

9. Parsons, Talcott. *Structure and Process in Modern Societies* (Glencoe, Ill.: Free Press, 1960).
10. Price, James L. *The Study of Turnover* (Ames, Iowa: Iowa State University Press, 1977).
11. Pugh, D. S., D. J. Hickson, and C. R. Hinings. "An Empirical Taxonomy of Structures of Work Organizations," *Administrative Science Quarterly*, Vol. 14 (1969), 115-126.
12. Sapir, Edward, in David G. Mandelbaum (Ed.), *Selected Writings of Edward Sapir* (Berkeley: University of California Press, 1949).
13. Vroom, V. H. "Organizational Choice: A Study of Pre- and Post-decision Processes," *Organizational Behavior and Human Performance*, Vol. 1 (1966), 212-225.
14. Wanous, John P. "Organizational Entry: Newcomers Moving from Outside to Inside," *Psychological Bulletin*, Vol. 84 (1977), 601-618.
15. Whorf, Benjamin, in John Carroll (Ed.), *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf* (Cambridge, Mass.: M.I.T. Press, 1956).

Consensual Uncertainty¹

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"There are uncertainties, and there are uncertainties."

—Raiffa

Although every organization routinizes many decisions, there remain those perplexing problems, complicated by many internal and external factors, for which it is difficult to distinguish appropriate action. A vexing attribute of the situations surrounding many of these problems is their "uncertainty," and many researchers have focused specifically on the impact of uncertainty in organizations.

Those interested in complex organization settings have tended to move away from notions of uncertainty that focus only on the predictability of specific outcomes (8, 6) and toward definitions which focus on ongoing processes. Lawrence and Lorsch (5), for example, tie uncertain-

ty to three factors: clarity of information, reliability of causal relationships, and time span of definitive feedback with relation to outcomes. Duncan (3) suggests that the number and similarity of factors considered in a decision and the extent and frequency of change in factors considered contribute to uncertainty. Perrow (7) focuses on the frequency with which the routine of the organization is disrupted and the extent of search for alternatives when disruptions occur as indicators of relative uncertainty in organizational technology.

These influential studies have in common an attempt to isolate "contextual" factors causing uncertainty for the organization. They use combinatorial ratings from organization members and/or secondary indicators of variance (e.g. fluctuating prices) to measure relative uncertainty in specific settings. Although the specific relationships presented by Duncan and

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Lawrence and Lorsch have been challenged recently (1, 2, 11), clarity and availability of information, stability of relationships, complexity, and disruption of organizational technology appear to be critical aspects of the decision context which will continue to be important to studies of uncertainty.

Another aspect of uncertainty has received much less attention. This aspect focuses not on the decision making context itself, but on the uniformity (consensus) among *respondents* to the context. Uniformity in interpretation of a context is, in general, an aid to the decision-maker, since information gathered from experiences of others provides a consistent, interpretable picture to augment directly available evidence. Lack of consensus among others add to the uncertainty surrounding a decision situation, although it may also provide a useful flag to riskier, more controversial decisions.

A Definition of Consensual Uncertainty

Consensual uncertainty is variance, or lack of consensus, among two or more observers of a decision context. The measure is relative, since some difference between observers is always expected. The greater the divergence (which may be measured among the same group over time, among different groups in the same situation, or among individuals or groups in different situations), the greater is the consensual uncertainty.

Consensual uncertainty may be thought of in part as a measure of learning among a group of individuals. I am indebted to Richard O. Mason for pointing out this aspect of uncertainty in response to an earlier paper. One would expect higher consensual uncertainty in newer industries than in older industries, for example. Consensual uncertainty is also likely to be high following crisis, or in periods of rapid personnel turnover. In these cases, greater consensus may come with shared experience in the decision context.

In other cases, consensual uncertainty may be a more permanent reflection of varied expe-

rience, thus more directly tied to contextual uncertainty. Loosely coupled systems appear to be prone to consensual uncertainty, since they allow varied environmental impact and individual response to the environment (12). Other settings characterized by divergent backgrounds and goals of participants should also be expected to be characterized by high consensual uncertainty.

The notion of looking for variance among respondents to a context as a separate type of uncertainty is important because it highlights a gap in research on uncertainty. Traditional methodology requires reliability, or low variance among observers, to report findings with confidence. Most research on uncertain environments tended to look for cases in which high environmental uncertainty is consistently ascribed to the setting studied. This note argues that the study of uncertainty should give special attention to situations in which a broad spectrum of opinion exists about the nature of the environment. The most uncertain circumstances appear by definition to be those which cannot with confidence even be said to be uncertain.

