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WORKING PAPER

ALFRED P. SLOAN SCHOOL OF MANAGEMENT

Research Program on the Management  
of Science and Technology

LONGITUDINAL QUESTIONNAIRE PROCESS  
ANALYSIS OF OCCUPATIONAL CHOICE

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The research underlying this paper was supported in parts by funds from the Ford Foundation, the National Aeronautics and Space Administration, and Project MAC of M.I.T. The paper should not be reproduced in whole or in part without the author's permission.

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## LONGITUDINAL QUESTIONNAIRE ANALYSIS OF OCCUPATIONAL CHOICE

Armed with the Generalizable Decision Process model, GDP-I, <sup>(1)</sup> it is now quite simple to generate a number of novel propositions about human choice behavior, that are readily testable by means of longitudinal questionnaire analysis. The latter technique represents a much more efficient and perhaps more easily validated means of gathering data than the quite cumbersome, expensive, and often dubiously reliable verbal protocol methods which had originally enabled us to formulate the GDP-I model. This paper is a report of a decision process study designed to test the following GDP hypotheses.

### HYPOTHESIS I

"Dm's Termination of Search for new alternatives will occur a significant period of time before he announces that his Decision is made."

GDP-I suggest that the intervening period of time between Search Termination and Decision Announcement is occupied by Dm's Confirmation processes, which are described by the model as being qualitatively quite different from his antecedent Search and Evaluation processes.





HYPOTHESIS II:

"When Dm terminates Search for new alternatives he will report great felt Uncertainty regarding which alternative he eventually will select as his Choice."

The reasons for Dm's Confirmation processing are, according to GDP-I, real or "rational" enough. Dm will as a rule have significant amounts of information processing left to do on the subset of alternatives from which his Choice is to be selected, before he can admit to himself or to others that his Decision has been made.

HYPOTHESIS III:

"When Dm terminates Search for new alternatives his Choice Candidate may be identified as that alternative for which he at this point in time reports even the slightest differential amount of preference. Dm will eventually select his Choice Candidate to be his final Decision."

GDP-I spells out how Dm is thought to select a Choice Candidate, based on the alternative's scores on Dm's Primary and Secondary goal-attributes. In cases where Dm is able to identify a Favoritely Acceptable Alternative -- as defined by GDP-I -- which then becomes his Choice Candidate, this event, according to the model, leads Dm to terminate Search for new alternatives. However, termination of Search for new alternatives will not also cause Dm to terminate his Investigation of previously discovered alternatives, if more information remains to be collected about the latter. (2 )



#### HYPOTHESIS IV:

"When Dm terminates Search for new alternatives he will already have ascertained that his Choice Candidate is indeed a viable alternative. In an Occupational Choice context this condition is satisfied when Dm either possesses, has been explicitly promised, or is more than 90% certain that he will obtain, a job Offer from his Choice Candidate."

According to GDP-I a Potentially Favoritely Acceptable alternative does not become a Choice Candidate, and thus lead to termination of further Search, until Dm has ascertained that the former alternative in fact is a real alternative. However, GDP-I also specifies the conditions under which Dm may terminate Search without a firm promise of an offer from whatever alternative he is eventually going to choose, namely:

- a. Dm's computational resources to be allocated to the present problem may have run out, or have over-run their budget limits, without Dm having been able to identify any Potentially Favoritely Acceptable alternatives; or
- b. Dm may have identified two or more Potentially Favoritely Acceptable alternatives, his joint uncertainty of not getting an offer from either of which is sufficiently low to be negligible.

But, in the Occupational Choice context studied below, cases falling in either of the two latter categories may be expected to be comparatively rare.



HYPOTHESIS V:

"In the observational period just preceding Termination of Search for new alternatives Dm will not have been assured that the alternative which later became his Choice Candidate was at that point a viable alternative."

If most of the cases expected to be observed below are characterized by Dm's terminating Search for new alternatives because he has located a Favoritely Acceptable Alternative, then, since Dm's obtaining an Offer or the promise of an Offer is a necessary condition for a Potentially Favoritely Acceptable alternative to become his Choice Candidate, Dm's not having such an Offer at one period of observation earlier would have been a sufficient condition for his continuing Search at that point. In other words, if Dm had actually obtained an offer from a Potentially Favoritely Acceptable alternative earlier he should, according to GDP-I, indeed have Terminated Search at that earlier date.

HYPOTHESIS VI:

"In the period preceding Search Termination Dm will report that no Acceptable alternative is presently Available to him. At the point of Search Termination Dm will as a rule have Available to him only a single Acceptable alternative."



The hypothesis that Dm will terminate Search as soon as he has Available one Acceptable alternative is of course a key proposition in traditional Aspiration-level Satisficing theory.<sup>(3)</sup> GDP-I, on the other hand, hypothesizes that although Dm's having available at least one acceptable alternative may be a necessary condition for Search Termination and eventually for Choice, it is not a sufficient condition for either of these events to take place. Indeed GDP-I leads us to expect that Dm's Active Roster will frequently contain one or more Acceptable and Available alternatives for a significant period of time before Search is terminated, which would serve to explain why two or more Acceptable alternatives may well be Available to Dm at Search Termination.

#### HYPOTHESIS VII:

"At time of Search Termination Dm may or may not have determined that his Confirmation Candidate -- his second-most preferred alternative -- is an Available alternative. On the other hand, at the time of Confirmation Termination, i.e. at time of Announced Choice, Dm will have determined whether his Confirmation indeed is or is not an Available alternative."

According to GDP-I Dm's not having yet received an Offer from his Confirmation Candidate at time of Search Termination presents him with a Confirmation Problem, which he will then feel a need to resolve before he feels free to make his Decision.





### HYPOTHESIS VIII:

"When Dm has made his Decision he will engage in Dissonance Reduction, which will monotonically spread apart his reported Liking or Preference ratings of his announced Choice relative to the Rejected alternatives."

This hypothesis is due to Festinger, who claims that a necessary condition for what he calls Dissonance Reduction to occur is that Dm has somehow been Committed to his Decision, for example by means of an explicit public pronouncement.<sup>(4)</sup>

GDP-I theory, on the other hand, leads us to expect as great, if not a greater, spreading-apart of Dm's Liking for his Choice Candidate, relative to say his Confirmation Candidate, during the Confirmation phase of his decision processing, i.e. prior to point in time when Dm overtly commits himself to the statement that he has made his Decision.

In order to reconcile our theoretical interpretation of these two different, but not necessarily conflicting hypotheses, we could for example consider any post-Choice Dissonance Reduction that we might observe as being a symptom of Dm's post-Choice continuation of whatever decision rationalization process GDP-I hypothesizes will take place to an even greater extent during the Confirmation phase of Dm's decision making. The conditions under which Dissonance Reduction will or will not take place -- e.g. the conditions under which Dm's Confirmation processing would leave any residual rationali-



zation left to be carried out post-choice, and what will then determine how intensely, and in which direction, this "spreading apart" Dissonance Reduction effect will manifest itself -- remain an obvious and interesting set of questions, the answers to which neither Festinger nor GDP-I in its present version provides much help in clarifying (although see below in our Summary of Findings).



METHOD AND OBSERVATIONAL INSTRUMENTS

The decision makers studied were second-year Masters' candidates the MIT Sloan School of Management. Their decision problem was clearly defined to be Occupational Choice: their selection of a career job to embark on after graduation. Our method of observation was a periodic questionnaire, administered bi-weekly over a four-month period from February to June, 1965, which for most of the Dms covered the Search, Confirmation, and post-Choice Commitment phases of their decision making. The original sample size was 43, selected from a graduating class of more than twice that size by means of intense but non-coercive persuasion. The Dms were not paid directly for participating in the study, but after every period of observation two or three \$10.00 prizes were drawn at random for distribution among those souls who had completed their responses to our bi-weekly questionnaire on time. Those who did not were then persuaded to do so by mail, telephone, and direct personal follow-up. A grand prize of \$100.00 -- to which was attached the title "Decision Maker of the Year" -- was drawn for in June among those who had diligently completed their responses for all periods. Total time to complete all questions ranged from 15 minutes to 1-1/2 hours, with a mean of well over 1/2 hour, for every period of observation. Most participants completed all eight observations, a few Dms even volunteered one or two extra periods.



The questionnaire items used to test the main above eight hypotheses read as follows:

Question A:

"Presently I (am, am not) actively looking for new companies to interview."

Question B:

"Presently, whenever (if) a new job opportunity presents itself in my general area, I'm (very much, quite, only somewhat, not particularly) inclined to take the trouble to follow it up (i.e. interview, etc.)".

Question F:

"I believe I (am still far away from making, am getting closer to making, am quite close to making, have recently started to make, am still in the process of making, have actually made) my final job decision (check one or more)."

