5 Memos and memo writing

In this chapter, a number of theoretical memos written by researchers during their various studies are reproduced. Before reading and studying them, it is requisite to at least scan the earlier discussion in Chapter 1 about memos and their indispensable functions in discovering, developing, and formulating a grounded theory. In the previous chapter on the student seminars as well in later chapters, one can frequently sense the hovering presence of memos which arise out of codes and ideas generated in seminar, consultation, and team sessions. In fact, one explicit rule of thumb is that such sessions must soon be followed by a jotting down or typing out of the summary or the thoughts stimulated, just as individual researchers need to interrupt their data collecting and coding to write memos. Furthermore, recollect that waiting for the muse to appear is not the model here. Although there are periods of intense memo writing, grounded theorists are trained to write memos regularly — often from the first days of a research project — and in close conjunction with the data collecting and coding. (See discussion of the triad, Chapter 1. See also Glaser 1978, pp. 83–92.)

The initial memos tend to look a little like those written by novices at this general style of memo writing: at first, a high proportion of them may be operational (what data to collect, where to go to do this), or reminder notes (don't forget to . . ., or don't forget this point), or scattered "bright ideas," or fumbling around with a flood of undifferentiated products of coding, or just thinking aloud on paper for purposes of stimulation in order to see where that thinking will lead, and so on. Later memos will incorporate the results of the (early, frequent and later, occasional) microcoding; focus on emerging major categories and their relationships with each other and the

minor categories; integratively summarize previous memos and coding; suggest pinpointing bits of data to fill out last points in the analysis; and so on.[1]

These, then, are some of the varieties of memos, varying considerably by phase of research project and given additional variety by the personal styles of the researcher's thought, as well as by his or her experience with the phenomena under study and with the research itself; also, by whether the researcher is working alone or with a partner or teammates. (See also the presentation of the summarizing memo, Chapter 6.)

All of these points are easily observable in the illustrations given below. Each memo or set of memos will be introduced with a commentary which locates it in a context that will make it readily understandable — not necessarily in substantive detail, but in purpose and overall style. Note also in all memos how the data are drawn upon, are interwoven with, and inform the analytic content of each memo.

There is one further point about the memoing process. Even when a researcher is working alone on a project, he or she is engaged in a continual internal dialogue — for that is, after all, what thinking is. When two or more researchers are working together, however, the dialogue is over. In any event, the memos are an essential part of those dialogues, a running record of insights, hunches, hypotheses, discussions about the implications of codes, additional thoughts, whatnot. Cumulatively, the memos add up to and feed into the final integrative statements and the writing for publications. This kind of highly cooperative, even closely collaborative dialogue has also been emphasized by the American Pragmatists (especially Dewey and Peirce), whose thinking pervades the grounded theory approach to qualitative analysis. Of course, this working together, discussing continually together, does not at all preclude disagreement, sharp debate, even full-fledged argument. It does put a premium, however, on the ultimate faith in the working agreements to result in "payoffs" for all the partners. (This is true even when the partners are all in one researcher's head, as he or she works alone.)

[1] Researchers trained in other analytic traditions probably (though there is no reliable literature on the point) do what Becker and Geer (1960) suggested some years ago: fairly quickly after a study's initiation, formulate a few initial hypotheses, write them down in memo form; then they are verified, qualified, or discarded in the next phases of data collecting. Meanwhile, new ones evolve and are similarly worked on. Some of these memos may look like ours, although presumably some will not, especially in conceptual density and in drawing explicitly on intense microcoding.

Memos, memo types, and commentaries

Here is a series of memos written by researchers who will appear in the team-meeting session of Chapter 6. Each memo was addressed to all of the other staff members. The memos constitute different types, composed for different purposes, written early in a four-year project about the impact of medical technology on work in hospitals. They represent useful items in the total memo file, each helping in the final systemization of the analysis.

Memo type
This is an example of an initial, orienting memo.

Intent
1. *Produced during the first week of the project by its director, on the basis of many months of exploratory interviewing and field observations; his main intent was to give his staff a sense of the overall scope of the project, while pinpointing various areas to be looked into.*
2. *To raise questions and issues for the staff to think about and collect data on.*
3. *And, not incidentally, to summarize for himself what he knew or could foresee as potentially important for the evolving study.*

Comment
Eventually all of the outlined areas were looked into, in depth, and proved very relevant to the final analysis and writing up of the research.

This kind of introductory memo is written only during the first phase or phases of a project, and can be then thought about by the research team (two or more members). Of course, if a researcher is working quite alone, an initial, orienting memo will still be useful. Some of its contents may get overlooked or ignored in the excitement or evolution of the project, but other items usually will prove to be invaluable.

9/16/77 — A.S.

The most general memo
Something of the range of areas to be looked into, other than what happens on the ward floors. (Other memos re the wards themselves will be written.) And a few comments and guesses strewn in.

Scientific medicine, its ideology, and its technological thrust. Ideology of machine use.

Chronic illness and the halfway technologies to handle it.

The range and variety of machinery, and its utilization, along with other technologies (drug, surgical, procedural, etc.).

Is machinery largely used with prenatal, elderly, chronic illness? Check out the geography of machine location in the hospitals; then, by number and cost.

Structure of the machine industry and its market. Lots of questions here. What companies, how many, what kind? What trends? Marketing, sales?

Innovation processes: Who, how, when, to whom, etc.? Specialized versus generalized (mostly specialized)? Competitive, monopolistic, etc.? Maintaining position; breaking the market, etc.?

