors that normally limit thinking in an actual commitment. Thus, if anything, relationships between the essay and the structural measures for our task should have been stronger than relationships between conceptions of commitment and thinking about commitments when actually faced with them.

Another possibility is that subjects' conceptions of the nature of commitment *are* independent of their thinking about specific decisions. It may be that other variables, such as cognitive style, systematicity, or the ability to tolerate uncertainty, have a greater influence when it comes to thinking about specific commitments. A person's experience with specific commitments, by the same token, might not have a direct influence on one's "philosophy of commitment," especially if commitments once made are reduced to the status of simple decisions.

The relationships between personal philosophies and personal decision making thus are not straightforward. Our findings do not show strong relationships, suggesting that a focus on people's conceptions of the nature of commitment (as in Perry's [1970] work) will not necessarily explain thinking about specific commitments, much less actual behavior when committing oneself to a relationship or to a personal goal.

This issue points to the need to study not only individuals' abstract conception of the nature of commitment, but also specific examples of behavior, thinking, and philosophy "in the heat" of a process subjects themselves regard as a commitment. Demonstrations (or even the repeated lack of demonstration) of relationships among these three aspects of commitment would shed light on how one's ability to make informed and important personal decisions and affirmations develops, and how this influences one's personal philosophy of commitment and of self.

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