

7. Creative accountancy

In this chapter, we turn to the system of calculability itself.* We will address, not how its products are put to use within an entrepreneurial business but how the products themselves are constructed. The procedures employed make up what we will call **accountants' work**.

The primary reasons for taking up this topic are two-fold. First and foremost, calculability, and in particular calculability of profit, is a recurring theme of business discussions at LTC. What a set of calculations show and how they have been arrived at are prominent and recurring themes in decision making deliberations at every level of LTC's operations. A range of measures and a whole infrastructure of methods for estimating them have been instituted for internal monitoring and as a means of arriving at guides for future action. The salience of LTC's accounting systems for its own organisational culture cannot be ignored. Second is the position which has been ascribed to systems of capital accounting in the sociology of capitalistic enterprises. These procedures are treated as the epitome of instrumental rationalism and hence forming the structure of legitimation by which value is expropriated and distributed within the capitalist and post capitalist mode of production. But, while a great deal has been made of 'capital accounting' as a system of ideas, as far as we are aware very little has been made of it as an environment for activity. In that sense, somewhat surprisingly the ideology of capitalism has received far more attention than its praxis.

But it is the praxis of entrepreneurial capitalism which this book is attempting to identify and bring out. By this we mean that we are pre-eminently concerned with the relationship between theory and practice as this is made visible in the activities of Lawrence Hunt's daily business life. We have taken up and explored a number of associated features in the previous chapters. The heart of that praxis, though, is the system of calculability itself. It is the reliance on and permeation of this system in all spheres which gives capital accounting its distinctive

cast. We will suggest, as have many other investigators, first that what is sociologically interesting about capital accounting is that it consists in a system of rules and their application in contexts, the system of calculability. Second, we will propose to analyse the application of these rules as a socio-technical production system (Trist 1971). The products of this production process are the accountants' objects to which we referred both above and in the previous chapter. The work which goes into producing them, that is applying the rules in contexts to produce calculable measures, is creative accountancy.

But what precisely do we mean by 'capital accounting' and how can we see it as constituting a socio-technical production system? Perhaps the only place to begin is with Weber, since it is his writing which largely introduced the term to Sociology and which still defines its use. In his discussion of types of profit making, Weber has the following to say about 'capital accounting'.

There is a form of monetary accounting which is peculiar to rational economic profit-making; namely, 'capital accounting'. Capital accounting is the valuation and verification of opportunities for profit and of the success of profit-making activity. It involves the valuation of the total assets of the enterprise, whether these consist in goods in kind or in money, at the beginning of a period of activity; and the comparison of this with a similar valuation of the assets still present, or newly acquired at the end of the process.....A profit making 'enterprise' is a system of action capable of autonomous orientation to capital accounting. This orientation takes place by means of calculation. On the one hand, there is calculation prior to actual action, of the probable risks and chances of profit; on the other hand, at the conclusion of a measure, verification of the actual profit or loss resulting. (Weber 1978, pp. 191-1.)

Without some system of capital accounting, or its equivalent, estimations of profitability on a systematic and consistent basis are impossible. It is precisely these estimations which are the sine qua non of business management and hence of capitalism itself. They enable running balances to be kept, profit forecasts to be made and accounts to be compiled. In that this is their purpose, such balances, forecasts and accounts can be treated as outcomes, the products of the socio-technical system of capital accounting. But it is a socio-technical system with a difference. Like all such bureaucratic structures, it has a knowledge rather than a material base. Although it could be said that what is created and circulated is materialised knowledge in the form of documents, memos, summaries and the like, this is really just punning. The basis of the system, what makes it work and what it works upon, is the knowledge brought to it by those who make it work as a system of calculability. This knowledge is technical knowledge of standardised accounting practices, the local routines that these practices fall into at, in this case LTC, the requirements, both operational and organisational which the system is designed to fulfill, and the well known contingencies with which it has to deal.

Our suggestion is that this technical knowledge is socially organised. The materials which are to hand and to which it is applied, the files, data sheets, accounts and so forth, are all themselves the products of socially organised accounting work. As such, they are "accountable" in two senses.

- (1) The documents, findings, materials, and so on are widely used within the business in all its workings. They are available to Directors, administrators and managers as objects for debate, discussion, argument, defence, interrogation. Most, but not all, of LTC's business talk is talk about these objects.
- (2) They are, to use a term of Lynch's (1985), "displays" of the methods used to produce them. What anyone can find them to say or to mean will depend on interpretation of the displays. Running your eye down the print-out, whizzing through the file returns, tells you very little unless you know what to look for and where.

The "technicality" of this particular socio-technical system is defined, then, by the interplay of accounting practices, operational procedures, organisational routines and commonsense methods of interpretation. It is this interplay which locates but does not explicate the phenomenon of applying the (accounting) rules in (this) context.

