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THE DIVISION OF LABOUR

R. Anderson, Manchester Polytechnic
W.W. Sharrock, Manchester University
J.A. Hughes, Lancaster University

Egon Bittner's paper, « The Concept of Organisation », is quite rightly considered to be a classic of its genre (Bittner, 1974)[1]. Yet this explicitly programmatic statement has rarely been used as a departure point for investigations and analysis, and hardly features at all in contemporary discussions and studies. Part of the reason for this is, of course, the sheer brilliance of the paper. It is difficult to imagine how such a superb summary and exposition of a particular line of thinking could be improved, or what else there might be to say about the concept of organisation as a commonsense construct. We are so familiar with it and have grown used to recommending it to others, be they our students and colleagues, that we never feel the need to review its arguments for ourselves.

A second aspect of this, if not under-valuing then certainly under-exploitation of Bittner's paper, is the very topic itself. The intangibility of the methodical use of the *concept* of organisation made available in the studies by Selznik, and others, militates against « normalization » in the kuhnian sense. The analytic methods and

their appropriate data are rendered invisible in the account Bittner gives.

The upshot of all this is, as we say, that while the paper has been widely cited in the voluminous number of attempts to specify just how ethnomethodology and allied approaches differ from those more conventional in the discipline, it has been less seminal, less fertile, than it might. In our view, this is a pity. With your agreement we would like today to offer some observations which might go a little way towards remedying this situation.

The commonsense use of the concept of organization

When we say that Bittner's paper has been less fertile than it might, what exactly do we mean ? Well, clearly one thing we cannot mean is that it has been under-appreciated. It is, rather, that it has rarely been viewed as anything other than a polemic. Because of this, the dissection of the presumptive character of sociological analyses of organizations which is contained in the first two thirds of the paper usually takes precedence over the analysis to be found in the last section. As far as we know, no-one has taken up the specifications of the commonsense methodical use of the concept of organization and attempted to apply them. The notions of organization as « a gambit of compliance », as « a mode of stylistic unity » or as a device for determining « corroborative reference » have remained just as Bittner left them more than twenty years ago.

First of all, let us remind ourselves just what in Bittner's own words these terms are supposed to designate. To begin with, the formal scheme of organization as a *gambit of compliance*.

> « When we consider the set of highly schematic rules subsumed under the concept of rational organization, we can readily see an open realm of free play for relating an infinite variety of performances to rules as responses to those rules. In this field of games of representation and interpretation, the rules may have the significance of informing the competent person about the proper form for doing things that could probably never be divined from considering the rule in its verbal form. Extending to the rule the respect of compliance, while finding in the rule the means for doing whatever needs to be done, is the gambit that characterises organizational acumen » (Bittner, 1974, p. 78)

Second, organization as a *model of stylistic unity*. In many ways this is the most straightforward of the notions which Bittner offers since it mirrors almost exactly the standard use that economists and sociologists give to the concept.

> « We are suggesting the possibility of a principle of discipline that derives from the formal style of the rational scheme and which works against centrifugal forces and heterogeneity. The resulting coherence will be in evidence as outwardly proper conduct and appearance » (*ibid.* p. 78).

The third notion, organizations as *corroborative reference* is, possibly, the one which at first sight looks most promising for elaboration, exploration and extension.

> « When from the perspective of a fragmentary involvement the actual contingent outcome of one's work cannot be appraised or appears senseless, then it can be understood and judged in terms of its overall functional significance by invoking the formal scheme. For example, mismanagement and waste could be defined as merely accidental or perhaps even justified, relative to the total economy of the enterprise. This consideration of the formal scheme not only pursuades the participants of some correct or corrected value of their duties, but can also be used as a potent resource for enforcing prohibitions when interest dictates that such prohibitions should be justified » (*ibid.* p. 79).

In all three cases, what Bittner is drawing out is the use of the formal scheme of organization as a *global summation* - an overall structure of activities. By locating specific ones within an organised environment of activities, the individual sense or rational character of particulars is both achieved and displayed.

