

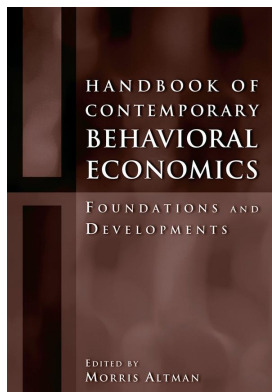
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IN-DEPTH INTERVIEWS AS A MEANS OF UNDERSTANDING ECONOMIC REASONING

Decision Making as Explained by Business Leaders and Business Economists

HUGH SCHWARTZ

Most economic analyses of decision making are based on data from experimental economics laboratories or on aggregate macro or micro data. In both types of cases what is reflected is the *result* of decision-making processes. Studies by economists based on interviews with or observations of decision makers that attempt to ferret out the reasoning underlying business decisions date back more than half a century, but there have been few of them. Several have been published since the late 1980s, however. Increasingly, these go beyond the use of systematic questionnaires aimed at establishing statistical tendencies and employ open-ended, in-depth exchanges aimed at better understanding decision-making processes. They have a number of objectives, but primarily they seek to draw attention to the most promising among the available hypotheses about decision making and, in a few cases, to suggest more realistic theories of economic behavior.

Two recent studies based on personal contacts have been essentially in the tradition of household surveys and have asked the same set of questions of all respondents. Recanatini, Wallsten, and Xu 2000 reported on surveys prepared by the World Bank over the course of a decade. The second of the survey-based analyses, by Alan Blinder, the former vice chairman of the Federal Reserve Board, and several associates, sought to determine which of many available theories best explained the stickiness of prices (Blinder et al. 1998). Differing from that approach, Bromiley 1986 provided an analysis based on highly structured but open-ended interviews with a small number of enterprises. Later, Bewley, an economist known for his work in econometrics and general equilibrium theory, undertook open-ended interviews with business and labor leaders aimed at understanding the downward stickiness of wages in recession (Bewley 1999). At present he is analyzing interviews with a large number of enterprises in an effort to explain price formation. In addition, there is the work of this author, whose focus has been primarily on industrial development (Schwartz 1987, 1998, 2004). Those studies have included interviews with business economists as well as enterprise leaders and have attempted to capture the essence of the reasoning processes employed in several types of decisions. Finally, there is the work of Shlomo Maital, who has authored or co-authored a number of papers based on in-depth interviews. Most are confidential in-house case studies prepared in conjunction with executive education programs for training global leaders, but it is possible to cite Sweetman and Maital 2003 as well as Maital et al.

2002. Maital et al. 2002 is included in Boshyk 2002, which contains several other essays that depend in part on in-depth interviews.

THE WORLD BANK STUDIES

The World Bank studies have attempted to bring greater consistency to the enterprise-level surveys for the various countries, providing data for policy analyses and World Bank operations. An overriding theme has been the importance of microeconomic data underlying macroeconomic phenomena. Recanatini, Wallsten, and Xu 2000 urges the use of standard questions of firm performance to get consistent data on output, profitability, and productivity. It recommends the estimation of production functions to determine if financially constrained firms are less productive than those that are not so affected. The overview discusses the coverage of corporate governance, human capital, technology, market structure, transaction analysis, the role of the state, and the micro foundations of macroeconomics, particularly with respect to the relationship of growth and investment. It observes that the coverage of these topics has varied from survey to survey, as has the reliability of a number of the response categories. The surveys queried respondents about their attitudes toward various issues and their recollection of past events. Recanatini, Wallsten, and Xu recommend that attention be paid in such surveys to avoid inappropriate and ambiguous wording, multipurpose questions, manipulative information, inappropriate emphasis, emotional words and phrases, and questions that can be answered differently by people with the same opinion, as well as questions that can be answered identically by people with opposite opinions.

The report discusses problems related to response scales, the order effect, “don’t know” responses, filters and branching, context effects (in particular, the sequencing of specific and general questions), and the use of sensitive questions. It notes the importance of pretests and offers a list of lessons learned, but, except for a general question at the end as to how to check for data quality, the report does not consider the use of ex post audits to gauge the order of accuracy of the various categories of information (although the World Bank does undertake ex post project evaluations). Without such guidelines it is difficult to know whether certain categories of data should be used in analyses that are intended to explain economic relationships and provide guidelines for World Bank policy. The importance of this is underscored by follow-up questioning undertaken by the author of this chapter, the responses to which conflict with a World Bank finding regarding the perceived importance of a factor cited as one of the most serious obstacles to investment in a particular country and raise serious questions about another. The interviewers who carried out some of the World Bank surveys were encouraged to employ follow-up in-depth questioning where it seemed advisable to do so, but time constraints, the large number of topics usually covered, and the unfamiliarity of most of the questioners with such an approach made that generally infeasible. This is not to deny that the usefulness of firm surveys would be improved were they to take the points raised in this evaluation of the surveys into account.

THE BLINDER PROJECT ON PRICE RIGIDITY

The Blinder project was based on interviews that began in 1990 and ended in 1992. (Some respondents were reached during the last months of a business upturn and others during periods when the economy was in recession, which may have affected the results somewhat.) The justification for resorting to a survey in which business leaders would be asked not only for factual information but also for assessments of what they had done was twofold. First, the study maintained that traditional econometric inquiries had failed to resolve which theory or theories best explained the stickiness of

prices. Second, it was believed that decision makers ought to recognize the chain of reasoning that goes through their minds. It was acknowledged that to the extent that the true reasons for price stickiness were buried deep in the subconscious, interviews would be unlikely to uncover them, and the study defended itself against the contention that interviews might be unreliable, outlining cross-checks that were undertaken while also noting limitations of the more common econometric exercises. The study is forthright in indicating many response problems and acknowledges that at least some could have been mitigated by use of free-form interviews.

Twelve theories of price stickiness were selected for consideration, one of which was suggested by businesspeople in a pretest of the questionnaire. A few theories that might have been plausible candidates were eliminated because they might have induced respondents to give evasive answers or because they were too difficult to formulate in a manner easily comprehended by many businesspeople. The theories initially considered were based on the nature of costs, demand, contracts, market interactions (most of which were omitted because they might have involved collusion), and imperfect information. Also included was a theory based on the hierarchical structure of large firms. Respondents were asked if any important factors had not been considered, and none was suggested—though that response may have been influenced by the presentation of so many theories, the absence of any specific follow-up questions, and the relatively short time period (forty-five to seventy minutes for a large number of questions).

