The Decision-Making Processes of Graduate Admissions Committees in Psychology

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In the present study, fifty-five graduate institutions offering the Ph.D. in psychology completed a value tree diagram indicating the relative weight of admissions factors used in the decision making process. Each committee was also asked to describe their exact procedures. In weighing the factors, respondents reconfirmed the importance of grade point average (GPA), Graduate Record Examination (GRE) scores, and letters of recommendation, but also heavily weighed the importance of the autobiographical statement and research experience. Examination of the admissions committee protocols yielded three general approaches to evaluating incoming information about applicants: quantitative, qualitative, and situational. Results of the present study are discussed in terms of their usefulness to advisors of undergraduates as well as to students pursuing graduate school admission.

Advisors of undergraduate students majoring in psychology are often asked questions about admission to graduate school. The purpose of the present study was to seek empirically-based answers to students' common questions concerning the graduate admissions process in psychology. Four major areas of study are identified when reviewing the relevant literature: (a) predicting the success of students completing graduate school; (b) predicting the success (odds) of getting into graduate school; (c) student perceptions of the graduate school admissions process,

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Journal of Social Behavior and Personality, 1994, Vol. 9, No. 2, 239–248.

and (d) the decision-making process used by graduate admissions committees. Many of these studies are general in nature, and not specifically linked to *psychology* graduate admissions. The emphasis of the present study is graduate admissions in *psychology*.

There are a wide range of studies that have examined the decision-making process within graduate admissions committees. Some have been quite specific at examining specialized fields in psychology, such as professional programs (Cole, 1979; Eddy, Lloyd, & Lubin, 1987), clinical programs (Hines, 1986; Rem, Oren, & Childrey, 1987), and counselor education programs (Childers & Rye, 1987; Gimmestad & Goldsmith, 1973; Markert & Monke, 1990). Other studies have been even more specific in examining particular issues, such as sexism in letters of recommendation (Henderson, Briere, & Hartsough, 1980) or the consequences of making admissions files confidential (Shaffer & Tomarelli, 1981).

One approach to studying the process by which admissions committees make their decisions is to try to mimic or copy their behavior by generating prediction models such as through policy capturing (Dawes, 1971; Goldberg, 1977; Schmidt, Johnson, & Gugel, 1978; Wallace & Schwab, 1976). These studies tend to focus on generating mathematical models of how the information gathered in the admissions process is combined by the committee. The policy capturing approach can be used to generate an admissions equation. For example, Dawes (1971) found that the equation based on committee decision-making was actually more consistent than the actual committee, an effect known as bootstrapping (this happens because humans vary from their own decision rules, while a mathematical equation does not vary from its decision rule). The present study is related to this line of research, that is, our interest is in how the committee arrives at the relative weights of the factors used when making the admissions decision.

Two studies have been conducted which have some similarity to the present study. Merenda and Reilly (1971) studied six predictors on a sample of students from one university and found that the factors weighted the greatest were grade point average (GPA), GRE-advanced score, and grades in undergraduate psychology courses. Millimet and Flume (1982) generated hypothetical graduate student profiles and sent them to actual graduate admissions committees. They concluded that the strongest factors used by the admissions committees were GPA, GRE, and letters of recommendation.

The present study used an approach different from previous studies interested in how graduate admissions committees value or weight the information available. To preview, admissions committees from

Ph.D.-granting graduate schools across the nation were asked to participate in a study. First (Study 1a), committees were asked to provide a weight on 38 potential factors that might be used in the admissions process. These weights were obtained by using the value tree method from decision analysis. Second (Study 1b), committees were also asked to describe in writing the actual process used by their psychology department.

STUDY 1A

The first study used the value tree technique from decision analysis to measure the relative weights of potential factors used in the graduate admissions decision-making process (for a general review of the decision analysis field and these specific procedures, see Humphreys, Svenson, & Vari, 1984, and Pitz & Sachs, 1984).

