

# **Information Systems to Support Choice – A Philosophical and Phenomenological Exploration**

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## Abstract

The paper examines the role of decision support, or “choice making” systems and models based upon three groupings of ideas (or frameworks). Firstly, the philosophy of choice is examined with reference to the viewpoints of classicism, modernism and post-modernism as they relate to the way in which preferences are determined and valorised. Secondly, this tripartite framework is examined with reference to the philosophical works of Soren Kierkegaard who is sometimes regarded as the first existentialist philosopher. Third, some parallels are drawn between the models and frameworks thus far described and the psychotherapeutic model developed (initially) by Eric Berne, known as Transactional Analysis. Finally, a review and synthesis of some of the ideas introduced is attempted.



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## Information Systems to Support Choice – A Philosophical and Phenomenological Exploration

### Introduction

Choice and decision are two sides of the same coin. In order for a manager to decide upon a course of action, she or he must make a choice between alternative courses of action or whether no action at all is preferable. Information systems for decision support have been developed over many years to help managers make decisions but with rather limited success. Paul Finlay, in his text *“Introducing Decision Support Systems”* (Finlay, 1994), makes the point that early decision support systems did not take into account the context in which managerial work was carried out, and that this was a primary cause leading to their under-use in an organisational setting. This context is illustrated by reference to the work of Minzberg (1975) in which it is noted that managerial work is largely interactive rather than reflective. Similarly Lawrence (1984) found that 50% of managerial time in British production oriented contexts was taken up by meetings. If this is the case, how might decision support tools really help managers and how do they fit into the conscious and unconscious scheme of managerial and organisational work?

This paper examines the role of decision support, or “choice making” systems and models based upon three groupings of ideas (frameworks). Firstly, the philosophy of choice is examined with reference to the viewpoints of classicism, modernism and post-modernism as they relate to the way in which preferences are determined and valorised. Secondly this tripartite framework is examined with reference to the philosophical works of Soren Kierkegaard who is sometimes regarded as the first existentialist philosopher. Third, some parallels are drawn between the models and frameworks thus far described and the psychotherapeutic model developed (initially) by Eric Berne, referred to as Transactional Analysis. Finally, a review and synthesis of some of the ideas introduced is attempted.

### Philosophical Traditions and Frameworks

We are told that the world we live in (and presumably the world inhabited by the managers our decisions support systems are intended to help) is “post-modern”. This may be confusing to many, and indeed the post-modern perspective itself suggests such confusion is itself a ramification of post-modernism! Post-modernism may be contrasted with modernism and classicism in the context of determining the basis by which judgements of truth and value are made. Modernism is a way of dealing with the world based upon an “enlightenment” philosophy whereby a rational process of thought and action is assumed to be the appropriate way to proceed on all matters of truth and value. We contrast modernism with classicism where thought and action was prescribed by a number of authorities, the King and State, the Church and (by extension) God. Post-modernism rejects both modernism and classicism. To understand how post-modernism opposes itself to modernism in particular we could do worse than quote from Frank Webster’s recent book *“Theories of the Information Society”*. (Webster, 1995). In chapter 8 “Information and Postmodernism“ he writes.

*“..... Postmodernism, influenced heavily by Friedrich Nietzsche (1844 to 1900), is deeply sceptical of accounts of the development of the world which claim to discern its growth, say, in terms of fundamental processes of 'modernisation', and it is equally hostile towards explanations of personal behaviour that claim to be able to identify, say, the foundational causes of human 'motivation'.*

*Postmodernism is thoroughly opposed to each and every attempt to account for the world in these and similar ways, all of which seek to pinpoint rationalities which govern change and behaviour. The presumption of enlightenment thinkers that they may identify the underlying rationalities of action and change (which may well go unperceived by those living through such changes or acting in particular ways) is a focus of dissent for postmodernists."*

The post-modern perspective rejects so-called "grand narratives" (Lyotard, 1979) or discovered truths, which attempt to explain behaviour in terms of underlying, abstract, but largely comprehensible forces and causes. So for the post-modernist the very idea of a "decision support system" is something of an oxymoron. Because no rationalities are any more valid than any others, it is not possible to construct any model which will give the "right" answer (or make the right choice).