Question K:

"What I consider to be the Ideal job for me (has; has not) changed perceptively since my last report."

Question 5B

"Offhand I'd say this job prospect looks like it's about (0-100%) as good as what I consider would be an Ideal job for me."





Question 4B:

"Please group all (job) prospects into (the following) four classes:

- A: This sounds like an outstanding job opportunity;
- B: Good solid job, but not outstanding;
- C: Borderline case, as far as I'm concerned;
- D: Not good for me."

Question 7A

"At the moment I (like, dislike) this job prospect (very very much, quite a lot, a fair amount, just a little, so-so)"

Question 4A

"Indicate how much you currently like this job prospect by means of a numeral on the following scale (from -10 to +10)."

Question 6A

"I like this job prospect (much less, somewhat less, no more no less, somewhat, much more) now than I did at the time of my last report ."

Question 7B

"Assign your present personal probability estimate (0 - 100%) to each job prospect that you actually will end up working for them."

Question 5B

"At present it's (virtually certain, highly likely, fairly likely, slightly likely, entirely uncertain) that I (will or won't) end up working for this job prospect."



Question 10A

"Please indicate which is more true (for each job prospect):

they've since told me they'd not be able to make me an offer;  
 they told me I'd definitely get an offer, but I haven't seen it yet;  
 I'm still awaiting their final response re an offer or not;  
 I have an offer from them;  
 I have not completed their application procedure yet."

Question 11

If Dm is AFR, Awaiting Further Response from an alternative, or NA, has Not completed all Application procedures:

"It's (virtually certain, highly likely, fairly likely, slightly likely, entirely uncertain whether they will or won't) that they (will, won't) make me a job offer.

"My personal probability of that occurring is \_\_ %."

See Appendix A below for a facsimile reproduction of the total questionnaire in its two (pre and post-Choice) editions.

Sample size

Of the original forty-three Dms who agreed to participate in the study eleven had to be excluded from analysis for the following reasons:

- from two Dms no response was received for a two-month period or more;
- three Dms postponed making a decision till three months after the study had been terminated;
- two Dms made their decision before the first observation;
- three Dms made no reports beyond the first two or three periods, terminating their participation in the study before they had reached their decisions;
- one Dm submitted such an erratic and inconsistent response pattern, making and remaking his decision, that it was decided arbitrarily to remove him from further analysis.

This left us with thirty-two "good" Dms whose response patterns are analyzed in the following pages.



RESULTSHYPOTHESIS I:

"Dm's termination of Search for new alternatives will occur a significant period of time before he announces that he has made his Decision."

Search Termination Measure:

The first period of observation in which both Question A is answered NOT and Question B is answered either ONLY A LITTLE or NOT PARTICULARLY.

Decision Made measure:

Question F is answered MADE.

Period Between Search Termination and Decision measure:

Number of calendar days from first bi-weekly observation date on which Search is reported terminated till date given by Dm in retrospect for the making of his Decision. This measure may provide an up to two-week under-estimate of the true length of the interim period.

TABLE I Summarized:

- a. 87% or 27 Dms of 31 terminated their Search for new alternatives at least ten days or more before the date on which they report having made their Decision:
- b. 1 Dm terminated Search less than 10 days but more than a week before his Decision Made date.
- c. 3 Dms report Search Termination and Decision Made on the same observation. (In each of these cases Search may in fact have been terminated from zero up to 10 or 14 days before Dm's Decision Made date.)



TABLE I

Search is reported by $S_m$ to be terminated $\underline{i}$ observational periods and $x$ real time periods before he reports his Decision made.	Search reported in process during the first period of observation.	Search had been terminated before the first period of observation.
$i < 0$	None	Impossible
$\underline{i} = 0$ $0 \leq x < 2$ weeks	V-4, $\overset{*}{c}$ -7, $\overset{*}{e}$ -5, $\overset{*}{a}$ -5 <sup>(1)</sup>	
$\underline{i} = 1$ $0 \leq x < 1$ week $1 \text{ week} \leq x < 10$ days $10 \text{ days} \leq x < 2$ weeks $x \geq 2$ weeks	P-2 E-5, Q-6, $\overset{*}{d}$ -5 C-4, F-3, K-6, M-3	L-1-and-3,
$\underline{i} = 2$ $1 \text{ week} \leq x < 2$ weeks $2 \text{ weeks} \leq x < 3$ weeks $3 \text{ weeks} \leq x < 4$ weeks $x \geq 4$ weeks	I-6, R-3, U-4 A-2, B-4, N-3, $\overset{*}{b}$ -3 S-2, T-3	$\overset{*}{s}$ -1 W-1
$\underline{i} = 3$ $3 \text{ weeks} \leq x < 4$ weeks $4 \text{ weeks} \leq x < 5$ weeks $5 \text{ weeks} \leq x < 6$ weeks $x \geq 6$ weeks	X-4 J-2 H-5 Y-3, Z-2	D-1
$\underline{i} = 4, \quad x > 7$ weeks		O-1
$\underline{i} = 5, \quad x > 9$ weeks		
$\underline{i} = 6, \quad x > 11$ weeks		
$\underline{i} = 7, \quad x > 12$ weeks	G-3	

(1):  $\overset{*}{a}$  later changed his initially reported Decision,

Note: numeral after each name indicates the observational period in which Search was first observed to have been terminated.





HYPOTHESIS II:

"When Dm terminates Search for new alternatives he will report felt uncertainty regarding which alternative he eventually will select as his Choice."

Search Termination measure:

Same as for Hypothesis I above.

Felt Uncertainty measure:

Questions 3B, 5B, 7B, and 9A all ask Dm to indicate the likelihood with which he will select, i.e. end up working for, the alternative. Table II is compiled on basis of Questions 5B and 7B. For operational definitions of Choice Candidate and Confirmation Candidate alternatives see Hypothesis III below.

TABLE II Summarized:

- a. On a sample of 28 Dms reporting their average Non-normalized Personal Probabilities at time of Search Termination that they will end up with either their Choice Candidate (Ch), their Confirmation Candidate (Cf), or some Other (Oth) alternative as their Final Decision was .29, .24, and .47 respectively.
- b. The adjusted Experimenter-normalized Personal Probabilities for the same set of events, over the same 28 Dms was .40, .26, and .34 respectively.

Both the Non-normalized and Experimenter-normalized average Personal Probability figures testify to the great uncertainty generally felt by Dms that they would indeed end up choosing their Choice Candidate.

- c. 78%, or 21 of 27 Dms report a non-additive Possibility index of FAIRLY LIKELY (Fy) or higher at time of Search Termination that they will end up selecting their Confirmation Candidate (Cf) as their final Choice.

1 of 27 Dms has actually started to rule out the latter possibility, i.e. one Dm reports a lower Possibility index than ENTIRELY UNCERTAIN (U) whether he will or won't eventually choose his Confirmation Candidate.



d. 39% or 11 of 28 Dms report  $P(\text{Ch}) > P(\text{Cf})$ , i.e. a greater Possibility index for their Choice Candidate than for their Confirmation Candidate at time of Search Termination.

50% or 14 of 28 Dms report  $P(\text{Ch}) = P(\text{Cf})$ , i.e. no greater Possibility index for their Choice Candidate than for their Confirmation Candidate at time of Search Termination.

11% or 3 of 28 Dms report  $P(\text{Ch}) < P(\text{Cf})$ .



TABLE II

Ch:Cf:Oth denotes Dm's own relative Personal Probabilities, at time of Search Termination, of finally choosing the alternative we have identified as Ch, his Choice Candidate, relative to Cf, his Confirmation Candidate. Oth denotes the Sum of the Personal Probabilities Dm at this time assigns to all Other alternatives.

VY: Virtually certain Yes;

SY: Slightly likely Yes;

HY: Highly likely Yes;

U: Entirely Uncertain whether Yes or No;

FY: Fairly likely Yes;

Similarly for No's: VN, HN, FN, SN.