The issue that arises now is quite simply this. If one were to use these features as departure points for the investigation of a particular organization of activities, what materials and what features do they make available ? Furthermore, do they express the character of that organization as it is encountered from within ?[2]

The division of labour as a commonsense construct

We ought, at this point, to say a little bit more about how and why this issue arises for us. As some of you already know, we have been engaged of late in the investigation of two very different organizational settings. One is the Head Offices of an entrepreneurial firm in what is known as « the fast food business », Leisure Time Catering (LTC). Some analyses of the materials collected here have already been produced. The other much more recent locale is the Operations Room at the London Air Traffic Control Center (LATCC), and especially the work that is carried out in and around particular control suites. From the materials we have gathered and from what we have learned simply in virtue of being around these settings, it has become clear that the notion of *a working division of labour* is one which those participating in the settings use as a means of interrelating and explicating the activities, both their own and others', to be found there. They encounter and depict the organization of activities as a division of labour. Thus, just as Bittner argued for the concept of organization, the division of labour appears as a commonsense construct oriented to and used in methodical ways.

This should, we hope, be of no surprise to anyone. Now let's push it on a little further. The rational construction of a set of activities as organised in a division of labour could quite easily conform to the features of one of the global summations which Bittner identifies. We can all imagine how, when called upon to say for themselves what they do and why, participants will describe their activities as segments of and intermeshed within a division of labour. The question which we want to ask concerns not depictions or rational reconstructions of activities, but what they look like, how they are encountered as part of working within it. Here, of course, as Bittner is well aware, it is the fragmentary character of activities and task performance which is predominant. On a day to day basis, the division of labour is encountered not as a coherent, integrated totality but as a stream of differentiated and discrete tasks to be performed. Tasks appear and are dealt with as things to be done now, things which can be left until later, things that are tied to the completion of others, and so on.

In the uses which Bittner discusses, the concept of organization provides a thematic unification for what are mutually explicating phenomena : namely the set of activities in view and the codification

or structure which they are located within. In this sense, the division of labour, or any other organization (such as a hierarchy of responsibility, centrality to the organization's « charter ») has what might be thought of as a *transcendantal presence*. Any task gets its sense from, and therefore contributes to achieving, the overall rationality of the structure. It is the character of this transcendantal presence which provides for the methodical uses which Bittner describes. As an encountered phenomenon, though, the transcendance of the division of labour takes a different form. Seen from within the day to day working of the organization of activities, rather than being unified under the thematic of the rational scheme, its structure appears to be organised by a *principle of egological determination* and its character given as an environment which is *information saturated*. These two features are made visible in the normal transactions which constitute working within the division of labour in the settings we have studied. What we would like to do in the rest of our paper is to skim through what would be involved in illustrating this visibility. Documenting and detailing it in all its particularities is well beyond the scope of any one paper.

The allocation of tasks in a control suite

Take for instance the organization of activities around a control suite, say the TMA South suite, or around the Purchase Ledger desk (cf. Figures 1 and 2). This organization consists of a number of positions occupied at any one time by particular persons. The nature of the distribution of the positions is, of course, work specific. From the point of view of any one of these positions, or perhaps better, from the point of view of the accomplishment of the activities associated with that position, the work to be done appears as a permanent impersonalised stream. Within the bounds of training or regulation, for the tasks to be done, it is of no matter who occupies the position. At other points in the division of labour, of course, this may or may not be true. At LTC, things are so arranged that only the Chairman of the Company can give final authorisation to the payment of certain orders of invoices. This is not because as the holder of the Chairman's position, he is empowered to make these decisions but because the particular person concerned is a unique repository of company specific information with regard to appropriate prices and agreed

terms. Again, Air Traffic Controller are licensed or validated for a small number of sectors of air space and so cannot be rostered around at need. This differentiation is not encountered as a hierarchy of responsibility, but as an institutionalised structure of « decisions-that-I-can-make » and « actions-that-I-can take », and those that others deal with. In processing the endless stream, getting things done means doing what-I-do and passing tasks on to others so they can do what they do.

The crucial question is, of course, how this allocation is made available and its social organization displayed. From the data we have collected, the major line of organization appears to be *egological* in that it is geared to the relative location of the individual within the structure of activities. The boundaries of spheres of operation vary from those which permanently open, under review and hence *near to hand*, to those which are at *considerable remove* and are taken for granted. This variation may be expressed in numerous ways. Here are just some of them.

