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Davis' "Cognitive types in decision making"

Professor Davis is attempting to pass beyond simply classifying decision makers into groups according to cognitive types: he is trying to compare the groups and judge their performance.

The earlier paper of Hellriegel and Slocum (*HSM 1*(2) (1980) 151–158) has argued that there is *no* one best problem-solving style. Yet, the decision makers obviously differ in their performance (compare the Japanese and American managers of recent years) and the question arises whether these differences can be related to individual cognitive types. Davis has shown that some cognitive types outperformed others at the operational level of decision making with a moderately-well-structured task.

There is no other managerial activity of greater importance than decision making. Yet, theoretical and practical training in decision making is virtually non-existent even at top business schools in the country. Decision making, problem solving, judgment—how undeveloped and poorly understood are these crucial activities, especially in American culture. *Human Systems Management* is committed to a continuing inquiry into these areas of management and Professor Davis's contribution reflects the seriousness of this effort.

Davis reviews five different approaches to decision making: rational, satisficing, organizational procedures, political, and individual differences. They range from prescriptive to descriptive, and obviously the last one, focusing on individual decision makers and their problem-solving and information-processing behavior, is chosen for the study. Ultimately, the best prescription is a good and competent description. Bypassing the description amounts to vulgarization of so called 'operational sciences'.

'Cognitive type' is simply a term referring to an individual's way of performing perceptual and intellectual activities. Although the Myers–Briggs instrument was found to be valid for typing managerial styles, previous research has *not* found significant differences in managerial decision-making *performance*.

Davis's experiments have shown that cognitive types of the decision makers do have a significant effect on total cost, decision time, and decision confidence considered jointly as proxies for decision-making performance. Especially surprising was the performance of SF (Sensation-Feeling) subjects, possibly biased by allowing unlimited decision time: a condition rarely existing in practical business environment. On the other hand, it seems, that the feeling types have been shown to do well with an analytical, moderately-well–structured problem—a potential blow to all kinds of analytical crutches in prescriptive decision making.

Davis, as well as Hellriegel and Slocum before, has shied away from exploring the mode switching (like from intuitive to sensing, or feeling to thinking) exhibited by *human* decision makers. Decision time allowed would certainly affect the direction and the frequency of such mode switching. One conclusion, at least, Davis feels justified to make: sensing managers make better decisions than intuitive managers in minimizing cost at the operational level.

The cognitive type adopted by a manager is not a matter of preference by that individual, but a result of his genetic endowment, cultural and intellectual history, and of course, habit, inertia and comfort. Every professional manager would *prefer* to make better decision, regardless the cognitive type used. But we don't have much choice, do we?

Pelz and Munson's "Originality level"

"Every new idea in its beginning is in the minority of one" could be another motto for the paper by Professors Pelz and Munson from the University of Michigan. They introduce a dimension of 'originality' in their discussion of innovation as a cumulative process. Originality is the dimension of innovation which has not received

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too much attention in the past. Innovation could simply be an adoption, application, re-invention, replication, and so on, all differing according to the 'originality level' involved. The first-time solutions, inventions, 'originations', are bringing to light new aspects of the innovation process, different from copying or borrowing of ideas.

In the time of fast changing and turbulent business environment it is the origination aspect of innovation which justly deserves more systematic attention. As Professor Mensch discussed in the recent HSM article (*HSM 3* (1) (1982) 10–20) there are too many unimaginative and 'unoriginal' ideas characterizing modern innovation process. There are too many adapters and borrowers and too few originators on a large international scale of effort. Pelz and Munson's treatment is carefully avoiding such value judgment or weighting of importance among origination, adaptation and borrowing of ideas. One mode often transforms into another through the innovation *process* and there is no way of providing an a priori, rigid characterization.

More likely, as the organization gains experience and technical competence, it is driven to move from borrowing to adaptation and eventually to origination. A classical example are the patterns of Japanese innovation process over the last 30 years. Such transformations with respect to 'originality level' could be also at the core of some apparent organizational and societal anxiety as new skills, new styles, and new managerial culture are required.

Most prominently, substantial resources must be invested and significant risks taken by any 'originating' firm. First innovators, first adapters of a new technology, are often plagued by considerable financial difficulties, resentment, and often even disasters and failures. Thus Pelz and Munson's use of Pope's warning to 'be not the first'. One can become much more efficient and commercially successful through skillful borrowing and adaptation of already developed and tested idea – as long as there are innovations to borrow or to adapt. The costs and tactics, as will as the organizational skills, are crucially dependent on originality level involved – this dimension is often seriously underestimated and the disruptions and disillusionments can appear at each so misjudged level. It is not the level of originality itself which causes the difficulties, but the use of mismatched and misapplied organizational and human resources.