The point of any system of capital accounting is, of course, to arrive at some efficient and reasonable estimation of 'how things stand' in the business; the infamous 'bottom line'. The critical terms here are 'efficient and reasonable'. No-one is interested in just any estimation, but rather in arriving at the estimation which results from the correct application of the rules to the set of activities in view. The first thing to be sensitive towards, then, is the set of criteria for correctness and what is required for their satisfaction. Any description of the work of making a system of calculability work will have to address what, for some specific occasion, constitutes correctness, allowable error, the margins of probability and calculability. In short, what can be asked of a system and what it can be expected to provide. Central to all of this, certainly at LTC, is the ubiquitous notion of the "one off"¹, or what Rubin (1987) calls "exceptioning". In a discussion of decision making in the context of land zoning, he says:

.....decisions were reached through a series of bargaining exchanges. Key to these exchanges was the procedure of "exceptioning", that is, stating and reinforcing a general principle but then invoking specific circumstances that permitted limited "departures" from or "exceptions" to that principle. (Rubin. 1987 pp. 290-1)

Finding what the rules are for this case and how they apply is precisely what it takes to make a system of calculability work.²

If we set aside the generalised glosses and try to look, instead, at capital accounting as an empirically observable set of activities, the operation of a system of calculability, what sorts of features might we expect it to have? First of all, the knowledge which anyone working within the system possesses and uses is a locally organised corpus (Pollner 1987). That is to say, it is a body of knowledge which makes itself available to hand and within reach (to use Schutz's terms (Schutz and Luckmann 1974)) to those in the setting. It is knowledge of how to do these calculations with these materials in this company. While the procedures may be adaptations or variations upon practices used in all accounting systems, they have been customised to suit the local needs and organisational characteristics of this Company. Second, and equally importantly, as a corpus it is systematically unavailable to analytic reconstruction as a collection of abstracted cases and idealised procedures. No one could put together a complete list of what they know about sites and their peculiarities, nor when this

knowledge is to be relevantly applied as a set of general guidelines. Each one has to be treated as, potentially at least, a "one off". Instead knowledge is "touched off", available only in and through the working out of estimations for specific purposes. The primary orientation of such estimations is that the system of calculation should be applied as consistently as possible to all like cases. The knowledge is put to work in achieving, first the match of like with like, and then the consistency between them. Third, and this is a massively important feature of the working milieu, the use of this knowledge is designed to be followed. Given the wide circulation of the products of the system, any application of the system must allow others to follow it to see how the product was arrived at, why the figures 'came out' as they did, and hence how far, if at all, they need to be taken into account, relied upon, ignored or taken as definitive. Fourth, and this is closely related to the last, the products have a non-definitive character. Others can take them away for their own use, check them over, reconcile them with alternatives, make inferences on their basis, fit their procedures into other procedures, calculate them all over again, and so on. These uses are not and cannot be constrained by the procedures by which the objects themselves were produced, and yet a variety of possibilities must be allowed for.

Obviously, it would be part of our argument that any of the paperwork procedures at LTC would lend itself to analysis along the lines we have just sketched. We will focus on just two, namely the documentary co-ordination and condensation which Janice, the Senior Accounts Processor, produces as part and parcel of her routine work, and the financial summation which Deborah, the deputy accountant, uses to work out the rents which are owed to the Authorities which own the CONCESSIONS outlets. What we will bring out is documentary co-ordination and financial summary as the outcome, the product, of the socio-technical knowledge based system of calculability within which both Janice and Deborah work.

To do this, we have to attend to the detail of procedures. Praxis only becomes available for analytic description in the detail. It is possible, of course, to provide generalised accounts of the work which Janice and Deborah do but these leave unexplicated the procedures by which the generalised features are themselves found and made available. And yet, as with all technically complex activities, for us to plunge directly into analysis is to run the risk of either incomprehension or trivialisation. To try to prevent either, we will preface each discussion with a short introduction to the place and general functions which the work performs within LTC's accounting systems.

The Management of Factuality

The financial year at LTC is broken into 13 "financial periods", each of which, in turn, is subdivided into 2 "stock-taking fortnights". At the end of each financial period, ie approximately once every 4 to 6 weeks, the Board of Directors meets to assess progress, and to decide on future courses of action, policy changes, and perform other general administrative and monitoring tasks. Among the materials available to the Board is a set of Management Accounts for the period just ended and the year to date. These accounts depict the profitability of the Divisions and their units both on a period and cumulative basis. The work of the Accounts Processor is a contribution to the compilation of the Management Accounts. Her task is to build a summary paperwork picture of the financial state of each of the Company's retail outlets. She does this by taking a paperwork version of the trading activities which the

Company engages in and transforming it so that it is amenable for the instant analysis, diagnosis, discussion, inference, projection, investigation, arbitration, argument and decision-making which the Directors carry out. In her work, she contributes towards making the Company available for its Directors by turning the visible economic activities of buying and selling of food and drink into a series of accountants' objects which can then be subjected to accountants' work.

