

THE SEEKING OF ACCOUNTING WHERE IT IS NOT: TOWARDS A THEORY OF NON-ACCOUNTING IN ORGANIZATIONAL SETTINGS*

NANDAN CHOUDHURY

*Department of Information Systems and Computer Science,
National University of Singapore*

Abstract

Accounting researchers are preoccupied with the study of extant accounting systems with the result that they do not question situations where an accounting system is expected to be in operation but is not. The investigation of such voids is likely to greatly enhance the understanding of the nature and function of accounting, both in its presence and in its absence.

Thirty spokes are made one by holes in a hub
Together with the vacancies between them,
They comprise a wheel;
The use of clay in moulding pitchers
Comes from the hollow of its absence;
Doors, windows in a house
Are used for their emptiness;
Thus we are helped by what is not
To use what is.

(Lao Tzu).

Accounting in organizations is not all-pervasive. While the development and transformation of organizational accounting has been analyzed from a historical (Johnson, 1983; Kaplan, 1984) and from an archaeological perspective (Hopwood, 1987), little attention has been directed towards the instances of accounting *absence*, that is, where accounting was expected but is not. Such a focus would seek to establish the conditions in which particular forms of organizational accounting *do not exist*, and, subsequently, the reasons why accounting does or does not make the transition from non-being to being. In other words, it is necessary to ask: Why

is there no accounting here? What are the characteristics of this accounting-less environment? The analysis involved in answering these questions needs to be undertaken at two levels. The first level of analysis should seek to establish the social, psychological and technical conditions that preclude or do not encourage the presence of accounting. The second level of analysis should concern itself with the researcher's ideological framework that may interfere with the recognition of accounting voids. These two issues are addressed in the subsequent discussion.

THE SUBSTANCE AND ELUSIVENESS OF ABSENCE

Accounting researchers appear to be preoccupied with accounting presence. The literature is replete with "discoveries" of accounting — normative discoveries of accounting solutions to problems (real or imagined), positive discoveries of "real-world" accounting phenomena.

*The author is indebted to David Solomons, Roger Hopkins and Anthony Hopwood for their comments.

They observe the existence of budgetary systems, of standard costing procedures, of transfer pricing mechanisms, and convince themselves of the everywhere-ness of accounting. This is a non-discriminating view of reality. Accounting in the form of systems and procedures develops, changes, sometimes is and sometimes *is not*.

Like the Holmesian dog that did not bark, the absence of accounting may tell researchers a lot about the nature of accounting and its existence. The aim of knowledge is not only to systematize that which exists but also to rationalize that which does not. By investigating examples of accounting absence and explaining accounting's non-pervasiveness, it might be possible to create a dialectic between the existing and non-existing accounting worlds and thereby achieve a deeper understanding of the nature of accounting.

Absence is often used as a cue for investigation and as a subject of study in many areas of research. The observation of the infrequency (absence) of colon cancer among certain primitive African societies has led nutrition researchers to discover the beneficial role of dietary fibre. While, in general, in experimental research the treatment constitutes the presence of a factor of interest, nutrition researchers also experimentally induce deficiency (absence) of presumed nutrients (e.g. vitamins and minerals) in a subject's diet to establish the utility of such substances. Fleming's serendipitous discovery of penicillin was instigated by the absence of bacterial growth in some parts of the laboratory culture. In some disciplines, certain types of absences have attained significance as phenomena worthy of study in their own right (rather than as counterparts to presence), for example: poverty (absence of wealth) and deviance (absence of conformity) in sociology; negligence (absence of care) in law; amnesia (absence of memory) in psychiatry, a free market (absence of regulation) in economics, and so on.