In a sense, modernist thought sits at the nexus of two competing claims. One the one side (and traditionally) there is the classical world with its certainties derived from authority. On the other lies the post-modernist swamp with its denial of certainty in any attempt to assign value. Decision support systems are the product of modernist thought (however contextual they attempt to become) since they depend upon the development of rational models of the world.

Can we project the above discussion into the circumstances of a manager making a decision? Is the manager aware of acting within differing philosophical frameworks? In answering these questions it may be noted that only a classicist position requires explicit acknowledgement of itself. Indeed, a possible definition of a classicist notion of choice is that it must consciously acknowledge the authority that informs the choice. Examples might be "... *the managing director wouldn't like that ...*", "... *the University regulations say that ...*", "... *my religion requires me to ...*". Of course, these authority voices may become internalised to such an extent that they cannot immediately be consciously perceived, but they can usually be recovered fairly quickly upon reflection.

How does a modernist framework differ? The manager making the decision may make use of a rationality which is not accessible to him or herself. For example, it may be that an engineer making a design decision will thoroughly understand all the mathematics and assumption within a model being used, but it is not necessary that she or he does understand, and very often they don't. Modernist constructions (models) are abstracted from the world and their valorisation is external to the individual; they may be used and abused but they can exist independently of the user and the user's thought processes.

### **Information Systems for Decision Making are Modernist Constructions**

It has been argued that three philosophical frameworks or traditions are discernible in the process of choice; classicism, modernism and post-modernism. (More metaphorically we can have the stamp of authority, the light of reason or the swamp of uncertainty.)

Before going much further it should be acknowledged that the arguments in this paper lie within the framework of modernist thought. It is implicit that the analysis presented here depends upon a modernist position between the extremes of classicism/authority and post-modernism. Any information system designed to assist in making a decision or choice is a modernist production because it will aim to incorporate models and designs which imply some determined rationality. The use of an information system to help make a choice is to adopt a modernist philosophical stance; but what about the choice of model or models that will be included within the information system?

With some licence we can consider the three philosophical traditions guiding us on choice of model:

Classicism *“The standard authorised model(s) must be employed ..... “*

Modernism *“The correct model(s) to be employed are determined by a rational process (another model!).....“*

Postmodernism *“It doesn’t matter, use whatever you like, there is no way of valuing any one model over any other.....”*

A major point arising from the above is that the reflexive use of a modernist perspective to determine the type of model to be employed looks difficult to justify. It can prove impossible to justify the choice of any model without reference to some form of “authority”, even if this is the authority offered by convention. The normal approach of the scientific modernist perspective is to fall back to the position that the “authority” will be the actual behaviours of the natural world which will “prove” a model that accurately predicts the outcome of some experiment. This can, of course, be challenged by offering models that equally accurately reflect perceived reality and the results of experiments but are clearly totally different. (And, ultimately, a scientist may adopt a model which she or he knows cannot be “literally” correct simply to obtain a given result; for example the assumption that the mass of a sphere can be considered to be concentrated at its precise geometrical centre for many purposes, or that the earth is spherical in shape.)

As it relates to the development of modernist models of choice in management the position is much worse than in the natural sciences where the choice and validation of model is based upon successive occasions upon which the predictions of the model accord with observed reality. A single instance upon which observed reality departs from the model is sufficient to invalidate it. In the “management sciences” this process breaks down mainly because of the intrusion of subjectivity in the experience of reality - not nearly so much of a problem in the natural sciences. In other words, atoms and rocks are sufficiently “other” to our experience to render the process of observation essentially unambiguous and sometimes even automate it. By contrast, other people and organisations are such that we become involved and engage with them, making confirmation of anything by observation problematical, in effect leading to the phenomenological position where the event or experience depends upon an internal process within the putative “observer”. Thus even an elementary consideration of choice in management, a social science, casts doubt upon any basis for rational choice.

