STRUCTURED OBSERVATION AS A METHOD TO STUDY MANAGERIAL WORK

BY

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IN the May 1965 issue of *The Journal of Management Studies*, Rosemary Stewart published an article entitled 'The Use of Diaries to Study Managers' Jobs'. In it she discussed the diary method, whereby managers describe the nature of their activities on precoded pads, and she contrasted this method with observation. Miss Stewart claimed that she required a method that would be simple for the manager to use, and that would enable her to compare adequately the differences between different types of managers' jobs. She chose the diary, she claimed, because it allowed her to study more managers for greater periods of time, and because only the manager has the understanding of and the access to the events to be recorded.

Then, in the October 1967 issue of the Journal, David Marples suggested, in his article 'Studies of Managers — A Fresh Start?', that diary recording may be inaccurate and that unambiguous categories had yet to be devised for diary studies. As an alternative form of research, he proposed that the manager be viewed as a decision-maker and that sequences of problem-solving episodes be studied as a means to develop an understanding of managerial work.

It is an encouraging sign that a debate concerning the methods to study managerial work can now take place in the literature of management. For too many years, the students of management avoided empirical research preferring instead to accept Fayol's fifty year old description of managerial work as planning, organizing, co-ordinating, and controlling.[1] With the publication of Sune Carlson's diary study in 1951,[2] researchers were provided with the impetus to undertake empirical research. Most chose to follow Carlson's methodology. Thus, we have the diary studies of Tom Burns,[3] Dubin and Spray,[4] Horne and Lupton,[5] and Rosemary Stewart.[6]

[1] Fayol, H., *Administration industrielle et générale*, Paris: Durod, 1950, first published in 1916.

[2] Carlson, S., *Executive Behaviour: A Study of the Workloads and Working Methods of Managing Directors*, Stockholm: Strombergs, 1951.

[3] Burns, T., 'The Directions of Activity and Communication in a Departmental Executive Group', *Human Relations*, Vol. VII, No. 1, 1954, pp. 73–97; Burns, T., 'Management in Action', *Operational Research Quarterly*, Vol. VIII, No. 2, June 1957, pp. 45–60.

[4] Dubin, R. and Spray, S. L., 'Executive Behaviour and Interaction', *Industrial Relations*, Vol. III, No. 2, February 1964, pp. 99–108.

[5] Horne, J. H. and Lupton, T., 'The Work Activities of "Middle" Managers — An Exploratory Study', *The Journal of Management Studies*, Vol. II, No. 1, February 1965, pp. 14–33.

[6] Stewart, R., *Managers and Their Jobs*, London: Macmillan, 1967.

In this article, I shall describe a method to study managerial work which I call *structured observation*. I believe that it enables the researcher to do everything included in Miss Stewart's diary method and Mr. Marples 'sequence of episodes' method. In addition, I believe that it offers greater potential than either of these two for research on managerial work.

The Major Drawback of the Diary Method

The conclusion of the diary studies suggest an interesting point. Not one of these studies provides substantial insight into the actual content of managerial activities. In every case, the emphasis is on what could be called 'media'. The reader is told where managers spend their time, with whom they spend their time, how they interact (telephone, face-to-face, etc.) and so on. But the reader is never told *what* is transacted. In simple terms, we know that the manager was with a supplier, that they conversed in the board room, and that the meeting lasted fifty-three minutes, but we are never told why they met or what they talked about.

Indeed, Carlson who tried to collect such information could offer only the following paragraph in a book of well over one hundred pages:

'The main problem for the chief executive in dealing with questions brought up is to keep himself informed. Of the various headings on the questionnaire, 'getting informed' was used at least twice as often as any of the others.'[7]

It is my belief that the problem lay in the research method they used. In order to design the diary recording form, one must first develop unambiguous categories, few in number, to be checked off by the manager. Burns, who used the diary method, has written:

'The use of a simplified diary schedule of this kind means that the amount of information contained in each is extremely limited; it amounts to a description of one's behaviour in a language of less than fifty verbs and nouns....'[8]

Thus, the researcher must *first* know what managers do before he can design the form. Then *all he will learn is the distribution of activities he already believes the manager is performing*.