1. There are those sets of tasks and responsibilities and their associated rights and obligations whose fulfillment is never a matter of enquiry. There are others, the performance of which must be constantly appraised. Thus any single Controller need not concern himself (indeed cannot concern himself) whether management of work on another sector, even one with which the level of interaction is extensive, say TMA North, is particularly difficult just now, or for what reason upper limits for entry on a stack he does not control have lifted beyond the normal level 130 (13,000 feet) to level 150. Though reasons can be guessed and surmises given from what « anybody knows », doing what has to be done does not require even minimal investigation. To some extent, this involves a presumed *symmetry of structuration*, in this instance an operating division of labour, without any necessity for knowledge of its detail. That is to say, there is a presumption that some division of labour will be in operation and, that its details could be made available if required. Thus, when quering an invoice, members of the accounts staff presume that other companies have accounting procedures which work along much the same lines as their own and that, with minimal effort, a knowledgeable outsider could find their way through them. We might best express this particular feature as a *presumed reciprocity of location* ; location that is in a division of labour whose details can be brought within reach as and when required.

2. Alongside a presumed reciprocity of location, is a matching *horizonal structure of relevances*. There is every need for the Heathrow in-bound Controller to ensure that displayed « squawks » (the call signs shown on the screen) are correct by requesting identification first when initial contact is made. Equally, it is crucial to his work to ensure conformity of records of height from the transposed data on the screen and the alterations marked up on the strips (cf. Figure 3). There is much less need to know whether the code for the departure airport on the flight strip matches the one the plane actually left from. That is the concern of the operator of the strip producing computer. Or, again, to give a parallel instance, there is no need for the person who keys the codes and values for invoices into the computer to know how the routines work that produce the computer printed cheques and bank transfers. It is enough that somehow the work she does allows them to happen. What she does have to know is the temporal structure of the accounting fortnight, so that she can juggle the batches of in-puts she makes to ensure that routines can be run on time.

3. This egological principle both generates and provides a solution to the problem of *task coordination*. The division of labour specifies which tasks one has to embed one's own activities within and those which, we might say, are institutionally taken care of. Competent task performance is the achieving of this embeddedness or the invocation of the available institutionalised structures. To stay with the keyboarder for a moment, we can notice that she is obliged to see if and how well the coversheet for each bundle of invoices has been filled in so that she can do her work. She has to set the number of invoices to be processed at the beginning of a bundle by reading it from the sheet. This pre-sets the number of times this loop is repeated and the pages run through. If the box is empty or the count wrong, this all affects her work. On the other hand, should the routine's self-check reject an invoice for whatever reason (wrongly coded account numbers, values wrongly summed, etc) she merely returns the invoice to the processor indicating the reason and holds the bundle until it is returned. It is a feature of the institutionalised character of accounting systems that there will be enquiry procedures and so on which can

now be instigated. But, sorting the problem out is somebody else's work.

4. The organization of this encountered coordination is *ecological* as well as *egological*. Activities are distributed in organizationally specified zones and niches. Some are technologically fixed, others are not. At busy periods, sequencing planes in-bound and out-bound accross the same part of a sector of air space can only really be achieved by dividing the suite's sector down and allocating two Controllers to the same screen. Taking the level of screen resolution up means the detail is unreadable. Similarly, The Sector Chief can only really manage the suite's relations with other sectors if he can see both screens and can manipulate the flight strips. At other times whole suites may be « bandboxed » down to one screen, and the Chief take the seat at the other. Others activities are freed by the technology. Given the availability of the direct telephone line, a geographically neighbouring sector of sky with whom a lot of transactions occur, for instance Lydd, Clacton or TMA North for TMA South, need not be an operationally neighbouring suite (cf. Figure 5). Indeed given the fluidity of traffic flows, transactions between suites must be independent of the layout of the operations room as an analog of the division of air space (North/South of the Thames). Here, to adapt a phrase of Melinda Baccus, the « lore of the technology » becomes crucial (Baccus, 1986).