So much for the generalised gloss. The task we face is how to describe in actual cases precisely what her work tasks consist in and how the co-ordination and sequentiality of her work is achieved. Saying that she is an accounts processor really tells us very little at all. Neither does describing her place in the organisational setting. The problem is one of researchability.³ What materials are there which we could use to capture and preserve the displayed organisational unity of her work? Taping her own account of what she does simply gives us back the problem. She does not tell us how to do it for ourselves; how to compile the documents, find the missing invoices, transfer the necessary numbers, and so on. She gives us, instead, a description of the organisational rationale to what she does. In asking her to take us through her work, what we get is a description of how everything she does is fitted together. What is done first, second, and so on, and how once the base figures have been "picked up" the rest can be derived. What she gives us is the organisation's organisational account, premissed in the fact of its inherent co-ordination and sequential unity. But what we want to do is to step back beyond that to the primeordial feature of her occupational life, the achievement of that sequentiality. Where are the materials which document these?

That, of course, is a rhetorical question since we all know that her work consists in producing records of what she does, namely the summary sheets from which the Management Accounts are built. But what sort of records are they, and what specifically do they record? Again we need a toe-hold. To get it we will step through the overall collection before we return to look at some of its features.

(1) The Originals:

Every stock-taking fortnight, each of the unit managers is required to fill out two sheets. One is a stockcheck sheet; the other is a stock purchase sheet. Both are broken down into separate columns which the manager fills out.

The stockcheck sheet is a computer print-out listing all the items bought centrally for the units. The manager adds any items not included on the list. The opening stock is provided from the computer file for the unit. The manager fills in all purchases, transfers, present stock and usage. This set of figures is keyed into the file update at Head Office.

The stock purchase sheet is a similar list of items arrayed by day. The manager lists supplies against the days on which they arrive. The Accounts Processor checks these figures against the delivery notes sent on by unit managers. Where there are discrepancies, she amends the sheets in accordance with the delivery notes. At the same time, she keeps a check on prices of items in two large areas, fresh meat and vegetables. Other prices are standardised and checked by the purchasing section when invoices arrive. This whole procedure takes one week. It is carried out while the figures on the stockcheck sheet are being keyed in.

(2) The Transformations

When the files have been updated, a printout for each unit is extracted from the computer. This is the processing sheet which the Accounts Processor works on. The columns on this sheet are checked row by row against the documents already processed. Where differences occur, then amendments, and recalculations may be required. For instance, in one case the manager at Edinburgh Airport reported that 18 tins of apples were bought, whereas the delivery note said only 12. His stocksheets were amended to 12 and as was the processing sheet. This means that his usage was only 4. He also claimed that no baked beans had been bought, although a delivery note for 6 has been sent in. Again the usage was altered.⁴

When mistakes of this kind occur, the Processor usually just makes the alterations. If, however, it involves an item which is expensive, say above £5 each, she will send for the invoices and check the back history of the unit to see if such usage is likely. She is not concerned to determine what the actual stock really is but simply whether they are likely to have used what they say they have. When she is dubious, she "accepts the physical stock but allows no credit" meaning that the unit cannot carry credit for the stock used forward and the manager should investigate.

(3) The Collation

The figures for each period are summarised on a stock-taking results sheet. These compare food costs and liquor costs against the notional targets of 30% and 40% of sales. Variations from these targets are the subject of decision-making at the Board meetings. A similar set of data is available for each Division as a whole.

(4) The Summary

All of the information concerning the profit and loss of each unit is summarised on one unit profit statement showing sales, labour costs and food costs. Labour costs are fed in directly from the computer. The unit profit statement allows progress against budget to be assessed.

This, then, is the overall structure into which the work of the Accounts Processor fits. What from the documents in hand can we say about how those tasks are organised?

The essence of Janice's work is modal transformation. Figures are "picked up" from one set of sheets and transferred to others. In achieving this transformation, she takes someone else's output (the manager's fortnightly sheets) and turns them into another's inputs (the Management Accounts and summary sheets). One set of materials is turned into another set so that others can work upon them. Intrinsic to this transformative work, though, is its essentially unprescribed nature. She has no particular set of targets to achieve, no results she has to come up with. Whatever the figures turn out to be is what she produces.

