

Gatherers of Information: The Mission Process at the International Monetary Fund

Richard H. R. Harper
RXRC, 61 Regent Street
Cambridge, CB2 1AB U.K.
harper@europarc.xerox.com

Abstract: The paper reports findings from an ethnographic study of work practice at the International Monetary Fund, in Washington, DC. In particular, it describes the mission process, drawing attention to important aspects of social organisation in that process. These aspects, relating to social validation, ritual, and the moral (as against the arithmetical) transformation of numbers, are crucial to understanding the nature of missions and what role new technologies might play in them.

Introduction

This paper reports on a study of work practice at the International Monetary Fund, in Washington, DC. The goal of the study is to examine the organisational circumstances in which new groupware and CSCW tools might be introduced and to consider the potential changes that might be brought about by their introduction. The International Monetary Fund (or “the Fund” as it is more familiarly known) is a particularly interesting place for study for a number of reasons, not least of which is its high profile. But in addition, many aspects of its work practices seem highly amenable to collaborative technology, whether it be new document forms including hypertext and active documents (Harper, 1997), information accessing technologies like LOTUS NOTES (Harper, 1995), distributed information-sharing (Harper & Sellen, 1995), workflow technologies (Sellen & Harper, 1996), media space technologies (Kent & Harper, 1985) or portable document readers (Sellen & Harper, 1997).

The particular concern of this paper is the Fund’s mission process and the issues that need to be considered in determining how new technologies may support that process. In brief, a mission involves a team from the Fund visiting a member

country and, over a period of about two weeks, preparing an analysis of that country's macroeconomic situation. This analysis, which may include recommendations for policy changes by the member authorities or for a loan by the Fund, is then presented to the Fund's Executive Board in a staff report.

On the face of it, mission activity would appear to be the kind of work that new collaborative technologies might radically alter. With digital telecommunications, for example, multimedia meetings between Fund staff and government authorities could be undertaken on a dial-up on demand basis; with various new open information management systems, information and documents associated with meetings could be accessed from Washington. Consequently it might appear reasonable to suggest that new technology will eventually do away with the need for missions, at least that part of missions that involves travelling. But what I will show in this paper is that missions are much more complicated than they might first appear. It is not simply that missions involve ritualising events—which can be arcane and resistant to change at the best of times—it is also the case that mission work involves dealing with what participants themselves call “the facts of life”. These facts of life beg questions about the character of the information gathered and discussed on a mission. My task in this paper is to elaborate just what some of these facts of life are, as well as some of the ritual and ceremonial aspects of missions. At the end of the paper, I will then discuss the relevance of these findings for the introduction of CSCW technologies into the mission process.

More specifically, I will describe how the elemental mechanics consist of an iterative process whereby a mixture of arithmetical, econometric, and meeting skills are used to create data that are reconciled and measured against the data collected by others within the mission team. Running through these basic mechanics are a number of key facts. For example, the broad set of skills and techniques used on missions enable the economists to produce a staff report *come what may*, i.e. irrespective of the incompleteness of the data they have access to and disregarding (more or less) any contingencies they have to deal with. But the task is not simply to collect *correct* data. Rather, a mission team has to create an analytic perspective which determines what is relevant and what is not. This is a laborious process. But it also is a *social process*. To begin with, the perspective is jointly developed between the mission team and the member authorities. In addition, though data may be found in a variety of different places (namely, different offices within the various institutions of the member government agencies), only certain persons within those offices have the rank to sanction data as relevant for the perspective in hand. These people provide the stamp of approval. A mission must seek these out. This process is, in some part, *ritual*.

This is not the only ritual element of missions. Another has to do with the process of agreeing a basis for policy concerns in discussions between the mission and the authorities that typically occurs at the end of missions. Here the mission chief will make fairly ritualised orations to the local authorities; these commence and sometimes terminate the discussion of policy. I will not be suggesting that these orations are merely ritual or symbolic showpieces, or that they have no analytic

value. Rather, I will want to show that it is partly through their ritualising effects—and the partly ritualising responses they can generate—that the symbolic importance of the events are demonstrated. My thesis will be that without ritual, the essential characteristics of the events—in this case policy discussions—would be changed. This character ensures that the outcome of these meetings is treated as consequential; or, put another way, ensures that these are meetings that *count*.