Pelz and Munson have charged themselves with the study of the innovation process by local governments in three areas of urban concerns: energy conservation, solid waste management, and noise control. They found that for innovations of high originality the process of innovating functions was prolonged and characterized by significant overlaps. No clear-cut sequence of major innovation stages could be identified. This is not true for lower originality levels of adaptation and borrowing.

Major actors of the innovation process are identified as managers, inventor, intermediaries, and social controller. Managers and inventors are required to function as *innovation advocates*, especially in the origination framework. The roles of all actors are changing through the stages of diagnosis, design, implementation, and incorporation of a given innovation. Pelz and Munson declare the design stage to be at the core of the innovating process and the arena where the originality level becomes pronounced.

Pelz and Munson conclude that the nature of the innovating process will differ at each originality level and will thus require different managerial tactics. They suggest some adequate roles to be assumed by major actors at different originality levels and stages of the innovation process. Such understanding of the changing roles, channels of communication, and managerial styles could spell the difference between innovation's success and failure. In terms of success prediction, Pelz and Munson lean toward the adaptation process as more likely to succed than the processes of origination or borrowing with respect to both major criteria: the level of innovation incorporation and the achievement of innovation intended purposes.

The continuing attention which is being paid to the process of innovation on pages of *Human Systems Management* reflects the current concern of businesses functioning in the environment increasingly dominated by high technology, increased competitiveness, and search for adequate organizational designs. It is hoped that this orientation and emphasis, combined with concerns of high technology management, is going to continue to draw the attention of both the authors and the readers of HSM.

Kent's "Meanings of development"

When is a country developed? When is a country developing? Can we answer such questions without hesitation? Can development be measured by per capita GNP? If yes, then Kuwait is certainly the most developed country in the world. Such Thurowian ranking appears to be gravely deficient along the human dimension. Most of us would not care to live there.

Professor Kent insists that "true development means the alleviation of powerlessness", not necessarily the alleviation of poverty. Are miserably and unhappily living rich more developed than content, fulfilled and creative poor? Development should be best understood as the increasing capacity to identify, analyze, and solve *one's own* problems. A rich, frustrated, and self-doubting person, incompetent of solving his own problems, is certainly not more developed than perhaps poor, but confident, skillful and fully competent village craftsman.

Kent's basic concept is the understanding that community, not a nation (or fatherland) or individual, is a basic unit of development. It is within the community where the sense of development can be experienced, measured and compared. Economic supra-aggregates are much too remote and much too crude to provide such service. The decline or destruction of communities and their replacement by one huge aggregate 'super-community' leads to intensified feelings of powerlessness of individuals, their decreased capacity to influence their circumstances and solve their own problems. Such social systems cannot view themselves as developed or developing, even though their economic standards might be rising.

To a large extent, of course, the sense of powerlessness is amplified by the conditions (or the sense) of poverty. Professor Kent is not saying let the poor stay poor. But a single-dimensional, economic alleviation of poverty does not necessarily increase one's sense of power and control over one's circumstances. This is why, in most countries, people's sense of power and control is actually diminishing. How highly developed one may feel when living under martial law, sitting in an automobile for which the gasoline is governmentally rationed?

Humans have a basic need for being useful (or at least feeling of usefulness) within their communities. To be useful is a more fundamental human need than freedom. Yet, the 'developed' modern social systems are removing the sense of usefulness farther and farther away from the individual. People who do not feel useful anymore, people who have no control and no power, such people are going to revolt against such conditions. They will attempt to reestablish the sense of 'community' compatible with their human (rather than supra-human) scale. The establishment, development, and autonomy of such communities will often be frustrated by governements and their GNP gurus. But basic human needs, like the need for being useful, cannot be avoided and neglected for extended periods of time – human-scale communities will, however slowly, find their way back into human condition.

George Kent's essay, true as it may be, cannot even begin to suggest how the process of development can be stimulated, strengthened, or initiated. Mostly he slides into evoking such images as 'consciousness', 'high consciousness', or 'transferred consciousness' of groups and individuals. But this recognition of 'community' as a unit of human development could form a base for a powerful theory and praxis. We might not be able to learn how to transform human consciousness, but how to help human communities grow and proliferate – we might be able to do something about *that*.