And yet, of course, the analogy of the operations room layout to the division of the sky does provide an institutionally specific set of locales for where things get done for anyone who knows how to use it. In that sense, even the spatial layout of the suites is *saturated* with organizationally relevant information.

A look at the ecology of LTC's offices tells a similar story. Its organization is accounting relevant. The major lines of distinction between *types of outlet* are not visible here. Instead, work is clustered around types of audit check. The differences between COUNTRY KITCHENS, AIRPORTS AND HOTELS AND CONCESSIONS as operational units are of no concern here. What we have instead is an ecology of paper processing. Thus, to anyone who knows, the layout of the office recapitulates the division of labour. To see this, all one has to do is track the « normal progress » of an invoice, say a food invoice through the flow diagram of the system and around the office (cf. Figure 4).

Seen from within, the division of labour appears as a fluid *gestalt contexture* of task performance. Elements move back and forth, from foreground to background with alterations in relevances and interests. The components of this gestalt are of course the sequences of accomplished activities in their normal surroundings thematised by the egological structures of relevance which we have just been outlining. The experiential character of this gestalt as routine work at the suite or routine invoice processing is evidenced in innumerable, locally provided ways known in common and seen at a glance. The rest of this paper will be concerned with just three of them. For the sake of exposition, we will confine ourselves to discussing them in the context of air traffic control.

Silent handovers

For any particular controlling position, shift consists in a continuous processing of screen defined objects (« blips » and their associated « footprints », « sqawks », and heights) accross that portion of the screen or on the vector for which they are responsible. Controlling the screen movements of the blip (instructing the plane) *becomes* a task to be completed and then *passed on* to someone else. One of the more striking things to the naive observer of suite work is the degree to which exchange transactions between controllers are minimised or even non-existent. The latter are the so-called « silent handovers ». The achievement of silent handover is evidence of the routine working of the system. Blips appear in the right place at the right time in the right sequence with the right codes and values attached to them. (« Right » here means in correspondence with the standard procedures and practices in force). Routine performance by someone else of their task makes their work unproblematic to you. Thus while it is obviously the case that the co-ordination of task performance between controllers can be an issue to which explicit work is itself addressed - there are institutionally available ways in which « repairs » to failed silent handovers can be made or in which transfers can be organizationally achieved prior to being effected (the chief can have « accepted » a military crossover or a special VFR before it gets into the appropriate sector), the pervasiveness of the silent handover is both evidence of and dependent upon the proper deployment of a

minimum number information rich resources, the screen and the flight strips.

The invisibility of proxy orderliness

Talk to any of the computer engineers responsible for the operations at LATCC and they will describe the organization of information on the screen as a « computer generated representation ». The level of resolution in use at any time is but one of a number of possible alternatives and the form content of the information so displayed is but one of any number of configurations possible. Technologically speaking, then, the screen is a representation of a slice of sky and the events occuring in it. While Controllers know this as a technological fact of life, to all intents and purposes as the sphere of their operations, the screen is the sky. This identicality is « a division of labour fact of life ». The orderliness on the screen goes proxy for the orderliness in the sky in ways that are made invisible. Part of the achievement of this is, of course, dependent upon local working practices for the use of the technology. Suites are divided East/West ; screens are North/Sud in orientation ; flight strips progress downwards in sequence with those being progressed through at the bottom and those about to come into sector at the top ; chiefs use different coloured pens to mark up information on the strips, and so on. But part also depends upon the Controller building up and maintaining what the local culture refers to as his « picture ». Losing the picture forces the proxy character of the screen into the open and and then scary things tend to happen to planes in the sky. In sociological rather than psychological terms, we could describe the picture as a continuous transformation, displayed (and thus available to others) as the orderly progression of screen defined objects and competent handling of the technology in locally defined ways. Learning to be an Air Traffic Controller in large measure involves learning how to build up and maintain this picture.

