

Synectics as a Creative Problem Solving (CPS) System

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An excerpt from:



Imagine That!

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Imagine That! celebrates the first 50 years of Synectics, a set of highly specific innovation techniques and behaviors that help individuals and teams work together in creative ways that are positive and action-oriented. Elements include strong collaborative approaches that invite speculation, fun, courage and idea development.

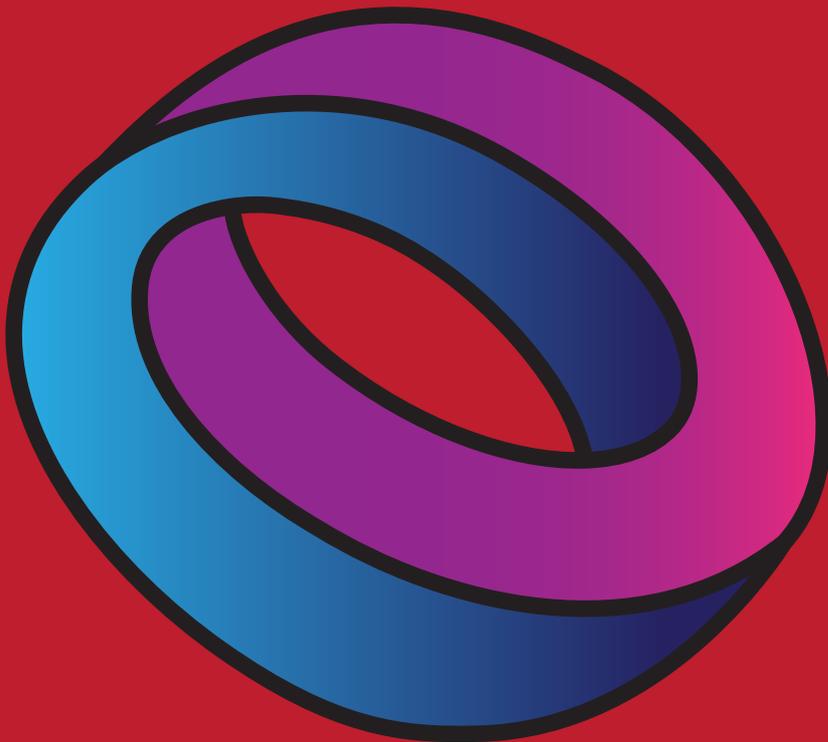
They originally derived from observational analysis of thousands of audio and videotape recordings of live invention sessions and meetings. They have been used successfully around the world in a wide variety of situations over the last 50 years.

The book is a collection of stories and articles from current and former staff members, clients and other associates.



Synectics as a Creative Problem Solving (CPS) System

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Synectics is usually classified as a Creative Problem-Solving (CPS) Technique along with Brainstorming and Lateral Thinking, So what does Synectics, as a CPS technique, have in common with Brainstorming and the others? And how does it differ?

An independent answer to that question is provided by Dr. John Martin of the Open University in the UK. In his notes for the Creative Management module of their MBA Course in 1997, he wrote: "In practice, different schools of creativity training borrow from one another. The more elaborate forms of creative problem-solving, such as the Buffalo CPS method (basically brainstorming), incorporate quite a number of features found in Synectics. However there is still a discernible split between the 'psychological' approaches such as Synectics that emphasize metaphor, imagery, emotion, energy etc. and 'procedural' approaches that

“...unless at first an idea is absurd, there is no hope for it”

concentrate on private listings, round robins etc. Of course practitioners can combine these techniques, but there is often a discernible bias towards one or other end of the spectrum”

Brainstorming was the original Creative Problem-solving Technique, developed in the 1930s by Alex Osborn (the O of the advertising agency BBDO) and further developed by Professor Sidney Parnes of the Buffalo Institute. The Osborn-Parnes model is the most widely practised form of brainstorming, though the word has become a generic term for any attempt to generate new ideas in an environment of suspending judgement. It may include elements of other techniques, such as de Bono's Lateral Thinking.