Varieties of personages involved with machinery (besides company people). Hospital administrators; M.D.s; nurses, technicians, engineers, patients, families. Also, bioethics people, sometimes newspaper journalists, etc.

M.D.s: as inventors, purchasers, users.

Nurses: as machine tenders and managers. Learning and teaching issues. What is the role of school, if any? Women and machinery issues? Job mobility issues?

Technicians: re learning, teaching, using. Especially relations with nurses whose wards they work on, or who come to their units, or whose patients travel between? Licensing, certification, professionalization?

Hospital administrator perspectives and actions. What are they juggling? Cost, departmental pressures, etc.? How decisions and allocations are made? Relationships with the machine companies? Issues of restructuring hospital spaces, costs, obsolescences of machinery, "keeping up" status re other hospitals. Same for administrators of large machine output wards (x-ray). Centrality vs. decentrality issue: rhetoric and decisions.

Interdepartmental relationships? Borrowing machinery. Fighting for scarce resources. Patient traffic between, etc.

Funding issues (see hospital administrators): Who, how, juggling, negotiating and other processes?

Government considerations: codes, limitations on who can have what machines, safety, cost. Also, insurance companies' relations to this?

Cost–benefit calculus.

Machines in relation to other machines. To procedures.

Patient on the machine. But, also patients as part-time workers on the machines. (See memos on this.)

Bioethical issues: These include – dehumanization, prolonging life. Saving the damaged (including gene pool, retarded, injured). Questions of equity (dialysis choices). Cost–benefit: saving the elderly vs. cost to the young. And lots of others.

Among the relevant general issues are the following:

Expert vs. the layman.

All our reliance on technology (progress) vs. human consequences. Questioning of the technological escalator – Where is it leading us, etc. (and medical science ideology as a subvariety of this).

Among the sociological issues:

Body handling: machinery, procedurally, spatially, temporarily, etc. And patient's responses to that handling re identity: viz., dehumanization, humiliation, etc., etc.

Task analysis: This involves not only machine tasks, but procedural ones, managerial, policy–political, division of labor, etc. Issues here are not only notational and relational (for us) but the important processes in relation to those tasks.

Memo type

A preliminary memo, done a month later. The researcher is beginning to lay out, here, bits of analysis around possibly important categories.

Intent

To focus one's own and teammates' attention on these items, thus to stimulate further analysis and data collection along these lines.

Commentary

The memo functioned well, so that eventually much of this and its later follow-through were incorporated into both a monograph on clinical safety and a chapter (on safety work) in another monograph concerned with the social organization of medical work (Strauss, et al. 1985; Fagerhaugh, et al., 1987; see also Chapter 6, "Summary Memo"). This type of memo is likely to be written repeatedly during the early phases of a research project, also each time that the researcher embarks on examining new facets of the project's terrain. Sometimes, as here, the memo can be quite extensive and conceptually detailed.

10/13/77 – A.S.

Danger (a preliminary memo)

The danger, usually thought of in terms of the patient himself, can come from *five sources:*

1. the machine, including parts, like drugs, used within it;
2. connection (hookup) between machine–body;
3. "patient" as body systems;
4. patient as person (moving, willing, refusing, etc.);
5. other therapies combined with or supplementary to the machine.

Signs, of forthcoming or immediate danger

Signs have various properties:

– visible–invisible;
– expectable–nonexpectable;
– . . . .
– etc.?

Signs are related to "state" or condition of machine-connection, patient, person.

That is, reader reads signs in terms also of the state; also *stage* of either treatment itself totally or today's treatment (first hour, second hour, etc.).

Conditions for "correct" reading include, at least, skill, experience, spatial proximity to the sign, physical conditions like light that make the sign visible, etc. Negative conditions are the reverse of that, plus conditions that "distract" or "take attention away," like work elsewhere, too much work, tired worker, etc. (Reverse those again for positive conditions.)

But, correct reading is not so much the point for us (see below). DANGEROUS TO WHOM? (It is necessary to distinguish these carefully):

the machine itself;
its connection;
the patient's condition (can be single or multiple dangers, of course);
the patient as person;
others (worker, other patients);
the environment.

Also, sentimental order and work order (at any scale). Also, dangerous to what part of body, machine, etc.?

Differences of definition

Among: staff, patient–staff, family–others, etc.
Dimensions of difference (agreement) include, at least:

expectation of danger (0 to 100)
awareness of danger (0 to 100)

Locating chart, to show each interactant vis-à-vis other on each dimension. *Recognition of Agreement or Discrepancy:* That is, what each is aware of about others' definitions of awareness of danger, expectation of danger. (That's a *most important point for us*, because of conflicting or cooperative action.)

Prevention of danger (i.e., how to lower the risk)

1. WHO is to do the work? (How many people; together; sequentially, etc.?)
2. HOW is it to be done? (i.e., *what* is to be done and *how?*)
3. WHAT is needed to get it done (resources)? People–money–space–skill–materials–time, etc., etc.?

S.'s footnotes and memos on dialysis bring out all these issues very clearly, especially the patient as worker, his work, and the needed resources.

Conditions which mitigate against prevention (i.e., raise the risk of danger in general)

Wrong whos, hows, and whats; few requisite resources.
CONDITIONS PRO: include opposite of that, plus "motivation" to have right people, resources, means, etc.
ORGANIZATIONAL CONDITIONS, of course, are central. And we should CHECK THEM OUT SYSTEMATICALLY; including industry-to-ward linkages. The breakdown, emergencies, bungling, etc. will especially bring out:

1. precise nature of the *necessary tasks,* and
2. *requisite organization.*

And not incidentally:

3. what actors are *taking for granted,* which can't always be taken for granted.