In organizational science, various types of absences have triggered a number of concepts and theories: the garbage-can model (absence of rational decision processes; Cohen *et al.*, 1972), loose coupling (absence of tight linkages; Weick,

1976), enactment (absence of a unique, objective environment; Weick, 1977), symbolism and ceremony (absence of literal or substantive content or meaning; Feldman & March, 1981). Hackman's (1984) case study of People Express Airlines focuses on the absence of transitions. Armed with expectations based on Greiner's (1972) model of organizational "crises" occasioned by growth, Hackman searched for and found no signs of significant transitions during the first two and half years of the firm's life. His concluding questions, regardless of the historical determination of this particular case, provide a glimpse of the potential richness of absence research (p. 59):

So what have we here? An organization that has merely put off its inevitable transition for a time — and will pay the price for it later? Or one that managed to get through its period of vulnerability to transitional processes relatively unscathed by them? Or one that is transcending the conventional dynamics of organizational growth and development? Or is there yet another way of understanding the absence of significant transitions at People Express, one that has eluded this observer?

Organizational non-happenings also provide important signals to members. For instance, just as the chief executive's actions, comments and emphases, both public and within the firm, operate as indicators of corporate intent (Peters, 1978), the omissions — what is not done, not said, and not emphasized — are similarly informative.

In everyday situations as much as in research, absence contains information. It is the context, the background, the milieu that gives absence its significance — as Bateson (1979, pp. 46–47) observes:

... *zero*, the complete absence of any indicative event, can be a message. ... The letter you do not write, the apology you do not offer, the food you do not put out for the cat — all these can be sufficient and effective messages because zero, *in context* can be meaningful; and it is the recipient of the message who creates the context ... The recipient must be, in some sense, ready for the appropriate discovery when it comes. (Emphases in original.)

For recipient *researchers*, however, for reasons explained in the next section, readiness requires a much more acute and self-reflective stance than Bateson suggests.

While sensitivity to absences is a pre-requisite, there is also the danger of over-recognition of absence. Consider the Queen's response to Hamlet's enquiry as to whether she can see the ghost.

Hamlet: Do you see nothing at all?

Queen: Nothing at all; yet all that is I see.

Although the latter assertion in the Queen's reply is necessary to validate the former claim, she could never be sure of its truth. Similarly, the confirmation of accounting absence involves not only the examination of a wider domain ("all that is") but also the risk of overlooking inconspicuous instances of accounting presence.

Thus research into the study of accounting absence must tread a precarious path between under- and over-sensitivity. Mere external vigilance, however, is unlikely to be enough given the researcher's vulnerability to a form of self-deception discussed in the next section.

DISCONFIRMATION AND ABSENCE

The concern of the accounting researcher in studying organizations should be to understand and explain what is not happening as well as what is. It is now almost trite to suggest that observations and descriptions are value laden (Hanson, 1958; Gergen, 1978) as perception is itself a pre-structuring and organizing process (Niesser, 1976). All the same, it needs emphasizing that only against a backdrop of a preconceived set of expectations can non-events be recognized. Webb & Weick (1979, pp. 214–215) note:

Expectancies are the controls of both commonsense and science; surprise is an indicator of the abuse of expectancies. What people don't do, who isn't in a network, practices that weren't made, are data and they become data because of the *a priori* expectancies that existed. . . . To

identify an omission and to judge its significance is to have an elaborated set of expectancies readily at hand.

Culture researchers, too, use investigator surprise to uncover cultural assumptions of their societal (Mead, 1970) and organizational (Schein, 1985, p. 114) subjects.

The ideological anchoring of prior expectations, however, is two-edged. While researchers may recognize an absence of accounting because a presence was expected (accounting had failed to "clock in"), they may also disregard the anomalous non-presence and preserve their belief in accounting's ubiquity. Herein lies an interesting paradox. "Anomaly" as Kuhn (1970, p. 65) has said, "appears only against the background provided by the paradigm". Thus, if there is not a paradigm comprising prior expectations to throw the novelty into sharp relief as an anomaly, none will be seen. Yet it is the very existence of the paradigm that may stand in the way of discovery.