The manner in which the Blinder study was carried out was influenced by the team's review of previous survey research on pricing. Eleven studies were considered, seven of which involved personal contact with the business leaders: Hall and Hitch 1939; Kaplan, Dirlam, and Lanzillotti 1958; Lanzillotti 1964; Fog 1960; Haynes 1962; Nowotny and Walther 1978; and Gordon 1981. The Hall and Hitch study was characterized as the only one to have had a major impact on the thinking of economists. While it was cited as having a number of methodological shortcomings, it was acknowledged to have contributed four possible explanations for sticky prices. Initially Blinder sought free-form interviews with about twenty companies, believing that the questions should be tailored to each respondent company. However, a decision was made to expand the number to two hundred companies and to aim for a random survey sample of GDP in order to achieve statistically meaningful conclusions on a national level. In shifting to a larger number, the study was obliged to use several interviewers. The latter, all graduate students in economics, while not experienced in the task at hand, were trained and rehearsed, and a variety of controls was introduced. It was maintained that the result was more objective than would have been the case with a single interviewer. A few questions had structured follow-up points, and though some respondents did elaborate on various matters, that material was deemed to be statistically unusable and did not influence the final study's conclusions. The questionnaires (there were minor variations for the versions directed, respectively, at manufacturing, wholesale and retail trade, and the services) translated technical economics into plain English and were pretested. That pretesting led to the addition of one theory and to the elimination of another. The questionnaire contained two parts, the first of which dealt with basic data about the enterprise, its customer base, the firm's contacts with customers, its cost structure, and basic pricing practices. The second part examined twelve theories that might explain price stickiness. For those theories that depended upon a particular hypothesis, questions were asked about the validity of the premise. Of the companies contacted, 61 percent agreed to be interviewed. In the case of smaller companies, the interview was usually with the CEO, while in the larger firms, it was ordinarily with a leading executive other than the CEO.

The study first ascertained that prices are in fact sticky: 78 percent of GDP was repriced quarterly or less frequently and half of GDP was repriced only once a year. This was during a period

of relatively low inflation. Nearly a quarter maintained that to change prices would antagonize or cause difficulties for their customers. Competitive pressures, the cost of changing prices, and the fact that their own costs did not change more often than that were each cited by just under 15 percent. No evidence was found for the general belief that price adjustments are more rapid upward than downward, nor for the belief that firms respond more rapidly to cost than to demand shocks. Large firms stated that they changed prices somewhat more frequently than their smaller colleagues indicated. The frequency of price adjustments varied greatly from one sector to another. Half of the firms contended that they never took the general level of inflation into account, and although many were unaccustomed to think in terms of elasticity responses, nearly half seemed to think that their demand was insensitive to price. Most thought that they could gauge marginal costs well, but in fact difficulties were revealed in distinguishing between fixed and variable costs. Almost 50 percent replied that they produced under conditions of constant marginal costs, and 40 percent responded that they produced under conditions of declining costs, casting doubt on the textbook U-shaped cost curves. Rankings were indicated for the twelve theories explaining price stickiness. The one that received greatest support was coordination failure, described briefly as “Firms hold back on price changes, waiting for other firms to go first.”¹ Although only a tenth of the firms declared that coordination failure provided the basic explanation of price stickiness, more than 60 percent of the firms did judge the phenomenon to be at least moderately important in explaining the speed of price adjustment. The second most popular theory was that of cost-based pricing—that a firm’s prices respond with a lag to costs—and the third most popular was nonprice competition, which is given little attention by economists. Another theory supported as relatively important in explaining price stickiness involved the use of implicit contracts. The study concluded that the theories do a better job of explaining upward than downward price stickiness, contrary to general expectations.

Each of the twelve theories and the findings relating to them are set out in individual chapters. These chapters explain the theories in some detail and then present the findings, taking note of results that are troubling and that it would have been good to have understood better. Only two publications that might be characterized as behavioral economics are cited in the text, and only two more in the bibliography. The main relation to behavioral economics is in the discussion of fairness in the context of a theory of implicit contracts. In addition, the discussion of the theory of psychological pricing points refers to the “folklore of marketing.” In the concluding chapter, “What Have We Learned,” Blinder and his colleagues state that the standard investigative tools of economics, theory, and econometrics, have been unable to discriminate among alternative theories of price stickiness and that interviews might provide a more promising route. The authors discuss implications of their findings for macroeconomic theory and policy.

These questions along with the findings of the study provide fertile ground for follow-up in-depth interviews. Perhaps there is a better list of theoretical explanations for price stickiness. If one is to deal with the matter of upward price adjustment, for example, one should take account of price movements or their lack in markets in which there is a dominant firm that has achieved “pricing power.” Many firms seek to cultivate one or more products in which they enjoy pricing power. Where there is such pricing power and the firm in question is truly the strong price leader there may well be price rigidity (including the failure of prices to decline nearly as much as technological change would seem to allow), but it is not as likely to be explained by coordination failure. Beyond that, globalization and increasing new supply even in the absence of price increases, as from other international sources (such as from major developing countries), also limit price increases in some product markets, especially those of low-to-intermediate-level technology. Instead of coordination failure, perhaps businessmen should be confronted with a broader

array of theoretical alternatives as to why prices are upwardly rigid, one that includes a spectrum of competitive responses. Surveys of enterprises might well be preceded by in-depth interviews as much as by pretests of questionnaires. The use of in-depth interviews would ensure that consideration of the new-supply theme would emerge, provided only that one or more firms in some of the affected high-, intermediate-, or low-technology industries were included (or one or more of the relatively simple service activities in firms of high-technology industries).

BROMILEY'S INTERVIEWS WITH A SMALL NUMBER OF ENTERPRISES

Bromiley 1986 incorporates data from interviews undertaken between 1979 and 1982, in addition to the results of simulation and econometric studies. In the foreword, Herbert Simon states:

First, he has added substantially to our knowledge of how the bounded rationality of executives, limited by knowledge and ability to compute complex consequences, is actually employed in making decisions. Second, he enriches our methodology for carrying out empirical studies of this kind, for many more will be needed before we have the picture of managerial behavior comprehensive enough to provide a firm foundation for our microeconomic theories. Third, he shows us how the picture that emerges from his empirical studies can be related to the contemporary classical theory of investment, to provide it with both the numerical parameters and the modifications it needs in order to fit the realities of the industrial world. (Simon in Bromiley 1986, x)

The study is based on multiple interviews with each of four Fortune 500 companies, one of which is named and the other three of which are not, in accordance with anonymity agreements. In addition, acknowledgment is given to four other companies, also unnamed, whose data were not included in the study. The basis for selecting the four key companies or the four others is not explained. Qualitative data from interviews and other company information, quantitative as well as qualitative, relating to a wide range of matters were used. The objectives were to understand the corporate planning and implementation processes related to investment, to generate a model based on the planning process in one of the firms, and to use that model to make econometric estimates of investment, using data from the other three firms interviewed. The study concludes with a conceptual framework for the determinants of capital investment. It recommends further interviews to check hypotheses and the use of large samples in subsequent research.