Method

Subjects

All 206 graduate psychology departments offering the Ph.D. in psychology were selected from the American Psychological Association's (APA) *Graduate Study in Psychology and Associated Fields, 1990* and were mailed the materials for Studies 1a and 1b. Materials were addressed to the Chairperson of the Graduate Admissions Committee. In sum, 55 graduate schools (26.7%) responded.

Materials

The materials used in Study 1a consist of a value tree diagram. In the value tree, graduate admissions candidate criteria were grouped in a organized format with space provided for the attribute ratings. Basically, subjects were asked to rate each attribute listed in Table 1 based on the relative ratings of importance of the criterion to their graduate program.

Procedure

Subjects were mailed the information from Studies 1a and 1b and were asked to respond by a deadline date. Subjects were provided with detailed instructions including examples of how to complete the value tree (these materials are available from the first author). Responses were anonymous, and subjects were told in a cover letter that their individual responses would remain confidential. After completion of the forms, subjects were instructed to return the materials in the provided self-addressed business-reply envelope.

For each participant, there was no upper limit of responding. To make the value trees comparable, scores were normalized to yield 100 total points per value tree.

TABLE 1 Value Tree Factors Evaluated By Admissions Committees

	Mean	*SD*	*t-value*	*df*
CREDENTIALS				
GPA Overall	5.90	2.59	7.48****	(43)
GPA-Psychology	4.40	1.45	6.47****	(42)
GPA-Last Two Years	4.10	1.50	4.91****	(42)
Standardized Test Scores	6.24	2.76	7.50****	(39)
GRE-Combined	5.83	3.01	6.08****	(40)
GRE-Verbal	4.64	1.87	5.96****	(44)
GRE-Quantitative	5.05	2.01	6.95****	(44)
GRE-Analytical	2.81	2.03	-0.47	(36)
GRE-Advanced	2.72	1.53	-0.96	(36)
MAT	0.64	1.09	-7.72****	(12)
Letters of Recommendation	5.71	3.50	5.29****	(45)
SELF-PRESENTATION				
Materials (i.e., resume)	2.58	1.63	-1.52	(39)
Autobiographical Statement	4.06	1.93	3.80***	(44)
Interview	3.36	2.60	0.89	(35)
PSYCHOLOGY INVOLVEMENT				
Coursework	3.70	2.12	2.23*	(41)
Lab Courses	2.42	1.03	-3.48**	(41)
Non-Lab Courses	2.20	1.04	-4.70****	(40)
Statistics Course	3.27	1.86	1.07	(42)
Experimental Course	2.86	1.21	-0.58	(40)
Research Experience	4.92	1.79	7.20****	(43)
Papers Presented	3.87	1.64	3.65***	(43)
Publications	5.20	3.64	4.06***	(43)
Clinical Experiences	2.52	1.69	-1.61	(35)
Paid Human Service Experience	2.02	1.54	-3.59**	(33)
Voluntary Human Service Experience	1.94	1.48	-4.11***	(34)
Previous Graduate Work	2.32	1.50	-2.77**	(40)
Psi Chi Membership	1.05	0.90	-12.32****	(32)
UNDERGRADUATE EDUCATION				
Quality of Undergraduate Institution	3.15	1.63	0.74	(45)
Computer Skills and Knowledge	2.21	1.36	-3.62***	(41)
Non-Academic Activities	0.97	0.66	-17.66****	(33)
Double Major	1.12	0.95	-10.96****	(31)
Awards Received	1.70	1.15	-7.02****	(39)
Leadership Roles	1.28	0.94	-10.78****	(35)
DEMOGRAPHICS				
Age	0.77	0.64	-16.48****	(22)
Gender	0.70	0.82	-13.28****	(22)
Marital Status	0.39	0.54	-19.25****	(15)
Work Experience	1.81	1.37	-4.64****	(29)
Ethnic Origin	2.50	1.79	-1.46	(30)

Results and Discussion

Although the response rate was relatively low (26.7%), it is similar to other studies of this type (e.g., Eddy et al., 1987, 29.1%; Gimmestad & Goldsmith, 1973, 19.6%).[1] In absolute terms, however, insight from 55 Ph.D.-granting institutions in the United States is useful in understanding how admissions committees weigh information during the decision-making process.

