SYNAPSIA

THE INTERNATIONAL BRAIN CLUB JOURNAL

VOLUME 2 NUMBERS 3 & 4
AUTUMN/WINTER 91/92

Not just anyone can join

Everyone can

THE BRAIN CLUB

is for anyone who has a brain and wants
to learn to use it well.

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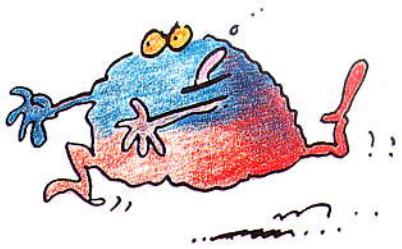
21st February 1995

Consult your local palmist!

EDITORIAL



Happy New Year! And welcome to this double issue of **Synapsia** – the largest issue to date of the Brain Club's International Journal.

As we enter this leap year, there is a feature article by Peter Russell, **The Awakening Earth** on our next evolutionary leap – the Global Brain.

In **Brain Club News**, Susy Churchill confirms the extraordinary growth of the Brain Club Charity by outlining fifteen major accomplishments for the years 1990/91. One of these major accomplishments was the holding of the first annual Brain Club Conference in Swansea, Wales, featuring the 'surprise' appearance of Benjamin Zander, conductor of the Boston Philharmonic and 'Brain Star' Lana Israel. James Lee reports.

Our **Letters** pages feature Brain Club Member Squire Davidson, who is planning to cycle across America in support of the Brain Club. **Synapsia** encourages all readers to support our 'Brain on Wheels' . . . . .

The **Brain Club Brain of the Year 1990** was the World Chess Champion Garry Kasparov. Garry gives an exclusive interview to **Synapsia** readers, discussing the future of the brain, human versus machine intelligence, and his new initiative for worldwide chess education. Who is your **Brain of the Year 1991?** On pages 19-21 we review the sixteen finalists.

Is it easier for the brain to tell the truth or to lie? Do brains love to cuddle? Where else other than the University of Tokyo is there a collection of preserved 'Great Brains'? Who is the smartest person in the United States? What do you think Dr. Marion Diamond thinks about women's versus men's brains? Find out in **Intelligence about Intelligence.**

1991's Floating University in the Aegean was another resounding success. For an 'in-depth' coverage of this week of laughter and learning, turn to the adventure of **Birthday Bay** – the first of a three-part series. Do also note the dates 19th-26th September 1992 in your diaries – the next Brain Club University in Jamaica.

Our **Business Brain** feature for this issue is an interview with Brain Club Member Fraser Morrison, who recently won Scotland's premier business award: the Scottish Business Achievement Award. Read Fraser's interview to find out the secrets of becoming a successful Business Brain.

While concentrating on winning, tackle Teri Bias's second masterful **Mind-Map-Word-Game** – a mental preparation for the forthcoming Olympic Games in Barcelona.

In this double issue of **Synapsia, Crawford's Corner** expands to take over the entire floor! Read his especially poetic prose to find out the relationship between fireworks, suicide, too many notes and sex!

In **Animal Intelligence** the debate continues over the mental prowess of dolphins, and we find out that squirrels as well as humans use Mind Maps!

As 1991 came to a close, two mental 'Battles of the Giants' took place. Read **Synapsia's** intriguing summary of **Memoriad '91** – the first World Memory Championships, to find out how the competition developed, and who eventually became the first World Memory Champion. And then read Raymond Keene's coverage of the **World Chess Quarter Finals** to see who won the matches introduced in **Synapsia's** last issue.

With this issue, **Synapsia** is proud to announce formally the formation of the **British Schools Chess League**. If you are interested in helping with this initiative, please contact the Editor.

In **The Ionian**, Paul Wilcox reviews **The Brain has a Mind of its Own**, and in **Brain Child**, a brain with a mind of its own, Michael Joseph Albert Collins, BCFM 373, aged 4¾, gives his own opinions on intelligence, animal intelligence, the 'global brain', and significant differences between being 4½ and 4¾.

1992 promises to be a year of phenomenal expansion for the Brain Club. The next issue of **Synapsia** will announce two major 'Evolutionary Leaps' in our history.

Executive Editor: Tony Buzan
Editorial Board: Vanda North, Phyllida Wilson
Cartoonist: Pécub

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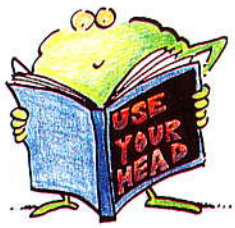
Brighton BN1 7JA

All contributions for the Spring edition should reach the editor, at the above address, by March 1. The editor reserves the right to shorten, amend or change any contribution accepted for publication. If you would like articles returned, please include an addressed envelope with appropriate postage.

Pécub, the world's fastest brain cartoonist, is happy to provide cartoons based on your ideas and requests.



"Resolved by the Senate and House of Representatives of the United States of America in Congress Assembled, that the decade beginning January 1, 1990 hereby is designated the 'Decade of the Brain', and the President of the United States is authorized and requested to issue a proclamation calling upon all public officials and the people of the United States to observe such decade with appropriate programs and activities."
Approved July 25, 1989.

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THE AWAKENING EARTH
Our Next Evolutionary Leap — The Global Brain

Peter Russell

Many people think of the future - if they think of it all -with images of pessimism and fear: over-population, mass unemployment, increasing violence, disease, pollution, World War III... and so on. But in a book which chronicles trends in evolution from the 'Big Bang' to the present day and projects them into the future, Peter Russell tells us that all the indications are that humanity could be on the verge of an evolutionary leap as significant as the emergence of life itself. He gives us an inspiring and tantalising vision of the possibilities that are just around the corner - are, in fact, already beginning to show - and which we can choose to bring fully into the light of day. Here we print an adaptation based on conversations for *Synapsia* with the author. (Check your reading speed, if you wish.)

100 ▶

It is commonplace today to speak of the pace of life speeding up, and to look back with nostalgia at the more leisurely pace of our grandparents. But a brief look at the history of evolution reveals that this speeding up is not new; it has been going on since the Universe began, some 15 billion years ago. Since billions of years are beyond our experience it may be difficult to appreciate this acceleration. We in the Brain Club can get a more tangible image if we compress these 15 billion years into a film a year long — the ultimate epic! And most appropriate for us in the Brain Club who are now at the beginning of our own New Year.

200 ▶

"We will know ourselves to be part of a rapidly integrating global network, the nerve cells of an awakening global brain."

The Big Bang, with which the film opens, is over in a fraction of a second — the Universe 'created' in the first second of the first day of this New Year! The first atoms are formed about 25 minutes after you have sung Auld Lang Syne! No more significant changes happen during the rest of the first day, nor for the rest of January (you will need plenty of popcorn): all that you are viewing is an expanding cloud of gas. Around ▶

300 ▶

▶ February and March the gas clouds begin slowly condensing into clusters of galaxies and stars. As the weeks and months pass by, stars occasionally explode in supernovae, new stars condensing from the debris. Our own sun and solar system are eventually formed in early September — after eight months of film.

400 ▶ Once the Earth has formed, things begin to move a little faster as complex molecules start to take shape. Within 2 weeks, by the beginning of October, simple algae and bacteria appear. Then comes a relative lull (and more popcorn!) while the bacteria slowly evolve, developing photosynthesis a week later. In mid-November, complex cells with well-defined nuclei evolve, making sexual reproduction possible, and with this stage accomplished, evolution accelerates again. It is now late November, and the major part of the film has been seen. The evolution of life, however. has only just begun.

500 ▶ The first simple multi-cellular organisms appear around early December, nearly a year from the time you are probably reading this article. The first vertebrates crawl out of the sea onto the land a week or so later. Dinosaurs rule the land for most of the last week of the film, from Christmas to mid-day on December 30th — a long and noble reign!

Our early apelike (or dolphin-like?! sic Crawford) ancestors made their debut around the middle of the last day, but not until 11 o'clock in the evening do they walk upright.

600 ▶ Now, on New Years Eve of the year which is just now beginning and after 365 days and nights of film, we come to some of the most fascinating developments. Human language begins to develop one-and-a-half minutes before midnight. In the last half minute farming begins. Buddha achieves enlightenment under the bodhi tree five-and-a-half seconds before the end, and Christ appears a second later. The Industrial Revolution occurs in the last half second, and World War II occurs less than a tenth of a second before midnight.

"Crisis may be an evolutionary catalyst in the push towards higher order."

700 ▶ We are down to the last frame now, the last inch of a hundred thousand miles of film. The rest of modern history happens in a flash, not much longer than the flash with which the film started. Moreover, evolution is continuing to accelerate, and this rapid acceleration shows no signs of abating.

The rate of change in many areas of activity is now so fast that it is difficult to predict where we will be in fifty years' time, let alone have any idea of civilisation in a thousand or a million years. It is becoming increasingly difficult to avoid the conclusion that we who are alive today truly are at a unique point in evolution.

800 ▶ In some respects humanity is beginning to behave like a planetary nervous system, and we find a close parallel between the phases of development of the young human brain and what is happening to humanity.

In 1980 the worldwide telecommunications network consisted of 440 million telephones, and nearly one million telex machines. Yet this network, intricate as it might seem, represents only a minute fraction of the communication terminals in the brain, the **trillions** of synapses through which nerve cells interact. According to John McNulty, a British computer consultant, the global telecommunications network of 1975 was no more

900 ▶ complex than a region of the brain less than the size of a pea. But overall data processing capacity is doubling every two and a half years, and if this rate of increase is sustained the global telecommunications network could equal the brain in complexity by the year 2000 — if this seems an unbelievably short time ahead, consider the acceleration during the last hour before midnight in our year long film, and multiply that acceleration of change by the number of hours between midnight on January 1st 1992 and the New Years Eve that will take us into the twenty-first century.

