

MANAGING METAMORPHOSIS

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Abstract

The concept of managing metamorphosis is developed as the conscious process of exercising strategic control. It is argued that for such structural change to be managed, both those effecting and affected by change must be able to consider the ideological assumptions implicit in their actions. It is further argued that the form of language present in consciousness can be disabling in its inability to support such consideration, and therefore restricts the manager's ability to experience stability within himself and quality outside himself by making him dependent. The use of media which extend the properties of language by being trebly articulated is described, and the ability of such media to support the development of intentionality is explained. It is concluded that such media can be used to enable the development of consciousness and the managing of metamorphosis.

Introduction

This paper is concerned with the process of enabling structural change in organisations. To describe this process in a way which is grounded in action, the paper examines the approach underlying a series of Workshops presently being run for Ellerman Lines Limited, a privately owned organisation based in the United Kingdom. The approach described is not intended as a prescription for Workshop design, but rather as a way of making sense of my particular contribution to those Workshops. There were other consultants involved who would describe their approaches in different ways. My approach involved making use of a computer assisted technique of reflective analysis which is described elsewhere (Boxer 1979). The technique was a necessary but not sufficient condition for the learning which Workshop participants derived; and it supported a process of reflective learning which developed the participants' ability to express the value connotations implicit in their normal modes of behaviour. The aim of this paper is to explain how such a process could provide leverage on the structure of Ellerman's activities; and why such a process should be necessary for Ellermans to manage change in the structure of its own activities: to manage metamorphosis.

The organisation itself could be thought of as a socio-technical system (Miller and Rice 1967) and be described as a number of task activities involving regulatory and boundary management activities. Although the task activities might vary considerably, and the sentient groups associated with them might be very ambiguously defined, the class of managerial activity at this level could be defined as operational control, and the task activities being controlled could be described as more or less differentiated

depending on the structural heterogeneity of the environments with which they were connected (Lawrence and Lorsch 1969). In the case of Ellermans, these activities included shipping, freight forwarding, transport, brewing, hotel management, insurance, retailing travel, package tour operating and catering supply, to name just a few of the activities which could themselves be disaggregated into even larger numbers of differentiated activities. These activities had of course to be integrated, producing a second class of managerial activity defined as managerial control. Such managerial control would not necessarily be embodied in different persons to those exercising operational control; neither would it always be externalised in the form of paper-based or computer-based control systems. It would, however, be concerned with integrating the different task activities into an organisational whole by controlling the availability and use of resources: money, manpower, machines and materials. These different levels of control are summarised in Figure 1.

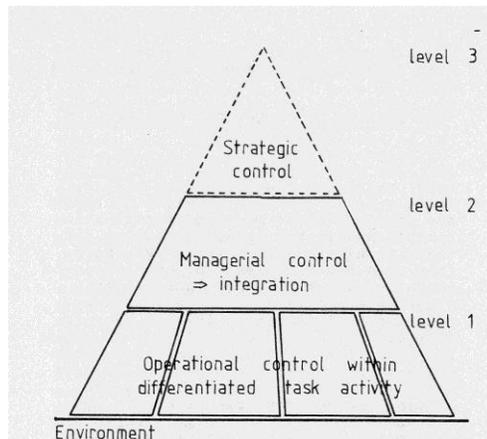


Figure 1: The different levels of managerial activity

A third level of managerial activity could also be defined: strategic control. This level of control would be concerned both with the ways in which task activities should be integrated, and also with the nature of the task activities themselves. Strategic control therefore would be concerned not only with what form the structure of the organisation should take, but also with the forms of connectedness which that structure should have with its environments. The process of metamorphosis therefore is the process of changing from one organisational structure to another which may at the same time involve changing the environments with which the organisation is engaged. Such a process need not be a consciously chosen one: it might be implicit in a response to a particularly large operational crisis facing the organisation. It is shown in Figure 1 therefore as dotted. Managing metamorphosis then is the conscious process of exercising strategic control.

Another way of talking about metamorphosis is as change within a 2nd order framework. This is a cybernetic term and implies a hierarchy of frameworks, each one of which is able to determine appropriate change in the framework subordinate to it: a 2nd order framework would determine the appropriate temperature at which a thermostat should regulate the temperature of a room. The problem facing the manager who wants to manage and has the power to initiate a process of metamorphosis is: what does a 2nd order framework look like? Assuming then that he could recognise one when he met it, how could he judge whether it was a good one or not: and even if he was convinced that it was a good one, how could he use it actually to manage metamorphosis with? By explaining how a reflective learning process can provide leverage on the structure of an organisation's activities, it is the aim of this paper to answer these questions.ⁱ

Who has to change anyway?