Dm	Personal Probability Ch:Cf:Oth	Normalized	Non-additive Likelihood Ch:Cf	Dm	Personal Probability Ch:Cf:Oth	Normalized	Non-additive Likelihood Ch:Cf	Dm	Personal Probability Ch:Cf:Oth	Normalized	Non-additive Probability Ch:Cf
A	70:20: 5	✓	HY:HN	<sup>(2)</sup> L	30:15: 55	✓	FY:HY	V	Na	Na	Na
B	70:80:395	15:18:67	FY:FY	M	90:80:350	17:15:68	HY:HY	W	90:70: 10	53:41: 6	HY:FY
C	80:80: 95	31:31:38	HY:FY	N	25:20: 35	✓	FY:FY	X	50:30: 20	✓	FY:FY
D	50:30: 20	✓	FY:U	O	30:30: 45	28:28:44	HY:HY	<sup>(3)</sup> Y	85:85:440	14:14:72	FY:HY
E	60:30: 10	✓	FY:SY	P	40:35: 20	✓	SY:FY	Z	25:25: 50	✓	FY:FY
F	90:10: 0	✓	—	Q	45:40: 15	✓	FY:FY	*a	Na	Na	Na
G	40:40: 37	34:34:32	SY:SY	R	75:75:345	15:15:70	FY:FY	*b	35:35: 85	23:23:54	FY:FY
<sup>(2)</sup> H	30:60:100	15:30:55	FY:SY	S	30:25: 45	✓	HY:FY	*c	Na	Na	Na
I	60:50: 20	46:38:16	HY:FY	T	40:40: 20	✓	HY:FY	*d	60:40: 20	50:33:17	HY:SY
J	25:22: 48	✓	FY:FY	U	45:45: 10	✓	FY:FY	*e	Na	Na	Na
K	35:20: 44	✓	FY:FY					*g	30:30: 40	✓	HY:HY

(1): First chose Ch, later switched to Cf.

(2): Was subsequently rejected by Ch.

(3): Dm chose Cf, his second ranked alternative.



### HYPOTHESIS III

"When Dm terminates Search for new alternatives his Choice Candidate may be identified as the alternative for which he at that point in time reports even the slightest differential amount of preference. Dm will eventually select his Choice Candidate to be his Final Decision."

#### Search Termination measure:

Same as for Hypothesis I above.

#### Choice Candidate measure:

Question 5A will usually be the most sensitive discriminator of Dm's Relative Preference among alternatives. In cases where Dm's answers to Preference Question 5A are tied, Preference Question 4A will be consulted for possible discrimination. If such is still not forthcoming Likelihood Questions 3B and/or 7B will be consulted in order possibly to break Dm's Preference tie among alternatives. Dm's Choice Candidate is thus defined to be his Most Preferred and, if not unique, his Most Likely alternative according to his answers to the above questions at time of Search Termination.

Confirmation Candidate measure: Same as Choice Candidate measure, but for Dm's Second-most preferred alternative.

Final Decision measure: Same as for Hypothesis I above.

#### Table III Summarized:

- a. 87%, or 25.5 Dms of 29, selected the independently identified Choice Candidate as their Final Decision, one to twelve weeks, with a median of 3 weeks, after they reported their Search for new alternatives to be Terminated -- at which time they had also reported that their Decision was then not yet made, see Table II. (1 Dm reported a complete tie among his two top alternatives at time of Search Termination. He was counted as 1/2.)
- b. 9% or 2.5 Dms, chose their independently identified Confirmation Candidate.
- c. 1 Dm chose neither his Choice Candidate nor his Confirmation Candidate. (Since Search Termination he received an unexpectedly outstanding, revised offer from the 9th ranked alternative in his preference order, which he accepted.)





TABLE III-IV-VII

(for legend and notes see next page)

Top entries in each row refer to Dm's Ch Choice Candidate alternative.

Bottom entries in each row refer to his Cf Confirmation Candidate alternative.

The middle column, in cases where a Search Termination entry is NA or AFR, indicates Dm's personal probability estimate at that point of his Receiving an Offer from that alternative.

Dm	Search Termination Status	Dm's Probability of HO	Decision Time Status	Final Decision Ch   Cf	Dm	Search Termination Status	Dm's Probability of HO	Decision Time Status	Final Decision Ch   Cf
A	HO NA	Nd	HO NA	✓	Q	HO AFR	Nd	HO HO	✓
B	HO HO		HO HO	✓	R	DG HO		HO HO	✓
C	DG HO		HO HO	✓	S	HO AFR	.80	HO HO	✓
D	HO AFR	.35	HO NOF	✓	T	AFR NA	.90 .50	HO HO	✓
E	HO HO		HO HO	✓	U	HO DG		HO HO	✓
F	HO NA	.90	HO AFR	✓	V	— <sup>(3)</sup> —		HO NOF	
G	NA NA	.70 .80	HO HO	✓	W	DG <sup>(7)</sup> AFR	.55	HO NOF	✓
H	HO HO		HO HO	✓	X	HO NA	.67	HO NOF	✓
I	HO AFR	Nd	HO HO	✓	Y	HO NA	.60	HO HO <sup>(4)</sup>	✓
J	HO HO		HO HO	neither <sup>(2)</sup>	Z	DG DG		HO HO	✓
K	DG NA	Nd	HO DG	✓	*a	AFR HO	.50	HO HO	✓
L	DG — <sup>(9)</sup>		HO HO	✓	*b	AFR <sup>(6)</sup> AFR	.50 .80	HO HO	ambiguous
M	DG HO		HO HO	✓	*c	— <sup>(3)</sup> —		HO NOF	
N	NA AFR	.90 .90	HO HO	✓	*d	AFR NA	.95 .40	HO NOF	✓
O	HO AFR	.60	HO HO	✓	*e	— <sup>(3)</sup> —		HO HO	
P	DG AFR	.90	HO AFR	✓ <sup>(2)</sup>	*g	DG DG		HO HO	✓



Legend and Notes

## Table III-IV-VII

<u>HO</u> : Dm <u>H</u> as an <u>O</u> ffer from this alternative	<u>NA</u> : Dm has <u>N</u> ot completed entire <u>A</u> pplica- tion procedure for the alternative.
<u>DG</u> : Dm has been promised <u>D</u> efinitely he would <u>G</u> et an offer.	<u>AFR</u> : Dm is <u>A</u> waiting <u>F</u> urther <u>R</u> esponse from the alternative.
<u>NOF</u> : "No <u>O</u> ffer" notice recived, i.e. Dm was rejected.	<u>Nd</u> : <u>N</u> o <u>d</u> ata available.

Notes:

- (1) Meanwhile Dm Received a revised (Like Much More) offer from Cf.
- (2) Later switched when Cf made an (Like Much More) offer.
- (3) Search Termination report coincides with Dm's Decision Made report.
- (4) Dm chose his Second-rated Cf alternative at Decision time, (further education).
- (5) Dm was employed at Cf at time of Search Commencement, hoped for, but did not expect, an offer from his Ch at time of Search Termination. Dm then accepted his Cf (current employer), but subsequently remade his Decision in favor of his original Ch when the latter came through with an Offer.
- (6) Two alternatives were tied for First Preference place, such that each one counted as  $\frac{1}{2}$ Ch and  $\frac{1}{2}$ Cf.
- (7) Dm reported a rank order conflict between his Preference for versus his Probability-of-ending-up-with his top two alternatives. As Dm's Preference seems to indicate a recognized case of wishful thinking on Dm's part, his clearly discriminating Probability rating was given the heavier weight in determining Ch.
- (8) Dm chose No. 9 on his preference list, after having received a revised (Like Much More) offer from the alternative.
- (9) Dm was rejected by his Ch in the third observation-period. The onset of of Confirmation was then updated to this period, and his old Cf thereafter considered to be his new Ch.



HYPOTHESIS IV

"When Dm terminates Search for new alternatives he will already have ascertained that his Choice Candidate is indeed a viable alternative."

In an Occupational Choice context this condition is satisfied when Dm either possesses, has explicitly been promised, or is virtually certain that he will obtain a job Offer from his Choice Candidate.

Search Termination measure:

same as for Hypothesis I above.

Choice Candidate measure:

same as for Hypothesis III above .

Choice Candidate Viability measure:

Choice candidate in Questions 10A and 11A is rated to be either HO, DG, or NA/AFR with a greater than or equal to 90% personal probability estimate of receiving HO," at time of Search Termination.

TABLE III-IV-VII Summarized:

- a. 90%, or 26 Dms of 29, had ascertained that their Choice Candidate was a Viable Alternative when they Terminated Search for new alternatives:

26 Dms reported HO, DG, or NA/AFR with  $\geq 90\%$  estimate of receiving HO.

3 Dms reported NA/AFR with  $< 90\%$  estimate of receiving HO.

- b. 3 Dms report of Search Termination coincided with their report of Decision Made, and did thus not furnish data with which to test Hypothesis IV.



HYPOTHESIS V

"In the observational period just preceding termination of Search for new alternatives Dm will not have been assured that the alternative which subsequently became his Choice Candidate was at that point a viable alternative."

Search Termination measure:

Same as for Hypothesis I above.

Choice Candidate measure:

Same as for Hypothesis III above.

Alternative Viability measure:

Same as for Hypothesis IV -- applied to the observation period preceding Dm's Search Termination.