1000 ▶ The changes which this will bring will be so great that their full impact will probably boggle even the imaginations of our infinite brains! No longer will we perceive ourselves as isolated individuals; *we will know ourselves to be part*

of a rapidly integrating global network, the nerve cells of an awakening global brain. Yet although this may be a possible direction for humanity, it is also very clear that the species is also in a state of severe crisis, and will need to act purposefully and imaginatively in order to make it to the next century. We are deeply entangled in the most complex web of social, political, economic, ecological and moral crises in human history. Will these crises forestall an evolutionary leap? Perhaps. Certainly we have any number of doomsday projections which explore the possibilities of apocalypse in detail, but the history of evolution reveals quite another possible scenario — that *crisis may be an evolutionary catalyst in the push towards higher order.*

Let's take a look at some of the major crises in evolution, and see how what may have appeared to be 'negative' was in fact highly positive in evolutionary terms:

One early crisis in the evolution of life probably occurred when the simple organic compounds on which the first primitive cells fed started running short. There was, in effect, a food crisis. The response was the evolution of photosynthesis — the ability to feed directly from sunlight. Photosynthesis, however, produced oxygen as a by-product, and although we today live quite happily in it, it spelt death to the creatures of the time.

One-and-a-half billion years later, as the oxygen began to build up in the atmosphere, there was another major crisis, this time of pollution and poison. Evolution's response was the evolution of oxygen-breathing cells. Initially, any crisis looks painful and dangerous. Imagine what a committee of bacteria would have said about the environmental impact of a small group of bacteria's plans to use photosynthesis: "The oxygen produced by this process is dangerous stuff. It is poisonous to all known forms of life and it is also highly inflammable, likely to burn us all to ashes. It is almost certain to lead to the descriction of life."

Without doubt photosynthesis would have been banned as "selfish, unnatural and irresponsible". Luckily for us, no such committee existed, and photosynthesis went ahead. It did indeed bring about a major crisis, but on the other side

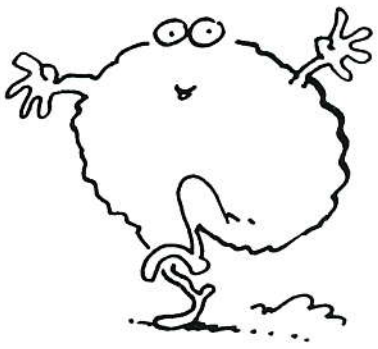
▶1400 of it came plants, animals, you and me.

Our present set of global problems may turn out to be of equal importance to our continued evolution as was the oxygen crisis. Never in the history of the human race have the dangers been so extreme, and we seem to be approaching rapidly the critical point. The result will be either breakdown or breakthrough. In their role as evolutionary catalysts, the crises may be just what is needed to push us to a higher level.

"Crises serve both as evolutionary catalysts, and as evolutionary tests."

▶1500 The idea that crises have both negative and positive aspects is captured in a word the Chinese have for crisis: *wei-chi*. The first part of the word means "beware, danger". The second part, however, has a very different implication. It means "opportunity for change".

The concept of *wei-chi* allows us to appreciate the importance of both aspects of crisis. In recent years, our attention has generally been focused on the *"wewi"*, on the many possibilities for global catastrophe and how to avoid them. This will continue to be necessary as we strive to deal with the very real problems that ▶1600 face us. At the same time, we can find ourselves questioning some of our basic attitudes and values: Why are we here? What do we *really* want? Isn't there more to life? This questioning opens us up to the other aspect of crisis — the opportunity to change direction, to benefit from the prodigious and breath-taking opportunities that could be before us.



If we do not make the transition it may be thousands of years before humanity stands upon the threshold again. Or it may never happen with the human species. If we wipe ourselves out it may take millions of years for another ▶1700 species to evolve with the same potentials. It may not even happen on this planet; but there may be plenty of other planets in our galaxy, and plenty in other galaxies. The Universe will carry on evolving towards higher levels of integration and complexity whether we do or not.

If, on the other hand, humanity does find ways to resolve the various problems and conflicts facing it, it will have proved it can adapt successfully. In this respect *crises serve both as evolutionary catalysts, and as evolutionary tests*, examining the adaptability and viability of the system.

▶1800 Humanity's currently growing set of crises could well be seen in this light: we may have reached the final test of our viability for further evolution.

Moreover, this test has a time limit. We do not have aeons to experiment; *it is we who are alive today who must answer these questions in order to save ourselves in the ongoing evolutionary process.*

Whether or not we pass is up to us. If we do pass, we may well move through into our next evolutionary phase — the task of showing whether or not humanity is viable rests with us — each one of us. ▶1900 Unlike other species in the past, humanity, with its incredible brain power, can anticipate the future, make conscious choices and deliberately change its own destiny. For the first time in the whole history of evolution, responsibility for the continued unfoldment of evolution has been placed upon the evolutionary material itself. We are no longer passive witnesses to the process — we **can** actively shape the future. We are now the custodians of the evolutionary process on Earth. Within our own hands — or rather, within our own brains and minds — lies the evolutionary future of this planet.

NEXT ISSUE

NEW THEORY OF EVOLUTION
by Professor Michael A. Crawford

PRE-SCHOOL LEARNING
by Sue Whiting

FIRST MAN-MACHINE WORLD CHAMPIONSHIP

SURPRISES!

AMAZING

MEMORY STORIES

WHERE 26 EQUALS INFINITY – A CHILD'S DREAM

by Tony Buzan

Shortly after the screening of my BBC Use Your Head television series on the brain and memory, a parent came to me with a story that was as tantalising as any that Sherlock Holmes must have faced in his career.

The lady in question was the mother of a twelve-year-old girl, who had been described by her teachers as invariably brilliant. She was top of her form in the physical skills, art, mathematics, and the sciences, and was the most popular girl in the school.

I listened to the story with interest, wondering why she had come to me for, as she described it, 'help'. Then the twist in the tail was told:

The girl in question had accomplished all these exceptional results without **ever having learnt to read**. Not only had she not learnt to read, but had refused to do so, becoming stressed and fearful whenever the topic was broached.

The mother and the girl's teachers had searched in their own memories for any events in the child's life which might have led to such an irrational terror, but had been able to come up with nothing. Indeed the opposite had occurred, in which nothing but stories of success and the love of learning in general had come to everybody's mind, all these events happening in the context of the girl's unrelentingly positive attitude and belief that she could accomplish anything to which she set her mind.

Puffing on my metaphorical pipe and playing my metaphorical violin, I arranged for a meeting between myself and the girl in question, going through all the possible scenarios that could have led to such a mysterious situation.

On the appointed day, the doorbell rang, and upon answering it I was faced with what I would have expected: a bright, energetic, open-faced and completely focussed little human being.

After our initial greeting and conversations, we very quickly 'got down to business' and I started by saying that no matter what she felt about reading, I could **guarantee** her that, by the time she left my room, she would be on the path to being able to read as well as she could do everything else.

She looked at me with very questioning, sceptical, but hopeful eyes, and said, "How?" with an unusual challenge in her voice. Slightly taken aback, but suddenly scenting what might be the root cause of her problem, I asked her why she had really not learnt to read yet.

She responded by saying quite matter-of-factly that she wasn't ready yet, but that she would be soon.

Following my hunch, I asked her how many letters she thought there were in the alphabet. Without hesitation, she replied: "As many as there are stars in the sky."

I knew that she knew that that number was in the billions, and so replied, "So, in a little while, you actually will feel prepared to tackle that task – to learn and **remember** the billions of letters in the alphabet?"

"Oh yes," she replied. "I'll have learnt most of the other things well by then, and then I'll be ready!"

When I explained to her that there were only twenty-six, a gigantic and angelic smile spread across her face, and she said, with a toss of her little head, "Oh! Then I'll learn to read this week!"

And she did.

Apart from the importance of illustrating how a misunderstanding of a knowledge area can prevent us from learning and playing with it, this story also demonstrates the fact that intuitively the little girl in question knew that her brain was capable of learning and remembering perfectly an infinite list of disconnected items, and of linking and remembering them in the myriad ways that go to make up the magnificent subleties of human language, writing, thought and memory.

BRAIN CLUB NEWS

FROM THE DESK OF SUSY CHURCHILL, THE BRAIN CLUB'S CHIEF ADMINISTRATOR AND ADVISORY PSYCHOLOGIST (CAAP)

1991 went by so quickly I feel breathless!

September saw our move into our own offices. Thanks to The Buzan Centre for providing a home for, and administration of, The Brain Club for so long. Sue Price (who deals with despatching new members' packs, sending out renewal reminders, organising the cash and the office) and I moved into our own office on September 9th.

Our new address is: 1st Floor, 778 Wimborne Road, Moordown, Bournemouth, BH9 2DX. The phone number is 0202 535071 and the fax is 0202 536442. We only work part-time, but you can always leave us a message on the answerphone.

In November we celebrated our first AGM, when it was agreed to change our name to The Brain Trust, subject to approval from the Charity Commission and Companies House. The Charities Commissioners have approved, so we're just waiting for agreement from Companies House – we'll let you know.

NEW GOVERNING COUNCIL

At the AGM the new Governing Council was elected. The Brain Club's new Council is:

Graham Bignall – Marketing Director CIGNA Employee Benefits

Tony Buzan – Author 'Use Your Head', inventor of Mind Maps

Keith Davies – IBM European Education Centre

Raymond Keene OBE – Chess Grandmaster and Author

James Lee – Studying psychology at Durham University

David Levy – President International Computer Chess Association

Jane Mitchell – Expert on work with 'learning differences'

Jamie Muir – MD Packard-Bell Europe

John Needham – Accountant and Tax Consultant

Vanda North – International MD of Buzan Centres Ltd

Sir Brian Tovey KCMG – Director Cresswell Associates

Lady Tovey – Director Cresswell Associates

Jim Webster – Inspector, Metropolitan Police

I also attended the first meeting of a cell based in the U.K. South West Region, which was great fun.