Whether or not the process of metamorphosis is managed consciously, there will be changes both in the structure of some people's activities and also in the activities themselves. These changes will therefore not only be evaluated, but also experienced: valued by those effected with varying degrees of positive or negative affect. Such values will define both the quality of the changes, and also the quality of life before and after the changes, and will be implicit in the ways people act even if they are not conscious of them. For change to be managed consciously therefore, it will have to raise questions about how changes are to be valued, how those values are to become known, and whose values are relevant in choosing to change.ⁱⁱ

One way of avoiding the value implications of managing metamorphosis is to invoke objective argument in the form of a 2nd order framework which is object-referenced and 'scientific'. Since the 2nd order framework will both define optimality and also the present and future states for the organisation, it will follow that to accept the objectivity of the 2nd order framework will imply acceptance of the changes determined by it.ⁱⁱⁱ Such frameworks however are very complicated things and are usually found in so-called 'experts'. Their frameworks are ultimately made up of related distinctions which express the value judgements made by the scientists with whom they originated, and depending on the nature of the distinctions being made, are subject therefore to change as the value judgements of scientists change (Kuhn 1962). To invoke objective argument is therefore only to duck or delay facing up to the value implications of using a 2nd order framework for managing metamorphosis.

The value judgements implicit in a particular framework collectively define an ideology. When they operate implicitly in the distinctions a manager feels able to make, they form a paradigmatic structure which over-determines the way in which that manager can work. A process of thinking in which the ideological assumptions can be made explicit is enabling therefore since the manager will be able to develop a 2nd order framework which is an expression of his own ideology. When the manager cannot make his ideological assumptions explicit however, and the framework is received from an expert and treated as if it is objective and therefore independent of value judgement, his process of thinking will be disabling because it will prevent him from considering the value judgements implicit in his own actions (Illich 1971).

In another paper (Boxer 1980) I developed the view that the manager is a conscious intentional being, able to act as a creative source of form in the substance of his own actions. The manager interacted with his external 'reality' through five modes of experiencing: olfactory, kinesthetic, auditory, visual and symbolic. Using an extension to Kelly's Theory of Personal Constructs (Kelly 1955), I argued that within each mode of experiencing, the manager construed in ways Kelly named as preemptive, constellatory and propositional; but that those ways of construing corresponded to structural distinctions between different levels of structure within a representational system resulting from its articulation. The correspondences between the levels and the different ways of construing were at the lowest level 1 the preemptive process of experiencing 'reality' itself; at level 2 the constellatory process of organising those ways of experiencing (thereby creating frameworks); and at level 3 the propositional process of valuing experience: how the manager experienced. The fourth level corresponded to the experience of intentionality, and I could not find a way of naming the experiencing of the fifth level and above.^{iv}

The argument was that consciousness was a medium which could be used by the manager as a representational system in order to express his different ways of construing. The symbolic mode of experiencing took the form of language in consciousness, and fulfilled a special function for the manager because it was not only a mode of experiencing, but it could also represent the other modes of experiencing including itself. It could therefore both be used for reflective thinking, and it could also be reflexive in its use. For the manager trying to manage metamorphosis therefore, assuming that he could develop congruency between his different modes of experiencing (itself a problem as Argyris and Schon (Argyris and Schon 1978), have shown in the differences between espoused theories, theories of action and theory-in-use), he faced the following problem: could the medium through which he was thinking about metamorphosis represent the 'reality' which would be affected at the same time as the

ideology from which he would act? If it could not, then he would be unable to bring into consciousness and therefore to express the ideology of a particular 2nd order framework, and he would therefore both disable himself and also disable others.^v

The Sources of Structural Ossification in Organisations

The manager experiences his own intentionality as emanating from within. Equally he experiences 'reality' through his five different modes of experiencing. Intentionality and 'reality' become distinct to him at a very early age therefore when his experience of one ceases to be coincident with experience of the other (the separation of the Imaginary from the Real (Lemaire 1977)). The process of knowing intentionality as distinct from 'reality' is the distinction between subject-referenced and object-referenced knowing. Kelly construed Mind as construing the replications of events. The extension to Kelly's Theory referred to earlier (Boxer 1980) construes Mind as construing not only the replications of events (object-referenced knowing), but also the replications of the construer's experience of himself as context to the construing of the replications of events (subject-referenced knowing).^{vi} This construing by the construer of the replications of himself as context takes the form of propositional construing. It reflects the construer's intentionality and is referred to collectively as core structure.^{vii} Object structure is then a way of referring collectively to the process of constellatory construing, or the replications of events, and the construing of events themselves is preemptive construing. Preemptive construing is therefore a way of referring to the process of experiencing 'reality', whereas core structure is a way of referring to the process of experiencing intentionality: preemptive construing is embedded within object structure which itself is embedded in core structure.