Of course in this setting, the word “count” has at least two relevant meanings. The first meaning implies the significance of the meetings, and the second points towards the fact that these events are in crucial respects about counting numbers. My view is that such countings are not simply arithmetical (although they do involve a large amount of that), but are also the final stage of a social process that transforms *speechless* numbers into ones that have a *voice*. This voice is communicating something very specific: it enables the team to make warranted determinations of what the future will be. For, in the final analysis, the purpose of missions is (crudely speaking) to enable a mission team to divine the future in the shadows of the present. But such activities are not a kind of magic—something that is made-up on the basis of witchcraft or sorcery. Rather, this predicting of the future is undertaken on the basis of materials that can be demonstrated to be “reasonable”, “warranted”, “accurate” and “objective”. This is not to say that a mission does in fact always predict the future precisely. It is to say that they get themselves in a position where making predictions is a reasonable thing to do. In this sense, the team’s predictions consist of a kind of science. This science is a practical, “real world”, hands-on skill. This is what the Fund’s mission work is all about.

The International Monetary Fund

The Fund, based in Washington D.C., is a financial ‘club’ whose members consist of most of the countries of the world. Member countries contribute to a pool of resources which can then be used to provide low interest, multi-currency loans should a member find itself facing balance of payments problems.

The Fund has some 3,000 staff, of which 900 are professional economists. These economists analyse economic policies and developments—especially in the macroeconomic arena. They have particular interest in the circumstances surrounding the emergence of financial imbalances (including those that lead to a balance of payments crisis), the policies to overcome such imbalances, and the corrective policy criteria for making loans. This involves going on missions to the country in question.

The Fund is divided into a number of departments. The most important for my concern are the “area” departments which are responsible for particular member countries divided up into contiguous geographic blocks (Western Hemisphere, Middle Eastern, etc.). The area departments are divided into divisions, each with responsibility for certain countries. The divisions are populated by desk officers and chiefs. Desk officers are economists who develop and maintain expertise on any particular country. A chief will manage several countries and desk officers, and

hence will be responsible for the information the Fund has about any particular set of member countries.

Method

The research consisted of six months ethnographic field work carried out by the author. This field work centred around the 'document career' of staff reports, from the first draft of the 'briefing paper' prepared before a mission commences, to observation of the mission process itself, to observation of the post-mission review cycle, and then to translation, printing, and circulation processes. (For further elaboration see Harper, 1997).

A Case Study of a Fund Mission

Limits of space force me to confine my exposition of a Fund mission by focusing on only some key parts or events of the mission I observed. First, I present a vignette of the team's first meeting. This will provide me with the opportunity to begin explaining how mission work is in large part a social process. It will also provide me with an opportunity to explain how members of the mission team assumed that the materials they gathered as part of this process have what one might call "understandable" problems: numbers get added up incorrectly, miscategorisation occurs, and spreadsheet tables get lost. These are part of the facts of life in mission work and these are the things that the team must deal with come what may. I will then characterise in general terms the data gathering activities undertaken on mission before providing a second vignette, this time of one of the meetings undertaken by two members of the mission with a key official in the authorities. Here I will point towards how a mission needs to get a perspective that can enable it to distinguish between usable and unusable numbers. Some numbers are good for certain tasks, but not for others. I shall provide some examples for illustration. I will then discuss how the chosen numbers have to be socially validated. This senior official could only sanction some and not all numbers. Finally, in a third vignette, I will describe one of the policy meetings that occurred at the end of the mission. Here I will want to draw attention to the ritualising effects of these meetings (desired but not always achieved), important not only in giving those meetings the status they have but in transforming the numbers that are presented in those meetings into ones that count.

Before I start my exposition, two remarks need to be made. First, the mission team consisted of a chief and his deputy, the desk officer responsible for the country in question, a fiscal economist, and a rookie economist called an "EP". Second, for the sake of confidentiality, I shall call the country in question "Arcadia".

Day One: A Vignette

The first meeting occurred an hour or so after the team had settled themselves in to their hotel in the Arcadian capital. The desk officer commenced the meeting by explaining that when he had arrived at the airport an official had given him two copies of the Arcadian budget and four sets of the national accounts. But he explained that although the national accounts had the same bottom line, they were made up of different numbers. He then said:

“But I have sorted them out I assume that (the Arcadians) must have included some early drafts It is not a problem. It is the bottom line that matters at this point. Besides, I can see from the way they have been working which is the most recent so I will use that. I can clarify things with officials later on Still, here are some materials that each of you can use to help build up your tables”.