What categories or words are we to choose to describe the content (i.e. purpose) of managerial activities? For nowhere in the literature of management is content categorized, except in vague terms such as those of Fayol. And surely Fayol's words are not useful. (The reader who doubts this is asked to observe any manager for twenty minutes and then try to fit any activity that manager performed into one of Fayol's categories. For instance, what does a

[7] Carlson, S., op. cit., p. 108.
[8] Burns, T., 1957, op. cit., p. 46.

manager do when he 'co-ordinates'?) In fact, our most important challenge is
to find the words that should go on the diary form, that is, to develop a better
framework to describe the manager's roles. Hodgson *et al.* used the same kind
of argument in discussing the questionnaire method:

> 'To construct questionnaire, we had to know the salient dimensions of the
> situation we were studying. It took us about a year of field work to find
> them out, and by that time we were already obtaining so much data that
> questionnaire would have been of no incremental value. . . .'[9]

Marples presented a different critique of the diary method. He argued that
diary researchers did not have clear objectives, and could, therefore, develop
few important theoretical conclusions. He then commented:

> 'If we are to be able to say anything useful about the efficiency or effective-
> ness of the individual manager we need a measure of his output as well as
> his input. The "time-spending" model only analyses the input. The resolu-
> tion of issues is the manager's main output. An output model may well be
> provided by regarding the manager as a problem-solver and decision
> maker.'[10]

While it may be true that diaries have provided no measure of 'output' (or,
in my terminology, the 'purpose' or 'content' of managerial activity), this fact
does not invalidate the 'time-spending' approach. And certainly one cannot
study output simply by studying decision-making and problem-solving.
Managers also disseminate information, motivate subordinates, act as figure-
heads, and so on.

'Structured observation' focuses on time-spending, and it enables the
researcher to analyse both inputs and outputs of all kinds. The researcher may
study individual episodes in a comprehensive way, or he may relate sequences
of special purpose episodes.

Structural Observation Defined

In designing a methodology to study managerial work, it was necessary to
find a compromise between using structure and excluding it. Too little
structure would result in an inability to record much of the important data
and tabulate the findings and reproduce the research. Too much structure
would lead to the problems of diaries — an inability to develop an under-
standing of the things we know nothing about.

I use the label 'structured observation' to refer to a methodology which
couples the flexibility of open-ended observation with the discipline of seeking

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[9] Hodgson, R. C. *et al.*, *The Executive Role Constellation: An Analysis of Personality and Role
Relations in Management*, Boston: Harvard University Graduate School of Business Administration,
1965, p. 481.

[10] Marples, op. cit., p. 286.

certain types of structured data. The researcher observes the manager as he performs his work. Each observed event (a verbal contact or a piece of incoming or outgoing mail) is categorized by the researcher in a number of ways (e.g. duration, participation, purpose) as in the diary method but with one vital difference. *The categories are developed as the observation takes place.* In effect, the researcher is influenced in his coding practices, not by the standing literature and his own previous experiences, but by the single event taking place before him. In addition to categorizing events, the researcher is able to record anecdotal information and to collect anecdotal materials (e.g. copies of letters).

I collected the structured data in three records. The *chronology record* describes activity patterns, the *mail record* describes each piece of input and output mail, and the *contact record* describes each verbal contact. The process of recording and coding can probably be made clearer if the reader is provided with a detailed example. Thus, a composite manager's activities during one morning are described below, and the categorization of the data of the three records follows:

As Mr. M. enters his office at 8.20 a.m. and greets Janice, his secretary, the telephone rings. It is the manager of the local manufacturing operation and the call is put through. 'We had a fire in the plant last night,' Mr. M. is told, 'and the damage amounted to $30,000; we should be back in operation by next Wednesday.'

As he hangs up, Janice enters and reminds him of the 11 a.m. appointment and of his intention to call the company lawyer. 'Joe dropped by and would like to see you, and, oh yes, that flight to Paris is booked, so I put you on the 4 p.m. leaving on the fifth. Here's the mail. Nothing much except for that letter from Antwerp.' The seven pieces of mail are processed immediately:

The invitation to speak to the trade organization is declined with a note to Janice to reply that Mr. M. will be abroad.

The advertisement for a magazine on mergers and acquisitions is thrown away.

A notice informs Mr. M. of the date of the board meeting and the date is noted on the calender.

Fortune magazine is skimmed, and an advertisement for certain production equipment is clipped.

The head of the organization's Antwerp office has written to complain that the Treasurer will not release funds for his tenth anniversary celebration. Mr. M. calls to Janice to ask the Treasurer to drop by today.

The internal financial statement for the month is glanced at and put in the 'out' basket for filing.

Without reading it, Mr. M. signs a document received from his V.-P. of

Research and Development. It is a request for funds under a federally supported programme, and Mr. M. must sign it before it goes to Washington.

The time is 8.40 and Mr. M's assistant looks in: 'It looks like there will be trouble at the meeting — they think Mike was forced out, and they are prepared to make a stink about it.' They proceed to discuss the situation. At five minutes before nine, Mr. M. calls the Chairman of the Board. 'There'll be trouble at the meeting, George', and Mr. M. goes on to repeat the information he has just received.