The manager's accession to consciousness comes as a result of his experiencing 'reality' through object structure in two or more mutually exclusive ways, all of which are expressions of his intentionality. The only way out of this bind which can satisfy his intentionality in all ways is to develop consciousness as a representational system, capable of representing 'realities' and object structures which do not necessarily 'exist', but which are capable of removing the exclusivity of the expressions of his intentionality (the origin of the Symbolic as distinct from the Imaginary and the Real (Lemaire 1977)^{viii}). This process will include a representation of himself, and through his accession to the symbolic use of language, will enable the manager to construct realities alternative to the 'here-and-now'. The realities which he can represent, however, will be constrained and restricted by his ability to use consciousness as a representational system; and the price he may have to pay for removing the bind may be to have to construct a representation of a 'reality' which he cannot share with others.

The articulation of a representational system is the ability of a distinction at any level of the system to refer to any assemblage of related distinctions at the level below it. This ability to refer between levels is independent of the levels themselves, and being a recursive definition produces an infinite number of possible levels. Traffic signals therefore have single articulation because by organising the lights in different patterns they can represent 'reality' in different ways. Language is doubly articulated (Guirard 1975[1971]): not only can different assemblages of words represent 'reality' in different ways, but also different assemblages of words can be used to represent the experience of different forms of relatedness in the experience of 'reality'. The existence of double articulation in language is most apparent in the creation of metaphor and analogy, and it enables language to represent both preemptive and constellatory construing explicitly. The embeddedness of language's level 1 in level 2 resulting from its double articulation (its syntagmatic structure) can be made to correspond to the embeddedness of preemptive construing in object structure. Object structure is embedded in core structure however, so the explicit syntagmatic structure of language can be construed as being embedded in an implicit paradigmatic structure corresponding to core structure: a representation of the value judgements made implicitly by the manager in choosing the particular form of the syntagmatic structure.^{ix}

This paradigmatic structure implicit in a manager's use of language will result both from his

construing others' use of language as well as from his attempts to construe his own subject-referenced knowing. He will however experience the paradigmatic structure implicit in others' use of language as over-determining if it restricts the forms of syntagmatic structure which he feels able to use. Equally if he is self-determining in his use of language, then others will experience his use of language as 'private': the paradigmatic structure within which others will interpret his use of language will not be congruent with the paradigmatic structure implicit in his own use of language.^x If there is a difference, therefore, between the manager's ideology and that of those around him, then the manager will feel a tension between being over-determined as a result of his desire to communicate, and being self-determining in his desire to express himself. The manager will only be able to escape from this double bind in the form of his consciousness, however, and satisfy his intentionality in both ways, if he can become conscious of his ideology as distinct from others' ideologies. The limited articulation of language as a representational system will prevent him from representing his ideology directly in relation to 'reality'; and the over-determining effects of others' use of language in the forms of syntagmatic structure which he feels able to use, referred to collectively as the cultural over-determination which he experiences, will tend to prevent him from becoming conscious of his ideology as distinct from others' in the first place. The manager's accession to language in consciousness will therefore be a two-edged weapon. It will both enable him to value 'reality' in ways which he will experience as congruent with others' values, but which he may experience as over-determining, but it will also prevent him from being able to value 'reality' in ways which may be distinct from others' but which may enable him to be self-determining.

This limitation of language as a medium through which the manager can think about different ideologies in relation to 'reality' will make it a disabling medium.^{xi} So will any other medium be which only has double articulation. What therefore will be the consequences for the organisation if its existence as a context to the manager is experienced as culturally over-determining? If the manager has been fortunate in not having experienced himself as being over-determined, then he may develop the ability to act in self-determining ways which he values: he may therefore become intra-dependent and be able to act directly from core structure in ways which he values, even though his core structure is not accessible to consciousness (Reed 1978)^{xii}. There is no reason however why the object structure developed at one time and embedded in core structure should always enable the manager to act in ways which he values. 'Reality' is likely to change in ways which demand re-construing. The paradigmatic structure which was once the expression of his self-determination could then become over-determining. Equally however, the manager might never experience congruency between his own and the organisation's ideology embodied in others, and never have been able to develop the ability therefore to act in self-determining ways. If the manager's response to the resulting feeling of tension was to locate its source outside himself and to act as if it could be removed by changing the 'reality' rather than his core structure, then he would be extra-dependent: exactly the process he would have learnt in separating the Symbolic from the Imaginary and the Real in the first place. If that extra-dependency was located in the managerial or operational control processes within the organisation, then such extra-dependency would be entirely disabling, and would lead to his having to express his own value judgements implicitly through processes of projection, sublimation and transference.

Metamorphosis of the organisation would therefore be experienced by the extra-dependent manager as metamorphosis of himself. Without such a process being accessible to consciousness and therefore being able to be known as an expression of his own intentionality, such a process would tend to be resisted and blocked. Unconscious extra-dependency would therefore be a source of the structural ossification of the organisation. Unconscious intra-dependency would, however, enable the manager to continue doing what he had always done without his needing to consider its value to the organisation. Depending on his power position, unconscious intra-dependency would therefore lead either to his being unable to consider metamorphosis, or to his leaving the organisation when faced with over-determination imposed by the actions of others in introducing change. In the former case, the manager himself would be a source of structural ossification; and in the second case it might only be regrettable to lose a potentially valuable source of expertise; a third possibility however might be that the manager be forced out of his

intra-dependency into extra-dependency.