Reading the screen at a glance

The work of the Controller is screen focussed. Indeed, the screen is, as we say, the sphere of activities. And while coping with traffic densities and on busy sectors, Controllers may be absorbed by the

screen and have to work extremely hard to maintain both the picture and with it the invisibility we have just mentioned. At other times, the picture seems to maintain itself as a continuous and orderly progression of blips and their footprints. What is going on is available to the controller at a glance as planes appear appropriately separated on the proper headings, and with the nominated « squawks » what propriety, appropriateness and nomination mean in this context, of course, is given by both the regulated and the normative features of the setting. The capacities of different sorts of aeroplanes, the operational proclivities of different airlines, the conditions obtaining in the receiving sector, and so on are the *constraints* which Controllers kwow and orient to and which enable them to see at a glance how and in what ways the regulatory system of procedures for the management of air space can be worked within to achieve efficient and orderly sequencing of planes ; where, that is, corners can be cut, stacks extended, unfilled levels exploited, planes leap-frogged over others, and generally the system made to work.

Conclusion

As we said at the outset, this account of the division of labour is little more than a preliminary runthrough, the equivalent of a set of warm-up exercises. We well know that much has to be done before a complete and finalised analysis could be presented. However, some rather interesting things of more general import do seem to be emerging even at this early stage. By way of conclusion, we would like to pick out on one or two and bring them to your attention.

The theme proposed for this conference *Action Analysis and Conversation Analysis* directs attention towards the interrelationships between activities. That is to say, we have been invited to consider activities as being *coordinated within an interactional system.* From what we can say about the division of labour as an interactional system, it seems that the principle of orderliness investigated by many studies, namely achieved sequentiality, may be of less consequence here. A working division of labour is not as focussed an interactional system as, say, a two or even multi-party conversation or even work in a science lab. Given this characteristic *diffuseness*, those participating in a division of labour may orient to considerations other than and in addition to the strictly sequential. From what we have had to say

about the processing of invoices and the operations of a control suite, it could be argued that the *segregation* of spheres of operation and *accountability* lines of action within them seem just as important as *sequentiality*. This is, of course, a reflection of what is known about the locale in which the activities take place. Controllers know that a rolling record of the RT exchanges is continuously being made and that the computer is logging plane movements. Invoice checkers know that the division of labour is also a precisely designed division of responsibilities. The importance of these orientations is, in itself, testimony to the division of labour as what might be thought of as an *institutionalised system of transactions*. This latter notion, that the organization of activities within a division of labour can be conceived as a transactionally achieved structure, immediately raises the possibility of extension not only to numerous topics standardly considered more appropriately analysed at the « macro » or « institutional » level, but beyond there to, say, the organization of the market-place and the operation of revealed preference, or optimization and rational choice among goals ; topics which are usually felt to be outside the remit of sociology altogether. But since *that* consideration would take us well over our time and well beyond our title, we will stop here.

Notes

1. This is a slightly amended version of a paper given to the conference on « Action Analysis and Conversation Analysis ». The research reported here was supported by ESRC and joint ESRC and SERC Funding.
2. The empirical investigation of the character of social structures as they are encountered from within is, as we understand it, one of the motivational drives underpinning Harold Garfinkel's seminal work. We have detailed this argument in West Sharrock & Bob Anderson, *The Ethnomethodologists*, Tavistock. 1985. For a recent outline of his views, see Harold Garfinkel, « A Reflection » *Discourse Analysis Research Group Newsletter*, vol. 3, n° 2, 1987.