TABLE V Summarized:a. Conservative Interpretation:

63%, or 17 out of 27 Dms, report neither DC nor HO in their Potentially Favoritely Acceptable alternative -- which subsequently became their Choice Candidate -- in the period of observation preceding reported Search Termination.

b. Liberal Interpretation:

82%, or 25 out of 28 Dms, either report neither DC nor HO in their Potentially Favoritely Acceptable alternative, or have not yet identified a Potentially Favoritely Acceptable alternative, in the period preceding Search Termination.





TABLE V

(for legend see Table III-IV-VII)

Dms who reported <u>NA/AFR</u> and < 90% sure of getting an Offer on that alternative which in the next, Search-Termination observation period was identified as their Choice Candidate:	G-2, I-5, J-1, K-5 M-2, P-1, Q-5, R-2 T-2, V-3, X-3, a-4 * b-2, c-3, d-4
Dms who reported <u>DG/HO</u> on the alternative that in the next observation period was identified as their Choice Candidate, but who did <u>not</u> eventually choose this alternative -- yet who did report <u>NA/AFR</u> on the alternative, the Confirmation Candidate, which in fact became their Final Choice:	B-3, Y-2
Dms who reported <u>DG</u> on the alternative that was subsequently identified as their Choice Candidate, but who did not at this time give this alternative top billing -- i.e. who did not then consider this alternative to be Favoritely Acceptable -- yet who did report <u>HO</u> and a <u>Like Much More</u> preference increment for this alternative in the next, Search-Termination observation period, when this alternative thus was identified as their Choice Candidate:	E-4, L-2, U-3 Z-1, * c-4
Dms who reported <u>HO</u> on the alternative that was subsequently identified as their Choice Candidate, but who gave evidence that they might not at this time have considered the alternative to have been Favoritely Acceptable, i.e. who subsequently obtained additional information about it which lead them to <u>Like (it) Much More</u> :	F-2, H-4
Dms who reported <u>HO/DG</u> on the alternative that was subsequently identified as their Choice Candidate and who gave <u>no</u> explicit evidence to support a belief that this alternative was not Favoritely Acceptable also in the observation period of preceding Search Termination:	A-1, C-3, S-1
Dms for which observations were not available for the period preceding their first Search Terminated Report:	D, W, O, * g.



HYPOTHESIS VI (from traditional Aspiration-level Theory):

"In the period preceding Search Termination Dm will report that he has Available to him no Acceptable alternatives. At the point of Search Termination Dm will as a rule have Available to him only a single Acceptable alternative."

Search Termination measure:

Same as in Hypothesis I above.

Available Acceptable Alternative measure:

Any alternative on which Dm has received HO or has been promised DG an Offer, which he also rates to be either OUTSTANDING, i.e. classifies as A on Question 4B, or GOOD, i.e. classifies as B on Question 4B with a concomitant Ideal-percentage score on Question 5A of 80% or more.

Comment:

The above AA-measure is most likely a highly conservative interpretation of Available Acceptable -- in which case of course our results will be biased in favor of the above Aspirations-level Satisficing hypothesis, which by the GDP-I model should be rejected as an insufficient description of Dm's Choice process.

TABLE VI Summarized:

- a. 71%, or 17 Dms of 24, report Search and Evaluation patterns which are not compatible with traditional Aspiration-level Satisficing theory, i.e. with Hypothesis VI, but which are compatible with the GDP-I model.
- b. 12%, or 3 Dms of 24, report Search and Evaluation patterns which are compatible with both traditional Aspiration-Level Satisficing theory, i.e. with Hypothesis VI, as well as with the GDP-I model.
- c. 17%, or 4 Dms of 24, report Search and Evaluation patterns of ambiguous interpretation;
- d. 8 Dms did not furnish adequate data with which to test Hypothesis VI.



TABLE VI

AA alternative: Available Acceptable alternative;

ST: Period in which Search Termination is observed;

ALS Theory: Aspiration-Level Satisficing Theory

Dm	No. of AA alternatives at (ST-1)	No. of AA alternatives at (ST)	Compatibility with ALS Theory	Dm	No. of AA alternatives at (ST-1)	No. of AA alternatives at (ST-1)	Compatibility with ALS Theory
A	1	1	NO	Q	0	1	YES
B	1	2	NO	R	2	3	NO
C	2	2	NO	S	2	1 (2)	NO
D	Na	0 (1)	--	T	1	1	NO
E	1	2	NO	U	1	5	NO
F	2	1 (2)	NO	V	Na	Na	—
G	0	0 (3)	?	W	Na	1	—
H	3	2 (2)	NO	X	0	1	YES
I	0	0 (1)	?	Y	1	1	NO
J	2	1 (2)	NO	Z	4	6	NO
K	2	3	NO	*a	0	0 (4)	YES
L	Na	1	—	*b	4	3	NO
M	1	3	NO	*c	4	3	—
N	0	0 (3)	?	*d	0	0 (3)	?
O	Na	1	—	*e	Na	Na	—
P	Na	0 (1)	—	*g	Na	4	NO

- (1) Dm's highest Percentage Ideal rating of any Available alternative was 70%.
- (2) Dm's Percentage Ideal rating on one alternative dropped below 80% in the interim.
- (3) No Potentially Acceptable alternative was either HO or DG at ST (see Table III-IV-VI).
- (4) Dm was already employed at time of Search Commencement. He rated his employer as 50% Ideal when he Terminated Search. After which time he subsequently committed himself to his present employer. But when his 100% Ideal alternative (Harvard DBA Program) made an Offer, Dm immediately switched to it.



HYPOTHESIS VII

"At time of Search Termination Dm may or may not have determined that his Confirmation Candidate is a viable, i.e. Available, alternative. At time of Confirmation Termination Dm will have determined whether or not his Confirmation Candidate indeed is an Available alternative."

Search Termination measure

Same as for Hypothesis I above.

Confirmation Termination measure:

Confirmation is hypothesized to terminate on the date on which Dm announces that he has made a Decision.

Viable Available Alternative measure:

Alternative on which Dm has (HO) or has been promised (DG) an Offer.

TABLE III-IV-VII Summarized:

- a. 81%, or 13 Dms of 16, who have no HO or DG Offer from their Confirmation Candidate at time of Search Termination indeed have determined whether or not the Confirmation Candidate is viable HO, DG, or NOF by the time of Choice.
- b. 19%, or 3 Dms (A, F, and P) of 16, have not determined whether their Choice Candidate is viable at time of Choice. [However, both Dms A and F report 50% or more Ideal-percentage point difference between their Confirmation and Choice Candidates before the time of Choice, i.e. had thus rejected their Confirmation Candidate 'out-of-hand']
- c. 11 Dms of 27 report either HO or DG on their Confirmation Candidate already at time of Search Termination.
- d. 5 Dms do not provide adequate data for analysis of Hypothesis VII.





### HYPOTHESIS VIII (due to Heider, Festinger, and others)

"When Dm has made his Decision he will engage in Dissonance Reduction, which will monotonically spread apart his reported liking or preference ratings of his announced Choice relative to the Rejected alternatives."

#### Decision made measure:

The first time period in which Dm announces his Decision to be made.

#### Dissonance Reduction Effect on Preference Ratings measure:

The most sensitive of Dm's measure of Dm's preference or overall Liking of an alternative is his answer to Question 5A, on which he rated the alternative's Ideal Percentage Goodness. In Table VIII this measure is used to define Dissonance Reduction operationally.

#### Preference for Rejected Alternatives measure:

In order to retain comparability with other GDP-I predictions we will use Dm's Confirmation Candidate as the sole representative of Dm's Rejected Alternatives. GDP-I leads us to believe that the effect of Dissonance Reduction, if it can be shown to exist at all, would show up strongest in Dm's Relative Liking ratings of his Final Choice versus former Confirmation Candidate i.e. would yield the least stringent test of Hypothesis VIII.

#### TABLE VIII Summary:

- a. No Dm in our sample reported traditional monotonic Dissonance Reduction.
- b. 32%, or 9 Dms of 28, showed an initial Dissonance Reduction effect, which was negated again in subsequent periods of observation.
- c. No correlation was found when the numerical magnitude of Dm's Initial Spread in preference ratings at time of Choice was employed as a predictor of whether or not Dm would then exhibit Increased Spread, i.e. Initial Dissonance Reduction, in the following observation period.
- d. 36%, or 10Dms of 28, indicated no Dissonance Reduction effect whatever.
- e. 7%, or 2 Dms of 28, exhibited latent Dissonance Reduction effects, two or more weeks after their Decisions were first announced.



