

PRESIDENTIAL ADDRESS

Unusual Routines: Organizational (Non)Sensemaking

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Unusual routines are contradictory and frustrating subprocesses that inherently generate negative consequences for some organizations, system users, organizational representatives, customers, and clients while generating completely sensible and even effective outcomes for others. They embroil both customers and organizational members in work, delay, error, and blame subroutines. They may be caused by conflicting goals, poor feedback, symbolic uses and manipulation, and barriers to perception. They may be difficult to identify, overcome, or resolve through feedback due to inherent problems in communication and organizational feedback processes.

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We operate within, because of, in spite of, and in opposition to a pervasive environment of unusual routines. The primary goal of this article is to introduce a concept and related terminology that may help to identify the existence and nature of unusual routines and reduce their frequency and severity.

Unusual routines are dysfunctional or incomplete processes that are inherent in the design (whether initial or through reinvention), implementation, application, boundaries, and understanding of some task, process, system, or procedure. They are processes that involve deviation-amplifying loops, prevent feedback and learning, and generate wasteful and costly subroutines—but only for some stakeholders.

The term “unusual routines” is intentionally oxymoronic. They are “unusual” because the negative outcomes are generally unintended, may be infrequent, and are often dysfunctional and unexpected. What should be conceptualized as unusual takes on both the appearance and the procedural and consequential reality of the routine, thus becoming invisible to organizational developers and managers, as well as difficult for users and clients to identify, much less resolve. The essential dysfunction of the unusual routine is that attempting to resolve the initial problem generates subsequent related consequences for different actors. The consequences are generally negative (but may be positive) and may be intended or unintended (the more subtle and difficult case), short term or long term, within the same process level or at different levels, and with different temporal feedback loops.

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They are “routines” because they persist, are reinforced, or are at least unrecognized until they become routine aspects of organizational life. Indeed, they are themselves generated through and become embedded in ongoing routines and processes. Because they become embedded and often central to accomplishing some kinds of work, they also become routinized—specific procedures, understandings, and patterns accrete around the initial unusual situation. Significantly, unusual routines are rarely identified as systemic processes or ongoing problems. When they are noted at all, they are often defended as “the way things are,” caused by someone’s “mistake” (usually the client’s and sometimes the user’s), justified as normal procedures, or dismissed as an “exception.” They become internally justified, even invisible, whether implicitly or explicitly, and bureaucratized. The unusual becomes the routinized routine.

In most organizations (whether corporations, academic departments, retail stores, or government agencies), different members or clients are trying to improve, suffering from, attempting to avoid, or complaining about different aspects of the organization or particular system. Unfortunately, the improving, suffering, avoiding, and the complaining are rarely linked. After a while, complaints disappear as people develop “workarounds” or ways of overcoming the problems, or avoiding them, or disengaging. But the tension and frustration percolate throughout the organization and its environment, and different people who have to interact with the system (employees, customers, technical support, and administrators) continue to pay in varying psychological, professional, pedagogical, or just operational ways. As these unusual routines continue to generate problems, those people learn to live with, adapt to, workaround, or simply “exit” the system (Gasser, 1986; Markus, 1984). Furthermore, there are often no explicit organizational or system processes for learning about such routines or for communicating solutions to implementers, system designers, users, and customers.

An early framework for identifying and assessing unusual routines is what Singer (1980) called crazy systems and Kafka circuits. Briefly, Singer proposed that organizations suffer from psychotic and pathological behaviors as much as do people but are rarely diagnosed, critiqued, or treated as such. These often take the form of “crazy systems” that generate “confusion, error, and ambiguity” and even “inscrutability and unaccountability, involving harm to the victim and often to the system itself, [breeding] a new kind of organizational trap” called Kafka circuits. One does not have to agree with Singer that organizations or systems can be in any way psychologically “crazy” in order to readily recall such interactions with systems. Other terms such as “wasteful,” “silly,” “dangerous,” or “foolish,” although indicative of some of the characteristics and consequences of these systems, do not capture the sense of dysfunctionality reinforced and of processes seemingly taking on a life of their own, diverging from the goals of even the best-intentioned designer, employee, or client.

Because of the pervasiveness of the underlying phenomenon of dysfunctional feedback throughout individual, group, organizational, technical, and social relations,

there are, of course, many related concepts (such as “normal accidents”; Perrow, 1984), but they are beyond the scope of this article (a list of references is available from the author).

Unusual routines impose negative subroutines from attempting to resolve the unusual routine

This section identifies four subroutines (the first three discussed by Singer) activated by attempting to resolve the initial problem and which may become more costly and dysfunctional than the initial problem:

- work (trying to solve the problem generates more work or costs, quickly becoming greater than the worth of the original goal or its resolution),
- delay (users and clients obtain only silence or are actively stalled, made to go through endless “channels,” or forced to exit the system in order to escape the subroutine),
- error (users get caught up in a series of linked and accumulating errors when attempting to resolve the initial error), and
- blame (people, structures, and processes respond to identification of problems by allocating and creating blame, which diverts time and resources to recriminations and further debate and fault finding; Cooper, 2000; Cooper & Rice, 2001).