Janice's work provides the connection between 'over the counter economic activities' and 'managerial decision-making' through a series of transformations. Sets of figures, reports, documents, statements and so on are turned into a coherent, formatted, systematic, easily described, read, summarised, visible at a glance depiction of how things are going. What this involves, first and foremost, is the physical co-ordination of documentation. She works down the columns looking from one sheet to another, backwards and forwards, checking off the numbers as she goes. The delivery notes are prepared in day by day sequence so that so that when she goes through the purchase sheet she will have a bundle that is physically

manipulable. This aspect of physical manipulation, of being able to hold all the relevant materials in front of one's eyes at once, can also be seen with the format of the files. The stockcheck sheets are all filed together unit by unit, as are the stock purchase sheets, the processing sheets, and so on. When invoices are required from purchasing, these are pinned to the delivery note to which they apply. The co-ordination of these physical objects on her desk is achievable only by keeping those things together which go together.⁵ Each stands for a particular way of characterising the objects which she has to produce. Her transformation of them involves not a synthesis, not a selection, but amalgamation.

Although this transformation takes time to produce, it is treated as atemporal. That is to say, the figures and accounts refer to how things were at least 2 weeks ago, but are treated as representations of how things are. They exist in what Stan Raffel (1979), talking about clinic records, calls the permanent present. They have a fortnightly sense of now, a sense which is seen but unremarked, known but irrelevant for the purposes for which they are constructed. The fact that things will have changed, that purchases will have been made, prices changed, and so on is deemed to have no pertinence to statements about how the units are doing now (ie in the lagged, fortnightly sense of now).

For some, this may raise a question concerning the accuracy of the representation which Janice is producing. This is not an analytically relevant matter. Given the nature of the operational and organisational contingencies within which the business operates, this measure of how things are is all that can practicably be asked for. It is not the factual status of the measures which is interesting but the production processes by which that status is achieved. We are concerned with the social production of factuality, and this lagged sense of 'now' is a production requirement of the format of the Management Accounts. Kyburg (1984) talks about the attractiveness of what we think of as the obvious and natural ways of measuring things indirectly. In seeing a recording procedure as obvious and natural, we disregard the work necessary to discover and determine that such a technique was possible and reliable. Such engineering instrumentalities are the contingencies of physical measurement. To those engaged in measuring the Company's profitability, there seems no other sensible way of dealing with their operational and organisational contingencies than freezing activities in fortnightly blocs. It is only by doing this that 'realistic' measures of sales, purchases, labour costs, overheads, and so on can be obtained.

This brings us to the question of the production requirements for modal transformation. What does she have to work on? What must she produce? Two important and over-riding features become visible here. One is the formatted character of the Management Accounts. Whatever she produces will be fitted within that format, appear alongside and be used in conjunction with other equally formatted depictions. Second, there is the perceived priority placed upon only some of the possible measures which could be derived from the products she comes up with. Profitability is measured by closeness to the notional target proportions of sales set for food, liquor and labour costs. As a consequence, not just any set of figures can be used and not just any procedures for amalgamating them can be invoked. The logic she applies, and the steps she works her way through are fixed by the conceptualisation of the Company's activities already built into the system of calculability. It is for this reason that we called the figures and sheets she produces accountants' objects. A third immediate feature of her work is that it is product guaranteed. The managers fill the sheets in as a requirement

of their jobs; the delivery notes are assembled with the invoices as a requirement of invoice payment. In consequence, she will always have enough resources to "get the figures out" and hence provide some account of how things are going. Whatever hiccoughs, hold-ups and delays there might be, the physical presence of the sheets and invoices in the office provides her with enough to bring the projected course of action to a successful conclusion. Even though everyone knows that for this reason or that, some of the figures may be shaky on an individual unit, nonetheless, for the time being and for the purposes for which they are used, they will always do. A fourth feature of the work she undertakes is that the assembly and transformation is assembly in an order. We will talk about the character of this order in a moment. Given that the output is of a fixed form and that it is production guaranteed, then what she has to work on is minimally sufficient resource base. She does not need to look beyond the documents she gets to produce the depictions she does. If and when there is a query concerning the figures, it is from the paperwork alone that it is resolved. It is part of her work task to go to look at what is actually held in stock, to compare the menus offered with the usages claimed, and so on. That is all someone else's business. What we have here is paperwork modal transformation.

We can now look at the specific character of the sequence of tasks which she carries out. Each of the sheets is laid out in a similar column by column, top-to-bottom, left to right format. Reading left to right gives an arithmetic logic for computation. The sequencing she follows in checking through the sheets is organised around a different logic, that of documentary clustering. She works through the column by taking up the documents in the order in which they become available.

The documentation falls into three generally recognisable categories. There are those that pass across her desk, the delivery notes, stockcheck sheets and stock purchase sheets. There are those which she can call for; the invoices, price lists, previous files. Finally, there are those she is working on; the summary sheets. The order in which the work is processed is by going through, first, the documents on the desk which have to be dealt with anyway; second by referring to those which can be "got out" or "called up" easily; and finally by "picking up" the figures for the summary sheets. Going through each sheet checking column by column and row by row follows pragmatic policy and not an arithmetically determined one. It is only at the last stage that, as she works out the cost of usage from the previous figures, that she has any idea how things are turning out.