Tony Buzan and Raymond Keene visited Garry Kasparov in Paris to present him with his prize as Brain of the Year.

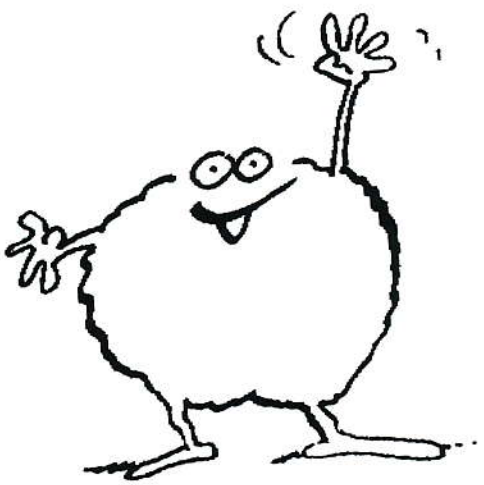
Looking forward to next year: the plan calls for the establishment of many more cells, and a major campaign to enrol new members – who do **YOU** know who would like to join? We also plan to establish a Brain Club Centre on every continent (excluding Antarctica!?)

I am especially proud of what the Brain Club has achieved in the less than two years it has been in existence. In going over the list of accomplishments, I was truly amazed and I am sure you will be too when you read the impressive list that follows overleaf.

I'll finish by wishing you all a happy New Year that sees us all further developing our wonderful mental muscle.

Best Wishes.

SUSY CHURCHILL BCM 288



LONDON CELL

Following the success of the conference in Wales and also of recent meetings, we are writing to let you know what we have planned for the next few meetings and to invite you to join us.

Meetings take place once a month. They run on a Friday night between 7.30 and 10.00 pm at 10/18 Union Street – very close to London Bridge – but please arrive at any time from 7.00 onwards. The dates and talks for the next few months are as follows:

Month	Talk	By
21 February	Planning Meeting	
27 March	To be arranged	
24 April	Image Streaming	Robert Meadley
22 May	To be arranged	

Some people prefer to attend a few meetings before joining the Brain Club. We welcome everyone, providing they have a brain and an interest in learning more about it and how to use it. There is a small charge to attend each meeting, which is £2 for members and £5 for non-members.

The evening is usually split into three. We start with a game or short exercise. This is followed by a talk, which is invariably thought-provoking and often involves the audience in some interesting exercises! Finally we break into groups so that people can follow a particular interest over the course of several meetings.

There are also members who are starting a session on Study Skills. The sessions are largely self-help but we will be able to provide some guidance and we are currently trying to arrange to show some video material by Tony Buzan. If you have an interest in this area or are struggling through exams, then please join us – you may have some interesting thoughts to share with us and other members may have a few ideas for you!

If you have not been to a meeting before, you may be wondering what sort of people come along. The answer is all sorts! There is no -ism in our club. We are not heightist, sexist, racist, IQ'ist, leftist, rightist or otherwise prejud-ist. We simply share a common interest in the potential of the brain and how we can work towards achieving that potential.

Our talks are informal and speakers are volunteers from the group who want to share their interest with others. Occasionally we have a guest speaker and in the past we have heard about the Bates Eye Method (get rid of your glasses) and Hemi-synch (integrating the brain using sound).

Our talk in August was given by Peter Sacares on "The Inner Game of Music" and was most enthusiastically received by the audience. He looked at what is happening inside our heads as we try to play a musical instrument and drew some parallels with the TEFCAS theory put forward by Tony Buzan at the Brain Club Conference. Peter also showed us how to increase our appreciation of music by heightening our awareness – music will never be the same!

But who runs the Brain Club? Well, it's split into three layers. The Brain Club is a charity and is managed by a council of approximately ten people. The Council is devoting a lot of time at the moment to considering how it can sponsor research into the brain and raise the funds to do so.

The next layer down are the Regional Co-ordinators who look after meetings within their region. They meet from time to time to share ideas and discuss the requirements of members. John Needham and Jane Mitchell are the joint Regional Co-ordinators for the Greater London Region.

Within each region there are meetings from time to time. In the Greater London Region we have meetings once a month near London Bridge as we described above. Members in one region are very welcome at meetings in other regions!

We have already said how the Greater London Region meetings are run but there is one final thing to say. That is that we try to ensure that the meetings cover the areas that you, the members, wish to cover. So every five or six months we devote part of a meeting to talking to the people who come along and then planning the next few meetings. The next of these is February 21.

We would like to invite you to join us.

Jane Mitchell, BCM 25,
John Needham, BCM 26.

SOUTH WEST REGION

The Brain Club Meeting at Greenham Hall on 9th November was a great success, and our sincere thanks go to Susy Churchill who gave up her Saturday afternoon to get us going, and to the 16 people who attended. (A world record?!)

Starting anything new is always difficult, but everybody seemed to have gained something from our meeting. The main topic chosen dealt with tackling the problem of Studying for Exams. It was very popular as we had among our group 3 Open University students, 5 schoolchildren aged from 11 to 17, and 3 teachers. We covered many points starting with selecting the relevant information, goal setting, learning from our mistakes, hints to improve our reading speed and how to approach a text book efficiently. There were also ideas to assist learning vocabulary in foreign languages and memorizing formulae, and the importance of taking breaks. During ▶

BRAIN CLUB ACCOMPLISHMENTS 1990/1991

1. MEMBERS

* Attracted nearly 600 members internationally, including schools, families, individuals and businesses. Our members include:
  - Professor Michael Crawford, international expert on nutrition and the brain.
  - Grandmaster Raymond Keene OBE, author of over 50 highly regarded books on chess.
  - Lorraine Gill, artist and international expert on Cezanne.
  - David Levy, President of the International Computer Chess Association.
  - Ben Zander, conductor of the Boston Philharmonic and teacher at New England Conservatory.
  - IBM European Education Centre
  - Electonic Data Systems
  - Management Centre Europe
  - Packard-Bell Ltd.

2. CELLS

* Set up cells (groups meeting regularly) in the following locations:
  - London, England
  - Vancouver, Canada
  - Florida, USA
  - Nairobi, Kenya
  - Canterbury, England
  - Oxford, England

3. CHARITY STATUS - RECOGNITION

* Has been recognised as a charity in the UK (November 1990), with applications for non-profit status proceeding in the USA and Canada. (See page 8.)

4. RESEARCH

* Financed research into pre-natal brain development through a donation to The Little Foundation.

5. SYNAPSIA

* Produced 7 editions of **Synapsia**, the International Brain Club journal, which is designed to inform, promote debate, exercise the 'mental muscle' and entertain. Articles have included:
  - John Naisbitt discussing 'Megabrain 2000'
  - Ned Herrman examining Brain Dominance
  - Jean Buzan on 'The Ageing Brain'
  - Lorraine Gill on Romantic Artists
  - B.F. Skinner's final interviews
  - Sean Adam, world record holder, on 'Speed Reading'

  plus

  Regular features on:
  Animal Intelligence Poetry
  Chess Amazing memory stories Puzzles
  Mental world records Book reviews and more

6. GOVERNING COUNCIL

* Attracted a committed and prestigious Governing Council.

7. COUNCIL MEETINGS

* Held 5 Council meetings, which have established the Club's goals; discussed and approved the charity's business plan; examined the Club's financial position and budget; agreed on the need for high quality publicity materials; discussed and approved measures to attract and retain members; authorised the establishment of a strong administrative headquarters; discussed and approved the membership fee structure; and generated an impressive quantity and quality of ideas for publicity and fund-raising.

▶ ours, we had plenty of tea and scones, and a chance to chat and exchange ideas, and a walk round the garden for the hardier ones.

We packed a lot into the afternoon, and discovered strengths and weaknesses. Nearly everyone admitted that while they understood the principles of Mind Mapping they had not yet taken the plunge and changed from conventional linear note taking. As a result we have decided to make Mind Mapping the main topic for our next meeting and will give people a chance to prove to themselves that they can make efficient notes, ones that they can use for revision. (Please remember to bring your felt tips!)

The date of our next meeting is Sunday 26th

8. General Management & Consultant Psychologist

* Appointed a General Manager and Consultant Psychologist who has:
  Analysed correspondence from members to isolate their needs from the club.
  Established a regional structure in the UK appointing Co-ordinators and chairing meetings.
  Organised the recruitment of Council members, and prepared agendas and discussion documents for each meeting.
  Analysed the Club's finances, producing a cash-flow analysis and budget.
  Assisted in the organisation of the 1991 conference and planning for the 1992 conference.
  Prepared a Business Plan for the charity.
  Established a cost-effective administrative headquarters, including recruitment of an excellent part-time secretary and setting-up of office accommodation and systems.
  Drafted various publicity materials for the club.
  Produced a guide to setting up local Brain Club cells.
  Submitted an application for the Jerwood Award.
  Answered correspondence from members, and enquiries from prospective members with high conversion rate.

9. Regional Structures

* Established a Regional structure in the UK, with Regional Co-ordinators gathering information on local opportunities, welcoming new members and making a commitment to organise an annual Regional Workshop. The Co-ordinators have held two fruitful meetings, sharing the responses of members from their areas.

10. World Memory Championships

* Donated resources to the Memoriad, the first World Memory Championship, held at the Athenaeum Club, London, and attracting major press interest including *The Times* and NBC.

11. Schools Chess League & Chess Exhibitions

* Initiated the formation of the National Schools Chess League to promulgate the teaching of chess as a brain-enhancing activity to all UK schoolchildren. (See page 52.)

* Held two simultaneous chess exhibitions featuring Raymond Keene OBE, at Management Centre Europe and Dulwich College, London to publicise the Brain Club and generate funds. (See page 51.)