An example of the distinctions made possible by the isolation of consensual uncertainty may further define the concept (Steiner, 9). Consider a hypothetical research project which asks a group of observers (participants or third party judges) to list and indicate the relative importance of factors influencing success in different industries. Industry A, which involves a large and complex number of factors might be tentatively identified as an industry in which contextual uncertainty is likely to be high. A second industry, B, although apparently requiring attention to fewer key factors, may be found to be more consensually uncertain than Industry A if a less consistent pattern of factors is chosen by observers. The *most* uncertain environment faces Industry C which involves a large number of factors reported in conflicting patterns.

In addition to providing a way of thus distinguishing industry settings, the idea of consensual uncertainty may also highlight individual factors as the subject of consensual uncertainty.

In the hypothetical study just described, consensual uncertainty is likely to be limited to a subset of factors within each industry. Across industries, some factors may be also widely recognized as important, while others are the subject of considerable consensual uncertainty.

Strategic Action When Uncertain of Uncertainty

The concept of consensual uncertainty identifies a class of cases in which purposeful action is very difficult to achieve. At both ends of the spectrum of what is conventionally called uncertainty, considerable attention has been given to prescriptive advice. If conditions are relatively certain, one sets out to learn about the environment and develop appropriate rules of behavior. The process is a reiterative one of trial and error which gradually approximates desired results. For conditions at the other end of the spectrum where prediction is impossible, we are also developing notions of appropriate behavior. Organizational tasks and structures should be differentiated, flexible, and diverse. Decision styles should be responsive to new information, rather than tied to past performance, and contingent, rather than binding. The process is one of "trial and trial" in which rules are not sought.

But what is the appropriate behavior if one does not have a clear picture of the nature of the environment? On the one hand, "lawful" relationships sometimes appear to hold, and certain observers report satisfying results by following structured rules of action. On the other hand, anomalous information is also received. Some observers declare that it is impossible to interpret the decision context even while others claim they have done so. These reports are as much data about the world as are observations of technologic processes or patterns of consumer purchases. They are particularly influential in that they are likely to be couched more directly in terms of action alternatives.

An individual strategist may or may not reflect the consensual uncertainty ascribed to the

larger group. One would expect a review of responses to reveal a spectrum of action decisions. This is a complication of the uncertain environment as it is usually understood. Those adopting strategies based on stable perspectives of the environment are likely to appear non-responsive to what others see as varying conditions. The reciprocal view is that strategies based on uncertainty yield erratic responses to the "same" stimulus. In either case, the strategy chosen may be based on a confidently-held view of the environment or may represent a deliberate simplification of perception in order to act.

The only strategic response which directly reflects the consensual uncertainty of the environment appears to be a mixed strategy based on incommensurate assumptions about the environment. The decision maker takes the agnostic position that various interpretations of the environment may be simultaneously useful. Within the limits of capacity, different decisions are made which reflect the range of consensual uncertainty.

This appears to be the "best" strategy since it most closely matches available information about the environment. Clearly it is not a stable perspective. Multinational and diversified firms often appear to follow this strategy in aggregate. At the level of the individual decision maker, the U.S. President perhaps comes close to following a mixed strategy in an environment which certainly can be described as consensually uncertain.

Research Implications

Observation of contextual and consensual measures of uncertainty in the same setting may suggest interesting interactions between these related phenomenon. It might be hypothesized that variance in consensual uncertainty will in general mirror changes in contextual measures but will lag to account for attention and processing time. Alternatively, high consensual uncertainty may reinforce diversity of action and increase contextual uncertainty over time. Re-

search is needed to clarify the ways by which these two measures of uncertainty affect each other and would seem to be particularly important in cases in which the two types of uncertainty do not operate in tandem.

It may also be helpful to further refine the notion of consensual uncertainty. Consensual uncertainty can be ascribed not only to description ("what is"), but also to prediction ("what will be"), evaluation ("what is a desired state"), and prescription ("how to achieve desired states"). Differences in levels of consensual uncertainty in these areas are likely. For example, influential leadership may be evidenced in little consensual uncertainty about how to achieve desired results, despite a wide variance in descriptions of present conditions. Alternatively, many leaders have found that despite widespread agreement about present conditions, high consensual uncertainty exists when prescriptive or evaluative judgments are made.