So far we have been drawing out some of the characteristics of Janice's work as modal transformation. From what we have said, it is fairly apparent that her work tasks are organised around a principle of opportuneness (Sharrock and Anderson 1987a). The whole monitoring system is possible because of the centralisation of accounting and purchasing. The purchasing section has to be able to check invoices against delivery notes before it can authorise payment. The availability of these documents allows them to be used as a check upon the managers' stockcheck and purchase sheets. The processing of the stockcheck sheets takes time. This provides an opportunity to check through the the purchase sheets so that amendments can be made to the file update once it has been prepared. The same goes for the checks on the prices of meat and vegetables. These prices vary from delivery to delivery. To give any kind of realistic costing, the prices are averaged out over the financial period. To do this, delivery notes will have to be assembled and the necessary figures taken from them. This provides the Processor with an opportunity to run a first check on prices prior to the

invoices being submitted. She can see whether they are "in line" with what she would expect and whether the normal discounts have been given. She does this by referring to what she as an ordinary shopper knows about meat and vegetable prices and the order of discounts she would expect the Company to be able to obtain. The co-ordination of these activities is achievable simply because she is "going through the paperwork" at the same time.

Once one set of co-ordinated activities is completed for each unit, she moves on to the next column. Transfers in and out follow the check on physical stock, and if queried, documentation will have to be called up from elsewhere in the office. Similarly, once this is finished, opening stock will be amended by "running down" the previous period sheet to see if any alterations were made. It is possible to track how far the sequence has been gone through and what tasks are left to be completed simply by looking at the columns and the check-marks. The corrections, strikings out, amendments and ticks indicate how far she has progressed through the order of things to be done.

The work of the Accounts Processor is, then, a sheet by sheet, column by column, row by row, modal transformation of one set of accountants' objects into another. This is managed by the physical co-ordination of bundles of documents, documents in files, and documents being worked upon. As she works her way through the lists she leaves a trail of markings so that anyone who knows her routine can come to the files and see where she has got to. The records and documents she produces are a permanent account of the sequential organisation of the tasks comprising account processing in this Company. The ones we have shown are just samples, instances which show just how, this time through, things were being done. The beginning to end trajectory of the whole sequence is achieved stage by stage, one step at a time, by managing the primeordial features of making sure everything is to hand that you need, getting the documents if you need them, checking the files when necessary. It is in the her orientation to these things as seen but unremarked, necessary features of her work tasks that the ordinary orderliness of Janice's working life consists.

What has to be done to make a system of calculability work is, first and foremost, the production of sets of calculables, objects to be manipulated in calculations. LTC's paperwork system is designed to produce calculables as part and parcel of the other functions (paying invoices and wages, controlling costs, monitoring cash flow etc) performed. The production of calculables is, therefore, just one of the outcomes of the socio-technical system of capital accounting. But it is an outcome which can be incorporated into the essential feature of all capitalistic endeavours, namely the determination of profitability and decision making based upon that criterion. The modal transformation achieved by Janice's work of documentary co-ordination and summary facilitates the processes of interpretive calculation without which such decision making would not have the character it has.

Customised accounting and its troubles

The purpose of Janice's work is to provide a comparative base for management review of the relative "state of the Company" at any point. She is concerned, then, to achieve a consistent set of documentary representations so that any comparisons will be meaningful and useful for those that have to make them. The general system she applies is, by and large, uniform across the Company. Her work consists in fitting cases into the system through the processes of

condensation and co-ordination which we have described. The point of the activities we are about to describe is somewhat different. Deborah is not concerned to produce an overall picture of how things stand but is, rather, deriving a measure for each unit to represent to an outside body how things stand for it. The measure is the rent which LTC pays for the sites which it runs. The management of LTC take little day to day interest in the level of rent that is paid on any unit. That such rent will be computed and paid is a given parameter of their activities. In contradistinction to the summaries which Janice produces, they do not treat the rent as a measure of their achievement. The process of rent calculation is of direct interest to us since it exemplifies in a straightforward way how the knowledge base of the system of calculability is called into use and deployed.

First, what is Deborah calculating? Part of every contract for a concession outlet will be an agreement with regard to the rent for the concession. Usually this is set as a percentage of turnover. 12.5% is a fairly typical figure, although it can be as low as 10% and as high as 18%. Now, while the global percentage may be fairly constant across outlets, this does not mean that the procedure is an easy one to apply. Each contract is a unique document as are the operational details of each unit. Thus, local variations in working practices (for instance whether there are outlier sites) are taken into account in the contractually specified rental. It is only by customising general accounting procedures to reflect local variation that Deborah arrives at "the correct figure" for each unit.

To achieve this customising, Deborah draws upon three distinct sets of resources:

- (a) Knowledge of the organisationally given accounting arrangements at LTC for collating and processing relevant information.
- (b) Knowledge of the contractual obligations with regard to individual outlets.
- (c) Knowledge of how (a) and (b) are to be deployed.