TABLE VIII

(See legend on next page)

	Small Initial Spread	Large Initial Spread
Dissonance Reduction	None <u>0</u>	None <u>0</u>
Dissonance Recovery	C, E, J, P <sup>(2)</sup> , R, T, V, * c <u>8</u>	A <u>1</u>
Dissonance Expansion	K, Z, * g <u>3</u>	* <sub>d</sub> (3) <u>1</u>
No Dissonance Effects	B, M, N, O, S, U, X, * b <u>8</u>	D, W <u>2</u>
Latent Reduction	L <u>1</u>	F(1) <u>1</u>
Latent Expansion	Y <u>1</u>	None <u>0</u>
No Data Available	H, Q, * a, * c <u>4</u>	C, I <u>2</u>

- (1): Dm initially contracted his Liking-Spread, later expanded it:  
His Spread in last period of observation was 95 percentage points.
- (2): Dm later switched his Decision to the Confirmation Candidate.
- (3): But on his last period of observation, six weeks after he had made his Decision, Dm reported an increased Liking-Spread compared to two weeks earlier.



Legend for TABLE VIII

- Dissonance Reduction: Monotonic increase, including stabilization of the spread between Dm's liking ratings of his Final Choice and Confirmation Candidate, from time of Choice Announcement to final period of observation.
- Dissonance Recovery: Initial increase but subsequent decrease of the spread between Dm's Liking ratings of Choice and Confirmation Candidate.
- Dissonance Expansion: Monotonic decrease in the spread between Dm's Liking ratings of Choice and Confirmation Candidate.
- No Dissonance Effect: No change in the spread of relative Liking ratings over the period of post-Choice observation.
- Latent Reduction: No change in the spread during first post-Choice period(s), later monotonic increase in the spread of Liking ratings.
- Latent Expansion: No change in spread initially, later monotonic decrease.
- Large Initial Spread: Difference in Liking ratings of Choice versus Confirmation Candidate at the time of Decision Announcement exceeds 10 Ideal-Goodness percentage points on Question 5A.
- Small Initial Spread: Difference in liking ratings at time of Decision Announcement is less than or equal to 10 Ideal-Goodness percentage points on Question 5A:
- Numeral in right hand corners: indicates number of Dms falling in each rubric.



### AUXILLIARY HYPOTHESIS (A)

"The effect of Confirmation processing on the Spread between Dm's preference ratings for his Choice Candidate versus his Confirmation Candidate will as a rule be as strong, if not stronger, than the corresponding effect of his immediately post-Choice Commitment, say Dissonance Reduction, processing."

#### Confirmation Process Effect measure:

Change in the Spread between Dm's Ideal Percentage ratings of his Choice Candidate versus his Confirmation Candidate, on Question 5A, from time of Search Termination to Confirmation Termination and Choice announcement.

#### Commitment (Dissonance Reduction) Effect measure:

Change in the Spread between Dm's Ideal Percentage ratings of his Choice versus Confirmation Candidate, on Question 5A, during the first (2-week) period of observation following Choice Announcement -- which, according to the results in Table VIII, will be the period in which Dm will exhibit maximum Dissonance Reduction effect (if any).

#### Auxilliary Table A Summarized:

- a. 78%, or 18 Dms of 23, exhibited as strong or stronger effect, on the Spread between their preference ratings of their Choice versus Confirmation Candidate alternatives, from their Confirmation processing as opposed to post-Choice Commitment (Dissonance Reduction) processing.
- b. 70%, or 19 Dms of 27, increased the absolute magnitude of the Spread between Choice Candidate and Confirmation Candidate during Confirmation processing; whereas
- c. 22%, or 6 Dms of 26, increased the absolute magnitude of the Spread between Final Choice and Confirmation Candidate during post-Choice Commitment (Dissonance Reduction) processing.





AUXILLIARY TABLE (A)

U: The Spread between Dm's Ideal percentage rating of Choice and Confirmation Candidates went UP -- increased.

E: The Spread stayed Equal -- same %-point magnitude.

D: The Spread went Down -- decreased.

Changes in Spread during Confirmation (pre-Choice)	-- during Dissonance Reduction (post-Choice)	Dms	Differential Effects of Confirmation vs. Dissonance Reduction on % Ideal ratings
U	D	F, K, Z, $\overset{*}{d}$ , $\overset{*}{g}$	12 Dms Conf. > Diss. Reduct.
E	D	None	
U	E	B, L, M, O, R, Y, $\overset{*}{b}$	
U >	U	None	
U =	U	C, E	6 Dms Conf. = Diss. Reduct.
E	E	N, S, U, X	
E	U	T	5 Dms Conf. < Diss. Reduct.
U <	U	A	
D	E	D, W <sup>(2)</sup>	
D	U	P <sup>(1)</sup>	
U	Nd	G, $\overset{*}{a}$ , I, Q	9 Dms No data (Nd) available
E	Nd	None	
Nd	U	$\overset{*}{c}$	
Nd	E	J, V	
Nd	Nd	H, $\overset{*}{c}$	

(1) Dms later switched to his Confirmation Candidate.

(2) Dm would prefer to go to work "for himself: this is his (Confirmation Candidate, which he does not believe he will end up choosing. He thus reports negative Spread between Choice and Confirmation Candidate before, as well as after Choice.



AUXILLIARY HYPOTHESIS (B)

"When Dm receives word from an alternative that he will NOT receive an Offer from it (NOF) then his Liking of that alternative will drop, ceteris paribus. When Dm does receive an Offer (HO) or a firm Promise of an Offer (DG) from an alternative, ceteris paribus (whatever that means in this case), his Liking of the alternative will increase."

Recently Received Job Offer measures:

1. RDG: Dm was NA (Not completed Application procedures) or AFR (Awaiting Further Response) on the alternative last period, but has Recently been given a firm promise DG of an Offer.
2. RHO: Dm was NA/AFR and has Recently HO received an offer.
3. RNOF: Dm was NA/AFR and was Recently told he will not receive an offer (NOF).

Change in Reported Liking measures:

The following two measures of Change Liking will be compared:

- i. Dm gives direct indication of whether or not his Liking of the alternative has Changed, as well as by how Much, in Question 6A (see Legend for Auxilliary Table B).
- ii. The computed Change in Dm's answers to Question 5A -- his Ideal-percentage rating of the alternative -- from the Preceding to the Current period of observation.



AUXILLIARY TABLE (B)

MM: Like Much More;                      SL: Like Somewhat Less;                      NC: No Change.

SM: Like Somewhat More;                      ML: Like Much Less;

CCLR:      Computed Change in Dm's Ideal Percentage Liking Rating;

U:          Dm's absolute Ideal Percentage rating went Up, i.e. increased;

E:          Dm's absolute % Ideal rating stayed Equal, i.e. remained stable;

D:          Dm's absolute % Ideal rating Decreased.

RDG/RHO: Has Recently received Offer;                      RNOF: Has Recently received "No Offer"

RDG/RHO (n = 37)				RNOF (n = 45) <sup>1</sup>							
Before Choice Announcement (97% of RDG/RHO)				Before Choice Announcement (n = 38)				After Choice Announcement (n = 17)			
Dm says	No. of Dms	CCLR	No. of Dms	Dm says	No. of Dms	CCLR	No. of Dms	Dm says	No. of Dms	CCLR	No. of Dms
MM	7	U	7	MM	0	U	—	MM	0	U	—
		E	—			E	—			E	—
		D	—			D	—			D	—
SM	31	U	21	SM	1	U	1	SM	1	U	1
		E	8			E	—			E	—
		D	2			D	—			D	—
NC	32	U	10	NC	13	U	1	NC	14	U	6
		E	9			E	2			E	8
		D	13			D	15			D	—
SL	16	U	7	SL	10	U	1	SL	2	U	1
		E	2			E	—			E	—
		D	7			D	9			D	1
ML	1	U	—	ML	9	U	—	ML	0	U	—
		E	—			E	—			E	—
		D	1			D	9			D	—

1. Dm Q's Observation Period No. 3 was excluded from this analysis due to his way-out-of-line response-set during that observation.



Auxilliary Table B Summarized:

- a. No significant differences were found between RDG and RHO occasions, so these observations were therefore lumped.
- b. However valid the ceteris paribus assumption is with respect to the RDG/RHO case -- in general we may expect that Dms will obtain significant information about an alternative, in addition to their "Yes, we will make you an offer":  
43% of the time Dms report Increased Liking after RDG/RHO;  
36% of the time report No Change in Liking after RDG/RHO;  
21% of the time Dms report Decreased Liking after RDG/RHO.
- c. The ceteris paribus assumption seems more reasonable in the RNOF case -- Dms generally do not obtain much more than a polite "No" from a Rejecting alternative:  
 If RNOF happened before Dm had Made and announced his Final Decision:  
2% of the time Dms report Increased Liking for the RNOF alternative;  
48% of the time Dms report No Change in Liking after RNOF;  
50% of the time Dms report Decreased Liking after RNOF, half of that much decreased (Like Much Less).
- If RNOF happened after Dm had Made and announced his Final Decision:  
83% of the time, in 14 cases of 17, Dms report No Change in their Liking of the RNOF alternative.  
12% of the time, in 2 cases of 17, Dms report somewhat Less Liking for RNOF.
- d. Given that Dm reports No Change in his Liking of a RNOF alternative before his Decision:  
 in 15 of the 18 cases does Dm's Computed Ideal Percentage Liking score in fact decrease (i.e. Unrecognized or Implicit Dissonance Reduction might be said to occur).
- e. Given that Dm reports No Change in Liking of a RNOF alternative after his Decision;  
 in 14 of 14 cases does Dm's Computed Ideal Percentage Liking Score in fact increase or not change (i.e. no Implicit Dissonance Reduction takes place; Hypothesis: may no longer be required to protect self-esteem).