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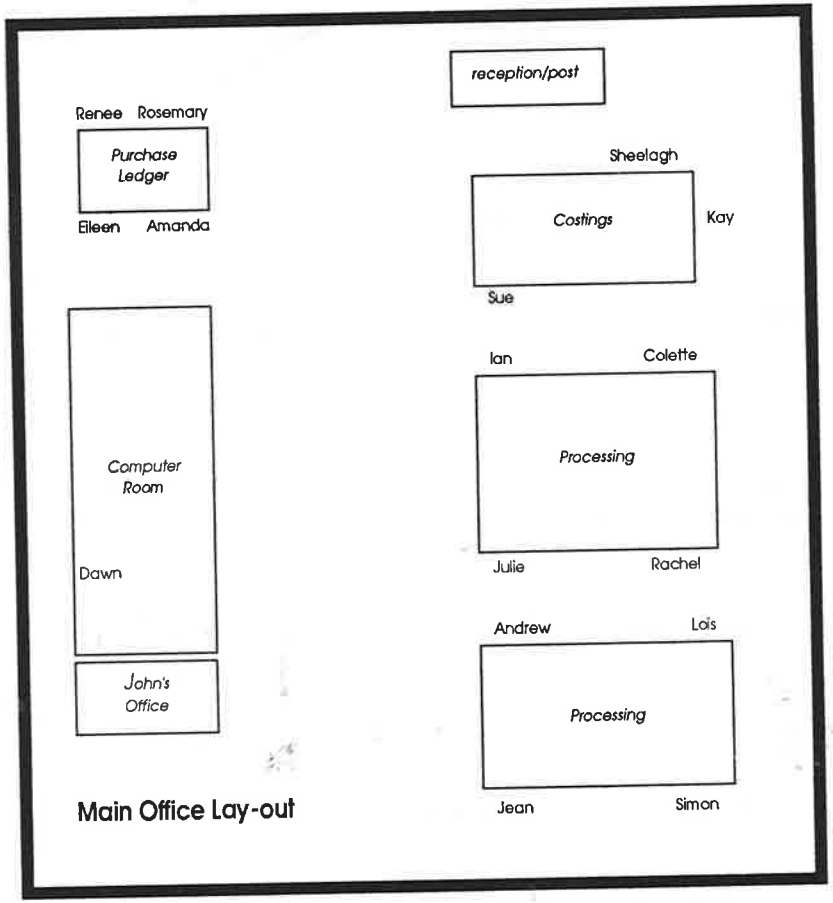
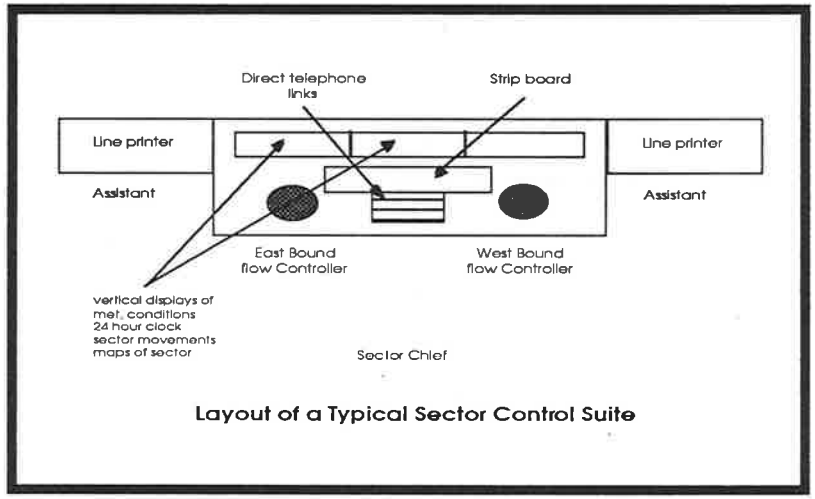