At which point he started sorting out the tables and giving them to the rest of the team, explaining as he did so: “These won’t be completely right but you can use them to set up the spreadsheets. You can start entering them straight away. Here, use these numbers and these”. The deputy then took over the meeting: “Okay let’s not worry about that at the moment. Let’s try and plan out what we have to do”.

She then outlined what meetings had been arranged, and a list was handed out. She pointed out who amongst the team would be meeting which official and when. She turned to ask each economist:

“Do you know what you can get out of this person? What information will you still need after this meeting? Do you know who you will need to meet afterwards? Can I have those meetings arranged for you now?”

She took particular pains to explain what the EP would be doing, listing the officials he would be seeing and explaining why he would see them:

“The first person you meet tomorrow at the central bank will give you the latest figures on the monetary sector (the EP’s concern) but you should get a lot from her because she knows more or less everyone you will need to deal with. She will give you a lot of advice on what you need to find out. She is easy to get on with so don’t worry, you will be all right”.

Comment

In many ways, this first meeting in Arcadia was fairly inconsequential. But there are two telling aspects of the meeting on which I want to reflect: first, the attitude of the desk officer to the materials he was given at the airport, and second, the deputy’s concern with whom the mission members would be meeting.

As regards the documents given the desk officer and their apparent oddness, essentially what he found was that four sets of national accounts did not consist of the same individual numbers. I think it is extremely important to grasp his perspective on this. For example, a conspiratorial desk officer might have contended that the oddity was a reflection of deliberate obfuscation on the part of Arcadian officials. But this desk officer did not think this. Rather, his assumption was that the problem in the documents had to do with the nature of the informational material that is used in the Fund’s work. To paraphrase, his view was that this material had

to be worked up, crafted, and polished. Further, in this process mistakes can be made, sometimes simple and sometimes more complex. In this case, the oddness was actually the result of a clerical error: some early drafts of the tables had been picked up. In other words, he did not view the material of his work as existing in some tidy, clean and perfect world; a world say, akin to a scientific laboratory. Instead, he assumed that these materials are produced in the ordinary world of offices, over-filled with paperwork and filing cabinets. These materials were produced in the mundane world where simple mistakes get made for all too ordinary reasons.

Much turns around this. For, when one is trying to understand a “real world”, practical activity, in this case the Fund’s work, it becomes all too easy to make misleading comparisons between what one might call the “dirty facts” one finds in that real world and what one might call the clean, tidy facts one will find in the confines of, say, pure research. Such comparisons, wrong in my opinion, are commonplace, especially in relation to activities that involve numbers (Lave, 1986). It is important to note that this desk officer, and I would claim that this held for all members of the mission, did not have a contrast of this order in mind. It was rather that they knew there would be practical difficulties of this kind in their work. They did not bemoan this. Their “problem”, if that is the right description for it, was not that these difficulties would arise, so much as they could not predict when they would show themselves. As this first instance indicates, these difficulties did indeed show themselves at unexpected times, this time even before they had managed to unpack their bags.

The second issue I want to raise also relates to another fact of life on missions. This issue has to do with how and why the mission team displayed a concern with the *social processes* underlying its work. The fact that the deputy wanted to talk about which meetings were arranged with whom, and therefore what would be the outcome of those meetings was not, I would argue, a reflection of the mere fact that data have to be produced by someone. It is rather a recognition of the fact that in policy work, *numbers and persons go hand in hand*. In other words, the team was recognising and depending upon the relationship between an individual’s role in an organisation and the understanding that individual has as a result of that position. This may seem a banal point, but it is fundamental to mission activity. The work is all about creating analysis through the social process of agreeing and determining the facts in question. What is of concern to members of a mission is what *in practice* this means: which people and in what ways can these things (agreement of the fact and determination of policy) be achieved in any particular instance.

This brings us to the problem of the rookie economist—the EP. One of his difficulties was that he was naive as regards these matters. He did not know who to ask about the relevant materials, and perhaps even did not know what would be the right questions to ask even if he did get to the right person. These things he would of course learn through the advice he was given and through the experience that he would slowly accumulate. But that would take time. In the beginning he found

these things difficult. The point, however, is that these are just practical realities that have to be dealt with— these are just facts of life.