SUMMARY OF FINDINGS

Our GDP-I model suggested that decision making was more adequately described as a process consisting of five or six recognizedly different phases, namely:

Problem Recognition;  
Problem Defintion;  
Solution Planning;  
Alternatives Search and Evaluation;  
Choice Confirmation; and  
Decision Commitment and Implementation.<sup>(5)</sup>

With respect to each of these decision phases separately distinct sets of theoretical concepts seemed required in order to enable us adequately to describe the behavior of Dms in that phase of decision making. The purpose of this present study was a. to demonstrate that a GDP-I "Choice Confirmation" phase existed in the decision-making activity of Dms who were engaged in selecting the organization in which to work -- in which to "participate" -- upon graduation with their Masters or Doctors degree from M.I.T. in Industrial Management; and b. to test out of a set of the more detailed Search, Confirmation, and Decision Commitment hypotheses implied by the same GDP-I model.



The existence of a Confirmation phase in Dms' occupational choices is demonstrated by implication in this study:

First, we found that there existed a significant time span -- on the average about 2 - 3 weeks -- from the time most Dms in our sample quit being actively interested in obtaining and evaluating new alternatives to the time they announced to themselves and others that they had finally made their decisions. During this time period Dm characteristically reported that he was "actively engaged in making his decision". That is to say something, some sort of decision information processing, which GDP-I has then labeled Confirmation, occurs from the point of Dm's termination of Search-for-alternatives to the Announcement of, and subsequent Commitment to, his final Choice.

Secondly, a number of behavioral relationships that GDP-I predicted should be observable during, before, and after this Choice Confirmation phase, were indeed borne out for overwhelming majorities of Dms in our sample.

More specifically, in summary, the longitudinal questionnaire data we collected support the following decision process hypotheses:

Hypothesis I: (As noted) a significant amount of information processing remains to be done by Dms from the point when they terminate of Search for alternatives, and have implicitly determined which alternatives they intend to accept, to the point of their explicit acceptance of the "best" alternative.



Hypothesis II: Dm's intervening Confirmation processing is neither trivial nor somehow "sub-consciously non-rational" -- as evidenced by the high degree of Uncertainty Dms in general attach to their prediction, at time of Search Termination, that they indeed <sup>will</sup> end up accepting what we at that point are able to identify as their "Choice Candidates."

Hypothesis III: The nature of Choice Confirmation processing allows us to predict with amazing accuracy, at time of Search Termination, which of a number of all-presumably-acceptable alternatives Dm will eventually end up accepting.

Hypotheses IV and V: Dm will terminate Search for new alternatives before his budgeted Search Resources -- such as time and potentially available alternatives -- run out, if and only if he has ascertained that his potential Choice Candidate is indeed a viable, i.e. an in fact attainable, alternative.

Hypothesis VI: Dm is not adequately described by traditional aspiration-level Theory as "Searching for alternatives one-at-a-time," and as accepting as his Choice the first acceptable alternative he thus finds.

Hypotheses VII: Since one of Dm's principle means of Confirmation involves evaluation of his "best" alternative by comparing it directly and explicitly to his "second-best" one -- his Confirmation Candidate -- and since Dms usually do not perform such comparisons with respect to hypothetical alternatives (according to GDP-I), Dm will in general determine that his Confirmation Candidate indeed is a Viable alternative before he terminates Confirmation and announces his Choice.



Hypothesis VIII: Dissonance Reduction in the form suggested by Heider, Festinger, and others is at best only a partial explanation of Dm's post-Choice Decision Commitment processing.

An interesting post-Choice Commitment phenomenon was found to be the following: For exactly half of the Dms' in our sample their initial Dissonance Reduction-like spreading-apart of reported overall Liking for their Choice, as compared to their former Confirmation Candidate, was followed in subsequent time periods of observation by a reduction, and often total recovery, of this Liking-difference-increment of their final Choice versus former Confirmation Candidate.

One tempting explanation of this observation, which obviously must remain an un-examined hypothesis in the context of this study, is that the observed "initial spreading-apart" effect is symptomatic of Dm's experiencing residual Confirmation problems, which he has not been able to resolve intellectually by the time he "had to" make a Decision -- which he thus, in the best Dissonance Reduction tradition, resolves affectively post-Choice -- but which, when Dm has gained additional time and sufficient "psychological distance" from his traumatic point-of-choice (i.e. when the potentially threatening "need to make a decision has been removed and perhaps partially forgotten) get themselves intellectually displaced by Dm's by then having "inven-





ted" a better cognitive decision rule for "why" he indeed should have decided the way he in fact did: In effect this intellectual-cognitive decision rule now allows Dm to be more "honest" with himself, and thus enables him to free up again" his initial, induced affective-Like-Dislike spread between Final-Choice and Confirmation-Candidate alternatives.

Finally in this study we examined two "auxilliary" propositions -- auxilliary because they had not been explicitly stated ex ante by the experimenter, i.e before data were collected. But both propositions seemed interesting enough to check out once the data were in, in light of current debate regarding the existence and nature of the Heider-Festinger defined Dissonance Reduction phenomenon.<sup>(6)</sup> The data presented a fair amount of support for the following generalizations:

- A. The celebrated Dissonance Reduction spreading-apart-of-relative-liking effect is at least as strong (and usually stronger) prior to, as opposed to just after, the point in time when Dm commits himself to a choice.
- B. Dm is more likely to decrease his reported Liking of an alternative once he is told he will Receive No Offer, if this announcement reaches him before he has made and publically announced his Final Decision. If Dm is told "No Offer" after he has made his own Final Decision then No-Change is likely to be observed in his reported Liking of the alternative. Moreover, should Dm in fact report



No-Change to have occurred in his Liking of an alternative by which he has just been rejected, before Dm has made his own decision, then he will generally decrease his own reported Percentage-Ideal Rating of the same alternative. Correspondingly, after Dm has announced his own Decision he will exhibit no such "unrecognized" decrease in his Percentage-Ideal Rating of a rejecting alternative -- i.e., in the latter case Dm's inter-period questionnaire-answering reliability, or "veridity", will remain high.



APPENDIX A - 1

"Blue Questionnaire"

(administered prior to Dm's Choice Announcement)



Total time to complete questions \_\_\_\_\_

Time to complete these questions caused me (circle): MUCH- SOME- LITTLE- NO TROUBLE AT ALL

CHECK THE MORE TRUE STATEMENTS

Initials, No. \_\_\_\_\_

Date: \_\_\_\_\_

Return Deadline: \_\_\_\_\_

Your last report was on \_\_\_\_\_

A. "Presently I { am / am not } actively looking for new companies to interview."

B. "Presently whenever (if) { very much / quite / only somewhat / not particularly } inclined to take the trouble to follow it up (i.e. interview, etc.) present itself in my { } Depending on (in a few words if general area I'm { } appropriate):

C. "I { have / have not } recently considered trying other means of locating job prospects" (like writing off to company presidents, putting ads in the paper, hiring an agency, other than the things you're already doing for locating prospects)

D. "I { have already / haven't yet } started to eliminate reasonable job offers from my final set of possibilities." ("final set" is the set to which you don't expect to add further alternatives before finally deciding)

E. It is { virtually certain / highly likely / rather likely / only slightly likely / as uncertain whether } that I { will / won't } end up with one of the jobs I'm already considering at present."

ALSO:

"The latter half of this statement { will / won't } end etc." is true with a probability of \_\_\_\_%

F. "I believe I { am still far away from making / am getting closer to making / am quite close to making / have recently started to make / am still in the process of making / have actually made on date } my final job decision" (check one or more)

"My deadline for a final decision is: \_\_\_\_\_" (if you have set one)

G. "It seems { virtually certain / highly likely / rather likely / only slightly likely / as uncertain whether } that I { won't / will } locate another job better than my best prospect(s) to date."

Do you have firm offer(s) yet from all your "best" prospect(s)? Yes \_\_\_\_ . No \_\_\_\_ .