The study begins with an exposition of the orthodox theory of capital investment and then raises a number of strategic considerations. Bromiley conducted more than thirty interviews in the four firms, ranging from first-line supervisors to vice presidents. Some were taped. The book includes a substantial number of excerpts from the interviews.

Chapter 2 provides an intensive examination of Copperweld, a Pittsburgh manufacturer of welded and seamless tubing and other steel products. Short-term profit plans were found to influence annual capital expenditures more than longer-range plans. A breakdown of the profit planning process is offered, revealing its bottom-up nature. The sales forecasts include inputs from econometric services and trade associations. A great deal of judgment is involved. The revised sales forecasts are given to industrial engineers who plan production, using a number of rules of thumb. The nature of the rules is explained briefly, with some note of the biases involved but no indication as to whether those rules might be evolving over time. Auxiliary costs are then taken into account in deriving a first forecast of income. Allowance is taken for productivity increases in estimating the capital

investment to be undertaken, but with the use of rules of thumb that are characterized as not necessarily consistent. A series of iterations is undertaken, followed by a review at divisional headquarters that sometimes leads to further efforts to improve income forecasts. An aggregation of division plans follows, and then final corporate-level planning. These stages reveal concern with factors such as financial ratios and market interest rates but involve some judgments without clear rules, particularly in determining the trade-offs between capital investment and changes in corporate debt. Implementation of the profit plan is described with the aid of a number of quotations from those interviewed. All this leads to the development of a basic model.

The next chapters deal with the interviews of the other three firms and the application of the model developed for Copperweld to the data of the other three corporations. The structure of planning is used to generate forecasts of operations, funds available, investments desired, and the implications of those for changes required in the level of debt. The level of capital investment forecast by the model for the second corporation using the interview data tended to exceed somewhat that actually undertaken. Nonetheless, the interview data are said to have provided a more satisfactory explanation of the direction of causality with respect to debt-dividend-investment than traditional, aggregate statistical techniques. The third corporation assigns more weight to strategic, longer-term plans than the other companies and employs top-down as well as bottom-up approaches to planning. Econometrics plays a more important role in forecasting sales. The company's economists change their forecasts more slowly than public forecasters do, with the bias representing an attempt to take account of longer-term considerations (but also to compensate for biases of lower-level estimators). In the interviews with the fourth firm, Bromiley suggested more of the interview topics than he did with the other enterprises. The strategic planning process in that firm was held to function as a communication tool rather than as a target-setting or control mechanism. The connections between long-range plans and budgets are less well defined than in the other companies and the author concluded that it was necessary to respecify the equations for determining dividends, working capital, and investment capital.

Bromiley summarizes his empirical findings regarding the capital investment process (the result of aggregate planning, project approval, and implementation considerations), the cash flow equations (as a fundamental consideration that periodically constrains capital investment), the changes in hurdle rates (never changed more often than once every five years), the limits on debt (not always determined by sophisticated analysis), corporate forecasts (often not the forecaster's best guess), asymmetries (with the response of capital expenditures to sales or income less than forecast, differing in accordance with corporate strategy), constraints on investment (with the operative constraint varying over time), intertemporal differences (with changing parameters due to causes not well determined), interfirm differences, and research strategy (with inferences based on interview data supported by the quantitative results). His conceptual framework is that planning involves the desire for investment, the ability to implement, and financial constraints. Bromiley compares the relation of his explanation of corporate investment with those of standard economic theories. His "multi-constraint" framework uses many of the same variables as the standard models, but he contends that the variables need to be combined in a very different manner. Bromiley maintains that there may be substantial, systematic interfirm and intertemporal variations in the determinants of investment between firms, and he suggests the implications of those differences for corporate practice and research about corporate management, and for public policy. He concludes, "This research raises the question of how to manage the ties between corporate and financial planning systems. . . . Managers handle a complex planning process usually characterized by biased information, multiple interconnecting systems, caring about totals but also parts (e.g., projects), varying analytical products, and political and managerial concerns" (1986, 159). While

Bromiley's conceptual framework captures the details of the planning process well enough to predict investment satisfactorily, at least for the handful of firms he worked with, he does not attempt to indicate where the differences between the corporate practice he observed and the decisions that traditional economic models would call for reflect rules of thumb that are as close to the best that can be obtained in the circumstances (being improved over time, moreover) and where they represent a less nearly optimal decision-making process.

THE STUDIES OF TRUMAN BEWLEY

Bewley's studies have provided a major breakthrough in revealing the potential of in-depth interviews. Preliminary reports of the first study were published in 1995 and 1998, and the final version appeared in 1999.

Consider first his remarks that draw on the study of prices in progress as well as on the book dealing with downward wage rigidity (Bewley 2002). "An obvious way to learn about motives, constraints, and the decision making process is to ask decision makers about them," Bewley begins (p. 343). An obstacle, he observes, is that many categories of decisions are considered to be highly confidential, and though providing confidentiality prevents perfect replication, others can undertake similar studies employing the same general method. Given that networking might have led to a certain bias in the wage study, a large number of potential respondents were approached without any intermediary or reference. On the other hand, in the study of pricing, where greater sensitivity is involved, reliance has been placed entirely on networking. Note that release of confidential information, either directly or without the permission of the companies involved, can close off the investigator's access to a wide range of business entities and impede the access of other investigators as well. There is an additional reason for encouraging discretion in the use of any confidential information that is offered even though not sought: "Judicial authorities can require an academic investigator to testify in court." "Whatever the method of sampling," Bewley adds, "it is vital . . . to achieve as much variety as possible . . . because without it you cannot see the connections between responses and the circumstances of various types of respondents" (p. 345).

"If the objective [of interviewing] is to test given theories, you should be sure to cover the questions relevant to those theories. If the objective is to understand the shape of a general phenomenon with a view to formulating new theories, then the style should be less structured in the hopes that the respondent will come up with unexpected descriptions and arguments" (p. 346). Bewley concluded that while systematically following a fixed list of questions led to more inconsistencies and contradictions, this could be offset to a degree by broaching important issues at several separated times and in different ways. Use of a looser, more relaxed discussion "was more consistent with the overall logic of their remarks and probably reflected their views more accurately" (p. 346). Bewley adds that "it is wise to keep the discussion as concrete as possible, by requesting specific examples and by confining the discussion to the realm of the informant's experience. Abstractions should be avoided, because they lead from matters learned by experience to speculations that may reflect only passing thoughts. For the same reason, I avoid discussion of economic theories" (p. 346).