Ordinary Work

These arguments beg the question of exactly what economists ask and of whom. To elaborate, I will now describe some of the things that get done in the early stages of a mission.

The first few days of the mission were spent marching around the various buildings of the Arcadian authorities, gathering more information and more numbers, and discussing with those responsible for their production, issues to do with how to interpret those numbers, and on that basis, how to use them. Each member of the mission had their own “circuit” of meetings, numbers, and officials to work around. More specifically, the Fund separates economies into various sectors, and this is reflected in the organisation of the mission process. In this case, the desk officer concentrated on the national accounts, prices, and wages; the fiscal economist concentrated on public finance; and the EP concentrated on the monetary sector and financial reforms. The deputy chief had responsibility for the external sector and the balance of payments. The chief had the task of integrating these figures and of presenting them to the authorities in the policy meetings.

This data collection process consisted of various sections or stages. First, there was the collecting of the first set of data. This supplemented the data the desk officer had already collected over the year including data collected through a questionnaire he sent to the Arcadians. These data were collected in meetings at such places as the *Central Bank* for balance of payments and foreign currency holdings data, and the *Ministry of Finance* for fiscal figures. At the end of each day, each economist added the figures to their increasingly extensive spreadsheets. The figures for one sector were then be reconciled with the figures in the other sectors. When there was a problem of reconciliation between two or more sectors, the team tried to decide what might be the cause. They conjectured that the numbers collected for the fiscal sector were not up-to-date in comparison to figures from other sectors. To investigate this, the fiscal economist asked that they enquire into when the figures were calculated in his next round of meetings. This may be thought of as the further stage of the mission.

However, the division of labour on the mission consisted of more than simply a distribution of data gathering jobs. It was also bound up with the need to generate an analytic picture that could help determine what numbers to gather and what those numbers *meant*. This was reflected in the work the deputy chief and the desk officer undertook at the beginning of the mission. In particular, they arranged meetings with one key official in the Ministry of Planning. The deputy chief and the desk officer wanted to talk with this individual not only to gather certain figures as part of their data gathering, but also to get some guidance on how to read and interpret the figures that the team as a whole were gathering. The official in question had an almost unique insight into the economic position of Arcadia. This was based, in

part, on years of work in various ministries and in part on his current role in the Ministry of Planning.

What they were after was two things. First, they wanted some advice on how to separate the flotsam from the main body of economic fact. For the figures that would be collected in the data gathering consisted both of long term trends or “underlying movements” and elements reflecting one-off events. The official in the Ministry of Planning could provide this “inside information”.

The second purpose of these meetings related to the fact that the official could share with them the perspective the authorities had on current economic trends. Here the concern was for the mission to understand the weight given to some issues, and the indifference felt towards others. Ultimately there would be a good chance that these views would be shared with the team during the policy discussions that concluded the mission, but the team wanted to get an understanding before those events so as to tailor their investigations in such a way as to enable them to “talk to those views”.

The trust between the official and the team was also such that the official could offer frank remarks that might be more difficult to make in the formalised and partly ritual events of policy discussion. For example, the official was quite willing to say the authorities “really didn’t know” why some trend was manifesting itself in the figures whereas in the policy meetings, such admissions would be difficult. It is important to realise that such frankness was not pointing towards failings on the part of the authorities. By and large they had considerable knowledge about the matters at hand. It was just that there were a handful of issues that they were unsure about. This was a fact of life.

Essentially the process in question consisted of a series of meetings during which the numbers (in the national accounts, the monetary sector, and so on) were briefly analysed and discussed. These meetings went on throughout the mission as the team gradually revised and built up its own tables. The process itself involved going through the individual numbers (or category of numbers) one by one, while the official simply outlined what he thought the team ought to know about that category, presenting the Arcadians’ view on those numbers. Sometimes the members of the mission raised their own concerns about a number, requesting the official to explain some issues there and then, or to investigate those numbers for discussion later on.

Discussing the Facts amongst the Facts: A Vignette

An illustration is provided by the first of these meetings, the topic of which was “the macroeconomic framework and review of overall developments”. Once formalities had been completed, the desk officer said that the mission wanted to get some explanation as to why there had been a lowering of export volumes and an increase in imports over projections in the most recent quarterly figures. He pointed towards the relevant numbers in the tables. The official responded by saying the

answer(s) lay not in the general but in the particular, and suggested that they go through each sub-category of exports and imports. This indeed was how they proceeded.