Patient himself as source of danger

I've not emphasized this above; just a word about it. The patient, unless insentient, is supposed to do things: posture himself, lie still, move around, keep tabs on (monitor) his reactions on machine, etc. If he does these, he keeps risk down. If he doesn't, he raises risk, sometimes terrifically. Conditions Pro include . . . (skill, experience, "motivation", etc.). Conditions Negative . . . .

Degree of danger

Forgot to note that it can be from 0–100 (total destruction of whatever is in danger: —nt, kidney, machine, etc.).

Degree of malfunctioning

This can be total, or partial, as in machine or connection – which relates to degree of danger, of course.

Balancing danger vs . . . .

That is, risk is always a possibility, but you balance degree of it vs. considerations: *cost, time, energy, risk* to other patients, *sentimental order, risk to machine,* etc, etc.

That is, you are balancing, in some part, risks to various objects: machine vs. patient's functioning; functioning vs. person; functioning vs. staff work, etc, etc.

Alarm systems

The purpose is either to reduce risk, to reduce work; therefore changes the nature of the work (which we will CHECK OUT).
(I will write a separate memo on alarm and fail-safe.)

Memo type

The next memo, then, is focused on the very visible and striking ringing of alarm systems on machines.

Intent

To raise a series of questions about "alarms" and to think aloud about both the phenomenon and the questions, themselves.

Comment

This was a very useful memo which fed into further data gathering and their analysis.
10/19/77 – A.S.

Alarm systems, fail-safe (and danger – see danger memo also)

Purpose of alarm system is to reduce risk probability; to reduce work; or both. That changes nature of staff work (which we should CHECK OUT IN DETAIL).
As we shall see, under certain conditions, alarm system may even *increase* probability of risk, and certainly probability of increased work. That is, alarm system may work in reverse! But, ideally not.

Alarm objects

Again, the alarm may be *monitoring various objects: the machine itself, the connection, the patient.* (Rarely, if ever, the person *qua* person? The staff is supposed to do that!) Perhaps, *the environment.* (And certainly, not the work or sentimental orders, etc.)
I don't know, yet, but assume the monitoring alarm can be set to go off at various *degrees of danger* or hazard. Is this *automatic* or can it be decided by someone? *By whom?* How far in advance? How often? At what cost, etc.? (Those may not be salient questions – we shall see.)

(Certainly they vary when it's a person rather than an actual alarm that is monitoring.) But, I visualize that *alarm adjusting* will be affected by anticipated degree of danger, margin-of-error calculations, etc.

Which one?

The person who responds to the alarm has to decide which one of the systems being monitored (if they are multiple) has gone off. Is it the machine, the patient, the connection?

Which part of it?

May also have to decide which part of the machine, which body systems, etc., unless there is a *fine degree discrimination of alarm itself*: That is, multiple discrimination built into the system. "Something is wrong with the machine" is not the same as "It's in the electricity" or "a bearing has burned out."

Priorities

Given multiple alarms, worker has to make decisions as to which one has to be *corrected first*.

Or, judgments as to degree of danger, so it has to be done right now, or an hour later, etc.

The patient alarmed

That is, the patient *qua* person can be alarmed. This may take priority, actually, since then his fright may shoot up endocrines or blood pressures or mobility: so, he has to be taken care of first. Or, he may not. Or, he may not be read correctly.

Multiple alarms: increased safety, increased danger

Some machines have just one alarm, or did when state of the art was simpler. Many machines have multiple alarms. One fascinating condition today is that there are machines now that are multiple machines: So there are *multiple-multiple* alarms.

This may make for *increased safety*. If they work. If people can read them accurately. If right priority choices are made, etc. (That depends on skill, experience, physical availability, etc. etc.)

Increased danger is another possibility, just because "things are now so complicated."

This ties in with the replaceability–maintenance issue (see below).

Replaceability: maintenance as condition for danger, safety

For alarms to work correctly, they must be maintained. (They may also not work right as with false alarms — because responding not to true signal but false one, like patient mobility. That's another issue.)

So, one condition for proper alarm is proper maintenance — an *organizational* matter. But also a staff-preventative one, since they have responsibility for either forecasting breakdown or recognizing it short of breakdown – not alarm itself, necessarily, but machine or patient connection. (That is organizational, too, of course.)

Maintenance ties in with replacement, since you have to have both a *maintenance organization* AND a *replacement organization*. The best skilled mechanics, best motivated, lots of time, without replacement parts or resources, in time will fail. (Underdeveloped countries lack both, but even with good skilled mechanics will fail because of replacement problem.)

On the *ward*, the replacement issues involve other things. They have to link up with maintenance–replacement organization, or else! Or they have to be able to do the maintenance–replacement themselves (that is, be that organization, at least in part).

They have to make decisions about what may be wrong, and replace fast (innovative connection, etc.). Or decide whether replacement needed, or adjustment, or was it the patient's bodily movement, etc. etc.

Replacement can be fast–slow, available–not available, etc.

Replacement, in emergency or even temporarily, can mean not replacing a part, but replacing the whole machine. Which means replacement–organization, again: Can you borrow from within ward, or interward?

We need much more thought about replacement–maintenance in relation to alarms, danger, etc.