The proclivity of researchers to systematically ignore disconfirmatory evidence has often been addressed in the philosophy of science literature. Kuhn (1970) suggests that scientists engaged in normal (as opposed to revolutionary) science are reluctant to reject established theories that are challenged by empirical data. Lakatos (1970), who differed with Kuhn on some important issues, similarly observes that researchers tend to adhere to theories in the face of negative evidence.¹ Scientific results and theories also possess a "folk dimension" (Brannigan, 1981, pp. 144–145) inasmuch that those that are socially palatable tend to be accepted at face value and are not subjected to the same level of scrutiny as are the more discomforting ideas. The susceptibility of experimental researchers in psychology to confirmation bias has been noted by McGuire (1973, 1983) and by Skinner (1959).² Evidence of belief adherence

¹Lakatos (1970, pp. 100–101) illustrates this point using the hypothetical example of a scientist attempting to explain the apparent deviation of a planet from the path predicted by theory by positing various excuses and refusing to re-evaluate his or her earlier theory.

²Skinner (1959, p. 378) says: "I remember the rage I used to feel when a prediction went awry. I could have shouted at the subjects of my experiments, 'Behave, damn you, behave as you ought!' Eventually I realized that the subjects were always right. They always behave as they ought. It was I who had made a wrong prediction."

and inflexibility among Apollo Mission scientists caused Mitroff (1974) to conclude that scientists are not the open-minded, unbiased searchers of Truth as lay people would tend to believe. Accounting, too, has its "folk dimensions", tenaciously held beliefs and dogmas that determine what researchers do or do not subject to sceptical enquiry.³

While observation may or may not be consistent with theory or established beliefs, the researcher may or may not recognize inconsistency when it does occur. There are, therefore, four possible researcher responses depending on how observation is categorized relative to the relevant theory. Table 1 summarises the relationship between observation, anomaly and

TABLE 1. Theory and anomaly

| Categorization of observation | Relationship of observation to theory | |
|-------------------------------|---------------------------------------|---|
| | Consistent | Inconsistent |
| As an anomaly | 1. False labelling as "anomaly" | 2. Disconfirmation of theory |
| Not as an anomaly | 3. Confirmation of theory | 4. Failure to recognize challenge to theory |

theory. When the researcher categorizes an observation as anomalous when, in reality, it is consistent with theory, there is a labelling error (cell 1). If, however, the observation does not conform with theoretical expectations, *and* the researcher recognizes the anomaly, an instance of theory disconfirmation is recorded (cell 2). When an observation is deemed, correctly, to be consistent with theory, and hence as non-anomalous, the theory is confirmed (cell 3). Finally, the cognitive "omission", discussed above,

occurs when the researcher, mistakenly, perceives no anomaly, thereby failing to acknowledge that the theory has been challenged (cell 4). The intensity and commitment with which accounting presence is studied tend to generate a momentum that makes researchers particularly vulnerable to cell 4 type of error whereby they fail to recognize and investigate instances of accounting absence.

The implication of the above discussion for researchers studying organizational accounting is that they will need to be aware of their ideological and cognitive biases towards the confirmation of accounting presence. This self-knowledge will make them particularly alert to occurrences of accounting absence, admittedly noticed against a backdrop of theory-based preconceptions, that will stimulate investigation of the socio-technical milieu in which it occurs. They will ask themselves: "Why do we find no accounting here?" The answer is likely to be embedded in not merely the technical but in the shared meanings and socio-culturally constructed realities of organizational participants.

The investigation of accounting absence may be approached from two distinct perspectives — negatively, as the antithesis of presence and positively, as a phenomenon in its own right.⁴ These are tentatively proposed and explored below.

ABSENCE AS PATHOLOGICAL NON-PRESENCE

One approach to the study of accounting absence is to view it as the pathological counterpart to accounting presence. Thus, the researcher expecting to find a particular account-

³Cognitive psychologists have also taken a particular interest in the confirmation bias syndrome and have analyzed it from diverse perspectives. Specific explanations for the syndrome have been sought in a range of cognitive processes: prototype matching (Cantor & Mischel, 1979; Wyer & Srull, 1980), script processing (Abelson, 1981), representativeness and availability heuristics (Tversky & Kahneman, 1974), belief perseverance (Lord *et al.*, 1979), and commitment to prior choice (Staw, 1976).