In order to sustain the interest of busy interviewees, Bewley stresses the importance of eye contact and the desirability of not looking down at a list of notes. His comment that people enjoy being provoked in a humorous tone (and not only, as he states, if they are dodging questions) is well taken. Telephone interviews may have an advantage in studies in which multiple sessions with respondents are sought, I would add; business exigencies often make scheduled interview times inconvenient, while if the interviews are by phone, they can be postponed more easily to a

time that is better for the respondent. On the other hand, if an on-site interview is scheduled in another city, the respondent may be more hesitant to change the arrangement but may be more inconvenienced—and, as a result, may be less willing to accept follow-up sessions (or as many of them) because they might constrain his or her activities (or make the participant uneasy about any inconvenience caused for the interviewer).

Bewley notes, “There are certain necessary background questions, such as the nature of a company and the informant’s function within it. The main questions have to do with the person’s decision problem; its objectives, the possible actions, the constraints on them, the decisions made, how they are arrived at, and how they change with circumstance. Finally, you might ask how respondents acquired their knowledge; were they educated by experience or business culture” (p. 347). Bewley did not use a tape recorder because he was concerned that it might inhibit respondents, but in his (more sensitive) study of pricing, he has done so and few have been bothered by it. I would add, though, that the interviewer should be ready to turn the recorder off at times, and not just when the interviewee requests.

Bewley recommends organizing the transcripts or notes of the interviews into two kinds of documents, one a set of spreadsheets and the other lists of quotations, and he provides suggestions on how to go about this. He observes, “It is especially important to look for the relation between the circumstances informants face and what they say, for this can reveal the factors in the environment that influence decisions” (p. 347). Bewley provides an example—which is reinforced by recent work on heuristics (see especially Gigerenzer and Selten 2001)—that stresses the degree to which heuristics of successful decision making are tied to context or domain.

“My experience has been that there is a surprising amount of uniformity among the explanations of informants in similar circumstances,” Bewley observes. “It is impossible to say whether the uniformity is due to the logic of the circumstances or to the culture of the business community or of particular industries. . . . Disagreement usually reflects ambiguity as to what the correct decisions are. Because the economic world is full of imponderables, it is not always clear how to maximize profits or best to protect the interests of a business.” As for candor, Bewley concedes, “The most you can hope for . . . is to see a coherent story of the interaction of motivation and constraints that leads to decisions” (pp. 348–49).

One should not accept what people say about their actions at face value, and Bewley suggests that actions should be observed if it is possible to do so. With respect to the view that interview data should not be trusted because this leads to an emphasis on irrational behavior, whereas rationality is the common thread that holds economic theory together, he observes that “interviewing reveals rationality as well as irrationality” (p. 350). The author rebuts the well-known argument of Milton Friedman regarding the irrelevance of a theory’s assumptions, maintaining that a deeper understanding is required for successful prediction if conditions change or if one wants to interpret phenomena for policy purposes. He gives a convincing example with respect to an intertemporal substitution theory of cyclical unemployment. Bewley concludes that we should supplement existing standard statistical sources with “a kind of main street economics” such as that provided by interviews (p. 352).

Bewley 1999 has four objectives. Most important, he offers the results of 336 interviews with business leaders, union officials, employment counselors, and business consultants in the northeastern United States (principally Connecticut) during the recession of the early 1990s, dealing not only with wage rigidity, the overriding concern, but also with a host of factors regarding employment—company risk aversion, internal and external pay structure, hiring generally and the pay of new hires in what he terms the primary and secondary sectors, in particular, raises, resistance to pay reduction, layoffs, severance benefits, voluntary turnover, the situation of the

unemployed, labor negotiation, and (directly as well as indirectly) morale. He maintains that it is necessary to understand the mechanisms creating unemployment because they are critical for discovering how to reduce it. Second, the book offers arguments for and against the type of less structured, open-ended, approach of basically just listening to firms with only a memorized list of questions and concerns, not all of which are necessarily to be asked of all those interviewed. The approach eschewed statistical analysis of that data but the overall study introduced the results of many other statistical analyses to set the framework and help assess the interview findings. Third, the book provides a careful description as well as a critique of the leading theories that have been advanced to explain wage rigidity and evaluates those theories in the light of the evidence of the respondents and other evidence more generally available.

The conclusion is that only one theoretical explanation seems to be consistent with the evidence uncovered—that dealing with the importance of morale and the decisions of managers in response to their perception of the likely effects of morale factors. The other theories, Bewley suggests, lead to conclusions that are not supported by the evidence, and he attributes this shortcoming to their reliance on unrealistic assumptions. The analysis then attempts to deal with the rather imprecise concept that is morale and to build upon existing theories emphasizing morale, drawing on the interview data but also on introspection. Finally, Bewley 1999 offers suggestions on what might be done next. This includes the use of additional surveys and tests of existing theories and his reinforced theory of wage rigidity. Throughout, he provides extended quotations from the interviews and refers to numerous empirical and theoretical analyses of others concerning employment.

Bewley states that his interview findings support only those economic theories of wage rigidity that emphasize the impact of pay cuts on morale. “Other theories fail in part because they are based on the unrealistic psychological assumption that people’s ability do not depend on their state of mind. . . . Wage rigidity is the product of more complicated employee behavior, in the face of which manager reluctance to cut pay is rational” (p. 1). He adds, “A model that captures the essence of wage rigidity must take into account the capacity of employees to identify with their firm and to internalize its objectives” (p. 2). He points to the models of Solow (1979), Akerlof (1982), and Akerlof and Yellen (1988, 1990), maintaining that pay rates have a positive effect on productivity through their impact on morale.

He states, “The implications of rationality depend on the conditions constraining decision makers” (p. 7). Bewley discusses problems with surveys and notes that he has compared the information he has obtained with official data, as well as econometric and other studies. He observes that motives may be unconscious—people may not be aware of the principles governing their behavior—and he cites implicit contracting as an example of this. He comments that in the course of the study he learned that cutting pay would have almost no effect on employment, that hiring new workers at reduced pay would antagonize them, that reducing the pay of existing workers would affect worker attitudes, and that the advantage of layoffs over pay cuts is that it gets misery out the door. None of the employers he spoke with stated that they offered a choice between layoffs and lower pay. The interviews revealed that labor is in excess supply during recessions (contrary to the reasoning of some prominent macroeconomic models), that employers avoid hiring overqualified workers, and that to the extent that there is some downward wage flexibility it is in secondary markets that are characterized by heavy turnover and relatively more part time work.