Failsafe

These alarms can't be foolsafe, failsafe, because signs may be misread, not seen, wrong priorities chosen, maintenance–replacement organization may be defective.

And it is S.'s insight that the more complicated the systems of alarm become — the more functions they are monitoring — the more hazardous the situation. That is, the less foolproof, more failproof they may become. But I have tried to spell out some of the conditions for maximizing–minimizing fool- and fail-safe!

Memo type

A brief memo, "sparked" by a previous memo.

Intent

1. To elaborate aspects of one category (machine storage).
2. To raise specific questions about conditions, consequences, process (dispute regulation), etc.

Comment

A useful memo, later elaborated much further by further fieldwork, coding, and analytic memos. Eventually, the analysis found its way into a chapter on machine work in the monograph on medical work.

This memo-sparking type of memo can be written during any phase of a research project. Why? Because readers of any memo can be stimulated by its whenever they happen to read or re-read it, and then can respond with a memo-sparking commentary. Indeed, it is wise periodically to review preceding memos for exactly that reason.

3/19/78 – B.S.

Memo sparks (as 2/28/78 on machine storage)

As we all know, it doesn't end with finding a place to store equipment – difficult as that may be in itself. Then you've got to be able to retrieve the darned stuff when you need it. If it's too hard to get at, may even forget it, and improvise. (I'm thinking of household storage – gadgets, etc.; special equipment, but I think it's reasonable to extend the idea into hospital.)

Retrieval: what kinds of problems?

How is it decided what gets stored nearby, what probably won't be used much? And, here, what – even if it isn't used much – is absolutely necessary when it IS needed, as compared with less urgently needed equipment, say: the "would-be-nice-to-have," expeditious stuff as compared with essential stuff. So, is there some sort of storage protocol? And who has charge of it? Some sort of general-storage file clerk?

In the data from hospital (12/77) when patient vomited in nurse-call device and short-circuited it, one nurse knew there was a replacement in storage unit nearby, the other nurse did not. This could be a problem: If you don't know equipment is available, might as well not have it!

So, with nurses floating in and out, isn't it possible for everyone to know how the household is arranged: where what is, even IF there is a what. (My kids come home and put dishes away for me, and I can't find ANYTHING.)

Also, when several units have access to same storage areas, seems likely there are going to be housekeeping disputes. Are there? How are they regulated? Who knows what?

Memo type

This memo, first in a series about comfort work, was written two years later by another team member, a sociologist, who is also a nurse. She had finally realized that so-called comfort care had been profoundly changed by contemporary medical technology. This memo represents the opening phase in the team's attack on the phenomenon.

Intent

To put down first thoughts on issues like: What is comfort work? How is it different in the hospital than at home? How has it been affected by medical technology? What is its relationship to other types of work?

Comment

This memo and succeeding ones became the basis for the directed observations and further analyses which fed into a monograph on medical work (Strauss, et al. 1985). That is to say, this memo illustrated thinking about selective coding, in this instance done in relation to the core category of types of work.

This type of memo can be written at the outset of an attack on a phenomenon not yet focused on, though it is much more likely to be written during earlier phases of a project. As the illustration reflects, however, it can be composed much later, when much of the analysis done on related phenomena will inform it.

2/20/80 – S.F.

Comfort work

Comfort work includes a wide range of medical and nursing work, but mainly involves nursing because much of nursing includes tasks relating to relieving discomforts. Comfort work may be very specific to very ambiguous and murky. Take the definition of comfort.

Definition of comfort(comfortable)–discomfort(uncomfortable). Definition of comfort–discomfort includes:

VERB: To impart hope to; give help to person in sorrow or pain; implies comfort, console, solace. Comfort, the homely intimate term implies imparting cheer, hope, strength, as well as, in some degree, the lessening of pain; console emphasizes the alleviation of grief or sense of loss; solace suggests a lifting of spirits that means relief of loneliness, dullness, etc., as well as pain.

NOUN, suggests: easy, restful, reposeful; implies enjoying or providing conditions that make for contentment or security; or cozy – suggests comfortableness derived from warmth, shelter, ease, and friendliness.

Discomfort – to distress the comfort of; make uneasy; mental or physical distress.

Pain–discomfort work

Comfort work might be seen as the less acute end of the pain continuum. Like pain, discomforts are highly subjective, so there are problems of assessing discomforts for the staff, and problems of legitimation for the patient. There are wide variations in discomfort toleration, meaning, expression, etc. from patient to patient. This idiosyncratic nature of discomforts is due, in part, to the fact that discomforts are tied up with biography as well as illness trajectory; but more later.

Like pain, there are discomfort tasks for the staff and patient as outlined in the pain book (p. 244). The tasks include: (1) assessing (diagnosing); (2) preventing; (3) minimizing; (4) inflicting; (5) enduring; (6) relieving; and (7) expressing. And these tasks are balanced for their consequences on (1) illness trajectory; (2) life and death; (3) carrying on; (4) interaction; (5) ward work; (6) sentimental order; and (7) personal identity.

Pain work is extremely difficult, but in many ways discomfort work may be more complex. The difficulties stem from many factors:

1. Discomfort or disease includes a wide range of physical and psychological states, sensations, and moods. For example:

   Physical *discomfort sensations* may include itching, tingling, soreness, pressure and fullness, burning, coldness, hotness, stiffness, dirtiness.

   Discomfort physical symptoms may include dizziness, headache, flatulence, consupation, thirst, ringing of the ear, weakness, upset stomach, etc.