⁴A third perspective, not discussed in this paper, is to view accounting absence as a transitional phase in the early stages of the life cycle of the firm when the emphasis is on creativity, flexibility and human resource development — these being followed by a formalization and control phase when accounting systems come into their own (see Quinn & Cameron, 1983). Being transitional (temporary) and an accident of history, this type of absence is not of particular interest within the framework of this paper.

ing system in operation, would express surprise at not finding it in place, assume that this was due to some failure on the part of management, and attempt to explain the reasons for such failure. Although some may consider this to be a presumptuous interpretation of absence, it does hold prescriptive value if handled with sensitivity. As this type of absence is actively pursued and "rectified" within the established aims of applied accounting research (Choudhury, 1986), only a brief discussion is undertaken here.

It is possible to offer a taxonomy of accounting absence from this perspective: need-based, awareness-based or possibility-based. A need-based interpretation of accounting absence relates to the situation where the researcher has, based on his or her understanding of the observed's goals, felt accounting to be necessary, but the observed deemed it was not required. Where the observed fails to draw on the extant stock of accounting knowledge because of ignorance of its existence or potential, the void is awareness-based. On the other hand, possibility-based absence refers to situations where the observed considers that, given the constraints faced, it is not feasible on economic, political or other grounds, to adopt a particular form of accounting. In this case, there is a basic disagreement between the researcher and the observed as to the costs and benefits (broadly defined) of accounting presence. The taxonomy as described above is comprehensive inasmuch that it embraces the three facets of social theory — what ought to be, what is and what can be (Therborn, 1980, p. 18).

ABSENCE AS VIRTUE

A second approach to the study of accounting absence, and the one that appears to hold considerable research promise, is to attempt to seek out instances of absence that are the result of conscious decision and action (inaction?) by management. Like the lacemaker who strings in emptiness as an essential and integral part of the pattern, management may deliberately build in

accounting voids as part of its strategic design for the organization. Three examples of such "virtuous" absence are explored below.

Absence as trust

Inasmuch that explicit and formal accounting systems displace human linkages, organizations that foster trust (Deutsch, 1973; Zand, 1972) in hierarchical relationships may find it unnecessary and indeed counterproductive to install certain forms of accounting control systems. For example, in clan types of organizations, which appear to depend more on personal relationships than on formal systems, trust has a critical role to play (Ouchi, 1983). Deal & Kennedy (1982, p. 141) also note that "symbolic" (culture-oriented) managers place a high level of trust in their fellow employees. A manager extends trust in subordinates by allowing them to analyze problems, collect information or implement decisions without recourse to control or policing mechanisms to protect himself or herself. On the other hand, the manager shows trust in his or her superior if he or she is willing to disclose information that may be detrimental to his or her own interests. Given such dynamics, an interesting paradox emerges in the relationship between the level of trust and the amount of information flowing from subordinate to superior. Whereas trust leads to more candour and honesty in dealings (Zand, 1972; McGregor, 1967, pp. 163–164), resulting in more and accurate information transmission, it also reduces the need for, and alters the nature of, certain types of control information.

An important property of trust is that it evokes reciprocity from the trustee in the form of greater trust and commitment. Thus, management may use the absence of inspection and control systems, with some attendant ceremony if necessary, to generate commitment and trust in subordinates. Trust and commitment, however, may sometimes manifest itself as pathological (Golembiewski & McConkie, 1975, p. 138; Staw, 1976; Salancik, 1977, p. 43) — in the sense that trust is extended to undeserving individuals or in unwarranted situations to alleviate "social uncertainty" (Zand, 1972) perceived by the trus-

tor, or that commitment inhibits learning and adaptability. Even so, in general, as human bonds, trust and commitment draw on the inner resources of people and generate more flexibility and resilience than the systems they replace (see Walton, 1985, for a recommended shift from a "control" to a "commitment" strategy).