12. Brain Club Ball

* Held the first Brain Club Ball at the London Hilton, a fun-packed occasion that continued into the small hours!

13. Individual Accomplishments

* On behalf of the Brain Club, individual members have:
  Given talks to schools.
  Set up postal discussion clubs.
  Provided coaching to junior Olympic rowing candidates.
  Coached other members for exam preparations.
  Held Study Days.
  Formed links with other related organisations.
  Researched brain-efficient techniques in a wide range of settings from schools to the police force.
  Improved their mental functioning in all the Brain Club curriculum areas.
  Organised training workshops for diverse groups of people.

14. Conferences

* Held two conferences in the UK:
  The First National Meeting in London in 1990 and
  a 2 day conference in Swansea in July 1991.
  (See article page 12.)

15. Floating Universities

* Held two Floating Universities, in September 1990 and 1991. These seven day cruises combined workshops, conversation, dining, dancing, exploring, in the spirit of 'holanthropic education' which the Brain Club promulgates, and generated extremely high ratings and enthusiastic comments from all participants. (See article this issue page 27.)

January 1992 at 2 pm at Greenham Hall. It will end at about 5 after which everyone who is not in a hurry will be welcome to stay and get to know the others. Remember the exchange of ideas is the main reason for the Brain Clubs existence.

My thanks to all those who replied to my letter in October – it was a great help in deciding what to start with. With luck those who weren't able to come will make it to the meeting in January. Future meetings will hopefully be bi-monthly.

Happy New Year!

CARO AYRE, BCFM 372, Greenham Hall, Greenham, Nr. Wellington, Somerset, TA21 0JJ. Tel: (0823) 672603.

DRAWINGS BY KIRSTY HURST

ARTICLE BY JAMES LEE:

A WEEKEND TO REMEMBER

The first annual Brain Club Conference

On the weekend of 20th-21st July 1991, the first annual Brain Club Conference was held in association with the London Brain Club at the Holiday Inn in Swansea. It turned out to be an amazing success!

A group of mainly unfamiliar faces came together for a creative break, with the common aim of developing their individual mental capabilities.

The event started with introductions all round. All conference participants were asked to enquire about, note and (of course!) remember as many of their fellows' names, occupations, likes, dislikes, etc., as possible.

Next came a collective attempt at learning how to juggle. This proved interesting! Conference members filled the rooms and corridors of the Holiday Inn in what must have seemed like some obscure attempt by all those involved to throw tennis balls in totally arbitrary directions, and then spend the next fifteen minutes looking for them! Please . . . . read on!

Just at everyone was about to leave, feeling that they had lost total faith in human ability, Tony and Vanda calmed everyone down, promising that these recent past experiences could be viewed with an air of positiveness. Sure enough, at least partial mental enlightenment proceeded as Tony explained the principles of TEFCAS (Trial, Event, Feedback, Check, Adjust, Succeed).

Many soon realised that failure only became perpetual if one continually viewed it as such, and that each individual failure should in fact be viewed as yet another step towards eventual success because of the amount that one can learn from it. When communal juggling began again, everyone was therefore encouraged to take the attitude that dropping tennis balls was an inevitable result of one learning how to juggle, and should therefore be labelled as 'interesting'. This made a pleasant alternative to the large number of obscenities that it had been 'labelled' in the first juggling bout!

The fact that Tony himself attended the weekend certainly added an extra sparkle to the event. He brought everyone very close to what the Brain Club is all about by explaining how his early experiences at school had triggered the events that eventually led to his decision to create an organisation dedicated to further the way we use our minds.

Brain Club Members learning How to Learn

All present were also thankful for having that calming, yet paradoxically invigorating, influence of Vanda about. She too explained her involvement with the Brain Club. She explained her belief that we all have an appetite to learn, and illustrated it by a story of African children. Vanda had worked with an organisation that supplied pencils and writing materials to assist with learning in Africa. Teachers in the villages described scenes in which the children, who had an insatiable hunger for learning, studied during the day, and then would go out under the street lamps at night,

to Peter Barrett and Mark Marples. Both had created computer programs that showed huge potential for use in conjunction with Mind Mapping and speed reading. Peter demonstrated a program that enables people to create Mind Maps on computer – perhaps acting as some of the first immediately obvious evidence that Mind Mapping is totally applicable to those working in the office and to the business world in general?

Mark showed off the basis of his system to help people specifically interested in learning how to speed read. A technique that many have seen as easily attainable as long as they can find methods to practise it easily. Mark may well have now created exactly such a method.

On the morning of the second day, people were given an opportunity to put what they had learnt into practice. While this was going on, a Brain Club Council meeting was taking place, so that individuals were left up to their own devices. At first some saw this as being ignored. However, in a later discussion of the morning's events, many realised the advantages of 'having a go for themselves', and then, looking back at successes and areas to improve afterwards.

After one of the main 'treats' of the weekend, and the second of the 'Special Surprises' was the arrival at the Conference of child prodigee, Lana Israel, BCM 222. She acted as an example to everyone present, epitomising all that the Brain Club stands for. By the age of sixteen, she has co-written a book on Mind Mapping for students, set up her own business lecturing on learning, and was selected by the Bush Administration as part of a group of Americans sent to Russia to lecture to Russian children about the principles of capitalism.

She remains a modest and totally approachable individual – rare for someone who has quite obviously managed to get into the public eye from a frighteningly young age.

What more can be said? Surely all those present must have witnessed events and people that soon will change the world? As a conclusion, perhaps it is best to finish with part of a letter that one of the participants, Mihail Roman-Pintilie, wrote to me a few days after the Conference finished:

"Two Forte duos – Tony Buzan and Vanda North/Jane Mitchell and John Needham, guarded from above by Susy Churchill, produced and offered the stage in turns to terrific stars Ben and Lana."

Benjamin Zander and Vanda North celebrating at the end of the Conference by conducting an in-depth scientific investigation of the local ice-cream sundaes

"Juggling with tennis balls and ideas certainly helped me develop a clearer sense of the kind of people who make up the Brain Club. While James Lee's presentation helped me decide how to find three lodgers for my new house in London. I decided to run an ad at local colleges and polytechnics for students interested in practising Mind Maps, speed reading and mnemonics, with the intention of starting our own private club, in residence!"

"On the way home I clearly felt still mentally in touch with everyone. I really wondered whether or not my telepathic powers hadn't improved over the weekend as I bumped into two fellow conference goers, Mark Marples and Jeff Pinkham, on the way home!"

"At home, after over five hours of driving, I had another sparkingly bright idea. Why not ask Tony to develop from his famous MMOST a TOST (Traffic Outsmarting Synergetic Technique) as another secret weapon for the Club?"

Well, what more **can** one say? Of course, a final thank you to John, Jane, Tony, Vanda and Sue for all their work in making sure the weekend was possible. I'll see you all at the same fabulous event next year!

A brain aware planet — a brain cycles across the USA!

From Squire A. Davidson, Antioch, U.S.A., BCM 475

Dear Brain Club,

I am writing this letter to inform you of my newest endeavour, and request your support. The Brain Club is devoted to the idea of a 'brain aware' planet by the end of the century. I am trying to put together an event that will help make people 'aware'.

On July 27th, 1992, I am going to ride my bicycle across the United States. I will be flying the banners of 'unlimited human potential' (The Brain Club), and 'what can we do for our environment' (The American Lung Association). The American Lung Association has agreed to sponsor me. We have decided the best way to work the event would be to collect pledges, either a lump fee, or a pledge per mile. At the moment, seventy per cent of the collects will go to environmental causes, and thirty per cent will go to me for travel and training expenses (about $6000). All contributions will be endorsed to the American Lung Association.

The Brain Club has helped me tremendously, since I joined some months ago, and I want to do something for them. I hope we can put all our brains together and figure something out – please give me your ideas.

The study and reading techniques have given me more time, for training. The Brain Club has given me the courage to dream my dreams, and the creativity to make them reality. I feel that this endeavour can bring the Brain Club the exposure it needs in the United States, and really make people sit down and take a look at themselves.

Two things have inspired me. The first thing that inspired me to look 'to my unlimited human potential' was over a year ago – I had the opportunity to attend a class of 'gross Anatomy' at UC Davis Medical School. The topic of discussion: the brain. At that time I was able to hold a human brain in my hand; it weighed hardly anything; it wasn't very complex or complicated to look at; yet look what it could do! Look at what it can do, yet we don't let it. This inspired me to purchase Tony Buzan's book, ***Using Both Sides of Your Brain***.

The next event that inspired me: One day I was sitting in the parking lot of an outdoor mall. I watched people go into stores, come out, get in their cars and drive to another store 100 feet away. It wasn't just one person with a lot of goods to carry; it was a lot of people with nothing in their hands, too lazy to walk. No wonder there's global warming, the green house effect, smog, pollution, and the like. And what bothered me the most was the fact that the people had no idea of the effects of their actions. It was as if they never 'stopped to think'.

Thank you for taking the time to read my letter, and I look forward to any input the membership has with this event. I think this has great potential for success for everyone involved..

Sincerely,

SQUIRE A. DAVIDSON

P.S. Upon completion of the three thousand mile event in under 10 days, I think that merits a rainbow certificate in physical skills.

Editorial note: A wonderful idea, Squire! **Synapsia** encourages all Brain Club Members to support this superb initiative.

Australian Cell

From John Easom, Victoria, Australia, BCM 513

Hello Brain Club Members!

Thank you for registering me as Brain Club Member No. 513 and for all the papers sent to me. This is the most exciting package that has fallen into my letter box for a very long time. I am very motivated to participate and get involved as much as possible, and when I have evaluated all my skills, I will write again at length to say more about myself.