   Discomfort psychological states and moods may include "feeling blue," "out of it," and a whole set of feelings of insecurity and even anger by interactions which makes the person feel ignored, slighted, embarrassed, etc.

   In order words, discomfort and dis-ease states, sensations and moods can come from *many sources:*

   treatments and procedures, drugs, etc., in the service of the illness trajectory;

   from the illness itself;

social interactions;

environment (temperature, tidiness, etc.);

organization of hospital.

2. The most striking feature of these discomforts is their *mundaneness*. They are physiological and psychological states associated with everyday sociability, eating, drinking, bodily activities. They are related to everyday life and body posture and ambulation, defecation, urinating, and so on. Everybody has had many of these states and lots of individualized ways of managing these discomforts.

a. The very mundaneness poses difficulties in management because it is visible and yet not visible; it is murky and very subtle. Yet, these everyday sensations, physical states, and moods are at the heart of oneself – are highly idiosyncratic and personalized; thus, when discomfort work is neglected, patients feel they are treated as non-persons and feel dehumanized. Indeed, patients' angry criticisms of hospitalization are an accumulation of unmet and unrelieved discomforts.

b. The very subtle nature of comfort work, and its commonsensical quality, makes it difficult to distinguish this as work. Comfort work is being applied simultaneously and sequentially in any given area of work, sometimes bordering on sentimental work, sentimental gestures, biographical work. *I need help in thinking this through.*

Body work and comfort work

A large part of comfort work is body work. Categories of body work include:

tasks directly related to trajectory course which includes diagnostic and treatment procedures. They include body positioning, body movement (gross and fine, e.g., transporting or moving body part); and doing things to the body such as injecting needles and drugs, putting down tubes into various body orifices. Properties of this body work are it's variable, painful, embarrassing, requires lots of skill by staff, dangerous, requires lots of patient cooperation, etc.

tasks related to bodily sustenance such as feeding, drinking, ambulating, hair care, mouth care, defecating, etc. They include a whole host of tasks which are *everyday body housekeeping tasks*. Depending upon the illness and the trajectory phase, the properties of this work are variable. How patient reacts to neglect varies with the biography.

tasks related to psychological well being which are essentially sentimental work, but may also include biographical work.

Technology and comfort work

In the past two decades, comfort work has drastically changed. The changes are due (1) the complexity of hospital organization due to the overall technological changes; (2) the technologizing of comfort care.

As hospitals get bigger and more complex, comfort *care services* become more complex. Comfort care services include laundry, dietary department, central supply, cleaning services, etc. A tremendous amount of coordination is necessary to get enough linen, clean the rooms, etc., etc. In other words, there is a whole

line of departments and complex task structures required to get goods in order to do the comfort work. Results in lots of delays. Also, many people are involved and the work tends to get routinized, such as time to pass out drinking water, time to pass out dinner trays. Hence, individualized care gets to be very difficult. *Scheduling of comfort work gets all gummed up.*

Since the hospital is committed to diagnosis and treatment, and there are now many more diagnostic tasks and treatments, so that patients' time is spent more and more in these tasks, comfort care gets lower priority.

Nurses' time is spent more and more on diagnostic and treatment tasks, so that comfort work, which may be seen as servile work, gets handed down to aides and orderlies. So, *dirty work* is part of issue in comfort work.

Because there are more treatments and procedures done on the patient, there is an increase in *inflicted discomfort*. Tubes stuck in every conceivable orifice; patients having to be still to avoid dislodging a tube; irritations of tubes, etc. In fact, ICU patients are a mass of discomforts, but monitoring and saving of life are the high priorities.

Technologizing of comfort work

Comfort work, such as body positioning, back rubs, sponge baths to lower fevers and decrease discomfort are all being technologized. Beds are electric, so patients can lower or raise the bed. If there is a potential for bed sores because of inability to move, there are air-circulating mattresses, or gadgets such as sheepskin, cooling mattresses to lower fever, etc. There is a whole array of gadgetry of various kinds. In the old days, nurses used to invent all kinds of stuff for comforts; now this is all commercialized: "ouchless" tapes, "comfortable" restraining belts to tie patients to wheelchairs, etc. Flipping through the nursing journal, one finds ad after ad on gadgets to make comfort work easier and more efficient. Also, there are special sections devoted to new technology for comfort care and "creative nursing care" which all have to do with gadgeting comfort care.

Ideologies related to dependence–independence, that is, a drive to make the patient independent, pushed patients to "do for themselves" more and more. Nurses get furious if patients persist in wanting to be "waited on." So, there are arguments about how much, when, how, of comfort work.

Comfort work can also have therapeutic implications and there is a whole body of knowledge and skills – and art – to properly position a patient, etc., in order that physiological function not be compromised. But this work seems so commonsensical or artless that patients don't see this as a technical matter. The nurse is just "being nice."

Increased number of options in comfort work

Drugs play a large part in comfort work. There are all kinds of drugs for relief of itching, flatulence, constipation, and so on. The array of drugs is immense. Take constipation for example: in the old days, there used to be enemas and a few laxatives. Now there are packaged enema sets, stool softeners, suppositories, laxatives with different chemical reactions. Nurses have to know a lot about what kinds of enemas not to give in certain kinds of illness conditions, forcing fluid intake, etc.

TOUCH THERAPY is a movement against lack of comfort care, but in order to have legitimacy must have a theoretical base and a technology. A large part of holistic health and self-help groups is related to body comfort.