Given the wide differences in graduate psychology departments across the nation, what is the best way to evaluate the data? While it would have been interesting to differentiate graduate admissions standards based on various factors (type of program, geographical location, public vs. private, etc.), this was not the goal of the present study. Some departments indicated one admissions committee for all programs (i.e., clinical, counseling, experimental) while other departments indicated multiple committees. Give that the focus of this study was to gather information about psychology graduate admissions in general, a decision was made to combine all responses into an aggregate picture of the admissions process.

For each of the 38 factors, a mean and standard deviation are reported in Table 1. In addition, a t-test was performed on each of the 38 factors, comparing the factors' mean score against the overall combined average of all 38 factors (M = 2.97). Results of these t-tests indicate which factors are highly important, of average importance, and of below average importance. Positive significant ts indicate highly important factors; non-significant (ns) factors are of average significance; and negative significant ts indicate below average significance (see Table 1).

The general pattern of results replicates what others have found (e.g., Millimet & Flume, 1982) in that GPA, GRE, and letters of recommendation are still important. However, results from the present study also suggest that the autobiographical statement as well as research experience (papers presented and publications) were also highly significant. While this information is extremely useful to advisors and undergraduate students interested in graduate school, the remaining factors are also of interest as well. These factors indicate to varying degrees what is not important in the decision-making process of graduate admissions committees. GRE advanced tests, specific types of coursework, clinical experiences and the quality of the undergraduate institution seem to be

[1] *In the Gimmestad and Goldsmith (1973) study, 100 schools were randomly selected from 347 total schools, with 68 responding. In the Eddy, Lloyd, and Lubin (1987) study, 59 out of 203 departments solicited responded on the first contact, and nonrespondents were later contacted, with the follow-up resulting in 45 additional programs responding. This type of follow-up was not possible in the present study because initial responses were anonymous.*

average factors, and a number of factors fall significantly below average in the results (e.g., Psi Chi membership, non-psychology accomplishments, and student demographics).[2]

STUDY 1B

Study 1b was conducted simultaneously with Study 1a, but subjects were asked to describe in words the exact nature of the process of decision-making used in the graduate admissions process at their institution.

Methods

Subjects

The same subjects from Study 1a participated in Study 1b.

Materials

Subjects received an additional form in their packet containing mostly blank space for a response, and instructions to describe as explicitly and concretely as possible the decision-making process used in the department in determining graduate admissions.

Procedure

Subjects were first asked to complete the value tree in Study 1a, and then to complete the form in Study 1b. After receiving the responses, they were transcribed into admissions protocols.

Based on a review of these protocols, a set of content areas was generated by the authors (these areas are presented in Table 2). Two undergraduate psychology majors trained in content analysis used the 10 specific codes presented in Table 2 and coded each of the transcribed protocols. Raters were allowed to use as many codes as necessary for any particular protocol, and there was no absolute criterion measure of correctness.

Results and Discussion

The results from a content analysis are presented in Table 2 (that is, certain trends and patterns emerged after reviewing the protocols). After examining the protocols, the processes used by various admissions com-

[2] *This is not to say that activities like clinical experiences and Psi Chi are not important; rather, they are not often used as the discriminating factors as to whether or not someone is admitted into graduate school. Given the satisfactory compliance with the major factors (GPA, GRE, letters of recommendation, autobiographical statement and research experience), candidates are judged as either qualified or unqualified without regard to clinical experiences or Psi Chi membership. There are many important activities that contribute to a student's education, but there are only a limited number of factors which are used in graduate school admissions decisions.*

mittees generally clustered around the use of quantitative factors, qualitative factors, and situational factors. The proportion of times each strategy was used is also reported in Table 2; for example, some sort of rank ordering/rating system was used by 21.4% of the respondents. Our focus was to seek out similarities and trends among graduate institutions.