Meanwhile, just a few words. My particular interest and area of expertise is in Accelerated Learning, and I run one of the very few workshops here that attempt to pass on AL skills and strategies to teachers and trainers. Amongst my graduates, I have already started to spread the word about the Brain Club, and I hope that it will mean more applications for membership from downunder. I look forward to setting up the first Australian 'cell', and will make a start by contacting other Australian members on the list sent to me.

I look forward to being an active member, and to meeting other Brain Club members on my next visit to the U.K.

Until then, keep enjoying . . . . . many great things.

JOHN EASOM

Maths and creativity

From Michael Clark, Christchurch, New Zealand, BCM 279.

Dear Sir/Madam

I am very interested in finding out more about developing mathematical skills (I teach maths at Christchurch Boys' High School) and developing creativity.

The latter is of particular importance to me in my teaching, since I am aware of deficiencies in that area and also in my major area of interest, Road Safety. I have just returned from the annual conference of the New Zealand Road Safety Association, which I chaired after my installation as the new President. Currently New Zealand is falling behind other developed countries in a number of areas, including education and road safety. My aim is to create the atmosphere in the community which is conducive to much higher levels of driving skills and road user responsibility.

Synapsia provides interesting and challenging reading regularly, so keep up the good work.

I have recently returned from an extended visit to the U.S.A. and U.K., but unfortunately I did not have time to attend a training course as I had hoped, so I shall just have to press on with my video course of Developing Family Genius.

I am hoping to see more New Zealand members of the Brain Club in the near future, and will make a start on raising awareness of it through my school.
MICHAEL CLARK

Thinking strategies

From Pete Linfield, St. Ives, Cambridgeshire, BCM 240

Dear Club Members
As a result of a talk and a meeting on the topic of TEFCAS at a get together at the London Cell in June 1990, I began to ponder the perception people have of 'failure' and the negative effects this has upon their thinking.

As you can probably guess, I followed various themes: positive and negative thinking, self-esteem, brain dominance, stress management, teaching and learning approaches and recently neuro-linguistic programming.

During each stage of my research, I tried to identify the core 'problem' areas and see how Mind Mapping could help. As a result, one of the situations I have arrived at is a 'thinking strategy for problem-solving'.

I have tried my ideas with colleagues and a few business contacts. The feedback has been favourable. To give the approach more exposure, I was wondering if other Brain Club members would like to contact me to follow up other avenues of ideas or ways forward.

I also wondered whether my ideas linked with the letter from Alan Walker (BCM 86) in the Spring 1990 edition of **Synapsia**, relating to a 'problem-solving consultation service'.

In brief, my approach follows the following structure:
1. Setting the right climate.
2. Switching on to the problem.
3. Zooming in on core themes.
4. Relationships and strategies.
5. Action strategies.
6. Looking back.

Yours sincerely,
PETE LINFIELD

Animals and Eyes

A recent letter from New Scientist magazine that will be of interest to Brain Club Members

From Harry Miller, Madras, Tamil Nadu, India

I was impressed by the picture illustrating the book review of 'Natural Theories of Mind . . " (29 June). The picture shows a mature chimpanzee being taught by an instructor who is using her hands to illustrate something, yet the chimp is clearly looking straight into her eyes, not at her hands.

This reminded me of a strange incident when I took a number of blind children to see some baby chimps at the London Zoo. I had the idea that I might allow the children to feel and cuddle the baby chimps, learning about their hair, hands, toes and so on, by touch. The experiment, however, proved to be a disaster. As soon as the tiny chimps saw the blind children they stared at their eyes – or where their eyes should have been – and immediately went into typical chimpanzee attack procedures, their hair standing upright all over their bodies, their huge mobile lips pouting out and grimacing, while they jumped up and down on all fours uttering screams and barks that rose in crescendo. Even very small baby chimps like these could inflict serious bites, particularly on blind and totally bewildered children, so the chimps were hurried back into their enclosure while I ushered out the children mumbling whatever excuses I could think of.

There must be something vitally important about eye-to-eye contact between animals and I would be most interested to hear any reader's explanation as to why this is so.
HARRY MILLER

Prize letters

From S. Rashid, Leicester, BCM 48

I see that again in **Synapsia** you are giving Buzan books in a competition. An excellent idea.

However, I think a far better idea would be to give Buzan books for best letters or contributions published in **Synapsia** from readers.

This will just be the panacea for some of us who have been suffering from writer's cramp!
Yours faithfully,
S. RASHID

New thinking technique

From Grant Davison, California, U.S.A., BCM 117

Dear Sir/Madam
I have invented a new thinking-stimulation technique called the Portable Random Word Technique, and would be interested in Brain Club members' comments and suggestions.

In the book, De Bono's Thinking Course, Dr. Edward De Bono describes the random word technique. When solving problems, people can use this technique to stimulate new ideas. This technique involves using random words, preferably concrete nouns, in free association to stimulate ideas. Later, you will find an example of the random word technique. Often, people would randomly acquire these words through flipping through books. Now, this has changed through the use of the portable random word technique.

If you have memorized the first 100 words of the major system, you possess more than enough random words for your needs. Also, people can use other systems (ie, SEM cube system, the alphabet system, etc.). With the major system, pick words by thinking of a number between 1 and 100. If the corresponding major word is a concrete noun, use the word to stimulate new ideas. If the word is not a concrete noun, associate the word with nouns that are concrete.

Here is one example of the random word technique in use. I had a specific problem on relocating an alarm clock in my bedroom. The alarm clock-radio sat adjacent to the bed. In the morning, I would turn off the clock-radio and fall back asleep. A new location would force me to get out of bed. My bedroom is rather full, making relocation difficult! For this technique, I used the word baby (major system, 99). Baby reminds me of pacifiers. Perhaps, I could put something on the radio making it harder to turn off. In addition, people put selected objects out of the babies reach. Therefore, one

could put the alarm clock out of reach. These ideas resulted in facing my alarm clock away from the bed. The next morning, this did not work. However, I have an in-basket near my bed that I can place the alarm clock into at night. This solved my problem. In fact the alarm clock still uses the same outlet. Before using the technique, I considered only plugging the clock into a different outlet.

If you have yet to memorize a system, you can still use the portable technique. This involves various occupation names. Think of associations between the occupation and object, involving the occupation. For example, the term 'doctor' brings to mind thermometers, forms, bedpans, stethoscope and syringes. You could keep a list of 10 occupations with you. Then, look at these when needing random words.

The portable random technique is quite useful in two situations: solving particular problems and forming conversation topics. In fact, the latter was the reason for developing these techniques. During quiet points in conversation, one can use these techniques for new conservation topics. Sometimes, a topic may come to your attention, and sometimes it will not. If one does not work, people can always try another random word. I have used this successfully in my work to come up with new ideas for research and development. If you have specifics or desires, you can use this method to solve problems and to reach goals. I would suggest having a list of 10 goals or problems memorized. By needing only a brain, one can use this method while waiting in line, in the bathroom, lying in bed, etc.

Please let the Brain Club know whether you find this technique helpful or have suggestions for improvement. In another letter, I would like to discuss with other members the need for experimentation to improve the quality of our lives. After all, it is only through experimentation that I solved my problems with my clock radio.

GRANT DAVISON

Check weight!

Raymond Keene, London, England, BCM 275.

Dear Timo,

Thank you for your letter in the last issue of **Synapsia** about weight loss in chess. Weight loss in Championship Chess is a well known phenomenon. Spassky lost a stone during the 1969 World Championship Match. Also note the physical exhaustion of Anatoly Karpov at the end of the marathon 1984/5 World Championship Match against Kasparov, when Karpov also lost a noticeable amount of weight.

However, this method of losing weight works only temporarily for me – I always 'work up' a great appetite during competitions or simultaneous displays, and have so far put it all back on!

Following is a letter from John Harris, a reader of my *Times* column, about his own observations of the connection between adequate nutrition and mental ability at chess, which may have some bearing on this query:

"I was never very good at chess but I played a lot and improved tremendously in a prison camp in the war in Kuching, Sarawak. We had an old chap called Poole, who was Blue Funnel's marine superintendent in Batavia, and he was good: he had played as one of 40 simultaneous players against one of the greats and was the only one to win his game. He taught me several very basic principles to follow.

It was at chess that I first noticed the signs of mental deterioration that resulted from our desperate shortage of food. Around the middle of 1944 I found I could no longer visualise moves as far ahead as I had once been able to, and this became progressive. Fortunately nearly, if not quite, all one's mental facilities recovered provided the body did."

With best wishes.

RAYMOND KEENE

Problems within problems

From Charles La Fond, BCM 465

Dear Raymond Keene,

After having studiously analysed CHESS FLASH in the latest edition of **Synapsia**, I have concluded that there were indeed five puzzles – not just four!

As a short interlude, this letter is being written aboard the 2nd annual Brain Club Floating University, off the coast of Turkey. Amidst the quantity of 'Raki', the local drink of the Brain Club Chess Masters, the miles of swimming and the animal cries of the like such as roosters, cows and dogs, I have discovered the fifth puzzle in CHESS FLASH (**Synapsia** Vol. 2 No. 2).

Having been faithful to browsing before reading, it seemed to me that the captions of the lower left puzzle and the upper right puzzle were, for some reason unknown to me, switched around. (This only came to me after having spent all of 15 minutes working on the problems as presented – Brain Club members sometimes only need a few minutes to solve problems!). Based upon my assumption of the deliberate(?) mix-up, the following moves are:

Top left	K–E8
Bottom left	B–H8
Top right	KXD4
Bottom right	R–H8

My only question, Raymond, is whether you intended this mix-up (or perhaps, a fork, to use chess language), or if the mistake was indeed a fork-up?

Thank you for a very educational experience!

CHARLES LA FOND

Ahoy, matey!

From Lorraine Gill, BCM 49 and Claude Borer, BCM 376

I am writing this on board *Estargon*, the Floating University. We are all bobbing up and down but, despite this, having a masterful time with chess. My friend, Claude, is our Chess Champion and, although he solved the problem, I accidently had a part in it.