These subroutines may be consciously devised by organizational representatives, unintentional consequences of impermeable organizational boundaries, and inconsistent or uncoupled response patterns, or even embedded in a specific procedural or technical system itself.

Some causes of unusual routines

Conflicting goals

James March and Karl Weick, among others, have argued that not only a plethora of goals—even inherent paradoxes (Putnam, 1986)—represents the ordinary state of organizations but also both the presence of conflicting goals and the awareness of them are salutary for organizational learning and performance. Eisenberg (1984), for instance, argues that ambiguity (such as in the meaning of organizational mission statements and logos) helps achieve strategic goals such as commitment by allowing individuals to invest some of their own meaning into shared words. Here, however, we focus on goals of different subsystems, operating on the same or different levels, that conflict with or mitigate against, whether intentionally or not, goals of other subsystems or even a common organizational goal, creating dysfunctional routines, at least as experienced by some users or clients. It is not always obvious whether goals that conflict necessarily preceded a system, and thus generated the subroutines through attempts to reconcile or achieve both of them, or they are symptoms and

consequences of system aspects (from design through features to use) and unusual routines themselves.

Symbolic uses and manipulation

One factor that seems to contribute to the development and maintenance of unusual routines is what Feldman and March (1981) call the symbolic value of information. Briefly, traditional models of organizational decision making assume that before decisions are made, organizational members conduct a rational systems analysis until they obtain relevant and sufficient information and then use that information as criteria for a reasoned decision. However, there are many instances where irrelevant information is collected, information continues to be collected after the decision is made, the decision may be made before any information is collected, and people demand more information even when they are surrounded by relevant information that they continue to ignore. Feldman and March's theoretical solution to this apparent contradiction is to argue that information in organizations serves two conceptually quite different purposes. Information is used as a *denotative signal*, representing the "facts" or the results of system analysis, as well as *connotative symbol*, representing various values and images necessary to the maintenance of organizational roles, subunit goals, and public accountability.

However, it is not simply the symbolic nature of information that fosters manipulation, deception, or fraud. Bureaucracies may, by their very nature, foster dysfunctional behavior (Mieczkowski, 1991). Zmud (1990) argues that the components of organizational information systems make some functions especially vulnerable to "strategic information behaviors" such as manipulation or distortion. This may happen in two primary ways (in the content of a message that a system transmits/stores/distributes or in how a message directs operations of the system itself) and in a variety of system nodes (sensor, filter, router, carrier, interpreter, learner, and modifier). Zmud proposes that it is not the technological complexity of computer systems per se that facilitates manipulation but the pace, abstraction, and distancing possible in communicating through such systems.

Barriers to perception

Unusual routines and their subroutines often become invisible or impervious to critique due to what Singer (1980) calls "barriers to perception." These include (a) inherent organizational incentives to maintaining components of these systems, (b) mechanization and bureaucratization of processes, (c) ascribing normalcy to otherwise bizarre procedures simply because they occur in familiar situations, (d) projecting an air of rationality onto technological and rationalized processes, (e) perceiving legitimation cues in organizational and authority activities no matter how inconsistent, and (f) fragmenting both perceptions and routines so that it becomes difficult to even identify a pattern of craziness or to allocate blame.

It often seems impossible, not worth it personally, or actually discouraged, for individuals to try to resolve problems that are systemic. So specific organizational

procedures (or lack of them) or decisions (or lack of them) that might seem to any particular individual as crazy or bureaucratic or unreasonable or just wasteful, yet not caused by an exceptional or a radical action on the part of the individual, continue to haunt and hamper everyone who comes up against them.

“Common sense” and “sensemaking” may well be another barrier to perception of unusual routines. In Weick’s (1979) terms, double-loop learning (learning how to learn by both the system and its users) can be prevented, constrained, or manipulated at points of single-loop learning—perhaps without it even being noticed! Perhaps more subtle is that the persistence of unusual routines indicates that the outcomes of sensemaking—that is, the reduction of equivocality through interactions that enact the environment and make “sense” of the phenomenon and then the retention of this sense in organizational routines—are not necessarily self-reflexive, insightful, or even healthy for an organization and its members. The very drive to “make sense” of a situation, in ways that satisfy and reinforce habit and limited understanding, may also institutionalize unusual routines.

Poor feedback

Unusual routines develop and persist if feedback mechanisms are not built into organizational processes that allow users to communicate information with regard to error or malfunction. This lack of feedback, whether intentional or due to oversight, misleads users about the proper procedures or goals and makes it difficult to point out the problem to someone or, in the long run, even interact with the organization. Subroutines that prevent, delay, and distort feedback within and about systems are significant not only in their own right but also as a pervasive symptom of a larger social problem (Singer, 1973, p. 4). Kerr (1995), for example, critiques the very frequent but unacknowledged organizational “folly” of generating rewards and positive feedback for certain behaviors when, in fact, quite different behaviors are the actual desired goals. It should be no surprise that the desired goals are not met—or, in many cases, actually subverted or prevented. More abstractly, if feedback or control is inaccurate, delayed, repressed, or misinterpreted or if the range through which organizational parameters can safely vary is too narrow, then external variations can lead to chaos and deviation amplification (Mees, 1986).