In terms of interrater reliability, this is a complex issue to address in this study. Raters had 10 categories from which they could apply any of the content codes to the single protocol. That is, one rater could apply 3 codes while another rater could apply 5 codes to the same protocol. Further, there was no absolute criterion measure of correctness. Interrater reliability, then, was calculated two ways; agreement with the minimum number of codes reported, and agreement with the maximum number of coded reported. When using the higher number of codes reported by a rater, this leads to an underestimate of reliability; in this study, that reliability was 57%. However, when agreement is calculated using the minimum number of codes as the criterion, reliability is probably overestimated at 74%. Hence, the interrater reliability in this study is moderate, probably falling between 57% and 74%.

This information is valuable for both the advisor and the prospective graduate student. Faculty can have more insight into the process of how selection takes place. Students may also be able to better understand what happens when their file is completed at the graduate school. For example, many students may not understand the importance of matching interests with a faculty member, and might be better served in making contact with an institution and inquiring about faculty interests before applying. This type of information should be utilized beforehand, but may also be useful in explaining to students why they might have been rejected at a particular school.[3]

GENERAL DISCUSSION

Much research has been conducted in the general area of graduate admissions. One specific line of this research has been to examine the factors used by admissions committees. The present study reaffirms the prior findings of GPA, GRE, and letters of recommendation as well as adds new empirical knowledge about factors reported here as very important (the autobiographical statement and research experience). In addition, this study examined the processes used in decision-making by analyzing the actual protocols used by admissions committees. While

[3] *Most students accepted to graduate school show little interest in the process by which they were selected—they are just glad to have been selected. Rejected applicants commonly become more interested in the admissions process, especially if they plan another application to graduate school.*

TABLE 2 Results of Content Analysis of Admissions Committees Protocols

Frequency	*Content Codes*
Area I: Quantitative Factors	
21.4%	A. Rank ordering/rating (by faculty, by subcommittee/area/ program, or by current graduate students)
13.7%	B. Multiple regression approach (strong credentials in one area can compensate for weak credentials in another area)
21.0%	C. Multiple hurdles (minimum cutoffs needed; may be first and second cut)
Area II: Qualitative Factors	
29.4%	A. Interview
2.9%	B. Preliminary application
12.7%	C. Global evaluation of applicants
18.6%	D. Sort applicants into piles (accept/hold/reject)
Area III: Situational Factors	
31.3%	A. Match between applicant and school/faculty/research interests
2.9%	B. Approval at Graduate School before departmental approval
3.9%	C. Applicant's competitiveness for fellowships/scholarships

Note: Percentages do not add to 100.0% because the table reports the frequency of reported use by faculty graduate admissions committees. Committees using more than one strategy are reported in more than one category.

others have proposed mathematical models of the process, our current efforts have been to describe this process in terms of clusters or general strategies used by admissions committees. The general results reported here may provide a foundation for future use in identifying systematic differences across programs, regions, etc. While students may have some awareness of the quantitative and qualitative factors used in this process, most are probably unaware of the situational factors that govern decision-making. Students should be urged to contact prospective departments directly, and perhaps contact specific professors to aid in analyzing their prospective match, scholarship competitiveness, etc.

While this study is limited in its generalizability due to the moderate response rate, the responses received are genuinely useful in studying the process. Considering that admissions committees are generally overworked and considering hundreds of applicants for a handful of positions, we feel that 55 responses is a respectable response when asking these committees to complete yet another task, and a task they may not be familiar with (the value tree procedure). The results of this study confirm the importance of previously identified factors as well as add to our knowledge with two important factors, the autobiographical statement and research experience.

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