This is the answer to game No. 1.

Z. Polgar – Yudasin

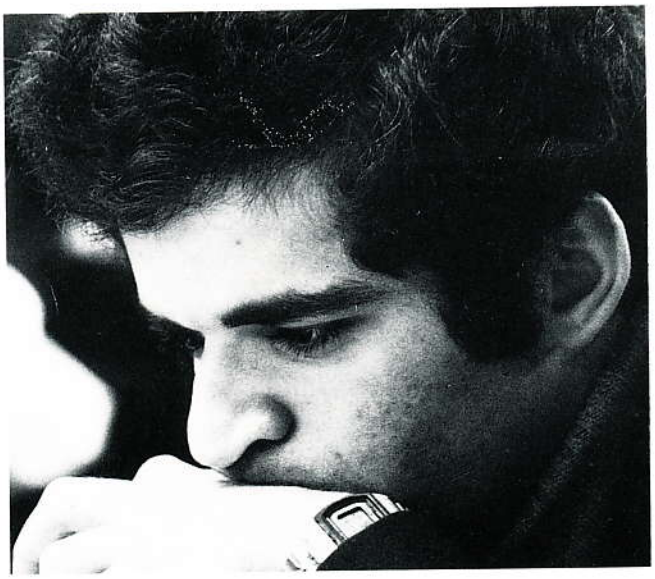
W KNIGHT	F6	E8
B CASTLE	D8	E8
W CASTLE	E1	E8
	CHECK MATE	

LORRAINE GILL, CLAUDE BORER

Synapsia welcomes readers' letters and would appreciate them being typewritten.

BRAIN CLUB BRAIN

OF THE YEAR 1990



In *Synapsia* Vol. 2 No. 1, Garry Kasparov, the World Chess Champion, was voted *Brain of the Year 1990*. Raymond Keene and Tony Buzan flew to Paris to present him with his award and Encyclopaedia Britannica prize of The Great Books of the Western World. Garry talks to *Synapsia* readers about his ideas on the future of the brain, his thoughts about chess as an educational tool and the human versus the computer as a chess player.

SYNAPSIA Could you tell the readers, especially the children, what you think will be the future of the brain in the next ten years.

KASPAROV As a chess player who analyses very complex positions and taking into account all factors that are valuable (and even those that are not valuable at first sight), I feel that this decade is going to be an *intellectual* one. People are going to pay more and more attention to intellectual affairs. They will look for special intellectual tools, not only to resolve their social and private problems, but to make them feel happy. I am sure that the human being, as a very curious creature, will never be able to avoid checking out his or her own brain's ability and mental potential. I think this is why people will need special tools or vehicles to fulfil their curiosity and that is why all these new brain games and brain researches will be extremely valuable for the hungry crowd of people searching for intellectual stimulation.

What do you think about machines beating humans in chess? I understand you have a new theory on that. Potentially it could happen. But chess is a long-term and complicated game and that is why probably even a super-powerful computer in the near future will not be able to foresee everything to the very end.

You have three variables that you say are the essential ingredients in chess? Yes, and here you can see how a computer can be limited by its own potential: extremely powerful, perhaps a hundred million or even a billion operations per second, but **still** limited by its potential. It is only a powerful computer, a computer with an obstacle. It is not an obvious obstacle to the public but I think it could be a fatal obstacle for the computer.

I would describe chess as a multi-dimensional game including three major dimensions.

First, which is very simple to understand, is **material**. Everybody who knows the rules of chess operates primarily on this factor. Material: I am one pawn up or I am one rook down – it is simple calculation and that is the first factor of the anticipation of any position.

Second is the **time factor** and it is normally understood by many players (not amateurs but club players) that if you sacrifice a piece, then you can decide to make an attack or you can have the pawn that will be advancing to queen. To compare therefore, material against time gives you a two-dimensional game – more complicated. It is not easy to compare but most human brains can do it. Even computers can sometimes do it because the time factor is something that can be programmed in.

The third factor, however, is the one that is very often crucial. The third factor is **quality**. You can have, for example, better pawn structure, you can have two bishops against bishop and knight, a strong bishop in the best position, a knight in the centre or two rooks on the seventh rank – you name it, there are an unlimited number of **quality** advantages.

What, then, is the key of the game, the **soul** of chess? How to operate in three dimensions?

You always have to compare; to calculate the simple line is not enough.

You should evaluate what is happening, and the evaluation should depend on the three major dimensions. What is more important is if positions are equal in hierarchy: the same pieces, a couple of knights and the number of pawns: easier. Fewer might be all the better. But if you have different pieces, if one side has material advantage, but worse time and less quality: what is more important in the concrete position – one extra pawn and open file or two bishops and better pawn structure for the future – active rook or back king? The computer is **always** stuck by the incompatibility of these factors. You will never programme **exactly** what is more valuable in this incredibly complex and fine balancing of dimensions.

Computers can go for something I call 'the black limit': it will calculate right six, seven or eight full moves and finally it should decide whether it is good or bad. All factors that are programmed say it is good.

Maybe there is just one minor problem – the computer sight will be made **rigidly** in several moves ahead while any human being will feel the danger. The computer will not 'feel' the danger and will discover it in a couple of moves when it is too late for it to have a good game – it should have gone in a different direction. That is why I think there are some important psychological factors, let's call it computer psychology, which will prevent the computer from definitely beating the human being.

What is also crucial is that by facing computers the human being has to provide another strategy. In human psychology you have to play something else. You have to count on the computer's programmed psychology because the computer is playing a specific type of game. You should find some algorithm of the game and so invent your own strategy. It is difficult to some extent because you must forget that the computer cannot be upset: some players like good attacking positions, some like defence positions – the computer doesn't care about this. It **can be** a disadvantage for the human being but there are some big advantages. These advantages should be worked out in order to provide the efficient strategy. I think we can do it!

You are promoting worldwide chess in schools. Can you give me the advantages you feel a child would have if it learnt to play chess as opposed to if it never did? There are social advantages: there are educational advantages: there are psychological advantages.

The social advantages: it will make him feel more comfortable as an adult person, because chess has no age and borders. That is why it can give to underpriviledged kids the feeling of belonging to normal society.

For educational advantages, it could be used as access to improve the results in the basic disciplines, like computers. It improves logic. A kid can use it to adjust and relate to the basic knowledge from other curriculum disciplines.

The psychological advantages are self-esteem, self-confidence and a weapon with which to approach what you have to do in your life.

The Brain Club officially supports your initiative.

Finally, how do you feel about having been chosen as the 1990 Brain of the Year by people who are interested in the brain? I think it is very good to accept chess as a very important brain achievement of mankind. For me to be honoured as the person who has contributed a lot to this type of development is very encouraging. Thank You!

BRAIN CLUB BRAIN OF THE YEAR 1991?

Last year Garry Kasparov, the World Chess Champion and highest rated player ever, was the first Brain Club Brain of the Year. Since that time, nominations have been pouring in, and in this article we review both the qualifications, and the main nominees for Brain Club Brain of the Year 1991.

THE QUALIFICATIONS

To qualify for and to receive this prestigious award, individuals must meet the following requirments:

1. The candidates must be preeminent in their chosen field of endeavour.
2. The candidates must have contributed major new creative developments to their field of endeavour.
3. The candidates must have made a notable effort to educate others in their chosen discipline.
4. The candidates must have incorporated the principle of *Mens sana in corpore sano* (a healthy mind in a healthy body) in their lives.
5. The candidates must have exhibited persistence and stamina over time.
6. The candidates must have been alive in (at least part of) the year of nomination.
7. The candidates must have demonstrated a general cultural awareness.

8. The candidates must have demonstrably contributed to their society.
9. The candidates must have demonstrated a concern for humanity.
10. The candidates must be active and known on a global level.
11. The candidates must be a good role model for those in their field and for youth in general.

THE CURRENT LEADING NOMINEES

The current major contenders for the Brain Club Brain of the Year 1991, listed in alphabetical order, with brief summaries of the reasons for their nomination, are as follows:

TERRY ANDERSON

The American hostage who survived six years of captivity in Beirut. Battled mentally against beatings, solitary confinement, malnutrition, and the urge to commit suicide. Used mental games to help preserve his sanity, and was known both during his captivity, and afterwards, for an unswerving buoyant sense of humour.

CHIYONOFUJI

Grand champion of Sumo wrestling, who retired this year while being hailed as the sport's greatest-ever competitor. Won 31 major tournaments (Bashos). Was renowned for his dedication to training, his outstanding strength in a sport for which he was 'too small', his origination of new techniques, his extraordinary mental alertness and both fighting and general 'spirits', and his masterful and kindly teaching of the young. A major force in making Sumo a world-renowned sport.

MAGIC JOHNSON

Basketball's 'mastermind' who led the Los Angeles Lakers to numerous victories and championships. Respected and loved by his teammates, who would do 'anything' for him. Was tested positive for AIDS virus in 1991, and showed courage, an ability to learn and admit past mistakes, and great generosity in the face of what at this point in time is a death sentence.

MIKHAIL GORBACHEV

Brought the world 'glasnost' and 'perestroika'. As the London Times said, "He broke the toughest mould on which twentieth century mankind has been confined", and in so doing freed a billion people in the Eastern Bloc to 'have their own minds' and freed another four billion from the fear and/or oppression of that system. Espoused: intellectual freedom; the importance of creativity and communication; the principles and function of the United Nations; and freedom of expression for the arts and culture. Majorly responsible for the ending of the Cold War.

GARRY KASPAROV

Last year's Brain of the Year, and still masterfully dominant in the world of Chess. By the completion of the year had maintained a lead of 55 points over his nearest rival, roughly equivalent to a marathon runner beating the world's next best by over five minutes!