The conversation ends precisely at nine, and a Mr. Jamison is ushered in with a member of the Personnel Department. Mr. Jamison is introduced to Mr. M. who asks: 'Well, what will you do when you leave us?' After some discussion about Mr. Jamison's camp in New Hampshire, he is presented with a plaque commemorating thirty years of service to the organization. At 9.30 the Treasurer, who has been waiting at the door, enters. 'John, look at this', says Mr. M. as he hands him the Antwerp letter. 'What's the story?' The Treasurer explains his side to Mr. M's satisfaction, for when he leaves at 10 a.m., Mr. M. immediately writes a letter to Antwerp explaining that he cannot interfere with the decision of the Treasurer.

Ten minutes later, Janice is called in: 'Now who are these people coming at 11?' Once told, he asks Janice to arrange for his assistant to be present at the meeting.

At 10.10, Mr. M. walks through the executive offices towards the plant. On the way he passes the medical centre and seems to note something. Once in the plant, he stops by various machines to watch the operations and chat with the workers. He drops by the office of the production superintendent, who is not in. He hands the Assistant Superintendent the advertisement clipped from *Fortune* magazine, commenting: 'Jerry may find this worthwhile to use for production scheduling.'

Back in his office at 10.45, Mr. M. finds a message to call the Executive Vice-President, who is in Los Angeles. 'They are asking thirteen million? Tell them we won't go a penny over ten, but, Joe, let's be prepared to settle for twelve instead of eleven.'

This call is followed by a call to the Controller. 'Have you been through the medical department lately? They don't need that new wing — they are not using the space they have now.'

The eleven o'clock meeting, which carries on over lunch, is held in the Board Room, with Mr. M., his assistant, and two members of a consulting firm in attendance. These meetings are held monthly for the duration of a consulting contract. After brief pleasantries, it becomes clear that there is friction here. The consultants are trying to justify their fees, while the

assistant questions them. Mr. M. who has been silent, suddenly asks: 'What about the charge for re-programming? I don't think it should be borne by us.' After some negotiation, a settlement is reached at lunch.

The *chronology record*, noting times and basic activities, and cross-referenced with the other two records, would look as follows:

Time	Medium	Reference	Duration (in hours)
8.20	Call	A	0·02
8.22	Desk Work	1–7	0·3
8.40	Unscheduled Meeting	B	0·2
8.55	Call	C	0·1
9.00	Scheduled Meeting	C	0·5
9.30	Unscheduled Meeting	E	0·5
10.00	Desk Work	(5)	0·2
10.10	Tour	G	0·1
10.40	Tour	H	0·2
10.45	Call	I	0·1
11.00	Scheduled Meeting	J	2·0
1.00			

The chronology record was designed to provide basic data on the design of the working day, and to provide a reference to the other two records. It shows, at a glance, the distribution of telephone calls, scheduled and un-scheduled meetings, tours, and desk work. Meetings, telephone calls and tours are annotated with sequential letters, and pieces of mail are annotated with numbers as they are processed.

Meetings are defined as *un*scheduled if they are arranged hastily, as when someone just 'drops in'. 'Tour' refers to a chance meeting in the hall, or to the promenades taken by the manager to observe activity and to deliver informa-tion. 'Desk work' refers to the time the manager spends at his desk, processing mail, scheduling activities, writing letters, or communicating with the secretary. 'Duration' is recorded to the nearest tenth of an hour; actions lasting less than three minutes are recorded as lasting 0·02 hours.

The *mail record*, detailing the nature of the mail received and generated by the manager, would look as follows:

No.	Form	From	Purpose	Attention	Action taken
1	Letter	Trade organization	Request to speak	Read	Reply: decline
2	Clipping	Salesman	Solicitation	Skim	—
3	Letter	External board	Notice of meeting	Read	—
4	Periodical	—	Business news	Skim	Forward advertise-ment to produc-tion supervisor
5	Memo	Foreign vice-president	Request resolve staff conflict	Read	Reply: explain
6	Report	Controller	Financial data	Skim	—
7	Letter	R & D vice-president	Request signature	—	Sign

Each of these classifications is explained below:

Form: refers to the format of the correspondence;

From: the sender (if manager receives a copy of correspondence not addressed to him, the addressee is noted as well);

Purpose: the reason for the mail;

Attention: skim, read, or study;

Action Taken: immediate action taken by the manager (if action is delayed, it is often not possible to record it);

(note that mail originated by the manager was recorded in the same way).