An expert might be able to supply a 2nd order framework which might both manage change and also satisfy the extra-dependent needs within the organisation. If the expert's intervention could not respond to managers' value needs however, then it would be disabling and would leave the organisation no better off in its ability to manage its own metamorphosis. If this intervention did take account of values, then it would be a process intervention (Schein 1969) and could enable managers to make the transition from extra-dependency to intra-dependency, and from one intra-dependent state to another. Without developing the capacity of managers' consciousness to represent core structure however, the organisation would still not have a capability to manage its own metamorphosis. Managers would still therefore be a potential source of structural ossification. In order to exercise strategic control consciously, managers would have to develop consciousness of core structure. Such consciousness would enable them to exercise choice over the form taken by the expression of their intentionality, to be able therefore to develop 2nd order frameworks which could be an expression of their ideology, and therefore to control 'reality' in ways which they could experience as self-determining. The problem facing the process interventionist in other words is therefore to be able to develop managers' intentionality.

Developing Intentionality

The process of enabling the development of intentionality within an organisation demands four capabilities: firstly, the ability to represent the organisational context in which the manager is embedded in order for him to be able to consider the appropriateness of its over-determining effects at the different levels of operational, managerial and strategic control; secondly, the means of developing a 2nd order framework which is capable of expressing the intentionality of more than one manager; thirdly, the ability to structure intervention in a way which enables the conscious experiencing of core structure in relation to 'reality'; and fourthly, the ability to structure the use of consciousness as a representational system so that it can be used as if it had triple articulation. The form taken by the first two capabilities will be discussed in the next section, and the techniques used to provide the fourth capability have been described elsewhere (Boxer 1979). The third capability is the process of supporting reflective learning, and the aim of this section is to describe the form it took within the Ellerman Workshops.

The design objective for the Management Development Workshops was to develop a strategic capability at senior operational management level: the level at which managerial control was primarily exercised. The reasons for wishing to do this were partly because expectations to which the personnel function felt a need to respond had been raised for some kind of management development activity within Ellermans at this level of management; and partly because the introduction of a corporate planning process for generating change had not met with the success anticipated, and the Workshops were therefore seen as a way of complementing and supporting the corporate planning process.

The Workshops themselves took place over a period of about five months, and involved three process consultants working with a group of about 10 managers for a total of 10 contact days spread over the period in four sessions of 3 days, 2 days, 2 days and 3 days. Before the managers agreed to take part in the Workshops, they attended a contract interview in which both the consultants and the managers had the choice as to whether or not they would attend. If the manager so chose, then the contract was that the manager's evaluation of the value of the Workshop to himself would determine whether or not the consultants received their fee, conditional upon the organisation enabling the manager to act in self-determining ways during the period of the Workshop. The consultants' side of this contract was that the manager agreed to do only what he himself chose to do; to express himself only in ways which were his own; and to be entirely responsible for his own actions.

During the contract interview, the manager also learnt about the kind of relationship he would be working through with the consultant. One of these relationships would concentrate on how the manager chose to focus on his 'reality'; one relationship would concentrate on how the manager experienced

himself; and one would concentrate through his relationship on how the manager represented both his 'reality' and his experience of himself: on the process therefore of reflective learning. My intention was therefore concerned with developing intentionality and the typical pattern of my relationship with each manager was that the first and second sessions were concerned with developing individual managers' intentionality; the third session was concerned with how each manager worked in relation to particular other managers; and the fourth session was concerned with how the managers worked strategically as a member of a group. It is not possible to describe the Workshops as a whole in detail, but managers described their experience of the reflective learning process as a kind of 'breakthrough' in their ability to manage their own development. My view of this 'breakthrough' was that it was the experience of transition from level 2 to level 3 consciousness: the development from consciousness of object structure alone to its being embedded within a core structure which they could represent as an expression of their own intentionality, and therefore as something over which they could exercise choice. It was this 'breakthrough' which provided them with the leverage they needed in order to manage metamorphosis consciously.^{xiii}

The reflective learning process was a cycle which started and ended with the manager in a state of intra-dependency, the difference being the addition of conscious intentionality at the end.^{xiv} There were five identifiable intermediate stages, and they involved a process of moving out into extra-dependency and then back into intra-dependency. The consultant's role was to facilitate this movement by helping the manager to move through the different stages. The consultant's ability to support this process depended crucially therefore not only on the form of his ideology, but also on his consciousness of it (Boot and Boxer 1980). The contract interview was designed to screen out those managers who were locked into the extra-dependent mode and would therefore not be able to accept responsibility for their own learning within the Workshop. To have responded to their needs would have demanded a different kind of Workshop. For the remainder, the contracting process was essential to ensure that the managers participating did start the Workshop in an intra-dependent state. The contracting process also established whether or not managers participating felt that there was scope for movement in their own development.