The recession under consideration lasted from the summer of 1990 through the spring of 1991, and the interviews were held during 1992 and 1993, the last ending in the spring of 1994. The initial interviews were arranged through the New Haven Chamber of Commerce and personal connections, but the majority came through references from those sources and from cold calls. Bewley aimed for a varied sample but looked particularly for companies that had experienced large layoffs.

He observed that there was a trade-off between randomness and interview quality. He changed the focus of the interviews over time, moving from an initial emphasis on wage and salary structures to a greater emphasis on questions of morale and overqualification. He undertook all of the interviews personally (usually an hour and a half to two hours) and made some telephone follow-ups. He concluded that the sessions with a fixed list of questions were less successful than those that were more free-flowing. The focus was on the experience of the companies interviewed, and his questions avoided economic jargon, with any theoretical queries reserved for the end of the sessions. He emphasized factual matters and did not ask direct questions about interpretive issues. As noted above, he relied entirely on notes. Whereas Blinder and colleagues (1998) interviewed only sellers of goods and services, Bewley spoke with buyers as well, and he did not attempt to avoid discussions that might be considered to be frightening (such as those bearing on collusion), as the Blinder study did. He avoided gathering precise quantitative data, however.

Bewley found that managers believed morale to be vital for productivity, recruitment, and retention. He defined good morale as characterized by a common sense of purpose consistent with company goals (not unlike what Simon 1990, 1992, and 1993 referred to as a variant of altruism—selfish altruism, in Simon's terms), cooperativeness, happiness or tolerance of unpleasantness, zest for the job, moral behavior, mutual trust, and ease of communication (p. 41). In discussing what affects morale, he noted a sense of community, an understanding of company actions and policies, and a belief that company actions are fair, along with an employee's emotional state, ego satisfaction from work, and trust in co-workers and in company leadership. His respondents indicated that poor morale led to low productivity, poor customer service, high turnover, and recruiting difficulties. There is no specification of any trade-offs that might be involved in the role of the various factors in contributing to morale, in the precise impact of morale on productivity, or in the precise role of that morale-based productivity in keeping wages relatively rigid.

A chapter on company risk aversion contributes to the discussion, as do the chapters on the external and internal pay structure, the latter of which is held to be important to internal harmony and morale, job performance, and turnover. The results indicate that the rigidity of the pay of new hires in the primary sector stems from considerations about the internal pay structure. The findings on salary increases reveal that beyond what is required by contracts, managers view raises as important in providing incentives and motivation. They are driven by the same factors in recession as in good times, he found: profits, the cost of living, raises in other firms, product market competition, and the competition for labor. Raises are not delayed because of concern about turnover of key employees. Managers resist reducing pay during a recession for fear of its effect on morale and the effect of that on productivity, along with concern for turnover of the best employees—those factors are much more important than any pressure from labor unions.

Layoffs are preferred to pay cuts not only because the latter are felt to affect the morale and productivity of the remaining workforce more but also because labor costs were estimated to be a small part of total costs (and so would facilitate only small reductions in prices) and demand was often held to be relatively inelastic. Layoffs also were preferred to pay cuts where it was not felt that competitors would match price cuts or where competition was based on more than price. Layoffs were favored as well where it was concluded that sales levels in the overall industry were lower, because of financial difficulties in the firms involved (which would not be alleviated much by wage reductions because of the level of benefits also available to employees), because of considerations of technological change, because of the opportunity to reorganize operations and eliminate organizational slack, and because of the possibility of increasing the work of the remaining employees. Bewley found that most severance pay obligations were not high (because it was believed that there was a lack of employee interest in them). It was uncommon to replace

employees with cheaper labor because it was felt that the company would lose in terms of skill and morale. Managers acknowledged that those laid off were dealt a heavy blow, but they concluded that the psychological impact did not extend to the remaining workforce.

Interviews with labor officials indicated that the information asymmetries assumed in some theoretical explanations of wage rigidity were not of much significance. Similarly, the shirking theory, which assumes that workers are paid more than necessary and are dismissed if they do not meet certain standards, was rejected as an explanation of wage rigidity, as were all efficiency wage theories.

The principal critique of the existing theories is given in Chapter 20. The first section deals with the labor supply theories in which wages are downwardly rigid because people withdraw their labor when wages fall, with real business cycle theories, and especially with the intertemporal substitution theory of Lucas and Rapping. Interview and other data indicated that voluntary quits did not increase but rather decreased sharply during recessions. The few pay cuts that were made led to little turnover. Firms found it easier to recruit. The attitudes of the unemployed were not consistent with their having chosen leisure over work, and indeed, some workers who were able took on second jobs to maintain their income.

Worker bargaining theories in which workers' bargaining power causes downward rigidity also were rejected. The monopoly union model was rejected in large measure because of the low percentage of companies that were unionized and because the first line of resistance to pay cuts was almost always from management. The seniority rights model received limited support in the interviews. The "insider-outsider" model did not correspond to observations inasmuch as few nonunion employers bargain with their employees, even implicitly, and there is usually no conflict between insiders and outsiders over pay cuts.

In reviewing the evidence on the theories based on market interaction, consideration was given to those models dealing with search—market misperception theories and theories involving the transactions approach—and those relating to the holdup problem as well as to Keynes's relative wage theory. Two other groups of theories were examined: the theories attributing wage behavior to firms' behavior and theories of recessions as reallocators of labor. The first include implicit contracts (the implicit insurance contract model and the moral obligation implicit contract model), the efficiency wage theories (the turnover and flat labor supply model and the dual labor market model), models assuming asymmetric information, the adverse selection model, the menu cost theories, and the stigma-of-unemployment explanation. All of these are seriously criticized on both logical and empirical grounds, but available morale models and the fair wage model are judged to come closest to explaining the downward wage rigidity. With respect to the morale theory, Bewley states, "The theory is correct in emphasizing morale but errs to the extent that it attaches importance to wage levels rather than to the negative impact of wage cuts" (p. 415). The fair wage theory is termed correct in part but incorrect insofar as the fair wage is supposed to depend on wages at other firms and on labor market conditions. With respect to the reallocation explanation of wage rigidity he comments, "My observations were hard to reconcile with Hamilton's . . . idea that unemployment is the consequence of shifting labor from declining to expanding sectors and of people's choosing to consume leisure while waiting for jobs to reopen in their own sector" (p. 422). Bewley's objection to these models is not with the findings themselves but with their interpretation.