CARL LEWIS

Multiple Olympic Gold Medal winner, World Record Holder, and easily the world's most consistent and persistently dominant athlete for a decade in the 100 metres, 200 metres, 400 metres relay, and long jump. Known for an unhestitatingly positive attitude, and his ongoing work for education and charity.

MADONNA

Known among her 'inner circle' as dedicated, flexible, creative, and brilliant. One of the world's richest (in 1991 she earnt over $17,000,000) and most powerful women, she has an estimated IQ on the Cattel scale of over 140 ('If you're smart, why aren't **you** rich?!)'. Was the most popular female vocalist throughout the Eighties, and seems set to continue in the Nineties. Also renowned for her physical fitness, energy and stamina.

LIZ McCOLGAN

Great Britain's Athlete of the Year, Liz McColgan won the Gold Medal easily by trouncing the world's best in the 10,000 metres at the World Athletic Championships. A recent mother, Liz then won the New York Marathon, setting a 'first-timer's' world record for the distance. Has become famous for her total dedication to whatever she attempts, her openness and honesty, and her willingness to communicate and teach all that she has experienced and learnt.

DOMINIC O'BRIEN

The first World Memory Champion. Won Memoriad '91 held at the Athenaeum Club in London by beating the world's best memorisers (see article page 44). In the

process of winning the Championship, set a new World Record for the memorisation of a random number in fifteen minutes (266 perfectly memorised digits!), and in the final event of the competition, clinched the championship by smashing the Speed Card Memorisation World Record with the perfect memorisation of a 52-deck pack of cards in 2 minutes 29 seconds. A relatively unsuccessful student in school, Dominic has dedicated his life to exploring and developing his own memory, and helping other people learn to do the same.

GENE RODENBERRY

The originator of and mastermind behind *Star Trek*. An engineer and visionary, Rodenberry fought against 'unassailable odds' and went through personal, creative and public rejection in order to realise his dream. Used the series to project his belief that science represents good things: food, medicine, exploration, curiosity and wonder, and that good news and positive role models would generate increasingly more of the same. Introduced the first prominent black character on U.S. television (Lieutenant Uhura), as well as the first heroic half-cast (Mr. Spock). Inspired a generation of scientists and scientific networks, including MIT and NASA, to continue their work in a more hopeful vein. Like Walt Disney, spurred an ever-expanding following and industry by doing what others said was impossible, and by going where no man had gone before. Died October 1991.

CARL SAGAN

Carl Sagan is the 'astronomer royal' of the United States, and through his best-selling books, and world-renowned television series, has brought astronomy further to the forefront of the world's stage. Renowned for his enthusiasm, charisma and inspirational lecturing style, Sagan was recently voted the 'smartest person in the United States' in a poll of the reader's of *Parade* Magazine (see Intelligence about Intelligence page 9).

GENERAL SCHWARZKOPF

Led the Allied Forces to what has been widely acclaimed as one of the most incisive, well-planned, non-vindictive and 'humane' victories in the histories of warfare. 'Stormin Norman' became renowned as a compassionate, lucid and informative communicator, and as the General who truly was more interested in the preservation and establishment of peace than the provocation to and establishment of war.

AYRTON SENNA

Triple World Champion in Formula One motor-racing. World Record Holder in number of leading pole positions gained. In a sport where mental and physical co-ordination are a matter not only of winning, but also of life and death, Senna is becoming increasingly accepted by friend and foe alike, as one of the all-time geniuses of the art. When asked what sets him apart from other drivers and even other greats, common responses include his intricate and deep-studied knowledge of all aspects of the sport, his clarity of vision, his commitment to mental and physical health, his originality of approach, and his ability to come back after defeat. Described Formula One driving as "my aim; my target; my object; my passion; my dream; . . . . . my Life."

TED TURNER

Time Magazine's Man of the Year. Described by Time as "Prince of the Global Village", Ted Turner fought against ridicule and high odds to establish the world's first global television news network – CNN. A World Champion in yacht-racing, and a dedicated 'all-rounder', Turner overcame great personal tragedies, including the suicide of his father, to reach his current position. He lives by the motto: "Either lead, follow or get out of the way."

TERRY WAITE

Like Terry Anderson, a hostage in Beirut. Underwent and overcame the same tribulations as Anderson, and emerged unswerved in his dedication to his cause. Significantly raised the world's consciousness of the behind-the-scenes horrors and relative futility of hostage-taking.

THE PRINCE OF WALES

Prince Charles is being increasingly recognised as one of the world's leading thinkers and polymaths. An artist, writer, sportsman, teacher, media star, wit, and member of the Inner Circle of Magicians, Charles has steadfastly maintained his commitment to public health, the environment, global charities, and the essential role of beauty and aesthetics in architectural, civic, cultural and personal life.

Brain Club members are encouraged to send in their nominations for Brain Club Brain of the Year 1991 to the Editor by March 1st, 1992. Nominations should be accompanied by a **maximum of one page** giving reasons why the nominee should be elected, and if possible, an accompanying Curriculum Vitae and black and white photograph. The CV and photo are not essential; they will simply make the Editor's life more easy!

INTELLIGENCE

ABOUT INTELLIGENCE

PRODIGY MAPPERS

Not to be outdone by the squirrels (see Animal Intelligence this issue, page 42, humans are getting in on the act at a very early age.

Indeed, once we learn the conventions of map reading, they seem particularly simple: up is north, down is south, blue is water, and other colours land etc. But **when** and **how** do we learn to read a map?

Recent research by Linda Acredolo of the University of California, Davis, shows that children as young as three years old can master, at least in a basic way, the key map-reading concept: a map is a two-dimensional symbol for three-dimensional space.

Acredolo showed a child a map of a room, pointed out on it where a toy was hidden, and asked the child to find that toy. Depending on the map's orientation, about half the three year olds, and almost all the five year olds tested, could do so successfully.

Acredolo believes that three years old may be the critical age at which such an idea can begin to sink in.

Judy DeLoache of the University of Illinois let children watch her hide a small toy in a scale model of a room and asked them to find a larger version in a real room. "A three year old can do it, but a two and a half year old seems to have no idea that the model has to do with anything larger," she says.

A further study by Lynn Liben and Roger Downs of Pennsylvania State University, found that "children still have a lot to learn".

Their reason for this assumption is that they found second graders assume that north is always at the top of the map because of the hanging maps they have seen. "If you ask them to close their eyes and point in the direction of north, often they will point straight up," says Liben, further saying that children acquire map-reading skills gradually, and that teachers must begin by using maps from familiar areas such as the children's own classroom, homes, and neighbourhoods.

As far as this last study is concerned, **Synapsia** supports the second graders! As the brain learns by association and data-gathering, it is quite reasonable to assume that what you are told is up is up! We suggest that children will acquire map-reading skills far more rapidly if they are taught them in a way which links with the way their young brain is designed to learn.

'MYSTERIES OF THE BRAIN' LAB

A £1.5 million research unit to investigate the mysteries of the brain is to be set up by the Medical Research Council on the Addenbrooke's hospital site in Cambridge.

THE TRUTH: EASIER THAN THE LIE

Further evidence that the brain is a truth-seeking mechanism, and operates more effectively and efficiently when both telling and being told the truth, comes from Dr. Paul Ekman, a psychiatrist at the University of California, San Francisco. Ekman has spent thirty years studying the psychology and physiology of lying, and is currently working on his third book on the subject.

"To date" says Ekman, "there is no foolproof method of detecting lies, but we are getting closer to it, and may soon have a comprehensive system for detection".

In the meantime, Dr. Ekman offers clues as to signs that may indicate a person is lying:

1. Tightening of the lips.
2. A smile that doesn't use the muscles around the eyes.
3. A look of sadness that doesn't use the muscles of, or show expression in, the forehead.
4. Facial expressions that last too long – more than ten seconds.
5. Micro-expressions – fleeting movements that move across the geography of the face and skull. These fleeting facial expressions, which usually last more than a fraction of a second, betray what a person actually thinks.

6. Hesitation in answering a question that should elicit an immediate response. This can indicate having to think about a potential false answer, and signs of it include: looking away while talking; pausing between sentences; repeating speech patterns and lacking animation in the face and body.

Synapsia notes with interest that virtually all symptoms of lying involve a 'closing down' of natural bodily function, considerably more mental and physical effort, and a rigidifying and stultifying of thought and action.

It really **is** easier to tell the truth!

DRINKING AND THE EMBRYO BRAIN

Yukon: Heavy drinking by mothers in Arctic communities is resulting in the birth of many brain damaged children, Canadian health experts say. (Reuter)

100 GOING ON 45!

Edward L. Bernays, who coined the term 'public relations' in 1919 and is widely recognised as the father of public relations, turned 100 recently. He said his mental age "is no different than when I was 45". He added: "When you reach 100, don't let it throw you, because a person has five ages and chronological is the least important."

MORE GREAT BOTTLED BRAINS

In **Synapsia** Vol. 2 No. 1, we reported on the fact that the University of Tokyo's Medical Department had begun to collect the brains of the 'greats'.

News now comes from Moscow, that Stalin had the same idea!

For the last 67 years, the Institute of the Brain, a section of the Academy of Sciences, has been attempting to draw lessons from the grey matter of the titans of Communist power and some of the USSR's greatest thinkers and artists. Lenin's brain is apparently housed in 'Room 19' of the Institute.

Artyom Borovik, a Soviet reporter who works for CBS, stated "Stalin's mandate to the Institute was to prove that Lenin and the other great pioneering communists were representative of a kind of mental master race."

Lenin's brain has been the subject of popular legend since he died in 1924. According to some, he was poisoned by Stalin. Another tale has it that congenital syphilis had caused his brain to rot. Mr. Borovik said he had first been shown a wax model of the whole brain, which did not show the pock-marks said to have been caused by syphilis. Then viewers were shown slivers of tissue which were among 30,000 taken for research.