A further problem is that social scientists are wont to recognise pluralism in relation to models and to assume that such pluralism is intrinsically productive. Thus, the clash of ideas and models might be expected to be productive of itself (something like the Hegelian idea of dialectic: thesis, antithesis, synthesis). But the extent to which models that are the product of a modernist perspective (intrinsically models based upon differing rationalities) can interact productively is little understood. Too often it appears that one model wins over the other, so that modernism in management inevitably seeks totalising models and narratives which can explain all (or at least a significant majority of) observed phenomena. Subjectivity, as has been noted, means that the validation of such models is a practical impossibility and the circle can never be closed.

Such are the difficulties of the modernist enterprise in relation to choice in management that many commentators on this and other management themes have retreated to a weak modernist position in which models are acknowledged never to be complete or “true” but simply more or less useful (e.g. Beer, 1985). This has its analogue in the natural sciences where simpler and earlier models may be employed for practical purposes (for example the Newtonian explanation of gravity) even when later models are proved to more accurately represent real world phenomena (for example General Relativity). A problem with this is that there can be little agreement amongst researchers in management subjects about the precedence and

relationship of models. There is a tendency for people to “talk past each other”. Tsoukas, (1994) has discussed this in the light of an overarching model developed by Pepper, (1942) in which he suggests that our proclivities will tend towards one of four “world hypotheses”; Formism, Contextualism, Mechanism or Organicism. Tsoukas shows how different management commentators can fail to meet minds because of underlying different positions within this (Formist) structure.

In summary then, the information systems we use to aid choice and decision making must incorporate models developed from a modernist perspective but there is, at root, no rational way of validating such models except through an appeal to authority.

### **Decision Support Systems in their Philosophical Context**

It is obvious that a manager making a decision within an organisational context will, in general, not be aware of the philosophical underpinning to the process of decision making, although I would maintain that practice managers may often be more reflective upon their actions and development than academic commentators sometimes imagine. However it is worthwhile at this point trying to place decision support systems into context before attempting to come to grips with the phenomenology of decision making.

As suggested above, a manager who espouses a decision support system to aid the process of decision is committed to a modernist philosophical basis. If she or he is sufficiently naïve, the output from the system will be taken to give the “best” decision based upon an essentially “correct” model of the real world situation being considered. More likely, the output from the system will be taken as more or less strong indicators in favour of a particular decision.

Working within the technical sphere of decision support systems can prove useful and effective in distilling the results of modernist positivist knowledge generation for use by a wide audience and, as has been seen already, it is only necessary to know how to employ a decision support system, not how it works, to get the benefits from it.

However, a number of points (in no particular order) arise from this.

1. If a decision support system is used by a manager without an understanding of how it works, the manager is effectively adopting a classical position in a certain respect. She or he will rely upon the authority of the model embodied within the system.
2. If a variety of different systems (implicitly models) are possible and one is to be selected for use, the basis of this selection can itself depend upon a classical, modernist or post-modernist perspective being adopted. The manager can rely upon authority (“*the one we use here*”), rationality (a structured and consistent basis upon which to make the choice which is itself model based) or essentially arbitrary choice (“*spin the dice!...*”).
3. A truly modernist perspective to the use of a decision support system requires a manager to understand the available models and all the situational variables and to be able to construct a rational model of choice of system as well as understanding the outputs.
4. Post-modernist aspects of decision making may appear in the common experience that decisions in organisations can be highly contextual, can depend upon personal taste and upon arbitrary and fleeting circumstances. That many managers recognise the arbitrary possibilities for decision making is clear from the ubiquitous appearance of small spinning management toys on desks, supposedly for decision making, where (e.g.) “*go to lunch*”, “*ask for another report*”, “*fire someone*” are typical possibilities. People who possess such toys are making a statement about the contingent nature of much decision making as well as (in effect) saying “*I see the joke*”.

If we are to attempt to understand decision making at all, and thus develop better system to help all sorts of people make decisions, we need to try to examine what it is to be human and to make a decision.