The desk officer commenced the discussions: "Mechanical and electrical goods: these are down on projections: why?"

The official replied:

"There is poor demand for these goods. It reflects the general weakening of demand in the world economy".

Desk Officer: "But if this is the case why has there been an increase in imports of raw materials given that there appears to be a slow down in the economy as a whole?"

Official: "Well, because there has been an increase in investments in tourism. This has caused an increase in imports of raw materials—building goods. This is seasonal: it is the time when many buildings need rebuilding. It is not a trend."

Desk Officer: "Okay, whilst on the subject of tourism, let's move down the table to numbers for tourism. How is that there has been a decline? Or rather, how is it that there has been a reduction: receipts for tourism are down?"

Official: "Tourism? There are more tourists this year but they spend less. I think it is that we went down-market a bit. The tourists who are coming this year spend less than those who came last year. This is a potential problem if the hotels go down too far the quality of the resorts goes down and the appeal to tourists reduces further. We are trying to ensure that we avoid that. We don't want to go through the crisis in (a nearby country). They found that they went down so far that the market for tourism collapsed. They built so many cheap hotels that they destroyed the reason for going there".

On certain categories of numbers the discussions became even more detailed. Partly this was a reflection of what numbers were available. For example, the imports numbers had the following categories which led the deputy chief and desk officer to ask for quite specific accounts:

Deputy: "Why has there been such large increase in agriculture and food stuffs? Look, this figure here: milk and yoghurt."

Official: "Well, it has become fashionable. I think it is to do with healthy eating."

Deputy: "But this is a huge increase, this is millions of litres. No, seriously!"

Official: "Yes, what can I say? People in Arcadia didn't used to drink milk. It's not traditional. This year everyone is drinking it. I think young people think it will make them look like athletes."

The official then patted his tummy and said: "I've not been drinking it!"

The desk officer and deputy chief looked at each other and laughed. "Okay, let's not worry about that one, it won't show itself in the final total anyway."

Sanctioning Numbers

As the week passed, so the focus of concern changed in these meetings. Gradually, the team began to build up a higher level picture where things like the oddities in the current accounts disappeared from view. I do not want to describe these discussions, however, since the main point I want to draw from these meetings with the official in the Ministry of Planning is how he was able to give inside information—information that derived from his location within the government and at the centre

of information production. Meetings with him were an informal nexus whereby the team were able to sort out the “facts amongst the facts” and to learn about the authorities’ perspectives.

It is important to note, however, that as the team moved toward completion of the data gathering stage of the mission and began to reconcile the tables they were generating (i.e., for the monetary, the real, the fiscal and the external sector), so they embarked on another cycle of activity. Here the role of this official changed. For though he was able to give very useful comment on many of the numbers in question, he was only able to *sanction* a sub-set. The team needed to get all of its figures sanctioned before they could start on the analysis of policy and prepare their efforts to discuss policy with the authorities.

By using the term “sanction”, I am pointing toward the fact that the Arcadian authorities had to agree to a number being used by the mission. An illustration of this is provided by the fiscal economist’s activities. He commenced his work with meetings with a senior member of the Ministry of Finance. During these meetings he set out some of the figures in the budget he wanted to discuss. The official nearly always directed the fiscal economist to other, more junior officials to discuss these numbers. During the meetings the economist had with these individuals, they explained why they had calculated the numbers and how. One might characterise this part of the fiscal officer’s activities as a process of going to the horse’s mouth: i.e. getting to the person who was responsible of the production of the numbers in question. Now going to the horse’s mouth is not all that the fiscal officer had to do. For once he had understood the numbers in question, once he had revised his own numbers, once he had worked up the picture as he understood it, he then had to go back to the more senior official to get that individual to “sign off” the numbers.

There are a number of reasons why he had to do so. First, he had to make sure that the numbers he got from the junior official would not be contradicted by numbers generated elsewhere. A senior official may be more likely to know this. Second, some of the figures he ended up using in his tables were the product of calculation prompted by his own questioning. Therefore the more senior official would not necessarily have seen these numbers beforehand. Since this official would ultimately be held responsible for these numbers, it was therefore proper that *he* signed them off. Part of the protocol of this meant that the junior official showed the newly calculated numbers to his senior colleague before the fiscal economist did so. But third, and this reflected a more salient point, these signings off were a ritual display of social status and power. This was particularly obvious in relation to the senior official the fiscal economist dealt with since this individual was a political appointee. He had no interest in the numbers his more junior staff calculated nor very little understanding of why they were calculated. Nonetheless, his was the signature that was required before those numbers could be used.