Interactions

Finally, unusual routines and other dysfunctional processes may well be largely a result of interactions among individuals, systems, and organizations. Table 1 portrays the primary influences, intermediate process effects, and outcomes associated with unusual routines.

Communication problems with feedback

A seemingly straightforward solution to preventing, avoiding, or resolving unusual routines would be to seek and institutionalize feedback from users and participants,

Table 1 Preliminary model of unusual routines

Conditions & Influences	In-process Effects	Outcomes
Individual: <ul style="list-style-type: none"> ● symbolic use of information, metaphors, discourse ● barriers to perception ● strategic manipulation of information, system ● subsume role and process in individual 	Subroutines: <ul style="list-style-type: none"> ● work ● delay ● error ● blame 	Short-term: <ul style="list-style-type: none"> ● client frustration ● stress ● problems for organizational representatives, clients, stakeholders ● confusion, inscrutability
System: <ul style="list-style-type: none"> ● system complexity ● poor design ● limited conceptualization of “user” ● unlinked costs and benefits ● poor feedback ● aura of rationality 		Intermediate: <ul style="list-style-type: none"> ● client exit ● loss of worker/user motivation ● embedded workarounds ● turnover ● unaccountability ● organization learns wrong lessons ● employee sabotage
Organization: <ul style="list-style-type: none"> ● conflicting goals ● changing uses, contexts, conditions ● organizational culture and socialization ● impermeable intra-, inte-organizational boundaries ● inherent paradoxes 		Long-term: <ul style="list-style-type: none"> ● organization does not learn, adapt ● harm to the system/organization itself ● harm to external stakeholders ● litigation ● crisis ● failure
Interactions among: <ul style="list-style-type: none"> ● individuals’ habits and relations ● job and system features ● organizational context 		

Note: Cooper (2000; Cooper & Rice, 2001) has significantly extended both the theoretical arguments and the specific components of a model of unusual routines, which are not represented here.

both internal and external to the organization, which would then be analyzed and used to adapt or correct the problem. Apart from issues of practicality and cost (which total quality management, organizational learning, and customer relationship management theories all argue would be well-justified long-term investments), this approach vibrates with difficulties, especially if the feedback processes themselves are flawed or dysfunctional. These two sections describe a variety of

communication and organizational processes that end up making attempts to resolve unusual routines through feedback processes higher level unusual routines themselves.

Learning by doing rather than by learning

Relying on client feedback seems to assume that relevant information is not already available—that is, problems in use are due to information unavailability in design. But von Hippel and Tyre's (1994) study found that two thirds of the problems encountered in using new process machines (that attached integrated circuits to large circuit boards) could have been solved with information that was in fact already available at development time (and two thirds of that was actually known by developers but not used). But the relevance of specific information can change during, and after, the design process. Indeed, the other third of the problems involved information that became available from the environment only after the introduction of the system (and a quarter of that came from people working on other aspects and systems affected by the initial system). Thus, a major source of problem identification is what they call *interference finding*, where using a new system in the field actually precipitates symptoms that did not, or could not, occur in the development laboratory. Sometimes this is due to assumptions of developers and test users as to what might present sources of problems and what is not relevant. Usually, however, identifying such problems is much more likely in the actual using/doing because many complex interactions only occur then, and they would be difficult to predict or even conceptualize during design. The use environment itself may change in the context of use, so the appropriate design solution would then also be different, especially when problem solvers are autonomous or the use context has great variance.

Desperately seeking feedback

Research has shifted from considering feedback as something a recipient receives passively to two forms of active feedback seeking: eliciting (direct) and monitoring (indirect) (Fedor, Rensvold, & Adams, 1992). These provide different forms of information and may be differentially appropriate, such as when high-skill training depends on informed formal feedback. Eliciting gets only what others want to share. Monitoring acquires other information but requires making inferences about that information and its source from nonverbal cues and others' comments. It would seem more likely when the costs (perceived and actual) of asking directly are high, such as in public situations or low-trust climates. In addition, feedback itself may generate uncertainty about its meaning, contingencies, and so forth. So monitoring may precede eliciting to determine costs and appropriateness of eliciting. Characteristics of the feedback source will also influence elicitation of feedback, such as a less confrontational communication style, greater credibility, and a more favorable personal relationship with the feedback seeker.

Contextualizing meaning by layers

Bateson (1972) and others (Watzlawick, Beavin, & Jackson, 1967) proposed two primary levels of communication meaning: *Relational* (command)-level communication forms the hierarchical context for interpreting *content* (report)-level communication (though Bateson implied other levels of cognition). The theory of coordinated management of meaning (Cronen, Pearce, & Snavely, 1979) extended this hierarchy of meaning and helps to frame some concepts that are useful in understanding the communication aspects of feedback about unusual routines. According to this theory, communication and human action are managed through rules to achieve proactive goals rather than through reactive consequences of environmental events. Thus, rules vary across time and across people. But these “intra-personal rule systems come together to create interpersonal (consensual) rules that guide production and interpretation of communicative behavior” (in communication episodes; Benders, 1987, p. 331). Thus, people can transcend the cultural repertoire of episodes and make sense of a particular interaction episode that may differ from each participating person’s cultural or personal episodes.