The first stage was concerned with enabling the manager to construct an object structure which could represent all the different domains of 'reality' with which he was currently connected. Implicit in this process was the paradigmatic structure underlying his choice of domains, and the intentionality behind that paradigmatic structure. The result of this stage was the owning and sharing of the manager's world of activity as a whole, and its acceptance as a legitimate basis from which to work through the later stages.

The second stage started by asking the manager to name each distinguishable domain of activity, and then to express whatever ideals he used in evaluating his experience of each domain thus named. Each ideal was then identified as a continuum along which the manager could create a pattern reflecting the degree to which each domain measured up to each ideal in relation to each other domain. The manager was therefore creating a syntagmatic structure in a way which biased his attention towards the use of characterising universals, and which could be reorganised and represented in a form which made it easy for the manager to name the patterns in how he experienced the different domains as ideal (Option Analysis in Boxer 1979a)(Boxer 1979)). This new representation being named was, therefore, of the paradigmatic structure implicit in his syntagmatic structure, and the process of naming it was the process of representing it in his own consciousness in relation to the different domains of his activity. The result was both a recognition of things he could change in his 'reality' and also a recognition that there were ways in which he was not experiencing his 'reality' but which he would like to: a recognition that he was experiencing over-determination which could form the basis for a contract with the consultant to move on to the next stage. This second stage was crucial in enabling the manager to choose to move out of intra-dependency into extra-dependency so that he could make the 'breakthrough' as a means of becoming self-determining.

The second stage had brought a sense of lack into the manager's consciousness which was both a recognition of his own separate identity, and also a recognition of the tension within him between being

over-determined and self-determining. The third stage was therefore to work on this sense of lack by looking back through his past experience to find its origins in how he had experienced in the past. Taking the form of 'life-lining', the manager developed a representation of his past experience as a whole from which he could name critical experiences in relation to his current sense of lack which were also bounded in space and time. The result of this process was a shared re-living of parts of the manager's past world which could act as a basis for the fourth stage.

The fourth stage was experienced as the 'breakthrough'. Each past experience was named, and then the manager expressed how he valued that past experience. The values were identified as continua along which he could create patterns reflecting the degree to which he valued each experience in terms of each value. The manager was therefore again creating a syntagmatic structure in a way which was characterising and therefore could be re-organised and represented in a form which both made it easy to name the patterns in how he experienced his past 'reality', and also to name how these patterns thus identified were related. (Past Reflection in Boxer, (Boxer 1979)). Unlike at the second stage when the paradigmatic structure was only being named, this process of naming relatedness within paradigmatic structure enabled the manager to develop consciousness of core structure as a structure: "when I experience this in this way, I find myself tending also to experience that in that way. This is a pattern in how I organise how I experience my 'reality' which has implications for my ability to be self-determining which are". The process consultant's part in facilitating this transition in level of consciousness was crucial. The particular use of technique provided an externalisation which supported the focus of the extra-dependency and which helped the manager concentrate on the reflective learning process, but the significance of the consultant's consciousness of his own ideology was that it enabled him to keep the form his own intentionality took out of the way of the form taken by the manager's intentionality. The technique was being used as a kind of projective device capable of representing knowing at three levels as a result of its triple articulation, through which the consultant and the manager could engage at the level of intentionality.

Engagement at the level of intentionality through an appropriate representational medium with another consultant had been possible for the manager by his choosing to move from intra-dependency to extra-dependency. The fourth stage started the manager moving back into intra-dependency, but this time he also had the choice as to whether or not he desired his intra-dependency to take that form. The fifth stage was one of enabling the manager to consider new domains of activity and new ways of experiencing existing domains of activity which removed tensions identified earlier. The implications these choices had for the manager went beyond the immediate situation and demanded that the manager become self-determining. The consciousness of his own intentionality as something which preceded the particular form which it took enabled the manager to lead himself in his own development rather than be led by another.

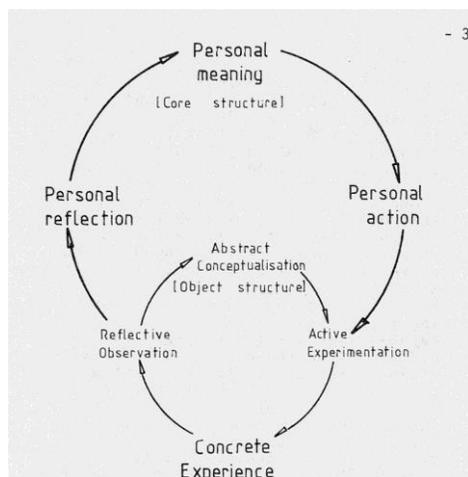


Figure 2: Learning as the experience of different levels within a representational system.