Finally, Bewley presents his extension of a morale-based theory of wage rigidity. Before doing so he states:

Crucial aspects of the theory are that productivity depends on employees' mood that workers with good morale internalize their firm's goals, and that pay cuts impair both mood and identification with the employer. None of these aspects is closely connected with rational-

ity, which, in economist's usage, has to do with striving to achieve given objectives rather than with the selection of objectives or with the psychological capacity to accomplish them, matters central to morale. Nor does there seem to be a useful way to discuss formally the choice of objectives. I propose . . . a choice theoretic theory of mood that does not glaringly conflict with rationality. (430)

He then summarizes the evidence from his interviews which he terms the morale theory and notes some distinctive implications of that theory. Later, before presenting his formal model, he adds, "I believe it is general human experience that capacities to act and perceptions of pain or pleasure adapt to our circumstances" (p. 443). He then presents a model that "preserves the utility maximization principle used in economics." That model includes unconsciously as well as consciously felt mental and physical goals and costs. He closes with indications of applications to macroeconomic policy. The closing chapter, "Whereto from Here?" suggests further studies and tests of theoretical hypothesis that might be undertaken and raises a number of questions that might best be answered with the aid of the kind of data collection possible only in direct personal interviews.

Bewley 1999 is a seminal work, but a few words of caution are in order. First, Bewley begins by affirming the existence of wage rigidity and by citing evidence from his interviews supporting that during the period covered (as Blinder and associates did with respect to price rigidity). At the same time he acknowledges that wages are more downwardly flexible in firms in financial difficulty, particularly where employees recognize the situation (often the case). This raises the question whether wage rigidity is not tempered or even eliminated if a recession lasts long enough (was this true for Japan during the 1990s or for the United States during the Great Depression?) or if the general adversity is great enough for entire industries or regions or economies from the outset (consider Japan again, but even more so, consider Argentina and Uruguay since 1999—two relatively industrialized "developing" countries that have had a long tradition of strong labor unions and which experienced widespread wage cuts of 20 to 50 percent in real terms, often following layoffs and then followed by more layoffs). The long decline of traditional industries such as textiles and garments in those two countries seems to have been accompanied by major wage cuts as well as layoffs, and something similar occurred for low-skilled and semiskilled labor in New England for several decades as industries moved south or out of the country. The same phenomenon seems to have taken place in other regions with automobile assembly workers, with machinists, and recently with service employees of various skill levels even in a number of high-tech industries—witness the phenomenon of outsourcing to India and China. There seems to be a point at which wage rigidity does break down, and the seeds of that breakdown are captured in some of the responses Bewley notes.

A second consideration is that while the evidence from interviews coupled with that of available econometric and other studies provides ample grounds for rejecting the ability of most of the theoretical explanations of wage rigidity, and the unrealistic assumptions of those theories seems to underlie their inadequacy, the morale-based theoretical efforts seem to be an exception. This leads Bewley to offer an extension of the morale-based theories, but one that seems rather speculative, depending on the unconscious as well as conscious reasoning of managers. This may capture enough of what really matters, but the interview data do not appear to provide the entire basis for the conjecture. Nor is it clear how some aspects of the theory might be tested. Nonetheless, this chapter, however interesting and even potentially important, is not the most significant contribution that Bewley 1999 makes. The most notable contribution is that interviews can uncover data about decisions and the assumptions concerning the motivations of others that help explain those decisions—data that not only are rich in detail but also differ in part from the introspection of economists.

Bewley characterizes the information gathered from interviews as uncovering motives, constraints, and an understanding of the decision-making process. He acknowledges the uncertain reliability of some interview responses (and indicates efforts to detect and deal with inconsistencies), but one might hope that his current study of prices would specify how much time passed between the events and the recording of the information that took place in those events. Most observers might want to assign less weight to responses that are less recent unless strong arguments were offered for not doing so. Even where the information about intent and the general underlying motives is accurate, the actual reasoning processes employed in making some decisions may involve other considerations, and these may not be recalled with ease after even a few months, particularly where circumstances lead decision makers to deviate from their customary guidelines. In dealing with responses referring to events that are more distant in time, it may be necessary to add supporting material, perhaps consistent actions or reasoning taken at the same time.

THE SCHWARTZ AND MAITAL STUDIES

Schwartz 1987 involved interviews with metalworking enterprises in several regions each of the United States, Mexico, and Argentina in an effort to understand decision-making processes in a particular group of industries. Two rounds of interviews and a limited number of follow-up observation visits were made in 1976–77 and notes taken. (No tape recorder was used, and a significant portion of the note taking was based on recall immediately after the sessions.) Schwartz 1998 dealt with a broader range of industries in a single country but focused on a narrower set of issues; thirty-six firms were interviewed, with the principal emphasis on the decision making of Uruguayan manufacturers in preparation for the forthcoming increased economic integration of their country with Brazil, Argentina, and Paraguay. It followed a larger but more open-ended survey undertaken (largely by mail) in 1994. Schwartz 2004 involved repeated interviews with each of a dozen business economists. The principal objective was to discern how frequently those economists deviate from traditional optimizing calculations in preparing their analyses for management, the rules of thumb they select when they do so, and the extent to which they make efforts to allow for biases or improve the heuristics. Notes were taken, sessions were taped, and there were extensive e-mail exchanges with two respondents.

Schwartz 1987 involved interviews with 113 metalworking firms and nine trade associations in three regions of three countries between September 1976 and June 1977. The enterprises were recommended by the trade associations in response to the request for “well-regarded and financially successful companies.” The response rate of the requests for interviews was more than 80 percent. Nearly all of the firms were interviewed a second time, and ten (all of those asked) agreed to observation sessions. Most of the interviews lasted from two to four hours. The observation sessions lasted from three hours to three days. The author conducted all of the sessions but was aided in one of the countries by substantial materials prepared in advance by an economist and an engineer. The industries selected had the following characteristics: relatively stable technology, only moderate economies of scale (derived principally from length of production run), and relatively little market power in most product lines. Preparation for the study involved extensive readings on the industries in question, a short course in metal stamping at an engineering college, tutoring on other metal fabrication activities, and discussions with three psychologists working on decision making and two specialists in social science interviewing. Anticipated findings were understatement of profit maximization objectives when speaking in broad terms, but a revealed behavior toward optimization in resolving problems. I defined economic perception as the process by which economic agents confronted with technological, market, and public policy

data “read” those data, assigning quantitative or qualitative values to them. Economic judgment was defined as the process of assessing the probable economic consequence of perceived technological, market, and public policy data and included formal optimization techniques, systematic heuristics, and unique, even presumably “seat-of-the-pants” responses.

Most of the preliminary findings and hypotheses fell into three categories: overall findings, those concerning economic perception, and those concerning economic judgment.

The overall findings and hypotheses: (1) Most small differences at the margin are not well perceived; much greater differences are required in order to be taken into account (I call this the principle of the just noticeable difference). (2) Businesspeople often fail to recognize that small samples do not have the properties of larger ones; in particular, there is a failure to detect regression toward the mean, and there is frequent reliance on the anchoring and adjustment heuristic. (3) There is a diminishing entrepreneurial response to incentives (both market incentives and those from public policy). In the case of those emanating from public policy, extraordinarily large incentives actually can lead to negative responses (in anticipation of a reaction of the community that leads to the withdrawal or substantial reduction of the incentives).