By combining the product of all this work, the team constructed a basis upon which they could start making some concrete determinations of policy alternatives. The output of their work could not be measured on, say, the basis of completeness,

comprehensiveness or accuracy. Rather, the product of their activities was a perspective from which to reason through policy alternatives. This is ultimately the purpose of missions: not description, not reporting, but enabling a mapping out of the implications of the current situation for the future.

That this is so is shown in the fact that the main event of the mission was the policy discussions that concluded it. As the deputy chief put it, these were “What it is all about,” “The thing that matters”.

I do not want to describe all the activities the team undertook to prepare themselves for the discussions. What I do want to do is present a third vignette, this time of one these meetings. My concern here is to provide a flavour of how these meetings could have ritualising effects, and in particular how the effects of these rituals transformed the numbers presented by the chief into ones that could be used for policy discussion.

A Vignette of Policy Discussions

When the team gathered in the hotel reception early in morning of the first day of policy meetings, there was an atmosphere of relief combined with tension. The economists knew that they would not be doing much during the discussions and that the chief would be the centre of attention. This was his day. But they knew also that the outcome of these meetings could either be the completion of the mission on schedule or the need for more work and delay.

On this particular day, there were to be two meetings: the first with the Ministry of Finance, the second with the Central Bank. I focus on this latter.

Officials were waiting for the delegation at the entrance to the bank, and led the team into a meeting room. The chief entered first, followed by his staff. Whilst waiting for the bank officials to arrive, the chief asked for his economists to sit either side of him. He took some spreadsheet tables from his briefcase and placed them on the desk in front. He began to move them around like a painter preparing his palette. He then asked the desk officer for one of the medium term projections tables, which he added to his collection on the table. Finally, he took some handwritten notes from his jacket pocket and placed them in the centre of his palette of documents.

An official then burst in and announced the imminent arrival of the bank’s Governor. The team stood up. The Governor arrived with a flurry of officials and secretaries behind him. The Governor sat down directly opposite the chief, similarly surrounded by his cohorts. After formalities, the meeting began. The chief stood up and commenced his oration. He complimented the Arcadians on the work that had been achieved in the past year and the impressive performance in certain areas of the economy. He commented also on the continuing frailties in certain areas.

The chief then came to what the mission believed was the heart of the matter, for it was the team’s view that the authorities were clearly exceeding their projected credit levels to the government. There were a number of reasons for this, including

lower than expected growth in some sectors and, most noticeably, an unexpected growth in expenditure in agricultural stocks, particularly for olives. Related to this, there was a reduction in the revenues from the sale of olives in export markets—all of this in a year where the harvest had been unusually good. The chief explained that as a result of this situation, the Arcadian authorities would find their foreign reserves getting reduced to a very low level, little more than one week's imports, or even lower. This was, according to the chief, too little, and necessitated immediate corrective policies. Failure to adopt these policies could lead the Arcadians to seek assistance from the Fund in the near future. As he explained all this he would point at the documents in front of him, and would sometimes pick up a spreadsheet as if looking at an oracle.

When the chief finished his oration there was a long silence. Then the Governor turned to his officials and beckoned them to gather round his chair. For some minutes the Arcadians discussed matters quietly amongst themselves. All the mission could see was a wall of individuals with their backs facing outward. Gradually, officials started to peel off and return to their seats. Eventually, the Governor turned round to face the table again. After a pause, the Governor explained that his staff wanted to go through the numbers again. The chief repeated his figures. The Arcadians looked at each other, before the governor said that they concurred with his calculations. One of the officials then asked if he would tell them who provided each of the main numbers—i.e., which persons in which department had given them to him. The chief, with the help of his team, provided this information. The Arcadians again huddled together. Eventually, they returned to the table. After a pause, the Governor nodded to one of his officials who then announced that the “authorities did indeed agree with the figures that the chief had presented”.