The particular form of intervention which was taken in supporting reflective learning can be understood in terms of Figure 2.^{xv} This is an extension of Kolb and Fry's experiential learning cycle (Kolb and Fry 1975) which treats the cycle as an exploration of the articulation between any two levels within a representational system. The process of enabling the manager to express a level 2 syntagmatic structure which is characterising enables him to use it as a basis for exploring level 3 paradigmatic structure. Had the syntagmatic structure been categorising, then the process would have short-circuited to one of abstract conceptualisation alone: the danger for the manager when the consultant allows his own ideology to get in the way. This gives it an advantage over interventions which start with structuring what the manager experiences: it does not introduce boundaries which he later has to re-integrate between the manager's 'normal' experience and a learning experience. The disadvantage of course is that the manager is not getting new experience in new ways which might create new possibilities for expressing his self-determination. It was for this reason that the other two forms of relationship were present in the design of the Workshops. The development of managers' intentionality within the Workshop however did enable them not only to make better use of other relationships both within and outside the Workshop, but also to take more responsibility for their own development within the course of their work with Ellermans. Here then was the leverage within Ellermans for the managing of its own metamorphosis.

Exercising Strategic Control

Managers gained personal development both directly as a result of experiences on the Workshops, and also indirectly as a result of later choices they made evolving out of commitments made on the Workshops. Part of the basis however for contracting with Workshop participants was that the organisation would enable the manager to act in self-determining ways. This was not only because such 'space' was a necessary condition for participants to be able to continue developing themselves, but also because it was assumed that managers seeking to be self-determining at this level of managerial control would thereby provide leverage on and contribute to the development of Ellermans itself. From the point of view of Ellermans, this meant the organisation being under-determining; and from the point of view of Workshop participants, it meant their changing some of the ways in which they were being over-determined. Developing intentionality enabled managers to be self-determining, but it did not mean however that they could necessarily change activities around them: for some it meant having to leave Ellermans. The Workshop structure was designed to be under-determining: it could be designed as such because there was a coincidence of intention to be under-determining, power over Workshop structure, and concern for the Workshop participants' interests. No such coincidence existed necessarily within Ellermans as a whole. This section discusses the problems of creating such coincidence.

The intention to be under-determining is the intention to accept structural change. This means being able to choose to move out of intra-dependency to extra-dependency and back again. For such intentionality to be communicated in ways which are grounded in 'reality' and therefore which are able to suggest action there is a need not only to be able to communicate between managers at that level; but also to be able to create a representation of the structure within which managers are embedded and through which managers are experiencing under- or over-determination. The need for such a representation is a result of managers' inter-connectedness: the efforts of one manager to effect change being able to be blocked by another's efforts. Relatively few managers can create structural ossification through their interpreting changes as against their interests, even if they do so unconsciously. Providing a representational system with triple articulation capable of representing organisational structure as it is experienced and expressed by managers within it provides a means of describing that interconnectedness and also identifying forms of over-determination so that the implementation of change can be negotiated between those with the power to introduce change and those with the power to implement it. Such a system has been developed (Boxer 1979b) but the ability to use it depends on the ability of groups of interconnected managers to communicate about differing ideologies.^{xvi}

The decision to initiate structural change can be taken by one very powerful manager alone. The implementation of such a decision in a complex organisation will however depend on many other managers. Taking the process of structural change as a whole therefore, the power to effect it is dispersed through a large number of managers. Given a shared intentionality, a means of representing their inter-connectedness will enable a group of managers to agree the forms of structural change over which strategic controls are to be exercised. The process of communicating about intentionality demands extending the skills developed in reflective learning: firstly to develop a use of language through which the form taken by different managers' intentionality can be discussed; and secondly to develop a means of identifying the relatedness between such differing intentionality: the common ground.

The development in the use of language can be facilitated within a group by repeating a domain analysis for the group. This means that the group must be a family group and that the domain analysis can therefore lead directly into the development of a structural representation. If each manager expresses his most important ideals for those "domains, and evaluates each domain in terms of each ideal, then the analysis of relatedness in how each manager evaluates can provide a focus for the group to develop its own explicit paradigmatic structure within which the different views can be embedded. (Exchanging Views in Boxer, (Boxer 1979)). Given such an understanding, then choices can be created which exemplify the range of structural change which might be implemented. Using these choices as a benchmark, each manager can then evaluate them from his own point of view, and estimate how he thinks each other manager will evaluate them. The estimates can then provide confirmation or focus for clarification between managers of the form their intentionality takes; and an analysis of the actual diversity of viewpoint can provide a focus for discussing how the group will come to terms with the various value trade-offs within it. (Role Network Analysis and Consensus Grouping in Boxer, (Boxer 1979)). The consultant's part in these processes is one of facilitating confrontation and the resolution of difference (Walton 1969); and through developing the group's consciousness of both its implicit inter-connectedness within the context of the organisation as a whole and also within a paradigmatic value structure, these processes therefore provide the complement to the development of individuals' intentionality needed for the exercise of strategic control.