Finer distinctions of uncertain decision environments can be drawn by profiling contextual measures of uncertainty (stability of relationships, information availability, etc.) with various types of consensual uncertainty. Different research questions (and findings) are likely in the contextually uncertain environment in which variance among respondents has primarily to do with prediction compared with the environment in which contextual uncertainty involves evaluative judgments about desirable outcomes.

The question is not to document the existence (or resolution) of differences of opinion,

which are already the subject of considerable research, but to look at differences in opinion as they cause uncertainty in understanding. Uncertainty arises not because different opinions exist, but because the differences offer conflicting data for making judgments about the nature of the environment. Perhaps the most important questions for further research involve responses to this type of uncertainty. Specifically, do strategies exist in which individuals operate without simple cognitive consistency in response to consensually uncertain environments? If so, can this posture be maintained for any length of time, or does it resolve into decision strategies that pay less attention to conflicting judgments of others?

Conclusion

The primary value of the concept of consensual uncertainty is to shift attention from variance in the setting to variance in those who perceive the setting. The more one takes seriously the notions of relative definitions of reality, individual values and experiential learning, the more important it is to look at the respondent to uncertain environments. What is certain to one person is not certain to another. What seems unclear at one point in time suddenly becomes clear and vice versa. These perceptions are shared in natural settings and help create ongoing change in conditions and interpretations. As factors affecting certainty, they should be included in research as well.

REFERENCES

1. Downey, H. Kirk, Don Hellriegel, and John W. Slocum, Jr. "Environmental Uncertainty: The Construct and Its Application," *Administrative Science Quarterly*, Vol. 20 (1975), 613-628.
2. Downey, H. Kirk, and John W. Slocum. "Uncertainty: Measures, Research and Sources of Variation," *Academy of Management Journal*, Vol. 18, (1975), 562-578.
3. Duncan, Robert B. "Characteristics of Organizational Environment and Perceived Environmental Uncertainty," *Administrative Science Quarterly*, Vol. 17 (1972), 313-327.
4. Evan, William M. "The Organization Set," in *Organization Theory* (New York: Wiley, 1976).

5. Lawrence, Paul R., and Jay W. Lorsch. *Organizations and Environment* (Homewood, Illinois: R. D. Irwin, 1969).
6. Mack, Ruth P. *Planning on Uncertainty* (New York: Wiley, 1971).
7. Perrow, Charles. "A Framework for the Comparative Analysis of Organizations," *American Sociological Review*, Vol. 32 (1967), 194-208.
8. Raiffa, Howard. *Decision Analysis: Introductory Lectures on Choices Under Uncertainty* (Reading, Mass.: Addison-Wesley, 1968).
9. Steiner, George. *Strategic Factors in Business Success* (New York: Financial Executives Research Foundation, 1969).
10. Thompson, James D. *Organizations in Action* (New York: McGraw-Hill, 1967).
11. Tosi, Henry, Ramon Aldag, and Ronald Storey. "On the Measurement of the Environment: An Assessment of the Lawrence and Lorsch Environmental Uncertainty Scale," *Administrative Science Quarterly*, Vol. 18 (1973), 27-36.
12. Weick, Karl E. "Educational Organizations as Loosely Coupled Systems," *Administrative Science Quarterly*, Vol. 21 (1976), 1-19.

Determinants of Expatriate Effectiveness: A Theoretical and Empirical Vacuum¹

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The international business environment is becoming an increasingly important dimension in the operation of many U.S. corporations. As U.S. firms expand into international markets, they encounter the problem of staffing and maintaining foreign operations with competent managers. Unfortunately, these problems are lessened only marginally by seeking cues on managerial selection and retention from exist-

ing empirical research, since the literature on determinants of effectiveness for American expatriate managers is essentially repetitive and anecdotal in nature. Without a theoretical foundation or empirical direction, this problem will continue to persist. This note identifies some crucial directions for expatriate research. Our recommendations are guided by two assumptions: (a) In many respects, the determinants of effectiveness for expatriates and their domestic counterparts overlap considerably. Consequently, this note focuses on only those factors which are either unique to foreign subsidiaries or are relatively more important determinants of effectiveness than in domestic operations. (b) We

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