H. "Job hunting at the moment is causing me { terrific / quite bad / a fair amount / only a little / no particular } of pain and worry, mainly due to





(CHECK THE MORE TRUE ANSWER)

J. Are you presently able to describe to yourself { ☐ the specific job that  
☐ quite definitely what  
☐ fairly definitely what  
☐ somewhat tentatively what  
☐ not at all what } would be the IDEAL job for you

K. "What I consider to be the IDEAL job for me { ☐ has  
☐ has not } changed perceptively since my last report."

If it has: "It has changed as follows:

L. How "good" would you say a job would have to be (on a scale of 0-100% of "ideal" rating) before you'd accept it? \_\_\_\_\_%.

M. I consider my job decision to be a { ☐ critically  
☐ highly  
☐ quite  
☐ somewhat  
☐ not particularly } important decision in my life.



(1) and (2)

In col (1) are names of places which at the time of the last report ( )::

- (a) you were then actively considering. Please add to col (1) the names of new entries you are seriously considering.
- (b) you are no longer considering, or never have considered i.e. my entries.

In col (2) indicate which of the following are more true (for all entries):

- C: I am definitely Considering this one Seriously;
- P: This is a Potentially Promising candidate that I'm investigating;
- S: I Suspect I may No longer be considering this one Seriously;
- D: I Did, but I'm definitely No longer Considering this one;
- a: and I've already told them so,
- b: and I'm ready to tell them so any time,
- c: but I won't tell them until I've finally decided which job I'll take,
- d: they've already told me "no thanks."
- N: I Never did consider this employment prospect seriously.

(3)

In col (3) please indicate the "current state" of each column 1 "a" name:

- P: I haven't yet, but I definitely Plan to get in touch with them
- I/G [ ]: Interviewed only, but definitely Going to visit [insert approx date].
- I/W: \_\_\_\_\_, and Waiting for invitation to visit.
- I/N: \_\_\_\_\_, however, I'm Not going to visit them.
- V( )/G [ ]: Visited them ( ) times, and am Going to visit again [approx date].
- V( )/M: \_\_\_\_\_, and May Visit again before I finally decide.
- V( )/N: \_\_\_\_\_, and have No intention of visiting again before I decide.
- C: Corresponded with them (insert C rather than I if that's appropriate)

ALSO:

Given everything you now know about each job prospect in col (1) (a and b) how likely is it at present that you'll actually end up working for them?

MORE UNLIKELY

MORE LIKELY

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

[col (3) sample ans: "V(1)/N/+x"]



DISLIKE MORE

LIKE MORE

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

(Kindly answer this, whatever the current status of this prospect in your deliberations)

**ALSO:**

Please group all col (1) prospects into 4 classes,  
by assigning one of the following letter grades to each one in col (4):

Current uncertainty prevents you from assigning a single letter, write down your isoprobable range)

- A: "This sounds like an outstanding job opportunity"  
B: "Good, solid job, but not outstanding"  
C: "Borderline case, as far as I'm concerned"  
D: "Not good for me"

```
[col (4) sample ans:  "+x/B"]
```

(5)

For all entries in col 1 (a and b) please indicate in col (5)

'Offhand, I'd say at present this job prospect looks like

it's about (0 - 100)% as good as what I consider would be an ideal job for me"

(if a range of values is a better estimate of your present feeling, indicate a range)

**ALSO:**

Given everything you now know about each job prospect in col (1-a)

which is the more true statement for each prospect?

"At present it's  $\left\{ \begin{array}{l} \text{V: virtually certain} \\ \text{H: highly likely} \\ \text{F: fairly likely} \\ \text{S: slightly likely} \\ \text{U: entirely uncertain} \\ \text{whether will/wont} \end{array} \right\}$  that I  $\left\{ \begin{array}{l} \text{Y: will} \\ \text{N: wont} \end{array} \right\}$  end up working for this prospect"

```
[col (5) sample ans: 'x/F-Y']
```



(6)

Has your opinion of this job prospect changed since your last report ( )?

Please answer in col (7) for all "a" and "b" in col (1)

"I like this job prospect	{	ML: much less	}	now"
		SL: somewhat less		
		NC: no more, no less		
		SM: somewhat more		
		MM: much more		

ALSO:

I'd say there's been about a  $\pm (0 - 100)\%$  change in how I rate this job  
as a percent of what I'd consider would be an ideal job for me.

[sample ans: "SM/+x"]

(7)

For all prospects in col 1 (a and b) please indicate in col (7)  
how much you currently like each prospect. Consider each one carefully:

At the moment I	{	<u>L</u> : like	}	this job prospect	{	<u>V</u> : very, very much
		<u>D</u> : dislike				<u>Q</u> : quite a lot
						<u>F</u> : a fair amount
						<u>L</u> : just a little
						<u>S</u> : so-so

ALSO:

col (7) assign your present personal probability estimate (0 - 100)% to each col (1-a) name  
that you actually WILL end up working for them.

[col (7) sample ans: "L-F/x"]





(8)

For all "a" and "b" in column 1

how definite would you say your current opinion is of HOW WELL YOU LIKE this prospect?

"I consider my opinion regarding this job prospect to be

	{	QD: quite definite	}
		FD: fairly definite	
		ST: somewhat tentative	
		HT: highly tentative	
		NE: non-existent	}

ALSO:

Consider all entries in col 1 (a and b)

Please assign in col (8) a numerical "rank" number to each entry

in the order of your present preference of working for them

(i.e., "1," "2," "3," ... etc.)

Feel free to use any numeral as many times as necessary to indicate your honestly felt inability to discriminate your present feelings among those particular jobs.

[col (8) sample ans: "FD/3"]

(9)

What kind of (fair) odds are you presently willing to grant,

in col (9) to each job prospect in col (1), that you actually will end up working for them?

ALSO:

Besides what will be (is) included in their formal job offer to you  
do you expect to get any important additional information re this job  
before you'll make up your mind about it?

I { D: do } expect to get important information re this job that could significantly  
N: do not alter my present opinion of it.

Please answer "D" (do) in col (9) only if you have specific pieces of info in mind.

[col 9 sample ans: "x:y/D"]



In col (10) please indicate for col (1-a) names which is more true:

NOF[ ]: They've since told me they'd Not be able to make me an Offer [approx date].  
DG: They told me I'd Definitely Get an offer, but I haven't seen it yet.  
AFR: I'm still Awaiting their Final Response re an offer or not.  
HO[ ]: I Have an Offer from them. I got it: [approx date].  
NA: I have Not completed their Application procedure yet.

ALSO:

Besides what might be included in their formal job offer to you since last report, have you RECEIVED ANY NEW IMPORTANT INFORMATION relevant to your evaluation of this job

Please indicate  $\left\{ \begin{array}{l} \text{Y: yes} \\ \text{N: no} \end{array} \right\}$  in column (10) for all col 1 (a and b) entries.

IF YES (please):

"Receiving it has made me like it"  $\left\{ \begin{array}{l} \text{MM: much more} \\ \text{SM: somewhat more} \\ \text{NC: no more, no less} \\ \text{SL: somewhat less} \\ \text{ML: much less} \end{array} \right\}$  "

"Receiving it has occasioned (0 - 100)% of the change  
 (that I report in col 6 ) of my "ideal rating change" for this prospect"

[col (10) sample ans: "AFR/Y/SM/x%"]

MORAL: walk backwards for Christmas across the Irish Sea.

\*

One Irishman, always the gentleman, tipped his hat and  
 and said warmly, "airy, ain't it?" To which the pret-  
 test retorted, "had d'you expect, feavers?!"

-Two Irishmen were heading across a bridge in Dublin,  
 against the wind. Two girls were having their skirts  
 blown about, crossing the other way.



(11)

Answer col (11) where you're AFR or NA in col (10): For each one please indicate the more true form of each of the following 3 statements:  
(by noting the proper likelihood mnemonics in place of the "blanks")

I: "It's  $\left\{ \begin{array}{l} V: \text{virtually certain} \\ H: \text{highly likely} \\ F: \text{fairly likely} \\ S: \text{slightly likely} \\ U: \text{entirely uncertain} \\ \text{whether yes or no} \end{array} \right\}$  that they  $\left\{ \begin{array}{l} Y: \text{will} \\ N: \text{wont} \end{array} \right\}$  make me an offer;  
my P probability of that occurring is \_\_\_\_ %

II: "GIVEN that they MAKE me an offer it's  $\left\{ \text{BLANK} \right\}$  that their offer  $\left\{ \begin{array}{l} Y: \text{will} \\ N: \text{wont} \end{array} \right\}$  be overall  
COMPETITIVE to the best I have or expect to get; my P of that occurring is \_\_\_\_ %"

III: "GIVEN that they do make me a COMPETITIVE offer it's  $\left\{ \text{BLANK} \right\}$  that

I  $\left\{ \begin{array}{l} Y: \text{will} \\ N: \text{wont} \end{array} \right\}$  ACCEPT their offer; my P of that occurring is \_\_\_\_ %."