An episode exists within a hierarchy of meanings contextualized by constitutive rules (which make sense across levels of abstraction) and constrained by regulative rules (which limit allowable variations in response within levels of meaning). The general hierarchy includes archetypes, life script, relationships master contract, episode (with different “logical force,” such as “enigmatic episodes” or “undesired repetitive pattern”), contracts, speech acts (threat, promise, inform, advice, insult, compliment, etc.), propositions (reference and predication), and stream of behavior (the significance of that speaker making a particular statement to that listener at a specific time, such as “insult,” “asking,” etc.). The hierarchy of meaning contextualizes lower level meanings by constitutively relating them to more and more abstract meanings. Some people have less well-organized hierarchies; some may use all or fewer of the levels. Communication, then, is the nonsummative meshing of the individuals’ (and groups’ and organization’s) rules—maybe even unknown to the participants.

One implication for attempting to resolve unusual routines is that participants may either not know or be unable to know which level of meaning best represents either the intended process or the unusual routine and may have insufficient or ill-matched expertise in communicating these with others, especially those elsewhere in or outside of the organization.

Reflexive loops, paradoxes, and undesired repetitive patterns

Not all meaning systems or situations may follow strict hierarchies, however, leading to reflexive loops and paradoxes (Cronen, Johnson, & Lannamann, 1982). Each is simultaneously the context for and within the context of the other. There are one-stage loops (where the content is the relation) and two (or more)-stage loops (where content or relation redefines or discounts the other). There may be a reciprocal influence between the levels even when a clear hierarchy exists, especially in iterative

interpretations where the accumulated content redefines the context. A change in the higher-order concept can change subordinate units of meaning, but higher-order concepts are not immune from changes in lower level of meanings. A contextual force that cannot change in response to changes in the next lower level “could be symptomatic of an unhealthy system incapable of renegotiation of growth” (p. 97). A particular content may emerge as the context to interpret a whole pattern of interaction (as divorce, aging, and organizational crisis) in which all the other’s prior and subsequent actions are recontextualized based on a single episode. The development of context may begin as a fully reflexive loop and then clarified through a sequence of lower-order messages. So, initially, confusion among participants would reign as to context, and thus as to acceptable content, but this is not simply a mistake. Indeed, in situations that allow and foster emergent context, reflexive loops are endemic. Conversely, reflexive loops may be ignored precisely because the situation is presumed by some of the participants to be nonemergent.

Social action, then, involves tacking back and forth between levels involving a weaker force (upward implicative force) and a stronger force (downward contextual force). One implication of this argument is that three or more levels of meaning are required to analyze reflexive relationships because the higher order level must be contextualized itself (Cronen et al., 1982). If meaning is “transitive,” either of the social perceptions can be the context for another, and it still makes sense (e.g., a committed relationship and a confirming response during conversation). Thus, metarules may exist that define which social perceptions can be the context of which others (i.e., which are transitive and which are intransitive). Higher-level social organization and personal experience provide information on metarules on how two levels of social perception can be related. Thus “a reflexive loop that is problematic for one person [or in one organizational context or one cultural form of task accomplishment] may not be for another” (p. 104). In the case of an unusual routine, the evolved procedure makes good sense to the internal unit, and is rewarded, but generates negative subroutines and sanctions for other units, who seem to the first unit only to be jealously complaining about the reward structure.

Indeed, this “reflexivity is a natural and necessary feature of human systems of meaning” (p. 91), but some reflexive loops are problematic. There may be “strange” loops—those that cause problems—and “charmed” loops—those that do not. Paradox, or the confusion of hierarchically ordered levels of meaning, fosters schizophrenia, as the individual cannot comment on discrepant messages so as to resolve the inconsistency, and goes on to see other parts of world in double-bind patterns. As Stohl and Schell (1991) warn, “negative and dysfunctional communication patterns have far-ranging effects on the quality of work life, the quality of production, and the quality of organizing” (p. 109).

Resolving such paradoxes requires asking the meaning of the message in order to clarify other levels of the relationship. This may or may not be available in the individual’s repertoire or acceptable to the other participant. Effects of strange loops (especially double binds) are more limited if the strange loops can be sealed off from

higher-order levels to avoid higher-level strange loops. If unable to do this, the “individual possesses no stable point of focus from which the ‘I’... can consider that pattern of interpretations and actions that constitutes the ‘me’” (p. 107). So, for instance, it seems crucial not to question the identity or purpose of the organizational representative in attempting to identify or resolve an unusual routine.

Confusions will persist when the participants have no strategy for resolving intransitive loops and when significant others block efforts to resolve or seal off these intransitive loops. Individuals may then attempt to separate levels of meaning or convert strange to charmed loops according to their own hierarchies of meaning independent of the others’ hierarchies, cementing in misunderstandings and enmeshing higher levels of meaning in these unresolved strange loops. Clearly, this is one recipe for unusual routines.