Preliminary findings and hypotheses concerning economic perception:

1. Decision makers reveal differences in their ability to perceive the various categories of data; the asymmetry of perceptions can be important. This was noted for a new metal-working technology and also for the cost of inputs, for the price differential between domestic and imported goods, and for equipment costs. In the case of the last of these (and to a degree in the case of the price of imported goods) asymmetries in perception were a factor along with informational asymmetries. A prime example of a tendency to perceive certain categories of data imperfectly—and differently in the case of different individuals—is illustrated by examples of money illusion.
2. The differing perception of economic data is explained in part by differences in professional background and the frequency of exposure to similar data, as well as by institutional factors (such as a long tradition of historical cost accounting).

Findings and preliminary hypotheses concerning economic judgment:

1. Enterprise estimation of demand at prices other than those recently charged is not common.
2. The imperfect perception of some input prices combined with limited record keeping leads to limited variation in the degree to which enterprise estimation of costs reflects opportunity costs, and this is accentuated in periods of rapid inflation.
3. The enterprises interviewed did not determine the composition of output by careful calculation and doubted that the prevailing product mix was the most profitable. Most enterprises continued to produce more inputs in-house than could be justified by profit-maximizing considerations (at least in the late 1970s).
4. The anchoring and availability heuristics are important determinants of inventory determination.
5. The reasons cited for not undertaking second or third shifts in small firms and those run by managers without a business administration background were refutable more often than not. Assessment of defective production was generally made by use of a heuristic rather than careful calculation, particularly for components not sold but used in-house. Efforts to improve operational efficiency were undertaken primarily in response to adversity or anticipated adversity, in accordance with the slack thesis of Cyert and March (1992).

6. Responses to special depreciation or investment allowances and to decisions about the sources of financing suggested hypotheses that were consistent with much traditional economic literature for most of the firms.

Principal finding and hypothesis on the acquisition and processing of information:

The enterprises elected *not* to receive a considerable amount of information that was readily available and inexpensive to obtain, often counter to the interests of their profitability, though this tendency was reduced as market structure became more competitive. To some extent the decision to receive less of such information is related to the way in which data was processed, which had not changed much from what it had been two decades before. While some of this was rational enough, overall it reflected a good deal of suboptimality.

Principal finding and hypothesis regarding enterprise objectives and motivation:

High profits (the stated objective of more than two-thirds of the firms, including most of the larger ones) did not mean consistently maximizing behavior. Differences were revealed between stated and revealed objectives, due in part to failure to pursue a maximizing process, but also to difficulties in realizing objectives. However, in some cases, better perception of economic data enabled firms to record higher returns even in the context of reduced profits objectives.

Conclusions: Decision makers sometimes fail to perceive data accurately, and hence they address themselves to problems that are variants of the ones they actually confront. Heuristics are often employed, and they can lead to results that differ from those of standard economic analysis. The objectives of decision makers are often more complicated than simple profit maximization (or simple revenue maximization or satisficing, for that matter). The findings are grouped into three categories: those largely consistent with standard economics, those inconsistent with standard economics but of limited consequence, and those inconsistent and of major consequence. Among the implications is that in order to obtain the necessary insights about producer behavior, for many matters it is essential to go directly to the individuals involved, preferably in their own environment; it is not enough to rely on how they say they behave or on the evidence of how they behave in laboratory settings.

Schwartz 1998 deals with decision making in 1994 in thirty-six Uruguayan manufacturing enterprises in a wide array of industries. Two-thirds of the firms were Uruguayan-owned and the remainder were international. More than two-thirds of the firms exported, but only ten thought that they would be able to compete in the emerging integration scheme with Argentina, Brazil, and Paraguay without substantial difficulties, sixteen concluded that they might be able to do so, and ten viewed their situation as highly unfavorable. The study sought to provide preliminary verification and somewhat fuller specification of behavioral hypotheses that could be used to design policies capable of promoting more efficient responses of enterprises to the changing incentives of increased economic liberalization and integration. Most of the interviews were carried out by an individual with a recent M.A. in economics who had worked for twenty years as an accountant. The study sought to delve into the reasoning processes underlying decision making, giving attention to the importance of framing in doing so. It sought to acknowledge traditional economic reasoning and to note any alternative, behavioral lines of reasoning.

The principal findings that lend themselves to hypotheses to be tested further are as follows:

1. The reasoning of decision makers usually involved heuristics rather than careful calculation, among the most common being reasoning by analogy from a past experience. The heuristics used by most firms to determine which alternatives to examine more carefully and the amount of information to gather in doing so do not appear to be consistent with optimization and profit maximization.
2. Competitive pressures influence the degree to which profit maximization was found to be the principal objective of the enterprises and was critical to fostering the implementation of cost minimization and profit maximization among those enterprises that had such objectives.
3. Even those firms that sought to maximize did not always employ implementation procedures consistent with that objective, particularly in the search for information.
4. Loss aversion and attitudes toward risk and return in dynamic contexts varied somewhat from the results found by experimental economics.
5. Problems in perceiving data accurately were almost as important as the lack of data. Increased coordination within the enterprises succeeded in overcoming some of the most serious problems of economic perception. Further intra- and interfirm coordination may further reduce data perception problems.
6. Some of the conflict that the private sector had with the government with respect to the overvaluation of the peso might have been resolved had the government given more attention to measures that would have aided productivity in the private sector—had its perceptions in this regard been more accurate and had its judgments been better.
7. An understanding of the way in which businesspeople respond to what they perceive as obstacles is as important as the identification of the obstacles themselves in determining the most effective means of alleviating the adverse consequences and of designing policies.

Schwartz 2004 analyzes ongoing interviews over a year with a dozen business economists, eleven employed in or recently retired from Fortune 1000 companies in manufacturing and construction and one who spent his career consulting with leading financial institutions. As many as twelve interviews were held with each respondent, initially on four subjects but ultimately on a broad range of topics. The objective was to ascertain the extent to which business economists used the kind of maximization techniques that the profession has developed, and the degree to which they employed less formal heuristics. Where the latter was the case, the effort was to determine how those heuristics were developed and their biases taken into account. The elimination of two-thirds of the economics positions in the firms interviewed during the 1990s gave the economists who remained a strong incentive to provide analyses and advice that contributed to higher profits.