The *contact record*, providing detail on meetings, telephone calls, and tours, would look as follows:

No.	Medium	Purpose	Participants	Initiation	Duration	Place
A	Call	Informed — event	Manufacturing manager	Opposite	0·02	Office
B	Unscheduled meeting²	Informed — I.C.	Assistant	Opposite	0·2	Office
C	Call	Informing — I.C.	Chairman	Self	0·1	Office
D	Scheduled meeting³	Ceremony	Retiring employee; Personnel staffer	Personnel staffer	0·5	Office
E	Unscheduled meeting²	Informed — action taken	Treasurer	Self	0·5	Office
F	Tour	Observation	Plant employees	Self	0·5	Medical plant
G	Tour	Informing — idea	Assistant superintendent	Self	0·1	Plant
H	Call	Strategy	Executive vice-president	Opposite	0·2	Office
I	Call	Informing — decision	Controller	Self	0·1	Office
J	Scheduled meeting⁴	Negotiating	Assistant; Consultants	Clock	2·0	Board room

Each of these classifications is explained below:

Medium: as in chronology record, except that number of people attending meeting is also noted;

Purpose: reason for the activity; 'ed' suffix refers to passive action (e.g. inform*ed* means manager received information); 'ing' suffix refers to active action (e.g. request*ing* means manager made the request); I.C. means 'instant communication' (current information transmitted quickly);

Participants: actual contacts;

Initiation: ostensible initiator ('clock' if event takes place regularly);

Duration: as in chronology record;

Place: location of manager during activity.

The reader may feel that some of the categories are not sufficiently 'neat'. This is so because the words I used to describe a particular activity were chosen at the time of observation. Once the field work was completed, all the data

TABLE I

ANALYSIS OF THE CHRONOLOGY RECORD

Based on five weeks of observation

Category	Composite	Manager A	Manager B	Manager C	Manager D	Manager E
Total hours worked	202 hours	28	36	45	53	40
Hours in travel to outside meetings (excluded)	18 hours	5·4	7·1	4·5	0·3	0·3
Hours of evening meetings (included)	24 hours	—	3	3	7	11
Total amount of mail	890 pieces	161	165	230	222	112
Average amount of mail processed per day	36 pieces	32	33	46	44	22
Total number of activities	547	101	86	96	160	104
Desk Work						
Number of sessions	179	36	31	25	54	33
Time on desk work	44 hours	10·6	8·3	8·3	10·7	6·4
Average duration	15 min.	18	16	20	12	12
Proportion of time	22%	38%	23%	18%	20%	16%
Telephone Calls[1]						
Number of calls	133	27	27	30	22	27
Time on telephone	13 hours	2·4	3·2	3·0	1·9	2·4
Average duration	6 min.	5	7	6	5	5
Proportion of time	6%	9%	9%	7%	4%	6%
Scheduled Meetings						
Number of scheduled meetings	105	16	14	27	18	30
Time in scheduled meetings	120 hours	10·6	20·6	29·1	29·5	29·8
Average duration	68 min.	40	88	65	98	60
Proportion of time	59%	38%	57%	65%	55%	75%
Unscheduled Meetings[2]						
Number of unscheduled meetings	101	10	14	10	55	12
Time in unscheduled meetings	20 hours	1·7	3·5	4·0	9·6	1·2
Average duration	12 min.	10	15	24	10	6
Proportion of time	10%	6%	10%	9%	18%	3%
Tours						
Number of tours	29	12	—	4	11	2
Time on tours	5 hours	2·9	—	0·5	1·5	0·2
Average duration	11 min.	14	—	8	8	6
Proportion of time	3%	10%	0%	1%	3%	1%
Proportion of activities lasting less than 9 min.	49%	44%	40%	45%	56%	51%
Proportion lasting longer than 60 min.	10%	5%	12%	13%	9%	12%

[1] Telephone calls screened or made by the secretary are excluded.
[2] Discussions with the secretary are excluded.

were brought together, the categories were reduced in number and tidied, and all the observations were coded again.

In my research, the chief executives of five large American organizations were studied for one week periods. These organizations were a consulting

TABLE II

ANALYSIS OF THE MAIL RECORD: INPUT
Based on five weeks of observation

Category	Composite	Manager A	Manager B	Manager C	Manager D	Manager E
No. of pieces received	659	112	142	164	172	69
Form of Input						
Letter	29%	28	15	40	26	43
Memo	10%	14	1	9	14	13
Report	25%	12	28	32	23	28
Periodical[1]	16%	13	41	6	14	3
Copy of letter	9%	16	6	7	8	9
Copy of memo	6%	11	4	2	10	2
Clipping	4%	5	4	3	5	2
Book	1%	1	1	1	1	—
Attention						
Skim	31%	32	63	34	13	6
Read	63%	65	33	57	80	94
Study	6%	4	4	9	7	—
Sender						
Subordinate	39%	49	21	30	47	62
Director	1%	1	1	2	1	1
Peer	16%	17	9	31	12	6
Trade organization	9%	2	10	20	2	6
Client[2]	5%	11	9	1	3	3
Supplier or associate	8%	2	14	4	13	4
Independent[3]	6%	6	1	6	10	3
Publisher	11%	10	27	2	13	3
Government	5%	3	9	4	2	12
Purpose of Input Mail						
Acknowledgements	5%	7	2	7	6	4
Status requests	12%	10	5	15	8	30
Solicitations	5%	4	9	3	5	3
Authority requests	5%	3	3	4	3	12
Total requests	21%	17	18	23	16	45
Reference data	14%	8	11	20	17	9
General reports	8%	6	5	18	5	1
Periodical news	15%	12	42	5	12	3
News of events	8%	4	6	12	8	7
Reports on operations	18%	30	12	8	25	12
Advice on situations	6%	7	2	3	6	14
Problems and pressures	2%	4	1	3	2	3
Ideas	2%	4	1	2	2	1
Total information	74%	76	80	70	78	51