One problematic episode that both represents an unusual routine itself and reinforces unusual routines is the “unwanted repetitive pattern” (Cronen et al., 1979; Stohl & Schell, 1991). An example is when both participants want a friendly conversation but usually end up in recurrent, hostile, polarizing duels, patterned in ways that the participants can identify and that are stable across topics. Walton (1969) noted the existence of these repeated, patterned disruptive communication episodes in organizations. According to Cronen et al., four primary contexts affect the nature of messages and speech acts in episodes: hierarchical contexts (relationship of part to whole but not vice versa), temporally antecedent conditions (certain message types follow others), temporally consequent conditions (expectation or desire of eliciting particular response), and the history of relationships (perceptions or rules that constrain subsequent action). Not all people use all components: Some may (re)act only in relation to antecedents unaware of consequent conditions; psychologically disturbed people often ignore antecedent conditions on speech acts. In organizational settings, there may not be a good fit between individuals and the system’s rules; thus, they are not, or cannot be, competent (Walton, 1969).

Three examples of possible episodes relevant to unusual routines include the “enigmatic episode” (weak links of life script, antecedents, or consequents to possible speech acts; range of responses is unknown; and valence toward the consequence is likely negative), “value-expressive rituals” (strong links of antecedents, life script, episode, consequents, with positive valence and range is low), and “perfunctory ritual” (weak link to life script; neutral valence of consequent). So an unusual routine may be obscured or unresolved if an enigmatic episode of a client meets with an organizational representative’s value-expressive ritual or a perfunctory ritual if the job is not personally significant.

Skilled incompetence and the contradictions of competence

The concepts of the two-level communication hierarchy—relational and content—may help explain some unusual communication routines. For example, the valued norm of getting along with others (the relational meaning of an episode) may not always be an asset because it may suppress conflict and resolution (the content

meaning of an episode). Argyris (1986, p. 74) calls this “skilled incompetence,” where “managers use practiced routine behavior (skill) to produce what they do not intend (incompetence)” (for a more general, related process, see Spitzberg, 1993). This skill can become institutionalized, such as in the form of constant meetings where no difficult decisions are made, leading to an organizational culture that cannot abide straightforward content, to despair and attributions by others of failure, and even to disasters; or following relentlessly pleasant scripts for responding to client frustrations, making the unusual a routine “service encounter.” The higher level relational norm converts the content of personal exchanges into “organizational defensive routines” that are intended to avoid embarrassment, threat, or surprise but in the end suppress learning and resolving the source problem.

Sometimes this is due to contradictions in messages, such as a formally espoused organizational vision of decentralization and trust, but when really important issues are at stake, an actual practice of centralized concern and monitoring. Subordinates learn to live with mixed messages and even generate meaning from them, but these explanations are never validated. This situation leads to double binds on the part of both management and subordinates. If subordinates accept centralized intrusion on important matters, they lose their autonomy and their own subordinates will evaluate them as having little influence, given the context of decentralized decision making. But if they reject it, this may be seen as disloyal, generating justification for further intrusion. If the managers raise the issue of doubt about mixed messages, this will generate negative reaction because of the relational context of decentralization. But if they accept the discussion, this fosters a false sense of agreement. To maintain good relations, both parties hide the double bind in the least conflictful way. But, in the long run, this generates schizophrenic relations, as subordinates interpret the vision of decentralization as a way to obscure management’s actual intent to mask decentralized influence. This mutual double bind generates mistrust and suppresses communication, creating self-fulfilling processes attributed by the other side (Argyris, 1986). Thus, both superiors and subordinates hold good and bad feelings toward each other. The implication is that to overcome what they do not like, people must be able to discuss it, but this violates the undiscussability rule, which is part of organizational defensive routines—a form of skilled incompetence.

Organizational problems with feedback

Were the difficulties in individual meaning management and competence not obstacles enough to even identifying, much less resolving, unusual routines, organizational settings provide yet more challenges and complexities.

Learning from feedback or memorizing responses?

Organizational memory plays a crucial role in how organizations learn (Huber, 1991), thus contributing to the resolution, but also creation, of unusual routines. Citing earlier research (Cyert & March, 1963), Levitt and March (1995) propose that

behavior in organizations is usually driven by routines. Organizational members seek to match tasks with currently existing practices and procedures rather than make new choices about how a task should be completed. These routines evolve from past experiences rather than from anticipated future events (this process is similar to Weick's sensemaking). With this routinization of tasks and processes as a primary form of organizational memory, organizations become "history dependent" (Levitt & March, 1995). Thus, unusual routines may be the repository of, or the symptom of, incomplete, mismatched, incorrect, or biased organizational memories.