For example;

1. Why do some people find making decisions easier than others?
2. Why is it that many of us feel anxious when asked to make a decision?
3. (Related to 2). How is it that we sometimes feel a sense of liberation and freedom once we have made a decision?

As has been suggested many of these issue strike to the heart of the issue of phenomenology, our differing and individual experiences of events. In order to help understand decision making better we now consider, firstly, a philosophical discussion of the basis of decision and then a widely accepted psycho-therapeutic model.

### **Kierkegaard and Decisions**

Soren Kierkegaard (1813 to 1855) has many detractors, in part because in the age of modernism and post-modernism his Christian religious beliefs have been viewed as incompatible with ideas of knowledge which are independent of particular religious perspectives. In effect, Christian belief is associated with classicism, which is what we have all being trying to get away from for several hundreds of years! However, I consider that a reading of Kierkegaard is possible which starts from a phenomenological perspective and reflects the view that he was the first existentialist. Existentialists believe that there are no value positions which are preferred, but that value is created by our actions within the world (*"existence precedes essence"*). Thus, value arises from action, rather than being a guide to action.

In *"Fear and trembling"* (Kierkegaard, 1843) the author examines what it is to decide by means of an exploration of the story of Abraham. Abraham was asked to sacrifice his only son to God. The point of the story was that Abraham chose to carry out this act in the face of his fatherly duty to preserve and nurture his son and the fact that God has already told him he would be the father of a whole nation. Kierkegaard argues that the decision by Abraham to carry out God's request is based upon faith in an authority beyond himself and is to be admired above decisions made on other, implicitly lower, bases. For Kierkegaard, the "movement" of faith happens in the mind of the chooser and in a sense thus creates value. (This is the link to existentialism.) Further, Kierkegaard recognises that a decision can be made on an ethical basis, where such a basis will be dependent upon a consensus amongst members of a society of what is correct action (external to the individual making the decision). Alternatively, and at the lowest level, a decision may be made on the basis of personal taste, what Kierkegaard calls an aesthetic basis.

So for Soren Kierkegaard the possible decision bases are: lowest, aesthetic; next ethical; finally and highest, faith. The latter places emphasis upon an assumed authority which lies beyond the person making the decision. Rationality has no part in this type of decision-only belief in a higher authority.

Kierkegaard makes two additional points in relation to decisions based upon faith, both of which bear upon the phenomenology of decision as we experience it. Firstly that such decision are not taken in a fatalistic sense. The basis of decision provides certainty that this is not only the correct decision but the best possible decision for the individual (and by extension the group of which she or he is a part). Secondly, that to fail to make a decision based upon faith is to suffer through lack of certainty. Indeed, his later work *"The sickness unto death"* (Kierkegaard, 1849) strongly suggests that our (mental) ills may result from our failure to decide on the basis of faith.

Kierkegaard's arguments are often subtle and phrased in rather religious and poetical language. However I consider his essential points can be understood without reference to a specific form of religious belief. Rather they apply to the phenomenology of decision making whereby we all, academics, consultants, managers, have our inner experience of decision making within our organisations. Every choice and decision may contain elements of arbitrariness/aesthetic basis (taste), ethical/rational basis (science) and finally faith/authority (appeal to revealed wisdom). Further, there seems to be a strong parallel both in form and semantic content between Kierkegaard's three categories of decision, and the previously discussed philosophical traditions of classicism, modernism and post-modernism.

### **Transactional Analysis and Decisions**

Transactional Analysis (TA) in psychotherapy was developed initially by Eric Berne (1961, 1964) and has been widely adopted within both the therapeutic community and beyond. At the heart of TA is a phenomenologically based (modernist) model of consciousness which sees both our internal mental states and our interactions with others as being based upon 3 separable "ego states". These ego states correspond to a "Parent" component which is based upon our own parents, a "Child" component which evolves from our early emotional experiences and an "Adult" which is a rational, reasoning component. For convenience the acronym PAC is often applied to this model.