Absence as constructive ambivalence

Organizations facing a changing environment or pursuing an innovation strategy need to be flexible and adaptive. The existence of formalized and long-standing information systems, particularly if they have been successful in the past, contribute to rigidity and insularity (Hedberg, 1981). For instance, innovative firms, as Kaplan (1984, p. 98) observes, which compete on novel products rather than on price and cost minimization, would find cost accounting systems that emphasize efficiency and productivity unduly constraining. On the other hand, the absence of particular accounting systems may alert managers to the need to respond to change with imagination and inspiration. Unshackled by history, tradition — "the way we did things" — and yesterday's data, managers might engage in experimentation and creative efforts that will propel the organization in ways that are consonant with its dynamic environment. The deliberate building in of absence goes a step further than Hedberg *et al.*'s (1976) prescription for promoting flexibility by erecting organizational "tents" instead of "palaces".⁵ It suggests (continuing with Hedberg *et al.*'s metaphor) that even a tent may prove too restrictive in terms of requiring an appropriate terrain, pitching skills and a commitment to transportation. Instead, it may be preferable to deliberately remain exposed to the environment, to feel its pulse in raw form, to seek, if necessary, appropriate natural shelters — the tree, the ditch or the cave — and abandon these without a thought when it is time to move on. "Semi-confusing" (self-designing) information systems (Hedberg & Jonsson,

1978), although stimulating some flexibility, may still be too structured and constraining for managers who may feel obliged to utilize them purely because they are available. It may be more appropriate to honestly admit ambivalence in the face of uncertainty and present managers with a *tabula rasa* that will stimulate search and encourage improvisation.

Absence as symbol

Accounting as part of a wider administrative system often plays a symbolic role in organizations (Hayes, 1983; Pfeffer, 1981; Feldman & March, 1981). Budgets may be symbolic of forward thinking, profit centres of individual autonomy and self-determination, cost allocation of corporate belonging, budgetary participation of organizational democracy. The very act of gathering and analyzing accounting information may be symbolic of the much celebrated pursuit of rationality (Feldman & March, 1981) the appearance of which "legitimizes the organization in the environment it faces, deflects criticism and ensures a steady flow of resources into the organization" (Weick, 1985, p. 110). More generally, much of organizational structure including accounting systems may be intended to play a ceremonial role (Meyer & Rowan, 1977). In these examples, and one can think of many others, the symbolism is embedded in accounting presence.

There may be symbolic content in absence as well. Remember Banquo's empty chair? Just as flying a flag is symbolic of allegiance and support, not flying one signifies dissension, as many Austrians discovered to their cost during the Nazi occupation. In the business world, not all organizations find it necessary or desirable to create a facade of rationality for external consumption. Instead, management may use the absence of particular types of accounting systems to send unequivocal signals to both its internal and external constituents of its desire to submit the organization's performance to genuine mar-

⁵Hedberg *et al.* (1976, p. 45) state: "Residents of changing environments need a tent. An organizational tent places greater emphasis on flexibility, creativity, immediacy and initiative than on authority, clarity, decisiveness or responsiveness; and an organizational tent neither asks for harmony between the activities of different organizational components, nor asks that today's behavior resemble yesterday's or tomorrow's."

ket tests rather than to engage in resource consuming ceremony. Such a possibility may be read into the main theme in Boland & Pondy (1983) as summarized by Meyer (1983, p. 238):

... if accounting systems make up the myths of the modern organizational world, and if they are required legitimization bases, then it makes sense that their disruption [absence] is a main source of [beneficial] disorder and change.