Figure 1



Layout of a Typical Sector Control Suite

Figure 2

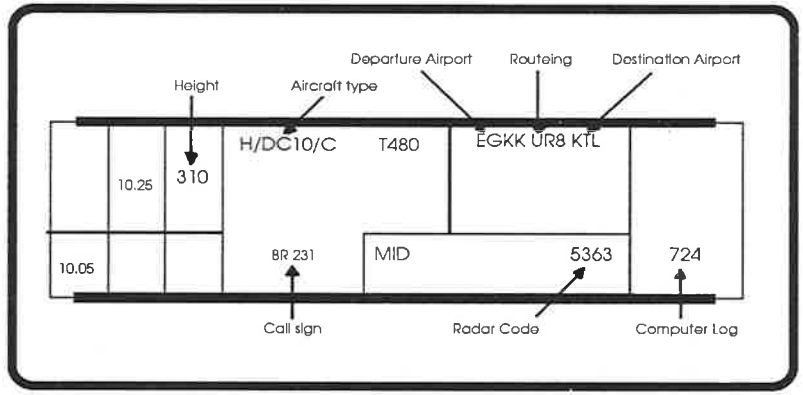


Figure 3

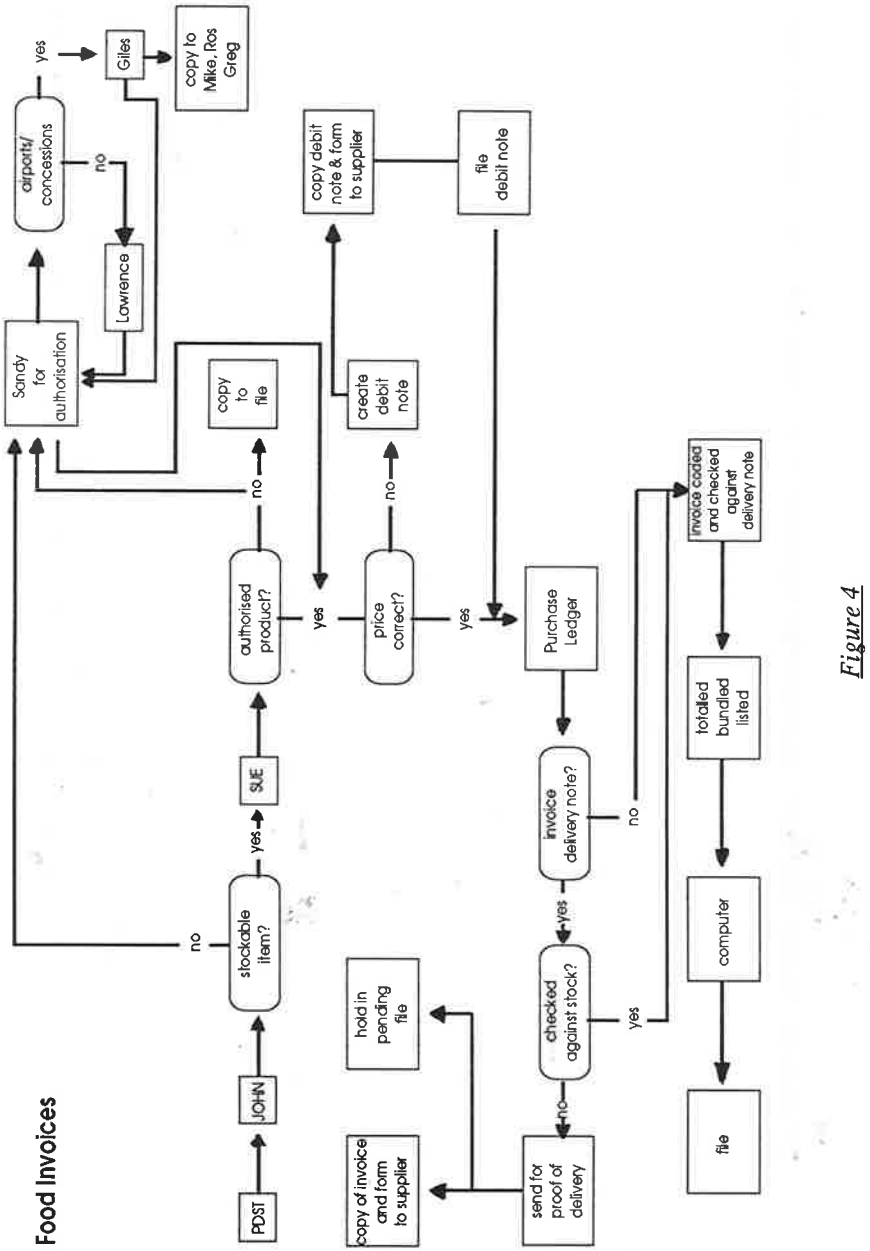
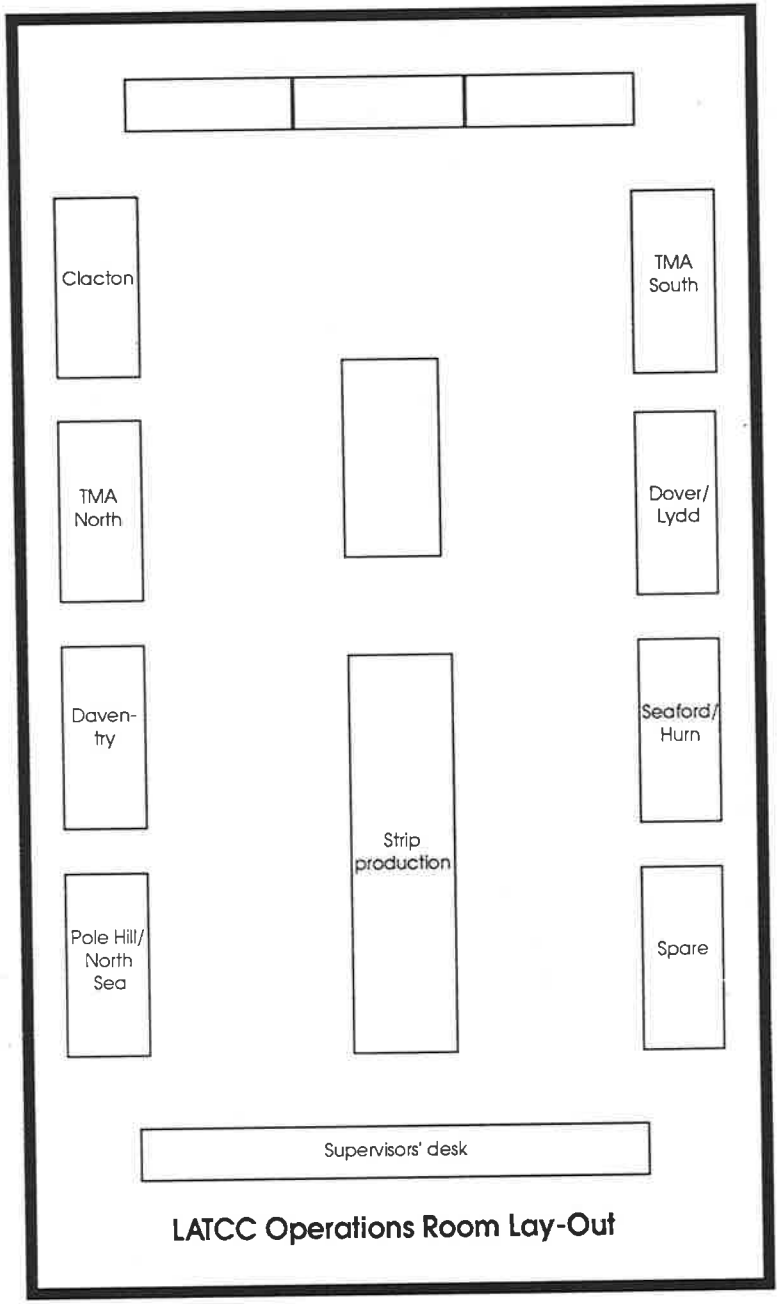