Conclusion

An organisation is made up of task activity. It also controls that task activity, and the exercise of this control can be described as operational, managerial and strategic. Insofar as an organisation can be thought of as existing independently of those who work within it, it can be described as a representational system which takes its form both from those who work through it, and also from that on which it works. For the managers who work through it, it can be experienced as both under-determining by some and over-determining by others. For managers to act through it in self-determining ways they have to be capable of expressing their own intentionality. Such capabilities within the organisation provide it with the capability for exercising strategic control. Strategic control will only be exercised consciously however if managers learn how to express and share their intentionality through media which can represent the relatedness of ideology and 'reality' in ways which are not disabling. The argument in this paper has been that such media do exist and have the property of triple articulation. Through their use, conscious intentionality can be developed and shared in ways which can provide the leverage for managing metamorphosis.

The study of systems started with the study of 'reality' itself: a *creatura* (Jung 1967) which could be wholly object-referenced and about which statements could be made which were 'true' in the sense of being independent of particular observers. Gradually the study of systems took account of the *pleroma* (Jung 1967), the fact that systems existed as interpretations of 'reality' which existed by virtue of the existence of the subject, and which could be said to be 'true' only through their coherence. Out of the study of these systems came the concept of General Systems Theory: the study of form underlying the

Boxer, P.J. (1979) "Managing Metamorphosis" in Proceedings of 25th International Meeting of the Society of General Systems Research, London. Springer-Verlag pp296-305

substance of different systems. The conclusion of this paper is that General Systems Theory is the science of representational systems. As such it cannot be a science of 'reality', but neither can it be a science of being: only a representation of it. Through the recognition in consciousness of what it is - the study of the products of consciousness - it can become both what it is - limited - and what it is not - a medium through which intentionality can be expressed.^{xvii} As such it can itself become the means of experiencing quality and stability.

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Notes

ⁱ More recent writing would express this as a 2nd order behavioural closure that had to become non-deterministic for such a choice to exist. This in turn raises the question of the nature of a 3rd order closure, reflecting the sovereignty of those with the power to impose such constraints on a 2nd order closure in order to render it deterministic. This 3rd order closure has itself to become non-deterministic, to the extent that the organisation must become edge-driven, i.e. to surrender sovereignty to its customers/clients. See Boxer, P. J. (2014). "Leading Organisations Without Boundaries: 'Quantum' Organisation and the Work of Making Meaning." *Organizational and Social Dynamics* 14(1): 130-153.

ⁱⁱ This is currently being taken up in terms of the nature of the libidinal economy to which an organisation is subject. See my abstract submitted for the Rome ISPSO Conference in 2015:

Title: Working forensically with toxic thinking: what doesn't kill you makes you stronger

In an increasingly networked world, enterprises are being expected to organise around the individual needs of the customer. This is easy to say but difficult to do. Take, for example, the challenges facing the car industry. To quote a recent McKinsey interview with Bill Ford:

"It used to be that the auto industry, and the car itself, were part of a self-contained ecosystem. If there were breakthroughs, they were developed within the industry ... that's all been turned on its head; we now have disruption coming from every angle, from the potential ways we fuel our vehicles to the ownership mode. We have a whole generation that just wants access to vehicles as opposed to ownership ... the reality is that we will not own, or develop, most of the connectivity technologies involved. So we have to be a thoughtful integrator of other people's technologies and understand where we add value."

What makes this organising around the needs of particular customers difficult to do? In a networked world, collaboration is the new normal. The paper explores the difficulties encountered in challenging existing libidinal investment in particular ways of organising – the libidinal economy.

An example of a dilemma faced by Ford 'in the world' would be 'which technologies should we develop ourselves?' versus 'who else's technologies should we integrate?'. A 'felt' version of this dilemma would be 'if I develop this technology I know I'll have a job but it won't be so good for the enterprise' versus 'if I develop that technology I'll be working myself out of a job'. A depressive position would involve holding both sides of the 'felt' dilemma, while a paranoid-schizoid position would split off the 'bad' side as 'toxic'.

In a networked world, this paranoid-schizoid response to toxicity is no longer an option if the dilemma is 'in the world'. But the depressive position is also problematic in a networked world. When an individual, in holding both sides of a dilemma, holds on to particular ways of judging what is appropriate for an enterprise, the affect attaching to his or her way of organising introduces differences in the way he or she values choices. The 'felt' dilemma reflects the way affect is habitually attached to particular ways of organising. Its construction uses concepts that depend on the speaker's particular 'feel' for what they mean, the roots of this 'feel' being an unconscious consequence of the speaker's particular history aka libidinal investment. So instead of a choice being excluded as toxic, it is instead excluded because it 'feels wrong' despite being intellectually valid. Choices that are implicitly toxic in this way are thus killed off not by a single act of exclusion but rather by the cumulative effects of many small exclusions.