George Prince described Brainstorming as “the great breakthrough in creativity techniques; it demonstrated for the first time how much the fear of critical judgement inhibits the expression of ideas”. Even so, in brainstorming sessions (and in the Osborn-Parnes model) participants remain relatively inhibited and try to produce ‘good’ ideas, by ‘correctly’ understanding the problem and filtering out any ideas that might be considered absurd (‘good’ and ‘correct’ are clearly judgemental words)

Synectics widens and deepens the process of suspending judgement in a variety of ways

- It extends suspending judgement to the description of the problem, accepting the Problem Owner's perception without challenge or questioning
- It encourages alternative perceptions of the problem to be expressed (as ‘springboards’) again without challenge
- It encourages participants to ‘listen for ideas’

by paying attention to apparently irrelevant thoughts and images, to be used as clues to new ideas

- It actively encourages absurd ideas (reflecting Einstein's saying “unless at first an idea is absurd, there is no hope for it”)
- It uses Excursions to reproduce the phenomenon of getting a new idea from nowhere (‘idea while shaving’, ‘sleeping on it’)

In these ways, Synectics uses the period of suspending judgement to open up the topic to a much wider range of ideas and approaches than conventional brainstorming. It encourages the process of connection-making, “making the familiar strange and making the strange familiar” (Gordon) or “bisociation”, Arthur Koestler's term for the bringing together of two things that had not previously been associated (which he saw as the essence of creativity). Edward de Bono's term Lateral Thinking is a much more elegant label than either bisociation or indeed Synectics.

The ‘Springboards’ generated by Synectics are intended to be new starting points for exploration of the problem rather than finished new solutions (though new solutions may be thrown up occasionally). It follows that the process of selecting avenues to explore cannot be a logical or analytical choice, because there is no knowledge of where they will lead; it has to be an intuitive choice by the Problem Owner, based on newness and appeal (a choice which requires courage on the part of the Problem Owner). Contrast this with selection in brainstorming, where the initial ideas are screened into ‘good’ and ‘bad’, resulting in a short list of good ideas, which are unlikely to be new – they are considered to be good

because they are known to work! Hence the disappointment often expressed with brainstorming: “we generated a lot of ideas, but didn't get anything new”.

Alternatively the ideas are clustered into groups, a process which may satisfy the logical mind but is unnecessary and risks stifling any genuinely new thoughts by 'putting new wine in old bottles'. Its popularity is probably a reflection of the discomfort many people feel with the uncertainty of the creative process.

At this stage, Synectics adds a dimension that is entirely missing from brainstorming, the process of Idea Development, which takes new approaches which are not yet practical and develops them into feasible courses of action (Possible Solutions) that the Problem Owner commits to implement. The key to this process of incubation is the reintroduction of judgement in a way that preserves the emotionally safe climate achieved earlier by suspending judgement.

- The judgements are made by the Problem Owner alone (unless they invite the opinions of others)
- the Problem Owner is required to check their understanding of the idea before evaluating it. Few would quarrel with, the principle 'understand before evaluating', but it is usually ignored because understanding is assumed rather than checked out. When it is checked out, as often as not it proves to be wrong or incomplete
- the Problem Owner must first specify all the positive features of the idea (including possible positives), giving the idea the benefit of the doubt

- if the idea is not yet a Possible Solution, they then identify its most important shortcoming as the target for improvement (not as a negative; e.g. “we need to find a way to reduce the cost” rather than “too expensive”) More ideas are produced to achieve the necessary improvement and the process continues until the Problem Owner either has a new solution, or abandons that avenue for an alternative springboard

The end product of a Synectics session is new courses of action that will be implemented because they have been chosen by the person who will implement them. The end point of a brainstorming session is usually selected ideas that are not new. They may be new to the Problem Owner; the process has been used to transfer known solutions from someone who knows them to someone who does not, a useful achievement but hardly 'creative'.

Brainstorming is relatively easy to practise – just suspend judgement – and “the define-generate-select-develop logic ...maps much more easily onto logical methods found in operations research or computer systems analysis” (John Martin op. cit.). It is therefore less of a challenge to the prevailing business culture than Synectics.

Synectics, however, is more than a superior Creative Problem Solving technique; it is an Invention technique, which results in new *action* i.e. innovation and experiment, rather than simply new ideas. In addition, Synectics embodies a range of methods (described by George Prince as Creative Behaviour) that create the supportive Climate that underpins both Creative Thinking and Creative Action. The three dimensions of Synectics may be summarised as follows:

- Creative Thinking – techniques to generate new ideas
- Creative Action – the implementation of new ideas, i.e. experiment and innovation
- Creative Behaviour – the behavioural skills that are required to create the supportive climate that is essential for both Creative Thinking and Creative Behaviour

Of these, Creative Thinking includes and transcends Brainstorming; Creative Action and

Creative Behaviour are largely missing from it. The integration of these three components is seen as the Secret of Innovation, as shown in Fig. 3, page 34.

The Creative Behaviour dimension is the key to the wider application of Synectics, beyond the creativity/invention application. As such it warrants a section of the book, The Behavioral Dimension of Synectics – in its own right (see page 49).