The next memo was written by Juliet Corbin, one of two researchers studying interaction between chronically ill persons and their spouses. It was written for her co-researcher and herself.

Memo type
Announcement of a new category

Intent
1. Early in project or when new sample populations (in this instance, paraplegics and quadriplegics) are studied, new categories are discovered. So this memo is tendered to announce and discuss that category.
2. And to distinguish it from another category (attendant work versus the more general "wife" work).
3. And – again as is typical with new categories – to raise a series of initial questions about these associated categories.

Comment
This memo precipitated further discussion and memoing about "attendant work" and its relation to other categories, as well as to a detailing of sets of consequences flowing from this type of work.

J.C. 7/2/82

Wife work vs. attendant work (husband vs. patient)

Jumping out from this interview is a concept of work that never hit me before. It has to do with wife work and that there are certain types of work that belong to a wife. These are different from those of a simple attendant. I haven't worked it through my head yet, but it seems from this interview that when the body work becomes the focus, with work an attendant could do, that identities become blurred. The wife is not sure where her identity as wife comes in and where it leaves off; where the attendant begins and leaves off. She also becomes confused as to where the identity of the husband comes in and leaves off and where his identity as patient comes in and leaves off. Conversely, the ill mate has the same problem keeping these four areas straight.

There are separate tasks involved in each and they can be done by separate people or by the same. How does one keep them separate? How does one integrate them? Can one? What are the separate tasks of each; how and when do they overlap? Can one successfully do both? If so, how and why? What are the consequences of each possible combination for each partner? It looks, from this case, that when the wife tries to do both, then the work of wife and attendant becomes blurred, confused, for both her and husband. What would normally be a division of labor becomes all mixed up. Not only is the body resource work the focus, but the mutual sustaining work is missing. The attendant gets paid, gets time off; but the wife doesn't even get a compliment.

She is taken for granted. Not working together, widening of the marital gap. Not a mutual give and take; reciprocity is missing. One can also see the movement in this case, the gradual blurring of identities, the crisis, and the couple trying to sort these identities out and to keep the marriage going.

Next are three memos written by the same researcher in quick succession, each pertaining to the "busywork" in which wives of chronically ill mates are sometimes forced to engage. After several months of interviewing, the researcher was struck by these activities, and began to organize her thoughts around a relevant, but minor category (minor in relation to the core categories already conceptualized). The memos are addressed to the co-researcher.

This kind of memo sequence of course rests on a certain amount of prior analysis, otherwise it would be much more like a set of cogitations written during an initial phase of the project.

5/82a

Memo type
An initial "discovery" rumination

Intent
1. To call attention to a possibly relevant phenomenon (busywork) in relation to specific data from a recent interview.
2. To suggest the contribution it can make to "overload" (an important category), previously developed in the research).

5/82b

Memo type
Additional thoughts on the new category – a memo note:
1. While thinking about "strategies for getting the work done," busywork comes into focus again, and a memo note is written to relate to this category to three others.
2. And to distinguish this phenomenon from "other work."

5/82c

Memo type
Memo distinguishing between two categories

Intent
1. While adding to "strategies for getting the work done," the researcher thinks through some differences between two easily confusable types of work, and jots down her thoughts in order to distinguish between those types.
2. And to relate one type (busy work) to core and major categories (trajectory work, overload, overwork, error work). (See, for some details of this, Corbin and Strauss 1985.)

Comment on all three memos
These memos constitute a series of brief analyses, which begin to elaborate the complexities of the category, and to provide grounds for discussion between the two researchers.

5/82a – J.C.

Busywork

In talking with C., Wednesday, I was struck by the amount of *busywork* required to do the work. I mean all the running around, repeat calls, questions that need to be answered, negotiations, threats, etc., that go into getting a type of work, like financial work, done. For instance, G. found out from her tax man that the amount of money they will receive from Social Security is influenced by previous earnings. What she needed to find our was how the Soc. Sec. estimated this; combined incomes, single income, for how many years, etc. Who would know this? She had to ask at nurses' station, who then referred her to social worker, who referred her to someone else, until finally she gets an answer. Then she has to get this information back to the tax man so he can figure out income tax. So much time and energy are spent dwelling on these little details, or busywork.

I am not sure what this all means, but think that with all the other problems or work that must be done, it can contribute to *overload*. At the same time, she is trying to get the house remodeled to meet his needs, learn what she needs to know to take him home, run up here to see him from Watsonville a couple of times a week (visiting is sentimental work); her yard needs work now that spring is here. "How am I going to find time to do all of this?" Especially since she must travel East this month to buy furniture and other antiques for her antique business upon which they are now dependent for their income. Things compounding. She seems less relaxed, much more pressed for time than any time I had seen her previously.

5/82b – J.C.: *Strategies for getting the work done*

1. *Rearranging.* There are lots of things that have to be done related to management of the illness, all the trajectory work plus the home work. Integrating the two means that activities, routines, etc. will have to be rearranged. What gets done, when, why, by whom, how, with what consequences, are all relevant. Rearranging seems to relate primarily to *scheduling of work and setting priorities about work.*

2. *Making an arrangement.* When ill mate can't do the work because of limitations of body, energy, etc., and spouse can't because physically unable, lacks knowledge, is too busy, etc., then someone must be hired, or the services of friends are enlisted. This relates to the division of labor and the *distribution of workload.*

3. *Busywork.* Busywork has to do with *work flow.* The day-to-day activities that are involved in keeping the work going. If these little things are not done, then the work could not progress. *Work stoppage. Sentimental work* may involve driving, coming from there to here so that the ill mate can be visited and the sentimental work done. *Regimen work* involved a lot of busywork. Without the proper food to prepare a low-sodium diet, the regimen work gets interrupted. The busywork involves running around trying to find these foods. There can be a lot of intensity about busywork and the person doing it can become weighed down and eventually overloaded from the demands of it. *Busywork* is not the larger work, it differs from the big contingencies. It *involves all those extra things, those little tasks that are necessary for work to flow.* Demanding and time consuming.