The libidinal economy of an enterprise may thus unconsciously kill off good ideas, despite its members having expressed the very best of intentions. Working psychoanalytically in an enterprise to prevent such 'murders' therefore demands a 'forensic' way of working, in which careful attention can be paid to the way dilemmas are being held and refused. This involves questioning the affects unconsciously attached to existing ways of organising that links them to their consequences for the enterprise - 'forensic' because the motives of such 'murders' are never obvious!

What mobilises such 'forensic' work? Desire born of 'minding the gap' with the problematic situations excluded by the existing libidinal economy – a Lacanian understanding of the ethic of psychoanalysis. The paper will explore the implications of working with this ethic, drawing on forensic material from working with a research institute struggling to innovate.

ⁱⁱⁱ I would distinguish between 'objective', i.e. the result of a social process establishing inter-subjectively agreement, and 'object-referenced', i.e. an assertion, the meaning of which could be established independently of the speaker. 'Object-referenced' is contrasted with 'subject-referenced', i.e. an assertion, the meaning of which can only be established by reference to the speaker. I would now refer to a subject-referenced assertion as *vague*, following Peirce. See Boxer, P. J. (2014). Defences against innovation: the conservation of vagueness. Defences Against Anxiety: Explorations in a Paradigm. D. Armstrong and M. Rustin. London, Karnac.

^{iv} The distinction between preemptive, constellatory and propositional construing comes from Kelly. Putting these into 'levels' and adding an 'intentional' level became problematic because the implied stratification led towards idealised formulations, as at the 'top' of Bion's matrix. I later came to see this as unable to address the Freudian notion of the lost object, taken up by Lacan as *objet petit a*, leading me to break with the social movements of both General Systems thinking and also Kelly's Personal Construct Psychology in order to develop this thinking further.

^v This in turn became formulated later as the challenge of triple-loop learning. See Boxer, P. J. (2014). Defences against innovation: the conservation of vagueness. Defences Against Anxiety: Explorations in a Paradigm. D. Armstrong and M. Rustin. London, Karnac.

^{vi} See Note [iii] above. This definition of subject-referenced is extended by reading it in terms of the Peircean vagueness.

^{vii} This way of thinking about 'core structure' was later replaced by thinking in terms of subjection to the unconscious as part of a double subjection. This enables 'intentionality' to be understood in terms of the subject's relation to lack/desire, distinguishing this from more cognitive notions of goal-seeking and purposeful behaviour. On double subjection, see Boxer, P. J. (2014). Defences against innovation: the conservation of vagueness. Defences Against Anxiety: Explorations in a Paradigm. D. Armstrong and M. Rustin. London, Karnac.

^{viii} This mistakes the form taken by the languaging medium from the structural properties of the Symbolic *per se*. This is a mistake that it took me many years to appreciate, derived from misreading Lacan's "the unconscious is structured like a language is structured".

^{ix} Double articulation refers to the ways in which linguistic signs may be distinguished as significant units (morphemes) that are themselves made up as combinations of distinct sounds (phonemes). This structural property repeats at different levels, hence the distinction here between the pre-emptive construing of that-which-is-referred-to (structurally equivalent to phonemes) and the syntagmatic structure of relationships-between these (structurally equivalent to morphemes). The further distinction of paradigmatic structure then refers to whole structures of substitution forming the backcloth against which particular choices of syntagmatic structuring are evaluated in a figure-ground relation.

^x The over-determining effects of another's way of valuing is a reference to the effects of the 3rd order forms of closure referred to in Note [i] above.

^{xi} This limitation of language as a medium does not apply to the ways in which speakers language, i.e. speak, in which is exhibited different paradigmatic structures depending on the nature of the situation/context in which the speaking is taking place. For more on this, see Johnstone, B. (2008). Discourse Analysis 2nd Edition. Oxford, Blackwell.

^{xii} The oscillation between intra- and extra-dependency therefore reflecting the relation between the speaker's and the other's core structure.

^{xiii} I later wrote about this process in Boxer, P. J. (1981). Learning as a Subversive Activity. Management Self-Development: concepts and practices. T. Boydell and M. Pedler, Gower.

^{xiv} ... which I would now express as a conscious awareness of their relation to desire (in the Lacanian sense) *aka* unconscious relation to lack.

^{xv} This embedding of one cycle within another was again modified by the notion of double subjection, which problematises the subject's relation to both cycles.

^{xvi} In retrospect, this overstated the capabilities of Projective Analysis (PAN) at that time (PAN). A more complete description of this method of analysis is to be found in Boxer, P. J. (2012). *The Architecture of Agility: Modeling the relation to Indirect Value within Ecosystems*. Saarbrücken, Germany, Lambert Academic Publishing.

^{xvii} Referring back to Note [iv], this was the limitation to General Systems Theory which led me to begin to address the problematics of the subject's relation to the unconscious.