Much of the organizational literature treats the recognition and interpretation of symbols and symbolic activities as unproblematic. A great many questions, however, remain unasked and unanswered.⁶ Given that a symbol, in its barest essentials, is something that stands for something else (Firth, 1973, p. 26), one is led to enquire: "To whom does x mean y ?" As symbols and symbolic activities are recognized as a *difference-in-a-background* in contrast with what is literal or substantive, they too, like the recognition of accounting absence, are grounded in theoretically or culturally inculcated preconceptions. From the researcher's perspective the study of symbolism, therefore, poses the problem that what may appear symbolic to him or her may be transparent and literal to another. Thus while the interpretation of particular accounting-related activities, procedures or artifacts as symbolic presences appears problematic enough — searching out and explaining symbolic absences is likely to demand the most consummate research skill.

A "virtuous" summary

Accounting (presence) is, generally, deemed to be functional when it contributes to order and stability and dysfunctional when it leads to organizational rigidity and historicity. The value of accounting absence, however, is not often recognized. For instance, Earl (1983, p. 130), while acknowledging the recommendations made in the literature on making information systems less constraining, somewhat resignedly concludes that:

Consequently, we may do better to expect accounting systems *only* to provide stability in organizations and non-accounting information systems to provide the major challenge and adaptation. (Emphasis added.)

Earl, in line with current thinking, is obviously referring to the limited utility of accounting *presence*. Accounting, however, has a powerful liberating influence in *absence*. It is possible for management to positively "implement" accounting absence so as to foster trust, flexibility and functional symbolism towards nurturing an absence culture in the organization (cf. Flamholtz, 1983, particularly pp. 165–166).

SOME CONCLUDING THOUGHTS ON ABSENCE

The search for and interpretation of accounting absence is an essential complement to the study of accounting presence which is represented by extant systems. The task, however, requires researchers to be vigilant and to be acutely aware of their own cognitive biases against the recognition of absence. Put differently, inasmuch that a paradigm "... serves to define what should be studied, what questions should be asked, how they should be asked, and what rules should be followed in interpreting the answers obtained ..." (Ritzer, 1975, p. 156), the current presence-oriented accounting paradigm needs to be broadened to include the enquiry of absence. This adjustment is likely to call for a somewhat specialized and speculative vocabulary, involving why nots, what ifs and could have beens.

Understanding of the absence phenomenon, this paper has suggested tentatively, may emerge out of the interplay between the possible and the desirable, the human and the technical, the planned and the improvised, the reasoned and the ritualized. In the context of the study of accounting absence, the statement "There is nothing here" is not one of abandonment but of invita-

⁶For instance, one might ask what happens to the symbolic activities described in Feldman & March (1981), Meyer & Rowan (1977) and Boland & Pondy (1983) once their symbolic nature is realized by the actors or recognized by the target audience? Or, as symbolic affect is context variant (just as a nation's flag in times of war and peace), how do symbolic activities and their symbolic content respond to organizational transitions or crises?

tion. Inspiration too may be drawn from the words of Dostoevsky:

So among those who cooperate the things that are seen are moved by the things unseen. Out of the void comes the spirit that shapes the ends of men.