[1] Periodicals received and read at the managers' homes included.
[2] Includes buyer of consumer goods or service, patient in hospital, parent associated with school system.
[3] Person with no relevant organization affiliation.

firm, a hospital, a consumer goods manufacturer, a school system, and a technological corporation. To give the reader an appreciation for the results of the categorizing process and the potential of structured observation, the data as distilled from the three records are shown in Tables I to IV.

Although it will not be possible to discuss the conclusions in detail at this time, it should be noted that two sets of conclusions were developed. The

TABLE III

ANALYSIS OF THE MAIL RECORD: OUTPUT

Based on five weeks of observation

Category	Composite	Manager A	Manager B	Manager C	Manager D	Manager E
No. of pieces of mail reacted to	206	34	20	65	49	38
No. self-initiated	25	15	3	1	1	5
Total output	231	49	23	66	50	43
Proportion of Input Mail reacted to	31%	30%	14%	40%	28%	55%
Form of Output Mail						
Letter	47%	53	39	56	30	51
Memo	19%	14	22	9	30	26
Report	2%	4	9	—	—	2
Forwarded letter	18%	22	30	8	28	9
Forwarded memo	5%	2	—	9	4	5
Forwarded clipping, report, periodical, book	9%	4	—	18	8	7
Target of Output Mail						
Subordinate	55%	41	57	45	68	67
Director	2%	6	4	—	—	2
Peer	17%	22	22	24	12	2
Trade Organization	5%	—	—	12	6	—
Client	7%	22	4	3	—	5
Supplier or associate	3%	4	4	—	8	—
Independent	5%	2	4	9	6	—
Government	7%	2	4	6	—	23
Purpose of Output Mail						
Acknowledge mail	12%	12	9	17	10	7
Reply to written requests	33%	20	39	33	26	51
Reply to information received	10%	4	4	14	18	7
Forward information to subordinate	23%	24	13	27	34	9
Foward request to subordinate[1]	7%	2	13	8	6	12
Write to third party re mail	3%	6	9	—	4	2
Acknowledge or reply to verbal contract	6%	18	4	—	—	9
Write report	2%	4	9	—	—	2
Originate letter or memo	3%	8	—	1	2	1

[1] That is, delegate task of handling the request to a subordinate.

TABLE IV
ANALYSIS OF THE CONTACT RECORD
Based on five weeks of observation

Category	Composite	Manager A	Manager B	Manager C	Manager D	Manager E
Total time in verbal contact	158 hours	17	28	37	42	34
Total no. of verbal contacts	368	65	55	71	106	71
Media: Proportion of Contacts/Proportion of Time						
Telephone calls	36%/8%[1]	42/14	49/12	42/8	21/5	38/7
Scheduled meetings	29%/76%	25/60	25/75	38/79	17/69	42/88
Unscheduled meetings	27%/13%	15/10	25/13	14/11	52/23	17/4
Tours	8%/3%	18/16	—/—	6/1	11/4	3/1
Size of: Scheduled Meetings/Unscheduled Meetings/Tours						
Proportion with 2 people	49%/92%/77%	37/100/67	29/93/—	61/100/67	28/88/89	48/100/100
Proportion with 3 people	14%/4%/12%	25/—/25	14/—/—	4/—/—	22/4/—	11/—/—
Proportion with 4 people	9%/3%/4%	13/—/—	14/7/—	4/—/—	11/3/11	7/—/—
More than 4 people	34%/1%/8%	25/—/8	43/—/—	32/—/33	39/2/—	33/—/—
Participants: Proportion of Contacts/Proportion of Time						
Subordinate	64%/48%	66/60	59/34	54/50	77/39	65/61
Director	6%/7%	6/2	4/5	14/10	—/—	11/17
Co-director	5%/5%	9/19	14/12	3/3	1/0·2	1/0·3
Peer and trade organization	3%/11%	—/—	14/12	10/28	2/16	3/1
Client	2%/3%	8/9	—/—	—/—	—/—	6/10
Supplier and associate	9%/17%	8/6	20/48	1/0·3	9/24	10/9
Independent and other	9%/8%	3/3	4/1	18/8	12/21	4/2
Initiator: Proportion of Total Contacts						
Manager	32%	52	25	27	27	30
Opposite party	57%	43	66	58	64	52
Mutual	5%	2	5	—	6	10
Clock	7%	3	4	15	3	8