[col (11) sample ans:  $\left\{ \begin{array}{l} H-Y/x\% \\ S-N/y\% \\ F-Y/z\% \end{array} \right\}$ ]

(12)

Answer col (12) only where you're (I) AFR /NA; (II) new HO in col (10):

(I):  $\left\{ \begin{array}{l} \text{If NA or} \\ \text{If still AFR} \end{array} \right\}$  are you hoping  $\left\{ \begin{array}{l} V: \text{very, very much} \\ Q: \text{quite a bit} \\ S: \text{somewhat} \\ L: \text{a little} \\ N: \text{not particularly} \end{array} \right\}$  for an offer from them?  
ALSO: You'd be  $\left\{ \begin{array}{l} N: \text{not particularly} \\ L: \text{a little} \\ F: \text{fairly} \\ H: \text{highly} \end{array} \right\}$  disappointed were they not to give you an offer.  
[col (12) sample ans (I): "Q/N"]

(II): If a new "HO," was the offer  $\left\{ \begin{array}{l} MB: \text{much better} \\ SB: \text{somewhat better} \\ JA: \text{just about what} \\ SW: \text{somewhat worse} \\ MW: \text{much worse} \end{array} \right\}$  than you had expected?

ALSO:

Is the "Offer as a whole" competitive with the best you have so far?  $\left\{ \begin{array}{l} Y: \text{yes} \\ JA: \text{just about} \\ NQ: \text{not quite} \\ N: \text{no} \\ HS: \text{hard to say} \end{array} \right\}$

[col (12) sample ans (II): "JA/NQ"]



[illegible]





APPENDIX A - 2

"Green Questionnaire"

(administered after Dm's Choice Announcement)



Total time to complete questions \_\_\_\_\_

to complete these questions caused me (circle): MUCH- SOME- LITTLE- NO TROUBLE AT ALL

CHECK THE MORE TRUE STATEMENTS

tials, No. \_\_\_\_\_

Date: \_\_\_\_\_

Return Deadline: \_\_\_\_\_

Your last report was on \_\_\_\_\_

"Job hunting at the moment is causing me {  
 \_\_\_\_\_ terrific  
 \_\_\_\_\_ quite bad  
 \_\_\_\_\_ a fair amount of pain and worry; mainly due to  
 \_\_\_\_\_ only a little  
 \_\_\_\_\_ no particular

Are you presently able to describe to yourself {  
 \_\_\_\_\_ the specific job that  
 \_\_\_\_\_ quite definitely what  
 \_\_\_\_\_ fairly definitely what  
 \_\_\_\_\_ somewhat tentatively what  
 \_\_\_\_\_ not at all what } would be  
 the IDEAL  
 job for you"

"What I consider to be the IDEAL job for me {  
 \_\_\_\_\_ has  
 \_\_\_\_\_ has not } changed perceptively since my last  
 report."

If it has: "It has changed as follows:

I consider my job decision to be a {  
 \_\_\_\_\_ critically  
 \_\_\_\_\_ highly  
 \_\_\_\_\_ quite  
 \_\_\_\_\_ somewhat  
 \_\_\_\_\_ not particularly } important decision in my life."

How "good" would you say a job would have to be (on a scale of 0-100% of "ideal" rating  
 before you'd reconsider your present job decision? \_\_\_\_\_ %



(1) and (2)

In col (1) are names of places which you have considered for jobs. Please circle the one you actually chose, and indicate when you decided to take that job.

In col (2) indicate which of the following are more true (for all entries):

- DA: I've decided to accept, but I haven't told them so yet.  
FA: I've formally accepted the job ("date").  
T: I've already told them I'm no longer interested in them.  
R: I'm ready to tell them so any time.  
W: I won't tell them until ("date") and (why not?)  
NT: they've already told me "no thanks."  
N: I Never did consider this employment prospect seriously.

(4) (No. 3 has been deleted)

For all entries in col 1 please indicate in col (4)

Indicate how much you currently LIKE that job prospect by means of a numeral  
in the following scale:

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10

(Kindly answer this, whatever the current status of this prospect in your deliberation

ALSO:

Please group all col (1) prospects into 4 classes,

by assigning one of the following letter grades to each in col (4):

(if current uncertainty prevents you from assigning a single letter, write down your isoprobable range)

- A: "This sounds like an outstanding job opportunity  
B: "Good, solid job, but not outstanding"  
C: "Borderline case, as far as I'm concerned"  
D: "Not good for me"  
 [col (4) sample ans: "+x/B"]



(5)

For all entries in col 1. please indicate in col (5)

"Offhand, I'd say at present this job prospect looks like  
it's about (0 - 100)% as what I consider would be an ideal job for me"  
(if a range of values is a better estimate of your present feeling, indicate  
a range)

[col (5) sample ans: "x%"]

(6)

Has your opinion of this job prospect changed since your last report ( )?

Please answer in col (7) for all "a" and "b" in col (1)

"I like this job prospect	{	ML: much less	}	now"
		SL: somewhat less		
		NC: no more, no less		
		SM: somewhat more		
		MM: much more		

ALSO:

I'd say there's been about a  $\pm$  (0 - 100)% change in how I rate this job  
as a percent of what I'd consider would be an ideal job for me.  
since last report ( ).

[sample ans: "SM/+x"]





(7)

For all prospects in col 1 please indicate in col (7)  
how much you currently like each prospect. Consider each one carefully:

At the moment I { L: like  
D: dislike } this job prospect { V: very, very much  
Q: quite a lot  
F: a fair amount  
L: just a little  
S: so-so }

[col (7) sample ans: "L-F"]

(8)

In column 1

how definite would you say your current opinion is of HOW WELL YOU LIKE this prospect?

"I consider my opinion regarding this job prospect to be { QD: quite definite  
FD: fairly definite  
ST: somewhat tentative  
HT: highly tentative  
NE: non-existent }

ALSO:

Consider all entries in col 1

Please assign in col (8) a numerical "rank" number to each entry  
in the order of your present preference of working for them

(i.e., "1," "2," "3," ...etc.)

Feel free to use any numeral as many times as necessary to indicate your honestly  
felt inability to discriminate your present feelings among those particular jobs.

[col (8) sample ans: "FD/3"]



(9)

Besides what will be (is) included in their formal job offer to you  
do you expect to get any important additional information re this job

I {  $\begin{matrix} \text{D: do} \\ \text{N: do not} \end{matrix} \right\}$  expect to get important information re this job that could significantly alter my present opinion of it.

Please answer "D" (do) in col (9) only if you have specific pieces of info in mind

[col 9 sample ans: "D"]

(10)

NOF[ ]: They've told me they'd Not be able to make me an Offer [approx date].  
DG: They told me I'd Definitely Get an offer, but I haven't seen it yet.  
AFR: I'm still Awaiting their Final Response re an offer or not.  
HO[ ]: I Have an Offer from them. I got it: [approx date, if not previously reported]  
NA: I have Not completed their Application procedure yet.

ALSO:

Besides what might be included in their formal job offer to you since last report, have you RECEIVED ANY NEW IMPORTANT INFORMATION relevant to your evaluation of this job?

Please indicate {  $\begin{matrix} \text{Y: yes} \\ \text{N: no} \end{matrix} \right\}$  in column (10) for all col 1 entries

IF YES (please): {  $\begin{matrix} \text{MM: much more} \\ \text{SM: somewhat more} \\ \text{NC: no more, no less} \\ \text{SL: somewhat less} \\ \text{ML: much less} \end{matrix} \right\}$

"Receiving it has made me like it" }

"Receiving it has occasioned (0 - 100%) of the change  
 that I report in col 6 of my "ideal rating change" for this prospect"

[col (10) sample ans: "AFR/Y/SM/x%"]



## NOTES AND REFERENCES

1. P. Soelberg, "First generalizable decision process model: GDP-I," Sloan School of Management, Massachusetts Institute of Technology, 1966.
2. Ibid.
3. See H. A. Simon, "A behavioral model of rational choice," Quatr. J. of Econ., 1955, 69, pp. 99-118; W. H. Starbuck, "Level of aspiration," Psych. Rev. 1963, 70, pp. 51-60.
4. See L. Festinger, Conflict, decision, and dissonance reduction, Stanford University Press, 1964.
5. Soelberg, "GDP-I", op. cit.
6. Festinger, op. cit.; see also A. Chapanis and N. P. Chapanis, "Cognitive dissonance, five years later," Psychol. Bull. 1964, 61, pp. 1-22.

MAY 12 '75