Organizational memory is information about prior decision stimuli and responses that bear on present decisions and is "preserved in particular retention bins that have behavioral consequences when retrieved" (Walsh & Ungson, 1991, p. 61). Although individuals actively construct memory via cognitions, the understandability of problems and solutions is constructed through sharing interpretations (as Weick would argue, through double interacts, negotiating shared understanding). Thus, the interpretation system transcends the individual level, embedding organizational memory in artifacts and systems, as well as in individual memories.

Thus, one difficulty with organizational memory is that information about the triggering stimulus is typically retained only by individuals, even if the organization's response to this stimulus is retained as a set of formal procedures, even designed (routinized) into a system. Although subsequent interpretations constitute organizational memory, they may not include the initial context or the causal "why" of interpretation. These partial sources of information may be too equivocal or may even overload short-term memory and thus not become part of organizational memory. In these instances, individuals use personal biases/heuristics derived to compensate for limited cognitive capacities. Even at the organizational level, there is much filtering via interpretative schemes or frames. Both these processes may "block, obscure, simplify, or misrepresent some of the attributes of the decisional stimuli and responses" (pp. 62–63).

The resulting organizational memory is distributed through six "retention bins": individuals, culture, transformations, structure (roles, rules, and norms), ecology (physical environment and layout), and external archives (former employees, competitors, government, financial service firms, media, and historians). How things are transformed (training, budgeting, planning, administration, manufacturing, etc.) also represents remembered information. One form of transformation, standard operating procedures (routines), represents schemas that both facilitate and constrain interpretation and behavior, making it difficult to question the system as to how to correct the problem.

Furthermore, some retrieval processes are largely automatic, such as from transformation, structures, or ecology bins, and not easily managed consciously. This speeds problem solving but decreases the consideration of exceptions and disregards some information. Controlled retrieval is conscious, making analogies to past decisions, and limited by participation in the organization (such as through socialization, decision making, and other activities). In the language of reflexive loops, this creates

a paradox, as the content becomes the context for the relational-level communication. Thus, one source of unusual routines is automatic retrieval when controlled retrieval would be appropriate.

Whereas organizational memory typically fosters single-loop learning and the status quo, adaptive processes can be embedded in standard operating procedures. Double-loop learning can be formalized, thus reducing transaction costs for routine transactions. However, such changes would be more robust if they are embedded in and legitimized by tradition and facilitated by support networks. The point here is that often the content level of organizational memory must be critiqued, not retention bins or retrieval processes themselves (relational level).

Of course, individuals may misuse organizational memory, though this may be motivated by automatic retrieval processes inherent in transformation, structures, and ecology bins. So successful awareness and change may require that current retention bins be filled with new decision stimuli and behavioral responses through, say, training, simulations, crises, and redesign. The organization's culture may be a source of information misuse by imposing automatic retrieval and unassessed memory. But nonroutine responses are not inherently preferable. They may replace appropriate automatic retrieval when the risk of automatic retrieval is overestimated. And cognitive limits, personal heuristics, overgeneralizing past experience, inappropriate analogies, and simply poor procedures can generate incompetent uses of organizational memory. Finally, organizational memory can be intentionally or ideologically abused. The potential for political control and dependency makes organizational memory a "tempting tool" (p. 77). Structural position and transformations in turn can control the acquisition, retention, and retrieval of memory (Pettigrew, 1972). Thus, intentional redesigns of transformation processes will also affect, perhaps even prevent, acquisition and retention of certain types or sources of memory.

Because organizational representatives are a crucial source of organizational inputs, trained assessment of decision stimuli is especially crucial there. But those positions must also have access to power to alter internal retention bins and processes and have considerable tenure in order to be able to contextualize organizational memory or see new things in an old light. These positions should also include newcomers and visitors who can see completely new things, see old things in a new light, and question automatic retrieval processes.

Please hold, we value your comments: Feedback through, from, and about information systems

Media in general, and information systems in particular, can facilitate (and constrain) feedback about organizational services, products, and systems. Because technological advantages are short lived, ongoing service enabled by generating customer feedback is becoming more important. Customers may initiate contact with organizations on a wide array of topics and problems, so external feedback may be highly equivocal in both form and meaning. Therefore, organizations need to structure

potential feedback dialogues that do not constrain content but are matched to the attributes of the product or service stimulating the feedback to enable distribution to and response from vertical and horizontal levels in the organization (Culnan, 1989). Organizational media and information systems represent a recursive occasion for both stimulating unusual routines and transmitting feedback about them (Zmud, 1990).

Culnan makes the point that all transaction processing systems are actually organizational message systems. This means that embedded transaction systems (part of what Walsh & Ungson, 1991, called transformations) both generate messages to the client and organization that may or may not be recognized or intentional and may also foster, collect, and even analyze messages as feedback. Whereas Culnan focuses on feedback from customers, we would generalize this point to include internal users' and implementers' feedback as well.

In general, insufficient or ineffective upward communication between customer contact personnel and top management suppresses an organization's understanding of consumer expectations and satisfaction (Culnan, 1989). Culnan notes studies showing that consumers are highly dissatisfied with how their complaints are handled and that only a small percent of top executives refer to customer complaints as a basis for assessing quality of products and service. Yet, complaints and other inputs represent significant sources of corporate intelligence, early warning, and environmental scanning.