Location: Proportion of Contacts/Proportion of Time						
Manager's office	75%/39%	87/39	86/38	66/41	75/38	85/47
Office of subordinate	10%/8%	22/18	11/11	8/6	10/9	1/0·3
Hall or plant	3%/1%	3/3	2/1	7/1	4/1	—/—
Conference or board room	3%/14%	3/19	5/28	8/16	4/10	1/4
Away from organization	8%/38%	5/21	7/23	10/36	8/43	13/48
Purpose of Contact: Proportion of Contacts/Proportion of Time						
Organizational work	3%/2%	2/17	—/—	—/—	—/—	—/—
Scheduling	15%/3%	14/5	18/3	12/1	22/4	11/1
Ceremony	6%/12%	9/12	—/—	4/5	5/15	10/25
External board work	2%/5%	6/19	7/13	1/3	—/—	—/—
Total secondary	23%/21%	31/53	25/16	17/9	27/19	21/26
Status requests and solicitation	5%/1%	5/3	4/1	11/2	3/0·5	4/1
Action requests	17%/12%	8/3	20/9	25/22	13/5	20/16
Manager requests	12%/5%	12/7	11/3	10/6	14/9	10/2
Total requests	34%/18%	25/13	35/13	45/30	30/15	34/19
Observational tours	2%/1%	6/4	—/—	1/0	3/1	—/—
Receiving information	14%/16%	9/4	7/5	10/22	24/29	11/7
Giving information	10%/8%	14/8	9/3	14/13	4/5	13/9
Review	10%/16%	11/10	5/3	13/25	10/22	8/11
Total informational	36%/40%	40/26	21/11	37/60	41/57	32/27
Strategy	6%/13%	5/8	13/24	1/2	3/8	10/22
Negotiation	1%/8%	—/—	5/36	—/—	—/—	3/5
Total decision-making	7%/21%	5/8	18/60	1/2	3/8	13/27

¹ This means 36 per cent of all verbal contacts and 8 per cent of all time in verbal contact were spent on the telephone.

first — labelled 'the characteristics of managerial work' — derives from a quantitative analysis of all the data except that relating to 'purpose'. (The reader is asked to note the strong similarities among the data of the five men studied.) These conclusions resemble those of the diary studies. The second set of conclusions is in the form of a statement of the manager's roles. These conclusions derive from an analysis of the 'purpose' categories. These categories are defined below:

Purposes of Input Mail

Acknowledgements: expressing thanks or formal recognition.

Status Requests: non-significant requests made because of manager's status.

Solicitations: approaches made to sell something to the manager or his organization.

Authority Requests: requests to have the manager approve or authorize an action. (In the analysis of the data, this category, as well as a number of others, is further subdivided.)

Reference Data: information sent to manager primarily for reference.

General Reports: lengthy documents analysing issues of general interest.

Periodical News: periodical literature.

News of Events: *ad hoc* information on current happenings.

Reports on Operations: information on progress of organizational projects, and results of operations.

Advice on Situations: specific advice on situations requiring decisions.

Problems and Pressures: correspondence explicitly stating problems or demands for action (i.e. requests of a strategic nature).

Ideas: unsolicited ideas sent as such.

Purposes of Verbal Contacts

Organizational Work: operating work of the organization (only one case — manager of consulting firm working on contract).

Scheduling: co-ordinating efforts by making time arrangements.

Ceremony: formal activity, ostensibly involving no decision-making or information flow.

External Board Work: contacts associated with outside boards on which manager sits.

Status Requests and Solicitations: non-significant requests made of the manager because of his status (perhaps to sell something to the organization).

Action Requests: requests that the manager take some action on matter of consequence (request for authorization or for information; request that manager initiate something; attempt to pressure manager with regard to upcoming decision).

Manager Requests: requests that the manager makes of others (requests for information or advice; delegation of task; follow up on earlier request).

Observational Tours: walks about the organization for no specific purpose other than to observe activity or greet those who pass by.

Receiving Information: one-way flow of information to the manager.

Giving Information: one-way flow of information from the manager.

Review: wide variety of purposes; primarily two-way flow of information; some requesting, etc.

Strategy: development, evaluation, and/or choice of alternatives with regard to important decision-making situation.

Negotiation: bargaining to reach inter-organizational agreement.