The next stage of the meeting involved investigating policy alternatives. The chief started this stage by continuing his oration during which he outlined what he thought were the main issues to be investigated. The investigations followed. In brief, these involved modifying certain variables in the *monetary tables* to see just what the impact would be on other variables. Different policies would affect different variables and so the hope was to eventually determine the “appropriate policy stance”. These investigations took some time. By the time the meeting ended, the mission team and the staff of the central bank had spent nearly five hours together.

The Raw and the Cooked

There was obviously much more involved in this meeting (and others I have not discussed) than is conveyed in these brief remarks. My concern here is to focus on the fact that this meeting was one that turned out to be one that *counted*. There are two aspects to this. On the one hand, the meeting was about adding numbers; on the other, it had a particular and crucially symbolic aspect that made those countings matter. Both issues are intimately connected. But one has precedence over the other. Let me explain.

The meeting consisted of two main parts, with a watershed in the middle. The chief's oration flowed across both stages. His oration commenced with a presentation not just of what the team had been working on, but the team's final view—its output. Given that the team was invested by the Fund to act on its behalf, this view was effectively the Fund's view. Accordingly, it was presented with all the solemnity it deserved. This was not an opportunity for the discussion of opinions, or for jokes and levity. But nonetheless, this view *did not count* unless it was accepted by the Arcadians. For, though the Arcadians had been involved in its development—some individuals more than others as we have seen—the Arcadian authorities had not officially accepted it and were under no obligation to do so. The periods during which the governor and his officials turned away and discussed the chief's remarks were opportunities for them to decide whether to accept or reject it. These were therefore moments pregnant with tension for the mission team. It was only once the Arcadians had announced acceptance that the next stage of the meeting could occur. This second stage also involved the chief standing up and making a speech, but this time his remarks had a different character. If before they were descriptive, now they became an opportunity to outline issues to be investigated. It is in this respect that there was a watershed in the centre of the meeting. For after the Governor's acceptance, the chief's presentation became the common ground upon which both sides undertook subsequent analytical work. I shall say some more about that work in a moment, but before I do so let me make some more remarks about the significance of this watershed.

It might appear that I am proposing a view on missions that echoes the perspective of Lévi-Strauss (1962). Lévi-Strauss was an anthropologist who claimed (amongst other things) that what was essential to human society was the fact that objects in the world were transformed from their natural, "unsocial" status into social objects by the process of "cooking". Lévi-Strauss' argument was that it was the miraculous transformation that cooking brought about that displayed man's (for it was mostly man in Lévi-Strauss' work) God-like power over nature. Here it might be thought that I am suggesting that policy meetings involve a transformation of something that is, in a sense, *raw* into a thing that is *cooked*. In being cooked it is thereby touchable, clean, and, in the Fund's sense, useable for analysis. Although this will allow some light-hearted remarks about how missions are involved in the process of "cooking the books," I think the comparison is useful. For it draws attention to the *moral element* in the work that gets undertaken on mission, a moral element made conspicuous in the process of sanctioning numbers.

For the process of converting "raw numbers" into meaningful and "useable" information constitutes, in part, a *moral transformation* and not just an arithmetical or econometric one. In being accepted by the Arcadians, the numbers came to be ones that counted. This is in part a moral process because being accepted, or *passing the test* made no difference to the numbers as numbers. The difference made is to the moral status of the numbers.

I want to suggest that this does not just hold for the events within the policy meetings, albeit that they highlight the issues most clearly. I want to argue that mis-

sion work as a whole consists of a process of gathering data, subjecting these data to various assessments and sanctionings, and, if the data pass these tests, using them in analytical tasks.

This discussion of the moral basis of economic facts could lead one to think that economic reality is “merely” a social construct. It might lead one to believe that the concern of missions is not the real, hard, economic facts, but to ensure that the process of building a picture results in the local authorities agreeing to that picture. This would give the impression that the exact nature of the picture does not matter; the main concern being simply that the two sides (the mission and the authorities), agree to it. To be sure, certain sociological commentators would delight in such a notion, but this view is quite wrong¹. The point I am making is that the business of economic fact and the analysis of policy are immersed in considerations of the social. It would be wholly incorrect to separate them.