BIBLIOGRAPHY

- Abelson, R. P., Psychological Status of the Script Concept, *American Psychologist* (1981) pp. 715–729.
- Bateson, G., *Mind and Nature* (London: Wildwood House, 1979).
- Boland, R. J. & Pondy, L. R., Accounting in Organizations: a Union of Natural and Rational Perspectives, *Accounting, Organizations and Society* (1983) pp. 223–234.
- Brannigan, A., *The Social Basis of Scientific Discoveries* (Cambridge: Cambridge University Press, 1981).
- Cantor, N. & Mischel, W., Traits as Prototypes: Effects on Recognition Memory, *Journal of Personality and Social Psychology* (1979) pp. 38–49.
- Choudhury, N., In Search of Relevance in Management Accounting Research, *Accounting and Business Research* (Winter 1986) pp. 21–32.
- Cohen, M. D., March, J. G. & Olsen, J. P., A Garbage Can Model of Organizational Choice, *Administrative Science Quarterly* (1972) pp. 1–25.
- Deal, T. E. & Kennedy, A., *Corporate Cultures* (Reading, MA: Addison–Wesley, 1982).
- Deutsch, M., *The Resolution of Conflict* (New Haven, CT: Yale University Press, 1973).
- Earl, M. J., Accounting and Management, in Earl, M. J. (ed.) *Perspectives on Management* (Oxford: Oxford University Press, 1983).
- Feldman, M. S. & March, J. G., Information in Organizations as Signal and Symbol, *Administrative Science Quarterly* (1981) pp. 171–186.
- Firth, R., *Symbols: Public and Private* (Ithaca, NY: Cornell University Press, 1973).
- Flamholtz, E. G., Accounting, Budgeting and Control Systems in their Organizational Context: Theoretical and Empirical Perspectives, *Accounting, Organizations and Society* (1983) pp. 153–169.
- Gergen, K. J., Toward Generative Theory, *Journal of Personality and Social Psychology* (1978) pp. 1344–1360.
- Golembiewski, R. T. & McConkie, M., The Centrality of Interpersonal Trust in Group Processes, in Cooper, C. L. (ed.) *Theories of Group Processes*, pp. 131–185 (London: John Wiley, 1975).
- Greiner, L. E., Evolution and Revolution as Organizations Grow, *Harvard Business Review* (July–August 1972) pp. 37–46.
- Hackman, J. R., The Transition that Hasn't Happened, in Kimberley, J. R. and Quinn, R. E. (eds) *Managing Organizational Transitions*, pp. 29–59 (Homewood, IL: Dow Jones–Irwin).
- Hanson, N. R., The Logic of Discovery, *Journal of Philosophy* (1958) pp. 1073–1089.
- Hayes, D. C., Accounting for Accounting: a Story About Managerial Accounting, *Accounting, Organizations and Society* (1983) pp. 241–249.
- Hedberg, B., How Organizations Learn and Unlearn, in Nystrom, P. C. and Starbuck, W. H. (eds) *Handbook of Organizational Design*, Vol. 1 (New York: Oxford University Press, 1981).
- Hedberg, B. L. T., Nystrom, P. C. & Starbuck, W. H., Camping on Seesaws: Prescriptions for a Self-designing Organization, *Administrative Science Quarterly* (1976) pp. 41–65.
- Hedberg, B., & Jonsson, S., Designing Semi-confusing Information Systems For Organizations in Changing Environments, *Accounting, Organizations and Society* (1978) pp. 47–64.
- Hopwood, A. G., Archaeology of Accounting Systems, *Accounting, Organizations and Society* (1987) pp. 207–234.
- Johnson, H. T., The Search for Gain in Markets and Firms: a Review of the Historical Emergence of Management Accounting Systems, *Accounting, Organizations and Society* (1983) pp. 139–146.
- Kaplan, R. S., The Evolution of Management Accounting, *The Accounting Review* (1984) pp. 390–418.
- Kaplan, R. S., Yesterday's Accounting Undermines Production, *Harvard Business Review* (1984) pp. 95–101.
- Kuhn, T. S., *The Structure of Scientific Revolutions*, 2nd edn (Chicago: University of Chicago Press, 1970).
- Lakatos, I., Falsification and the Methodology of Scientific Research Programmes, in Lakatos, I. and Musgrave, A. (eds) *Criticism and Growth of Scientific Knowledge* (London: Cambridge University Press, 1970).
- Lord, C., Ross, C. & Lepper, M. R., Biased Assimilation and Attitude Polarization: the Effects of Prior Theories on Subsequently Considered Evidence, *Journal of Personality and Social Psychology* (1979) pp. 2098–

2110.