This knowledge is the basis of this element in the system of calculability. Her use of it is what enables her to make the system work. As such, Deborah's work clearly shows how the system of capital accounting at LTC can be thought of as a knowledge based socio-technical system. She brings this knowledge to bear upon the statements of income set out in the Company's General Ledger. The General Ledger is a print out of all the units and their transactions for the accounting period.

The procedure Deborah adopts looks to be quite straight forward. From the Ledger items she extracts categories of income. These are "vending wet", "vending dry", "cafeteria sales, and "bar sales". This first sum is then discounted for VAT and the appropriate percentage taken. This sum is the rent. Deborah compiles a journal of these rents (a rent book) for keying in to the computer. The rent payments are then made automatically to the authorities concerned and the sums paid set out in the accounts.

What is hidden in the brief description we have just given is, of course, the work of classifying income headings appropriately and determining how sums under such headings shall be used. This is what we mean by customised accounting. Such customising provides both the difficulty of achieving consistency across cases and the methods by which such consistency is achieved. In this sense, then, the systematicity of the procedures used is both Deborah's (and Janice's) achievement and her resource. The requirement of consistency is

one which is both organisationally and legally determined. The Directors of LTC want consistency of application of methods for fixing rents and other measures so they can compare sites. While making these comparisons, they are not directly interested in rents themselves. Rather, they are interested in ensuring the methods by which the rents are calculated are consistent. Consistency is also a legal requirement. The Company has its accounts audited every year. Central to the Auditors acceptance of a set of accounts is the clear and consistent use of sets of procedures. The problem with the organisational and legal requirements for consistency which we have just outlined is that they are not and cannot be specified to cover in every case. They consist of statements of general principle and numbers of exemplar cases. It is Deborah's task (and Janice's, and the other people who run the paperwork) to ensure satisfaction of the requirements in individual instances. They have to be able to apply the principle to the case to see what is 'really wanted' as opposed to what is asked for, set out in the rules, or whatever. This divination of the intention behind the sets of rules and requirements is another aspect of the interpretive character of the system of calculability.

Part of the task of customising the system involves managing the natural troubles of calculability which arise whatever the case in hand. For example, part of Deborah's cross checking of her calculations is a mini "reconciliation" to ensure she has not made an error. Having decomposed the global sums of income by extracting the VAT, and working out the rent on the residual, she now checks her work by adding the VAT "back in". If she "gets back to the original" then her calculations are correct. However, time and time again she does not. The rule of reckoning which is used to discount for VAT is to divide by 7.667. This is a rounding of the irrational 115/15, since the VAT rate is 15%. Given the size of the sums involved (ie thousands of pounds) this rounding produces noticeable "errors" when the VAT is added back in. More often than not, the recalculation differs by several pence or more, sometime positively and sometimes negatively. Deborah simply ignores this difference and "adjusts" the figures. Why? Well, to begin with, this is a normal error for which the adjustment "works". It is a difference which she expects to find all the time. Second, it is an error she cannot eradicate. It is built in to the system she uses. The desk top calculators which she uses are all set to 2 decimal places and so Deborah could not work out the VAT at any greater level of precision. The calculators will always round and so will always produce "errors". Further, the rounding is either "up" or "down". Deborah presumes as a matter of commonsense probabilities that the roundings cancel each other out in the long run. She has no way of telling and no way of dealing with it if she could. So she adopts the pragmatic stance that it makes no practical difference. The VAT which she takes off from the throughput is, then, correct in as far as her calculative procedures allow. This is, for Deborah, what correctness means.

"Vending wet", "Vending dry", etc. are categories. They are titles for classes of transactions. What Deborah has to do is produce a consistent use of the system of categories. Not only has the use to be consistent, such consistency has to be both visible and followable. The consistency is displayed in the accounts which she produces. This will involve (a) determining what is a case of what - finding the category to fit the case; and (b) bringing that case under the rubric which covers the category. Sometimes this is simply a matter of mechanical application, or of simple sorting. At other times it is not. She is, therefore, reasoning with the system, not simply running through its operations. This reasoning involves Deborah in dealing with the inevitable difficulties which such a system

of categories generates. She has to make and mark distinctions between contrasting cases which are to be treated differently and those which are equivalent and so can be treated as the same. What are exceptions and what are not. Where a rule applies and where it does not. What she knows about LTC, about the contracts, and about the outlets is what allows her to make these judgements and by solving these problems achieve organisational and legal consistency.

We suggest this judgemental work in calculating the rents is the outcome of a whole set of orientations to the differences between the operational equivalence of units whereby units can be treated as it they operated in the same way, and a series of other equivalences by which outlets are grouped together and marked off. Here is a list of some of the latter:

- (a) procedural equivalence: units are treated in the same way;
- (b) organisational equivalence: units are defined as the same;
- (c) legal equivalence: units are reported in the same way to the Revenue;
- (d) virtual equivalence: non-essential differences between units are discounted;
- (e) effective equivalence: the procedures for dealing with units are seen as having the same outcomes;
- (f) transformed equivalence: once the unit's accounts have been purified of irrelevant inconsistencies they can be treated as procedurally equivalent.