This leads me back to the second stage of the meetings. For here the kind of analytical work undertaken was clearly empirical, hands-on science. But it was also social, wherein the various participants tested and corroborated their investigations with their colleagues. Of crucial importance, these meetings were populated by those people whose status and business was to determine what was the right way and the wrong way of doing these things, for these were experts doing their work. It is in this sense that there is an additional basis for the claim that mission work has a moral component: these meetings could only be undertaken if the “experts” in this field were there. The experts I have in mind are both those people who may have had technical training in economics and those whose social position, say as governor of the central bank, entitled them to be there. It was the determinations of *these* people that counted; and *their* assessments of what was the right way of doing things that mattered. This was why these meetings *counted*².

Conclusion

These arguments may seem quite distant from questions to do with technology in organisational life. But what I have been wanting to argue is that certain social processes enable certain sorts of information to be suited for organisational use. Information does not “sit out there” in the real world waiting to be caught up in the information net. The task of the Fund’s missions is not simply to go and collect data. The practices of missions make information suitable for processing, and this is, in large part, a social process involving ritual and ceremony. But these practices are also practical, and the facts of life of this practical activity constitute the context in which mission teams have to undertake their computational and analytical work. In short, what I have been attempting to do in this paper is to look at how information is transformed into the kind of object that is suitable for practical action. Only

¹ See for example, Porter (1995).

² This is a difficult point and I think one that is often lost in most sociological descriptions of experts at work. For a good exposition see Button, G. and Sharrock, W. (1993) pp.1-25.

once we have understood that, can we turn to the design and specification of the technology that would support the mission process.

There are some important implications for the application of CSCW technology here. For—and as I noted at the outset—with only a cursory understanding of the mission process, one might think that computer networks and the capability to remotely transmit, access, and process data might help obviate the need for mission work, allowing member countries to make available the kind of up-to-date information the Fund is interested in. But in fact, this analysis shows that mission teams do not simply gather pre-existing data. Rather, they start their work with these data and then “work it up” through a complex social process to create an analytical perspective. This perspective only exists in the hearts and minds of the participants, and not in the numbers themselves. In essence, the experts involved constitute the perspective by participating in its development. That they do so means that the analytic perspective cannot be generated by the use of any sort of technological “knowbot” because such entities do not have the social validation and the expertise that comes from being part of the social process of mission work.

A second implication pertains to the use of video technology. We have seen that missions involve ritual transformations. One might think that the introduction of video technology would be strongly resisted by those involved in mission work if those ritualising events were somehow interfered with. However, I would contend that video technology might actually bolster these processes. For, many multiperson videoconferencing systems involve explicit protocols for turntaking. These could enhance the controls that chiefs and their equivalents in the local authorities might want to exercise. That is to say, the strictly hierarchical aspects of these meetings could be made technologically concrete. Further, such meetings can be planned for, and the participants pre-determined—another requisite for the use of most video systems. Given also that the meetings involve so many persons of high status, the cost for the video system can be justified by the time saved by not having those persons travel.

Of course, there may be a host of reasons why video may nonetheless be rejected, not least the unwillingness of member authorities to accept Fund recommendations for how those authorities might put “their house in order” when the Fund’s senior staff haven’t even bothered to visit the house in question. This is to put it glibly, but points towards the delicate balance of symbolic power between the Fund and its members. Space has precluded discussion of this (but see Harper, 1997). But perhaps more importantly given the materials I have been able to present, video technology may be unsuited to supporting those aspects of policy meetings that are analytical: i.e., after the ritual transformation of numbers has occurred. Here, the “talking head model” of social interaction, which appears to be the basis of most video technology, is antithetical to the flexible sharing of work objects (spreadsheets, lists of numbers, and so on) in the ad hoc, pragmatic, unpredictable way that is constitutive of how experts do their work together. (See Heath et al., 1995 for more detailed comments on these issues.)

In short, the conclusion of this analysis is that those very things that might appear most resistant to technological support and change—namely, ritual transformations—are the very things that CSCW technologies might best support. In contrast, activities to do with the analysis of numeric information may be much less suitable in this regard. This may seem paradoxical, given how numerical information is so suited for computation, and how essentially social phenomena like rituals would appear to be so alien. But this paradox is misleading. For in missions, analytical work and ritual go hand in hand. Numbers consist of the raw data, but these need to be transformed ritually into materials that are analytically useful. Only the human “experts”—whether they be Fund economists or officials in the member authorities—can determine what is acceptable from what is not. It is only they who can determine what numbers can speak for the future and which must remain silent. It has been the purpose of this paper to explain why.

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