- McGregor, D., *The Professional Manager* (New York: McGraw-Hill, 1967).
- McGuire, W. J., The Yin and Yang of Progress in Social Psychology, *Journal of Personality and Social Psychology* (1973) pp. 446–456.
- McGuire, W. J., A Contextual Theory of Knowledge: Its Implications for Innovation and Reform in Psychological Research, in Berkowitz, L. (ed.) *Advances in Experimental Social Psychology*, vol. 16, pp. 1–47. (New York: Academic Press, 1983).
- Mead, M., The Art and Technology of Fieldwork, in Narrol, R. and Cohen, R. A. (eds) *Handbook of Method in Cultural Anthropology* (New York: Doubleday, 1970).
- Meyer, J. W., On the Celebration of Rationality: Some Comments on Boland and Pondy, *Accounting, Organizations and Society* (1983) pp. 235–240.
- Meyer, J. W. & Rowan, R., Institutionalized Organizations: Formal Structure as Myth and Ceremony, *American Journal of Sociology* (1977) pp. 340–363.
- Mitroff, I. I., Norms and Counter-norms in a Select Group of the Apollo Moon Scientists: a Case Study of the Ambivalence of Scientists, *American Sociological Review* (1974) pp. 579–595.
- Niesser, U., *Cognition and Reality* (San Francisco: Freeman, 1976).
- Ouchi, W. G., *Theory Z* (Reading, MA: Addison-Wesley, 1983).
- Peters, T. J., Symbols, Patterns, and Settings: an Optimistic Case for Getting Things Done, *Organizational Dynamics* (1978) pp. 3–23.
- Pfeffer, J., Management as Symbolic Action: the Creation and Maintenance of Organizational Paradigms, in Cummings, L. L. and Staw, B. M. (eds) *Research in Organizational Behavior*, pp. 1–52 (Greenwich, CT: JAI Press, 1981).
- Quinn, R. E. & Cameron, K., Organizational Life Cycles and the Criteria of Effectiveness, *Management Science* (1983) pp. 33–51.
- Ritzer, G., Sociology: a Multiple Paradigm Science, *American Sociologist* (1975) pp. 156–157.
- Salancik, G. R., Commitment and the Control of Organizational Behavior and Belief, in Staw, B. M. and Salancik, G. R. (eds) *New Directions in Organizational Behavior* pp. 1–54 (New York: John Wiley, 1977).
- Schein, E. H., *Organizational Culture and Leadership: a Dynamic View* (San Francisco: Jossey Bass, 1985).
- Skinner, B. F., A Case History of Scientific Method, in Koch, S. (ed.) *Psychology: a Study of a Science*, Vol. 2 (New York: McGraw-Hill, 1959).
- Staw, B. M., Knee-deep in the Big Muddy: a Study of Escalating Commitment to a Chosen Course of Action, *Organizational Behavior and Human Performance* (1976) pp. 27–44.
- Therborn, G., *What Does the Ruling Class Do When it Rules?* (London: Verso, 1980).
- Tversky, A. & Kahneman, D., Judgement Under Uncertainty: Heuristics and Biases, *Science* (1974) pp. 1124–1131.
- Walton, R. E., From Control to Commitment in the Workplace, *Harvard Business Review* (1985) pp. 77–84.
- Webb, E. & Weick, K. E., Unobstrusive Measures in Organizational Theory: a Reminder, in Van Maanen, J. (ed.) *Qualitative Methodology*, pp. 209–224 (Beverly Hills: Sage, 1979).
- Weick, K. E., Educational Organizations as Loosely Coupled Systems, *Administrative Science Quarterly* (1976) pp. 1–19.
- Weick, K. E., Enactment Processes in Organizations, in Staw, B. M. and Salancik, G. R. (eds) *New Directions in Organizational Behavior*, pp. 267–300 (New York: John Wiley, 1977).
- Weick, K. E., Sources of Order in Underorganized Systems: Themes in Recent Organizational Theory, in Lincoln, Y. S. (ed.) *Organizational Theory and Inquiry*, pp. 106–136 (Beverly Hills: Sage, 1985).
- Wyer, R. S. & Srull, T. K., The Processing of Social Stimulus Information: a Conceptual Integration, in Hastie, R. et al. (ed.) *Person Memory: Cognitive Basis for Social Perception* (Hillsdale, NJ: Lawrence Erlbaum, 1980).
- Zand, D. E., Trust and Managerial Problem Solving, *Administrative Science Quarterly* (1972) pp. 229–239.