Overcoming the Difficulties of Structured Observation

In her article, Rosemary Stewart pointed out three difficulties with observation — the problem for the uninitiated observer in understanding what is taking place, the problem of his being excluded from confidential sessions, and the severely restricted sample size.

The last difficulty could not of course be overcome. However, the following points should be noted. First, I do not believe that any research on managerial work, no matter how ambitious, can be all-inclusive in terms of the managerial population. There are simply too many kinds of managers — managers from public and private organizations, from manufacturing and service organizations, from organizations of various sizes, of various ages, and with various rates of growth, from organizations in industrialized, developing, and underdeveloped nations, managers at the level of chief executives, upper and middle management, first-line supervisors, managers with varying amounts of experience and with various levels and kinds of education, and so on. Second, the data of Tables I to IV indicate that even with brief periods of observation and small sample size it is possible to come up with results that seem to be significant. Finally, it might be noted that sample size is not that important when one is seeking to categorize a type of work rather than to compare different workers. And surely categorization must take precedence over comparison at this stage of development.

Rosemary Stewart discussed the problems of coding complex and confidential activities. In addition, there are the problems of coding evening work and meetings held outside the organization where the researcher cannot go, and the problem of coding telephone conversations, with the researcher plugged into one end only.

In this research, one procedure was used to circumvent these problems. The manager was asked to summarize, in a sentence or two, the information that was needed. After a short period of time, each man came to understand what kinds of data I was seeking, and he had little trouble briefing me. For

example, after a telephone call, I was told (1) who called, and (2) the purpose of the call. For missed meetings, outside meetings, and complex meetings, a short, general résumé sufficed, while evening work was discussed during the next day.

In general, only a few specific questions could be asked during the day, but, very frequently, between 5 and 6 p.m. the manager and I could converse for periods of one-half hour or more. At these times, I could ask for details concerning missed or confusing contacts and mail, and I could review the previous evening's activities. This was also a time to learn about the manager's thoughts — impressions of his job and its related problems, his strategies and aspirations, and so on. These were very candid discussions, and ones that seemed to be enjoyed by the chief executives.

The greatest difficulty concerned the coding process. In the social sciences, where measuring tools are crude, it is often difficult to categorize observations. Eggs can easily be measured and graded, using well-defined criteria, but managerial activities frequently cannot. A number of specific problems were encountered including the following: what to do with very brief verbal contacts (all except those with the secretary were coded); where to draw the line between social and work-related contacts (it appears that many social activities provide work-related information, but it was decided to exclude any contact that was ostensibly social in nature and unrelated to the manager's organization); how to record the duration of contacts (it was not considered appropriate or necessary to use a stopwatch, thus, activities were recorded to the nearest tenth of an hour); how to categorize participants (outsiders could easily be categorized, but because the managers tended to ignore formal lines of authority in communicating with subordinates, it was not possible to categorize them).

There were two other problems of categorizing. I had intended to categorize 'functional area', but found that this was impossible to do. Was I to record a monthly report containing sales and production figures as 'control', 'marketing', or 'manufacturing'? Was I to code a meeting called to resolve a conflict between two manufacturing executives as 'manufacturing' or 'personnel'? In fact, the neat, functional categories we tend to use are not very neat in practice, and I personally would question the validity of this kind of data presented in some diary studies.

Finally, we come to the trickiest problem, that of categorizing 'purpose' of mail and verbal contacts. In particular, scheduled meetings provided the main difficulties as illustrated below:

> To accomplish one purpose, one may first need to accomplish another purpose. For example, to make a request, one may first need to give information (before asking the manager to authorize a new sales plan, there is a need to brief him).

There is the problem of double-talk:

A man requesting advice (Should I take the job?) may simply be trying to inform (I've been asked to take the job) or may be requesting authorization (Will you allow me to take the job?).

A man giving information (Look at the layout of this promotion centre) may be requesting authorization (You had better speak now because if there is a problem later, I'll claim you had your chance to stop it).

A manager seeking advice (What do you think of Martin for the job?) may be trying to feed the grapevine (Let Martin know I'm considering him for the job).

A manager giving information (I don't like the report) may be requesting or demanding something (Change the report).

A manager giving one kind of information (I'm holding the meeting even though you cannot be there) may be giving a different kind of information (I don't want you at the meeting).

A man giving one kind of information (I would like to recommend a policy change in our promotion procedures) may be seeking another kind of information (Why didn't you promote my subordinate?).

At times a man will use an excuse to gain access to the office so that he can raise another issue as an aside. (A subordinate comes to leave a reprint, and, before leaving, comments: 'By the way, I hear that the controllership position is open in Los Angeles [and I would like to have it].')