The uninformed providing feedback to the unresponsive

Even providing multiple media and systems to stimulate and distribute feedback presumes that organizational members and clients are in some way technically knowledgeable enough both about the unusual routine and about the systems used to support feedback. In a world that depends on technical knowledge and flow of information, most consumers are, in fact, technically ignorant (not "dumb")—far more, relatively, about their world than were preindustrial peasants about theirs (Blumberg, 1989, p. 60). Thus, everybody is vulnerable to the expert knowledge of others, fostering the exploitation of ignorance, through deception or intentional or unintentional manipulation. Indeed, the value systems, loyalties, social controls, and competition in some professions generate forms and acceptance of "professional deceit" or "normal lying" in the form of outright falsifications, omission, equivocation, or disclaimers (Ruane, Cerulo, & Gerson, 1994). Whereas a deviant lie is a socially unacceptable practice, a normal lie is a known falsehood rationalized and legitimated as means to good end. Thus, a paradox develops: We learn that lying is bad but also learn how to lie and in what contexts those lies are acceptable. Furthermore, socialization provides us with appropriate responses to normal lies—it may best to ignore the lying part in order to maintain social order and get the job done.

This lack of technical knowledge is probably most extreme in the consumer electronics industry because there are few moving or even visible parts, upgrades

and new technologies make current understanding quickly obsolete, the systems are easy to use without having to understand the technology, and back-office technical repairs are invisible to the consumer although pleasant service demeanor provides the basis for customer satisfaction (Blumberg, 1989, p. 75). The paradox here is that pleasant over-the-counter service generates positive client behaviors, which rewards the individual fronting the unusual routine of bad technical service while also generating client attributions of service competence and return business.

Rational but unreasonable systems

Designing organizations and services to reduce apparent complexity for both organizational representatives and clients may foster unusual routines elsewhere. Following Weber, Ritzer (1993) critiques the “McDonaldization of society” because “rational systems inevitably spawn a series of irrationalities that serve to limit, ultimately compromise, and perhaps even undermine, their rationality” (p. 121). “Just-in-time” manufacturing, for example, requires more frequent deliveries, wasting fuel, generating pollution, cluttering roads with trucks, and making other people late or pressured—all instances of externalizing the costs of internal rationalization.

Organizations may attempt to respond to feedback by changing their response to problematic behaviors, but this creates new behaviors that generate new information (both environmental and internal). This new additional information must now be processed and interpreted, creating much more sources, kinds, and content of feedback and generating even more choices for change. Under such equivocal conditions, organizations may rely on automatic retrieval or organizational memory from a few formal retention bins in an attempt to make sense of the new (as noted above), depending on their retrieval capabilities and strategies, leading to conflicts and tensions between different perspectives.

Organizations may attempt to manage complexity and crises through linear routines. Organizations will naturally strive to reestablish stability, but that does not necessarily require internal change. Homeostasis can be achieved through suppressing or avoiding certain environmental information (such as behaviors from “irate” clients) through buffering and transformational shields (Miner, Amburgey, & Stearns, 1990), strategic manipulation, and catatonic nonresponsiveness. This, in turn, may generate later external deviations and stronger instabilities (higher complaints and product returns, product recalls, software incompatibilities, consumer boycotts, and liability litigation). It may also reduce an organization’s ability to adapt, especially second-loop learning about possible ways to respond, adapt, and innovate (Nonaka, 1988). In schizophrenic systems, homeostasis is possible only by prohibiting any defining of the nature of the relationship (Palazzoli, Boscolo, Cecchin, & Prata, 1978, p. 38). So organizational representatives, when confronted by a client with an unusual routine, will likely deny their location in this new relationship, preferring to externalize the unusual routine. One form of disconfirmation is to pick one particular word and manipulate it to disqualify or avoid defining the relationship (“that’s not part of my job”) or use one of the words out of context to reduce its meaning (“full service doesn’t mean we do everything!”).

Discussion

So how can these unusual routines be prevented, identified, unclocked, or fixed? Given the problems of invisibility and habituation, mixed with twisted logics, we must find ways of uncovering the underlying systemic problems, make the systemic nature explicit, and prevent people from suffering individually and disengaging from attempting to resolve things. This section considers some possible implementation policies implied or noted above.

First, each organizational newcomer or new system user should be asked to identify problems (of any kind, such as work, error, delay, or blame subroutines) and suggest solutions (of any kind, such as reducing barriers to perceptions) during their first months. Newcomers have novel, near-anthropological experiences in trying to understand and survive the new tribe before they have been habituated or have figured out ways to cope and impose acceptable sensemaking. Second, whenever any one leaves, they should be asked to participate in an exit interview, again identifying any problems and solutions that they care to offer (such as routinized workarounds or instances of conflicting goals or simple exiting behavior). Departers have considerable experience and frustration in trying to make the system work and may be able to suggest changes without concern for personal consequences should they stay. In both cases, all comments should be about roles, procedures, resources, norms, expectations, scheduling, whatever—and not personal comments. That way, identification of problems and discussion of possible solutions might more likely be considered as ways of improving the system rather than as personal attacks against individuals.