The character of equivalence and the modes for achieving it depend upon the local circumstances of each unit. Each throws up its own peculiar difficulties which Deborah has to know about and cope with. Take, for example Kingsway Hall, Bedford, and the problem set by the income from staging the Mayor's Ball. Kingsway Hall is a function suite. It consists of a main hall for conferences, concerts, dinner dances and the like, several smaller rooms which can be hired and a number of bars. In addition, it is open as a restaurant during the day. Normally, for a function like the Mayor's Ball, the cost of hiring the hall is accounted entirely separately from the cost of the meal. The former goes to the Kingsway Hall account; the latter to Bedford Catering Account. In the case of the Mayor's Ball, Deborah had to create this separation since only part of the price of the ticket was a contribution to the room hire. The tickets had been bought direct from Kingsway Hall, and not sold off by the hirer. The rest was the price of the meal. The device used to enable procedural equivalence of this income for other incomes to Kingsway Hall and Bedford catering was a transformation through over- and under-banking. In this instance, Bedford Catering were instructed to report banking less than they actually did, the difference being the proportion of the value of ticket sales due to room hire. Kingsway Hall reported banking more, the amount being identical to the under-banking for Bedford Catering. Deborah knew about the problem because she knew about the operation and "picked up the figures" from the filed returns of banked money and cash (the 001/2/3 sheets returned every fortnight along with the Processors' sheets discussed earlier) which the unit sends in each accounting period. The point is that exactly the same people who are doing the banking for both accounts while both accounts refer to 'the same' activities. The accounting fiction by which the incomes are transformed allows procedural equivalence to be achieved between income from the Mayor's Ball and all other incomes to these two accounts. Deborah called this "just moving numbers around". But it is crucial to the con-

sistency of the system as a system of calculability that such movements are not merely possible but are, indeed, required. By their use, the income in each account is made consistent.

The separation of the two sources of income was for contractual purposes. Within the terms of the contract with County Council, both incomes are defined as income to Kingsway Hall. However, different proportions of rent are due for room hire alone, for hire of room and kitchen facilities, etc. Normally, payments for rent are allocated to a Rent Suspense Account until they are paid. In the case of Bedford Catering, a special suspense account has been set up (Kingsway Hall Catering Rent Account). This involves treating income from one subsidiary operation as income to another merely for the purposes of paying the rent. This is only possible because of the operational features of the outlet. Most of the room hirings at Kingsway Hall do not involve food or drink sales. This operational difference is processed out in the payment of rents. What are operationally very different types of transaction and activity are treated as organisationally equivalent for the purposes of paying rents.

The procedure for coping with "dual siting" which we have just described does not apply in what appear to be similar circumstances at Luton Airport. Here a kiosk is maintained at an outlying site. This kiosk is run on very different lines to the main airport outlet because of the accounting and control problems associated with 'outliers'. Food is inventoried in and out: tills are tallied continually: labour costed separately and so on. These operational differences which are similar in scope if not in type to those applicable at Kingsway Hall do not lead to the same organisational solution. Instead, because the contract specifies a lower level of rental for the kiosk, this is accounted for separately. It is treated as effectively equivalent to the airport cafeteria. To achieve this, Deborah again consults the filed 001/2/3 returns since records of the takings and stocks in the kiosk will be available from them.

When it comes to COUNTRY KITCHENS, an entirely different set of considerations apply. Here, the problem is given because of the sale of drink. The tilling system in COUNTRY KITCHENS does not allow a separate record of alcoholic drinks to be kept. Neither can separate tills be installed since the sale of alcohol (predominantly wine) takes place from the same point as the food. This is not the case in leisure centres, for example. Second, the proportion of turnover going to alcohol in COUNTRY KITCHENS is minimal. As a consequence, it is not worth the time it would take to try and separate out the two incomes. For the purposes of this calculation they are treated as virtually equivalent.

An example of what is, for LTC, an operationally equivalent transaction being redefined as legally different is the small amount of in-flight catering that is provided at Bournemouth Airport. This does not appear as a separate ledger item but has to be "picked up" from the stock returns made by the unit. An invoice is made out to the airlines which does not include VAT since from the Inland Revenue's point of view, food eaten during a flight is not eaten in the UK and so is non-VATable. Computer payments, of course, have VAT addition programmed in. In taking out this slice of income, Deborah is able to prevent LTC from (a) paying VAT they did not have to and (b) discounting the turnover of VAT for the purposes of calculating the rent. For book-keeping consistency, for comparing like with like, the in-flight food is "pulled out".