Figure 4



LATCC Operations Room Lay-Out

CONSTRUCTION DE LA RELATION ET COORDINATION DE L'ACTION DANS LA CONVERSATION

Louis Quéré
CNRS-EHESS

Spontanément nous envisageons les relations sociales comme des états de choses existant en soi, indépendants des pratiques des acteurs, exerçant par eux-mêmes des contraintes ou des effets de structuration sur les conduites, les représentations, les attitudes ou les aspirations. Par ailleurs, nous sommes à tout instant en mesure de procéder à des distinctions et à des classements sur ces relations. Nous savons spécifier le lien social qui unit des personnes déterminées, reconnaître les caractères de régularité et de concordance de leurs rapports, et évaluer la « normalité » des activités que ceux-ci occasionnent en fonction d'attentes normatives que nous nourrissons à l'égard des différentes catégories de relations. Enfin, en tant qu'acteurs, nous savons spontanément moduler notre participation aux interactions dans lesquelles nous nous trouvons engagés, et instaurer pratiquement avec nos partenaires la forme d'association qui est appropriée à l'état de la relation sociale existant entre nous.

Ce point de vue « naturel » (au sens phénoménologique du terme) sur les relations sociales, cette capacité d'ordonner un rapport de coexistence en vue d'une activité commune, et cette compétence à catégoriser les liens qui existent ou s'instaurent entre personnes, et à