The interviews revealed that the business economists, all of whom expressed their conviction about the efficiency of the market and regarded themselves as neoclassical in orientation, nonetheless employed some of the approaches of behavioral economics. They often included heuristics (rules of thumb, in their terminology) in their analyses along with more traditional techniques. They were obliged to do so, they maintained, by the pressure of time, the lack of data (or the cost in obtaining the necessary data), technological change, and what some of them characterized as the need for alternative frameworks at turning points. In most cases they conceded that the heuristics they used were not consistent with Bayesian analysis, though it should be noted that they almost never employed several common (and usually more biased) heuristics often identified in consumer or public policy decision making. Many of the respondents believed that what they did reflected what Simon termed procedural rationality. This is most clearly true of the participants who insisted on the multiple character of rationality, incorporating not only economic but also social rationality and rational behavior with respect to different personality types. The last two

elements reflect considerations of fairness and of the role of emotional states.

Even in these private enterprises, the information most sought from the economists was macro- rather than microeconomic. Much microeconomic analysis was left to noneconomists, who varied greatly in the degree to which they made decisions as if they were taking the principles of economics into account, and the economists varied, in turn, in the extent to which they attempted to help make the as-if assumption more nearly a reality among their colleagues. While most of the economists recognized that their companies had problems of slack, reflecting other than the most efficient use of resources (even when allocated to the most indicated activities), they were not generally close enough to the activities in question to help much, nor did they propose guidelines to aid others in reducing slack. Indeed, most of these very large companies employed so few economists that slack reduction would have to have been a second-order priority. While most economists recognized the inconsistencies of certain accounting conventions with economic principles, they were not active in efforts to alleviate the problem, such as by contributing to the development of activity-based accounting. They spoke against the sunk cost fallacy but sometimes lagged in efforts to overcome the problem. The economists reported on productivity trends *ex post* and included assumptions about them in projections but did not develop criteria for cost reduction and ongoing productivity improvement. With a few exceptions they did not participate in the preparation of corporate approaches to risk management. While most of the hurdle rate heuristics used in assessing investment projects seemed to make sense, some raise questions.

There was a tendency for many business economists not to press an economic point of view when it was known that this would go against strong preferences of the CEO or other key leaders and it was felt that such an effort would lead to reduced effectiveness of the economist in other areas in which more weight was given to objective analysis. Three seemed quite strong in their defense of economic principles, but nine conceded that they were less assertive. Finally, while most of the economists combined heuristics with traditional maximization calculations, they generally did not record the context of the heuristics or the dimensions of the biases involved, both of which might have enabled better results in future analyses, beginning with the possible improvement of the heuristics employed. The business economists, although clearly seeking to improve company profits, cannot be said to have been attempting to maximize in most cases. Rather, they tended to operate in a quasi-rational manner. Thus, the kind of economy-wide cost of substantial but incomplete enterprise maximization demonstrated by Akerlof and Yellen 1985 may be quite large. One of the strongest recommendations of the business economists was that university courses in economics give more attention to applications of the theoretical concepts and logical demonstrations, and to communicating economic concepts to noneconomists. Several indicated that the most effective means of implementing economic reasoning would be by emphasizing such applied approaches in the basic MBA economics courses that an increasing number of corporate leaders take—and that this would be even more effective than increasing the number of economists. This would be a means of making the *as-if* assumption more nearly valid—particularly, I would add, if those courses included discussions of how to increase profitability with the use of heuristics when circumstances require something other than standard calculation techniques.

Sweetman and Maital 2003, prepared for the Action Learning and Executive Development portion of the annual Global Forum on Business, summarizes the use of proprietary case studies that have been used internationally in at least half a dozen schools of business administration. After reviewing the merger between Bell Atlantic and GTE into Verizon, the paper maintains that “when the objective is to induce change, you must heed the proven psychological principle that positive

reinforcement (success) is far more powerful than negative reinforcement (failure)” (p. 13). The authors maintain that successes are far more powerful if the goal of the stories and cases is to generate motivation, incentives, and role models that drive change. “While it is widely assumed in business schools that failure is more instructive than success because failure demands action while success demands only more of the same, in today’s rapidly changing global markets, success also demands action because ‘more of the same’ is a recipe for future failure” (p. 13). There is a need to find solutions that are significantly better than the status quo, the authors insist, and “it is better to spend our time understanding what works than what doesn’t” (p. 14). Sweetman and Maital also contend, “The less clear the solution and the harder the struggle to find the right answer, *the more valuable the self-discovered learning*. When investigating the case, find out more than what happened. Also find out what *didn’t* happen—the choices that were not made, the courses of action that were rejected (or simply neglected)” (p. 22). The authors affirm, “What grips the participants and motivates discussion is the creative tension in the false starts, near misses, and internal struggle of the protagonist as he or she works in new ways towards a solution” (p. 15).

While much of the material considers alternatives that the enterprises were confronted with and why they chose one rather than the others, I would maintain that it is important to understand certain less successful choices, particularly when those choices lead to the demise of a company. Maital et al. 2002 explains the incorporation of proprietary case studies in the “action learning programs” (programs that emphasize learning by doing) of the executive education arm of Technion, Israel’s science and technology university.

CONCLUSION

In-depth interview-based analyses usually require more time than other types of studies and, subject as they are to a number of limitations, they have tended to be ignored by most economists. Consider, though, their potential.

First, studies allowing for open-ended responses can reveal the inadequacy of theoretical assumptions that are manifestly poor indicators of the reasoning processes that underlie decision making and thus can enable us to do away with a wasteful use of resources in testing those theories.

Second, while it is true that a reasonable number of interview-based studies may be necessary to provide a firm foundation for new hypotheses about economic behavior, even isolated efforts may uncover explanations that economists have overlooked, leading to the formulation of better hypotheses about economic behavior. These may derive directly from the interview responses, or those responses may facilitate the construction of the new hypotheses. Moreover, case studies that reflect an improved understanding of decision making may motivate more successful economic behavior among those to whom they are disseminated.

Third, interview-based studies may help us to improve our understanding of (and our ability to modify) behavior that inhibits successful decision making.

Fourth, by focusing on reasoning processes in real life contexts, the in-depth interview-based studies may enable us to develop hypotheses of how best to implement the recommendations that emanate from good analyses (or how to do so relatively successfully, in any event), something that many economists do not really concern themselves with.

Fifth, in-depth interview-based studies may enable us to understand how to better take the biases associated with the use of heuristics into account, how to adapt heuristics to different contexts, and, more generally, how to improve performance when lack of time, lack of data, uncertain technological change, or other dynamic factors simply prevent calculation of what would be optimal.

NOTE

1. Blinder and colleagues note, “Coordination failure can lead to price rigidity if each firm would adjust its price if it expected other firms to do so, but also would hold prices fixed if it expected other firms not to change their prices” (2001, 269).

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