All of this detailed knowledge is accounting know-how and know-what. It is "in her head", but also summarised on what she calls her "crib sheets" as the detail of cases and how to deal

with them. These are annotated lists of the peculiarities of individual units and how to deal with the troubles which they cause. But these lists are no more than pointers. To be able to use them, you have first to know your way around LTC's accounting systems and second to know how the operational equivalence of units can vary according to local conditions and contractual arrangements. With a knowledge of what is on the lists and how it is to be used, it is possible to follow Deborah's tracks as she computes her way through the rent book producing consistent accounts of the rentals due and marking what she is doing by standardised procedures such as double underlining (for reconciled accounts) and red asterisks (for exceptions) and journal entries.

The Empirical Observability of Capital Accounting

The notion of a socio-technical system is meant to capture something of the multifaceted character of a working environment. It defines both the social and the technical aspects of a production process as interacting sub-systems. But it does so at a cost. It tends to treat the elements making up the system in an over-determined, over-proceduralised and over-formalised way. For the individual working within the system, the social and technical processes which define production are not so easily disentangled. To seek to separate them out as discriminable elements is to idealise out the essential feature of most occupational cultures. This is the finding that work practices are socially organised, a finding which, if not quite set out in these terms, is none the less the central to innumerable studies of occupations and occupational cultures. What is distinctive, we would claim, about our analysis of this aspect of the paperwork at LTC is not that we have shown that it is inextricably tied to the practicalities of making capital accounting workable as a structure of reasoning. This is a feature of all activities. It is rather that it allows the possibility of making the praxis of capital accounting empirically observable. The disjuncture between the requirements of formality and those of substantive applicability to which we pointed in the previous chapter are wholly to be expected, as is the use of methods for resolving the difficulties that disjuncture provides; the "exceptioning" and the achieving of equivalence discussed above. What our materials testify to is the routine work of deploying and displaying a system of rational calculability; that is, what it takes to make the system work. The methods of documentary interrogation, interpretation and production which Janice and Deborah use are on all fours with procedures identified and analysed in other studies of the activities of practical reasoning. Studies of the work of coroners and caseworkers in determining "what happened", "where things stand", and "what can be done, now" (Garfinkel 1967, Zimmerman 1969), those of scientists making discoveries, getting observations (Lynch, Livingston and Garfinkel 1983), all invite us to re-think the nature of the activities under discussion. Just like these other species of practical reasoning, the rationality of capital accounting as a system of calculation is not best thought of as a set of normative constraints to which Deborah and Janice orient to. Rather its sociological interest resides in seeing it as the outcome of their work. Capital accounting on this view is itself an accountant's object. Putting it another way, one might say that the methods and procedures we have just been discussing enable us to see how the system of activities and orientations we designate 'modern capitalism' both maintains and reproduces and is maintained and reproduced in and through the achievement of its essential feature, namely the production of capital accounting as a system of calculability.

NOTES

- * A version of part of this chapter was read at the Boston Institute for Conversation Analysis and Ethnomethodology, August 1985. We would like to thank the participants for their helpful comments.
- [1] The importance of 'one offs' for this business has been mentioned only in passing in previous chapters. In Lawrence's eyes, especially, every site is a 'one off' since its own peculiar operational features and profit possibilities have to be taken into account when making any sort of judgement on it. It is precisely these concerns which allow him now to disregard the generally applicable criteria (food costs, labour costs, profitability) when they fly in the face of his judgement of what a site can do.
- [2] In a paper on 'exceptioning' by administrators, Brady (1987) indicates the need for studies of the principles under which decisions to make exceptions are arrived at. He suggests two general criteria which are weighed: (a) a principle of beneficence which is essentially utilitarian; and (b) a principle of membership which, he says, is Kantian in origin. In actual cases, he suggests, the grounds for exceptioning will be given as the inability to determine which principle is most appropriate.
- [3] There is a deep methodological issue here. The analytic attitude of sociological description is at variance with but dependent upon the 'natural attitude' which Janice brings to her work. Thus sociology cannot be aiming to reproduce her analysis of what she does, or anything like it. This is attested to by the fact that when presented with our account of her activities Janice found the whole thing deeply mystifying. Recognisability to those who perform the activity is not and cannot be a primary requirement. As Fred Kersten pointed out to us (personal communication), the relationship between the natural attitude and the naturalistic attitude in Social Science and elsewhere remains largely unanalysed.
- [4] Knowing what has to be done and what can usually go wrong with it is visible here as the simple rationalisation that 18 apple tins were counted instead of the 12 apple and 6 baked beans.
- [5] The co-ordination of objects in a physical space as part of an activity's praxis is very much understudied. Gurwitsch's (1964) insights and Merleau Ponty (1962) apart, there are only one or two places where it is discussed eg. Lynch, Livingston and Garfinkel (1983).