PAC may be used as a framework for understanding both normal and pathological interactions between people, and there is a very extensive academic and popular literature on this (see for example Berne, 1961, 1964; Harris, 1967; Fensterheim and Baer, 1976). In the present context it is only necessary to consider the three "ego states" in terms of their possible involvement in decision making.

Once familiar with PAC it is possible to identify the contribution of particular ego states to an interaction in terms of the words and language adopted. It is possible for example to deduce the influence of the Parent ego state through observing the use of such terms as "*ought to*" and "*should*"; the Child by contrast says "*I want*" and "*I feel like*". Proponents of TA suggest that, in making a decision these "voices" will be present in our minds and influence how the decision process turns out. Moreover during this process the calm and logical voice of the Adult ego state will also play an important role.

In terms of decision making then, the Parent is likely to make itself felt as an authority which cannot be questioned. The Child in contrast will be characterised by a capricious approach to decision making. The Adult, representing rational thought, will exhibit a structured, logical and data based approach to decision making.

## Integrating Philosophy and Phenomenology

Some integration of the ideas thus far introduced is now attempted.

1. We note the widely accepted view that information systems, particularly those associated with decision support, have failed to address the true context in which managerial decision are made.
2. It has been argued that all decision support information systems are developed on the basis of a modernist philosophical perspective. The use of such systems is dependent upon choice of defining model and this choice (itself a decision) may be based upon classical (authority), modernist (rationality) or post-modernist (taste) perspectives. (It should further be noted that it is not intended to argue that choice is solely based upon a single perspective, merely that these are alternative philosophical bases that may play a part in such choice.)
3. Since making a decision or choice is a human action which, ultimately, can only be understood with respect to phenomenology we have examined the nature of such an action in terms of the philosophical perspectives first introduced by Soren Kierkegaard. (Again, it is worth re-iterating that though Kierkegaard has framed his contribution in terms of Christian religious belief, his ideas have been introduced in order to illustrate a proposed universal aspect of the phenomenology of choice and decision for human beings.)
4. Finally, a modernist phenomenological model, that of Transactional Analysis (TA) and PAC, has been introduced to the discussion of choice and decision making..

As deliberately presented above there is an emergent similarity between the classical/modernist/post-modernist framework, Kierkegaard's ideas and PAC which is exhibited at a superficial level. Does this similarity between different groups of ideas go deeper? Moreover, can this knowledge help in practical situations of decision making. In particular can it help in developing information systems to aid in decision making? The answer to the last two questions is left until later. Meanwhile an argument is advanced for seeing these apparent similarities as very significant indeed and symptomatic of an underlying deep structure which reflects what it is to make a decision.

The first and most obvious links between the three groups of ideas introduced is semantic. An attempt to illustrate this is indicated in Table 1 overleaf which summarises aspects of the various categories for each group of ideas as they relate to decisions and choices we may take. This aims to show the underlying affinity between the various groups of ideas.

The second argument is inductive. What is being discussed are groups of ideas which have emerged over a number of years during a process of discourse. They are all concerned with the way in which ideas, knowledge, models and choices are generated. Could it be that we are justified in inducing some underlying structure to the way in which such ideas, knowledge, models and choice are generated; in effect a structure to the phenomenology of choice and valorisation of decisions? Is this evidence to suggest that these three groups of ideas are congruent, indicative of some deeper structure, and not merely similar constructs approached from different perspectives?