5/82c – J.C. *Supplement to memo on strategies for getting the work done (after a team discussion of the last memo)*

Making arrangements and rearranging. All kinds of arrangements are made to get the work done. When the arrangements break down because of interactional problems, shifts in regimen, or illness phase of trajectory, life style, other contingencies coming in, then new arranging or *rearranging* has to be done.

Detail work and busywork. Detail work refers to all the little odds and ends one has to attend to in getting the work done properly, grinding it out day by day, that makes the difference between degree of success or failure of the work. Paying attention to the details prevents or minimizes incidence of errors or having to pay more taxes out than need be, etc. While some people may label detail work as junk, it is necessary and expected, a *routine aspect of trajectory work.* It can be very time consuming and tiresome.

Busywork, on the other hand, refers to added work resulting from the errors, forgetfulness, oversights of self and others; an added burden, "a pain in the ass." *It is unexpected.* For example, when an error is found on an insurance or hospital form, it is necessary to make phone calls, offer explanation, follow up to see that the error is corrected, etc. Not a normal, necessary part of the work.

The next memo was written by Elihu Gerson to S. Leigh Star as part of a study of the work of scientists. It represents a working through of some implications of the political nature of robustness — a concept derived from the writings of philosopher of science William Wimsatt — which has, by now, been worked on successfully by the researchers in terms of their own materials. (Something is robust when you get the same answer back using different methods — for instance, experiment versus field observation.)

Memo type
Extending the implications of a borrowed concept in terms of your own research finds

Intent
To raise further data collection and analytic issues about this important phenomenon.

Comment
Note how a literature-derived category can be utilized if it fits one's data; also how this memo draws on others in the same and related research projects.

This kind of memo illustrates well how related literature — indeed, a concept — can be drawn into and further direct one's research, once the central and some of the minor categories are firmly in place — providing the newcomer is genuinely integrated, and not just merely added to a conceptual pile or completely dominating all of one's own discovered categories.

1204/M167   1 June 1982   E. M. Gerson

Robustness of theories and the persistence of conceptual artifacts

It is a routine point in the philosophy of science that the strength of an idea comes from its simultaneous role in *many* theoretical contexts, not just one. Usually, this is phrased upside down and backwards (i.e., that an idea gains strength as it is "corroborated" in many different theoretical contexts; and that

it becomes a "core" idea as it is picked up, used, and further corroborated in numerous different lines of research). As often as not, this notion is used to *explain away* the equally well-known fact that ideas are often *disconfirmed* by experimental results, and scientists still persist in retaining and using them despite the disconfirmation. This phenomenon is viewed as an anomaly, and the "support in multiple contexts" notion is used to explain it....

If we look at theory construction and maintenance as a matter of work and work organization, things look somewhat different. The first point of course is that robustness is political (1212/M30, 30 April 1982; 1204/M163, 28 May 1982), and that an "idea" is a commitment to organize work in a certain way. Let's draw some of the implications of this.

Suppose we have some theoretical conception or relationship, which has been adopted in several different lines of work (presumably, these lines are closely related). For example: the speed of light is constant, or acquired characters are not inherited. There is evidence supporting the notion in each (or most) lines of work, and several lines of work use the notion as a taken-for-granted package, without being very much concerned with its justification (e.g. plant breeding and inheritance of acquired characters). Suppose, finally, that the notion is disconfirmed in one line of work, and claims are put forward that the idea is no good/needs revision/etc. What happens?

As we know from many examples (and the philosophy argument), the claim is often ignored/ridiculed/etc. Cf. Star's work on anomalies in neurophysiology used to impeach the localizationist position or Steele's current claims about IAC. In fact, this process is common enough to have become a significant problem in our work – how do we explain the *persistence of conceptual artifacts* in the face of disconfirmatory evidence, etc.? Why is something known to be no good (I'm extending the point now) held anyhow? Star has been talking about "inertia" in this sense.

So we want to look at *patterns of ignoring threats to robustness of theoretical ideas across multiple lines of work*. In practice, something like the following is happening:

1. Anomaly appears in a line of work: a well-established notion is attacked as inadequate/no good/etc.

2. Within that single line of work, a debate starts: the idea attacked may have a lot of support or a little; the data impeaching it may be good, not so good, etc. The attack on the theoretical notion makes some degree of headway. Suppose it convinces at least some people.

3. Within *neighboring* lines of work (sister specialties), three different things can happen:

   a. The attack gains support, and the weakness of the idea starts to spread. We aren't very concerned with this one here.

   b. Lines which use the idea in a packaged way are not likely to be very supportive; first, because they aren't familiar with the issues; second, because they have a vested stake in keeping the idea intact, because they have built *their* commitment structure on it, at least in part.

   c. Lines which are also concerned directly with the idea are likely to defend it if it works *in their context*. That is, if the idea works in *my* house, I'm not too likely to get excited if it appears to be flaky in *your* house, especially if I'm going to have to rip out my plumbing if it turns

out to be no good. Before that, I'm going to make very sure that the flakiness is real, not apparent.