In certain cases, a contact may have more than one overt purpose: social events can be used to transfer certain kinds of information. (At a cocktail party, a number of subordinates find the manager to tell him of their accomplishments.) A speech may be both ceremonial and informational. (The manager must make a speech to a visiting group, but views this obligation as an opportunity to inform a segment of the public of the reasons behind a recent price increase.)

Finally, an important bit of 'instant communication' may change the whole nature of a meeting. (News of a competitor's move, or news of anticipated moves by the public at a board meeting, may turn relatively informal meetings into high-pressure strategy sessions.)

The following rules were used in categorizing as to 'purpose':

1. The ostensible purpose of a meeting was used for categorizing unless overt reasons were obvious. In other words, the double-talk was ignored unless it was not very subtle. When there was real doubt, the manager was asked for his interpretation of 'purpose'.
2. When meetings had more than one purpose, the one thought to be most important was used. Thus, a speech on a hospital's history would be

called ceremonial, one on the reasons for its rising costs, informational.[11]

3. In the case of a request for information being made and satisfied, if both took place at the same time, the contact record would show 'request' (e.g. newspaper man interviewing chief executive). If they took place separately, then the first meeting was recorded as a 'request', and the second, 'giving information' or 'receiving information' (e.g. manager asks subordinate to conduct study; subordinate reports back three days later).

4. When the number of purposes appeared to be equally important (e.g. making requests, transmitting information, making strategic decisions), the meeting was categorized as a 'review' session.

5. A change in the classification of a meeting was made when some 'instant communication' changed the course of the meeting. In two actual cases, the meetings were categorized as strategy sessions. Similarly, when the manager started on an observational tour and ended up transmitting information, the purpose was changed to 'giving information'.

In summary, I did all I could to find the most logical classification for the purpose of each meeting, without trying to close my eyes to important data and thereby paying a high price for categorizing, and without trying to search for trivial subtleties.

Hawthorne Effects

The reader will, no doubt, be interested in the Hawthorne effects (i.e. un-anticipated results due to presence of researcher) that result from structured observation. My general conclusion is that there were a number of Hawthorne effects, but that they had little influence on the data that I was seeking. For example, people under observation, no doubt, perform differently, perhaps merely by trying to direct their comments to the unexpected participant, perhaps by saying things they might not otherwise say. But it must be remembered that structured observation was being used *not* to study managerial styles but to study the content of managerial activities.

In general, the basic activities of any manager's week do not change because of an observer. Scheduled meetings are set up well in advance, and incoming telephone calls and mail are not influenced by the presence of an observer. Perhaps it could be argued that fewer unscheduled meetings and originated calls would take place, but given the kinds of information I was exposed to at

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[11] Note that the categories of 'strategy', 'receiving information', and 'giving information', were used for certain contacts. This is in no way meant to imply that all strategy-making and information-transmitting took place during these contacts. Rather, the implication is that these purposes were explicitly highlighted during these contacts. Clearly, all contacts involved the transmission of information, and many, categorized elsewhere, involved strategy-making of various kinds. Even, 'scheduling', for example, involved strategy-making of one kind.

various times, there was no reason to believe that events were delayed to avoid my being exposed to them.

Of course, there was the occasional amusing incident, as when a manager on the last day of observation disappeared and reappeared quickly with two of his vice-presidents. They had a gift for me and a request: 'Now, tell us what you've learned this week.' This was not the time to theorize about the differences between descriptive and normative research, so I quickly recalled my impressions of the week. When the meeting ended, I could note in the *contact record:*

Medium: unscheduled meeting. 4
Purpose: informed about own managerial activities.
Participants: 2 vice-presidents, researcher.

A Final Comment about Structured Observation

The field experiences pointed up another very great disadvantage of the diary method (and, indeed, of questionnaires and interviews). Managerial work is extremely hectic and complex and it frequently comes in short, dense bursts. The manager is far too busy to record properly. During my research, one meeting of two people lasting eighteen minutes covered fifteen distinct topics; often the manager had a number of chance and very brief contacts in the hall; one manager processed 132 pieces of mail in less than four hours; and one sequence of activities occurred as follows — a one-minute unscheduled meeting, a one-minute telephone call, five minutes of desk work, and a two-minute telephone call. Imagine one of these managers faced with a diary pad! Managing is a difficult, full-time job and, as I was to learn, so is recording.

Thus, I feel strongly that at this stage of development we must, if possible, not place great reliance on the indirect methods of research, such as diaries, questionnaires, and interviews. Managerial work is simply too complex and we know too little about it. Once we have an appropriate theoretical understanding of managerial work, the diary method may prove useful to collect data efficiently and to compare many types of managers. But first we must have the understanding. Any highly structured form of research that presupposes much knowledge of the subject and that does not enable the researcher to create new structure as he goes along, or any structure that takes an overly narrow view of the subject, is certain to perpetuate the inadequate views that we now have of managerial work.