Third, systems should be designed in ways that the various participants can learn more about the system and provide feedback about the system through the system at the interface, as well as through complementary media. For example, Griffith (1993) shows that although managers frequently use systems to monitor subordinates' work in order to improve their "performance" or "quality," there is no technological reason such that work monitoring features cannot be designed to be useful for and adaptable to the users themselves, thus including the system as part of the "team."

Fourth, "users" should be widely defined to include designers, managers, complaints operators, and external clients as well as those organizational members who directly "use" a system. Fifth, all these should be involved in not only the design and implementation but also the ongoing evaluation of a system, job, or procedures. These last two suggestions are, of course, explicit aspects of sociotechnical systems approaches that aim to optimize the fit between technical and social systems (Hirschheim, 1985; Johnson & Rice, 1987).

Sixth would be to emphasize the communicative and informational aspect of systems. The form and value of symbols used in reference to systems both reinforce and hide underlying influences on the development of unusual routines (such as notions of computer accuracy, user-friendly interfaces, accounting criteria, or access to large amounts of information).

Seventh, analysts of unusual routines must become inaccessible to reactions of pleasure or anger; that is, they cannot become “involved” (either actually or by labeling) or they will immediately become part of the game, the unusual routine, at a higher level. Furthermore, it would seem useful to understand and positively evaluate the system’s tendency toward homeostasis and not critique members’ tendency toward it (Palazzoli et al., 1978, p. 149).

On the scale of communication interactions, the unusual becomes the embedded routine and the skilled response becomes the awareness blindfold. On the scale of organizational design, the innovative becomes the ineffective procedure and the reasonable becomes the irrational. Sensemaking is in the eye of the routine.

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Routines inhabituelles : (Ne pas) faire du sens dans l'organisation

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Résumé

Les routines inhabituelles sont des sous-processus contradictoires et frustrants qui, par nature, génèrent des conséquences négatives pour certaines organisations, certains utilisateurs des systèmes, représentants organisationnels ou clients, alors que pour d'autres, elles génèrent des résultats entièrement raisonnables et même efficaces. Elles mêlent tant les clients que les membres de l'organisation dans des sous-routines de travail, de délai, d'erreur et de blâme. Elles peuvent être causées par des objectifs conflictuels, une faible rétroaction, des usages et des manipulations symboliques et des obstacles à la perception. Il peut être difficile de les identifier, de les surmonter ou de les résoudre par la rétroaction en raison de problèmes intrinsèques à la communication et aux processus organisationnels de rétroaction.

Ungewöhnliche Routinen: Organisatorisches (Nicht)-Sinnmachen

Ungewöhnliche Routinen sind widersprüchliche und frustrierende Subprozesse, die von Natur aus negative Konsequenzen für einige Organisationen, Systemnutzer, Organisationsvertreter, Kunden und Klienten mit sich bringen, während sie durchweg sensible oder sogar effektive Folgen für andere haben können. Sie verwickeln sowohl Kunden als auch Organisationsmitglieder in Arbeit, Verzug, Fehler und Schuld-Subroutinen. Verursacht werden sie durch gegensätzliche Ziele, schwaches Feedback, symbolischen Nutzen und Manipulation sowie Barrieren der Wahrnehmung. Sie können aufgrund von inhärenten Problemen der Kommunikation und organisatorischen Feedbackprozessen schwer zu identifizieren, zu bewältigen oder aufzulösen sein.

非寻常程序：组织性的合理解释和非合理解释

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非寻常程序是矛盾的、令人沮丧的亚过程。非寻常程序对一些机构、系统用户、组织性代表、顾客和客户而言会内在带来一些负面后果；但对另外一些会带来完全合理的甚至是完全有效的结果。他们使得顾客和组织成员在工作、耽误、错误和责备等亚程序中互相卷在一起；这可能缘于冲突性的目标、糟糕的反馈、符号性的使用和操作以及感知方面的障碍。由于传播过程及组织反馈过程中的内在问题，上述情况可能难于通过反馈加以鉴定、克服或者解决。

일반적이지 않은 일상들: 조직적 (비)상식 만들기

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요약

비일반적인 일상들은 태생적으로 몇몇의 조직들, 체제 사용자들, 조직 대표들, 그리고 소비자들에게 부정적인 결과를 양산하는 반면, 다른 조직과 사람들에게는 완벽하게 의미있고 효과적인 결과를 양산하는 대립적이고 실망스러운 하부 과정들이다. 그들은 소비자들과 조직 구성원 모두를 일, 연기, 과오, 그리고 비난이라는 하부 일상으로 연루하게 만든다. 이러한 과정들은 갈등적인 목표들, 빈약한 반응, 상징적 사용과 조작, 그리고 개념에 대한 장애에 의해 발생할 지 모른다. 이들은 커뮤니케이션과 조직적 반응 과정에 내재된 문제들때문에 반응을 통해서는 동일시하거나, 극복하거나, 해결하기 어려울 수도 있다.