So, a generalization: *neighboring lines of work act as points of resistance to idea-impeaching claims when they've built the idea into their own work.* In particular, the easiest thing to do with such a claim is to *ignore* it or ridicule it (as per c, above). As long as I can claim validity for the idea by *pointing to its robust character* (supported in all the *other* neighboring lines of work) I don't have to take the impeachment claims too seriously – after all, the notion is robust. Something like this seems to have been happening in the units-of-selection debate (Wimsatt), in which several different approaches converged on the same artifact, and fell into the trap of using the same bad heuristic assumptions in their work.

Rules of thumb for memoing

Here are some rules of thumb for memoing developed over the years in our research, as suggested by Barney Glaser (1978, pp. 81–91).

1. *Keep memos and data separate.* Thus, memos should not be written into recordings of fieldnotes, since when the fieldnotes become somewhat abstract the memo may appear like the conceptual perspective of an informant. Later, when reading the notes, the analyst may not be able to tell the difference. By the same token data should not be put in memos, with the exception of clearly demarcated, useful illustrations, referenced to the fieldnotes from where the illustration was taken. All memos should be referenced to the fieldnotes from where they emerged, so the analyst can check grounding and draw illustrations when needed.

   While the same incident can indicate two different concepts, it is advisable to use it as an illustration for only one, and find another indicator as an illustration for the other. With adequate references and illustrations the analyst can write straight from the memos, with occasional forays back to the data, with a sense of complete grounding.

2. *Always interrupt coding or data recording for writing a memo, when an idea occurs,* so the idea is not lost. If you cannot stop, jot down a short memo on what to write a memo on later. If another idea comes along when memoing on an idea, weave it into the memo, but also write a brief memo to do a memo on it later. Set aside a block of time for coding and memoing when you will not be disturbed. As always, it is best to bend to the dictates of one's own personal pacing recipe.

3. *The analyst can bring a memo, literally force it, by starting to write on a code.* Such writing is very likely to open up the output stage of creativity. Sometimes analysts need to press themselves this way to start a memo flow. Conversely, analysis should not be afraid to stop writing a memo, if it is not flowing. The code will occur again in the data if it is relevant. So whether to press or not is problematic, but the general rule is to press as little as possible, as memoing emerges easily enough.

4. *Do not be afraid to modify memos as your research develops.* It can usually lead to a better memo. Remember the data is more precious than the theory. The latter must fit the former. Memos allow this freedom.

5. *Keep a list of the emergent codes handy.* In the later stages of coding, when memoing is at a peak, refer to the list for possible relationships you have either missed or not thought of.

6. If too many memos on different codes seem the same, *compare codes or their dimensions for differences that are being missed between the two codes.* If they are still the same, collapse the two into one code.

7. *Problematic digressions should be followed through on a conceptual, elaborative basis for the purpose of theoretical sampling or to indicate an area for future research.* These digressions should be grounded and referenced as much as possible, as well as points indicated that are ungrounded, coming from hunch, inspiration, or insight. The memo should be quite clear on data vs. conjecture, because when returning to it later the analyst might forget and think it was grounded. It happens.

8. *Run the memos open as long as resources allow,* to develop the rich diversity that they can afford for doing various pieces out of them.

9. *When writing memos, talk conceptually about the substantive codes as they are theoretically coded;* do not talk about people. This maintains the conceptual level of analysis as relationships among concepts, and it gives the analyst practice for the final writing. People occur in the references as indicators, but the analysis is about conceptually generated patterns which people engage in, not about the people, per se.

10. *If you have two burning ideas, write the ideas up one at a time.* This will keep them clear, straight, and not lose either. To write them up together is confusing and hinders clear relations between the two.

11. Indicate in memos "*Saturation*," when you think you have saturated the category.

12. *Always be flexible with memoing techniques.* Analyst's techniques should serve them, not hinder or enslave them. Each analyst's memoing has a personal recipe involved, and this is always emerging and forcing change of techniques. Follow those changes which are worthwhile.

Perhaps you can think of other rules for memoing. There are more, but the above give us enough to work with, while personal rules will emerge to supplement and change them.

Summary

The memo types reproduced in this chapter have been given names to bring out their central respective features. In order of their presentation they were:

initial, orienting memos
preliminary memos

memo sparks
memos that open attacks on new phenomena
memos on new categories
initial discovery memos
memos distinguishing between two or more categories
memos extending the implications of a borrowed concept

Of course, this does not exhaust the entire range of memo types, but it suggests something of *how* and *when* varieties of memos are written, as well as how they function in research projects. Other types include additional thoughts memos, taking off from previous memos. One may even code anew after rereading a previous memo and being stimulated to fill in gaps or to extend points made in that memo. Following that new coding, another memo is written. Another type of memo is the integrative memo, which will be discussed in Chapters 8 and 9. Another important type is the organizing, summary memo, presented at team meetings in order to prompt discussion, the meetings themselves constituting a form of theoretical memo. Such an organizing, summary memo and a portion of the discussion that followed its presentation are given in the next chapter.

One final point: Selective coding – coding in relation to core categories – was seen in the memo on comfort work, and will be seen again in the next chapter, in a summarizing memo written about clinical safety, as well as in the memo sequence reproduced in Chapter 9. In each instance, the core categories for this particular study (trajectory and types of work) are more in the nature of reporting on or sparking off of the results of open coding, because the core categories had not yet clearly emerged for the researchers.