| Philosophical Bases   | Kierkegaard   | TA and PAC   |
|---|---|--|
| <p style="text-align: center;"><b>CLASSICISM</b></p> <p><b>Characterised by:</b></p> <p>Authority decides.</p> <p>Knowledge as Greek “doxa”. That which is believed to be true.</p> <p><b>Choice:</b></p> <p>Depends upon what the relevant authority has determined.</p>   | <p style="text-align: center;"><b>FAITH</b></p> <p><b>Characterised by:</b></p> <p>Faith in God, generalised as reliance upon an entity that transcends the individual and rationality.</p> <p><b>Choice:</b></p> <p>Depends upon what the transcendent entity requires.</p>  | <p style="text-align: center;"><b>PARENT</b></p> <p><b>Characterised by:</b></p> <p>Unquestioned decisions and rules derived from our parents.</p> <p>“taught concept”</p> <p><b>Choice:</b></p> <p>Depends upon what our parents told us we should do.</p>                                |
| <p style="text-align: center;"><b>MODERNISM</b></p> <p><b>Characterised by:</b></p> <p>Rationality , logic.</p> <p>Knowledge as Greek “episteme”. That which is known to be true (can be proved).</p> <p><b>Choice:</b></p> <p>Depends upon a rational process.</p>   | <p style="text-align: center;"><b>ETHICS</b></p> <p><b>Characterised by:</b></p> <p>Using the “universal” as a guide. Kierkegaard says that the ethical life is to divest oneself of “interior” concerns in favour of “exterior” (abstracted) ones. (Kierkegaard, 1843)</p> <p><b>Choice:</b></p> <p>Depends upon a process external to ourselves and shared with others.</p> | <p style="text-align: center;"><b>ADULT</b></p> <p><b>Characterised by:</b></p> <p>Information and ideas derived from our own experience and rationality</p> <p>“thought concept”</p> <p><b>Choice:</b></p> <p>Depends upon our own analysis. Influenced by “adult” input from others.</p> |
| <p style="text-align: center;"><b>POST-MODERNISM</b></p> <p><b>Characterised by:</b></p> <p>Rationality suspended.</p> <p>..shunning methods, coherence, consistency; valuing creativity, spontaneity, ambiguity.(e.g. Mingers, 1994)</p> <p>No “grand narratives” (Lyotard, 1979)</p> <p><b>Choice:</b></p> <p>An arbitrary matter. No basis for preference.</p> | <p style="text-align: center;"><b>AESTHETICS</b></p> <p><b>Characterised by:</b></p> <p>The feelings of the moment dominate.</p> <p><b>Choice:</b></p> <p>Depends upon our feelings at the time.</p>  | <p style="text-align: center;"><b>CHILD</b></p> <p><b>Characterised by:</b></p> <p>Feelings.</p> <p><b>Choice:</b></p> <p>Depends upon our feelings at the time. That which makes us feel good.</p>  |

Table 1.

## And in Practice?

Can information systems really help managers and consultants decide ?

The short answer to this question is yes. Decision support systems can be developed based upon a variety of models which will allow choice based upon rational processes. However, as has been demonstrated in the discussion above, all such systems are based upon a modernist perspective which, by its nature, can never be validated in any absolute sense. There can never be any best model – moreover, it is doubtful whether any particular model can be legitimised over any other when considered from a modernist perspective.

Managers and consultants must choose the model to be incorporated into any putative decision support system. Such choice can only, ultimately, be related to a particular authority (it is a classical choice as described in this paper). Moreover, such choices are only understandable for human beings in terms of their phenomenology, the inner experience of making them.

In practice then, any decision support system or model may be employed, but it might be helpful for the evolution of the organisation and the development of the individuals concerned to ask questions such as:

1. As an organisation – what authority is sanctioning the model? (including the model used to choose any particular model).
2. As an individual – from where within my mind is the movement towards the choice or decision being influenced?

## Conclusion

Since decisions and choices lie at the root of all actions by managers and consultants within organisations, it is reasonable to seek ways in which support systems incorporating appropriate models can be developed to help with them. The paper has argued that such an enterprise is a modernist one which must be based upon an espoused model. Choice of which model to adopt must eventually reduce to one depending upon, either, explicit or implicit authority, or, the taste of the individual or group. A meaningful way to attempt to understand how such a choice has been made based upon the experience of the person making the choice. This has led to consideration of ideas based, firstly, upon the works of Soren Kierkegaard and, secondly, Transactional Analysis and the PAC model. It has been suggested that knowledge of these models can be helpful in understanding the origins of decisions and choices both from an organisational and an individual perspective.

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| WP021/98       | Approaches to management development: the domain of Information Management   | Tony Bate                                      |