Work on Lenin's brain apparently stopped 40 years ago, shortly before Stalin's own brain was brought to the Institute.

"All the elaborate studies and reports had been labelled 'top secret', locked in a safe, and the Institute of the Brain's scientists forbidden to discuss their findings", Borovik said.

Among the Great Brains preserved in the Institute were those of: Stalin, Sergei Eisenstein, the film director, Tchaikovsky, Maxim Gorky, the writer, and Vladimir Mayakovsky, the poet of the young revolution, as well as that of Andrei Sakharov. A special fast-reaction unit had brought the brain of the human rights activist within hours of his death in December 1989.

Stalin's scientists and their successors were trying to prove links between physical characteristics of the brain and the physical and psychological make-up of its owner. After Dr. Sakharov's brain was deposited two years ago, Oleg Adrianov, the Director of the Institute, said the general aim had been to disprove nazi-style theories that linked mental attributes to race.

Are any **Synapsia** readers aware of other nations/institutes who are involved in similar research?

BRAINS LOVE HUGS

If you want to help your children have a happy and productive adult life, cuddle them while they are young.

A new study has found that having warm, loving parents in early childhood is more important than other factors – like being from a well-to-do or poor family, or even having parents who are divorced or alcoholic – in determining whether, at the age of 41, people had satisfying marriages, stimulating lives, close friends, and whether they enjoyed their work.

Dr. Carol Franz, a psychologist at Boston University who led the study, said it was the first "to show the benefits of parental warmth this late in life."

In 1951, psychologists in Harvard University studied nearly 400 children in kindergarten near Boston. They asked the children's mothers questions about how they and their husbands spent time with the child in its early years. In the new study, researchers in 1987 tracked down 94 men and women from the original group of children.

While the notion that good parents are warm is now conventional wisdom, it was not when the children in the study were young. In 1951, when the children were five, most experts advised parents that the key ingredients in rearing a child were a firm parental hand coupled with strong discipline.

The new study showed that adults whose mothers and fathers were warm and affectionate were far more mentally 'complete'. Franz said, "They showed psychological well-being, a sense of zest and satisfaction with themselves and with their lives. Parental warmth proves very good for you when you become an adult. If you had warm parents, you are likely to be doing better in **many** realms of life."

MONTAIGNE THE DAYDREAMER

In the last issue of **Synapsia** we reported that Leonardo da Vinci, apart from being best at everything else, was also best at catnapping.

In this issue we are glad to report that Montaigne might well challenge him for the daydreaming championship.

Montaigne retired to his tower on his ancestral estate some thirty miles inland from Bordeaux, and began to write the results of his musings in the year 1572.

He described his location and process: "I am above my gateway and have a view of my garden, my chicken-run, my backyard and most parts of my house. There I can turn over the leaves of this book or that, a bit at a time, without order or design. Sometimes my mind wanders off, at others I just walk to and fro, noting down and dictating these whims of mine."

His goal for the remainder of his life was simply to discover himself, the workings of his own mind and opinions "which may well be different tomorrow". Had Montaigne been more aware of our current knowledge of the brain, he would not have considered his self-probings "bizarre and eccentric", he would have realised that he was indeed intelligence thinking about intelligence!

SMARTEST PERSON IN THE UNITED STATES? A STAR STAR!

The astronomer Carl Sagan is the smartest person in the United States, if a poll of the readers of *Parade* magazine is to be trusted. Advised of the result of the poll, the science popularizer responded with a paradox: "A good definition of intelligence is understanding how little we understand of what there is to know."

The remaining top ten are:

2. Norman Schwarzkopf – Commander of the Allied Forces in the Gulf War
3. William F. Buckley Jr – Columnist
4. Bill Moyers – PBS Television Newsman
5. President George Bush
6. Ralph Nader – Consumer Advocate
7. Jimmy Carter – former President
8. Barbara Jordan – former Texas Congresswoman
9. Henry Kissinger – former Secretary of State
10. General Colin Powell – Chairman of the Joint Chiefs of Staff

WOMEN'S VERSUS MEN'S BRAINS - CONTINUES . . .

In the last issue of *Synapsia* we reported two contradictory studies on the size of women's versus men's brains.

***Synapsia* wrote to Dr. Marion Diamond, of the Lawrence Hall of Science, University of California of Berkeley, asking for her opinion on the studies.**

Dr. Diamond, whose research on both sexual differences and the ageing brain has shed massive new light on both fields, was kind enough to respond and *Synapsia* is proud and pleased to publish Dr. Diamond's response.

Dear Synapsia,

Thank you for your letter of July 31 asking about the brain drain in males being quicker than in females.

Before I would accept a report like this, I would need a great deal more data about these people. What were their environmental conditions (i.e., smoking and drinking habits, nutritional status, mental activities, body size and weight, etc.)? Were the skull volumes externally or internally measured? So much more information needs to be considered than this article provides.

We have the data on male and female rat brains (specifically the cerebral cortex) from birth to very old age where the environmental conditions *were all constant*. At present, we have not compared the decreases in *size* between males and females with aging. Needless to say, we could do this.

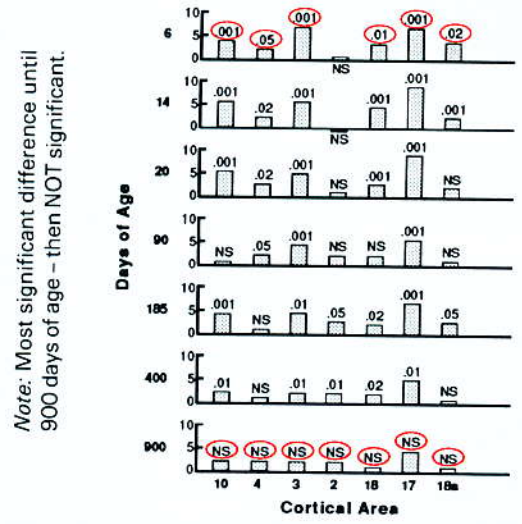
But what we have done is measure right-left differences in male and female rats throughout a lifetime. Please see the enclosed figures. It is evident that, in general, the male has the right cerebral cortex thicker than the left throughout life. Yet, in very old age the differences are no longer statistically significant. On the other hand, in general, the female shows the left side slightly greater than the right, but the differences are *not* significant. However, if you look closer at the data, you will note that the visual cortex starts out right greater than left in the female; then, this difference is lost. But when the female becomes much older, her right dominant visual cortex returns and is even statistically significant. So what we see in rats when the environment is controlled is that the sexes reverse their asymmetrical patterns in very old age.

Some recent data on human cerebral cortices coming out of UCLA is showing the similar patterns seen in our rats during middle age, i.e., males right greater than left and females left greater than right. Therefore, our basic rat data on aging may be providing us with a similar picture for humans *if* we could ever control their environmental input.

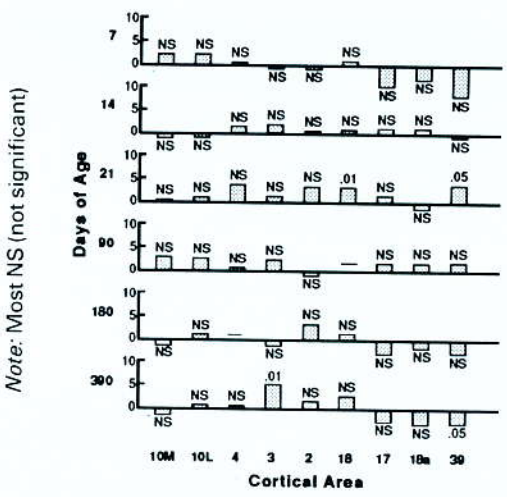
I hope these few comments are of some interest.

With warm regards,

Marion C. Diamond, Director,
Lawrence Hall of Science,
University of California, Berkeley
California



Percent difference between left and right cerebral-cortical thickness in young, adult, and older-aged male Long Evans rats.



Percent difference between left and right cerebral-cortical thickness in young, adult, and older-aged female Long-Evans rats.

By 800 days differences stat. significant.

BODY and SOUL

Body and Soul the beautiful cover of *Synapsia*, The Brain Club Journal, which was featured and explained in *Synapsia* Volume 1 Number 3, Summer 1990, is available to Brain Club Members at a special discounted price of £23.00 (usually £28.75).

Complete the address label below, and send with your cheque or Visa/Mastercard number to The Buzan Centre, Suites 2/3, 37 Waterloo Road, Winton, Bournemouth, Dorset. BH9 1BD.

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Body and Soul posters: £5 discount to Brain Club Members on Buzan Centre prices:

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£30.25	£36.00	£38.00	£40.00	List price
£25.25	£31.00	£33.00	£35.00	Minus discount

Cheques made payable to Buzan Centres Ltd.

FLOATING UNIVERSITY

From 21st to 27th September 1991, Brain Club Members celebrated life during the second Brain Club Floating University on an 85 foot yacht in the Aegean Sea off the south coast of Turkey. In the first of three reports, Charles La Fond, BCM 465, and Lorraine Gill, BCM 49, describe a particularly eventful day.

BODRUM BIRTHDAY BAY

One of the highlights of the Floating Univer-sity off the coast of Turkey was the wonderful 50th birthday of Lorraine Gill, our "on boat" artist and champion chess player-to-be. This particular day happened to be our free day as well, since it was in the middle of the week and we all needed to enjoy more rest and relaxation. (Tony and Vanda had been working us to the bone in "fast chess', swimming, art, eating great food, sleeping, heavy discussions and the like.)

Lorraine Gill pops her birthday champagne

On this particular day (the weather was as beautiful as ever), we got up later (about 15 minutes), went for a great swim in the crystal clear, aqua blue water (even though we didn't have to!) in order to whet our appetite for another fantastic breakfast of peaches smothered in honey and yoghurt, olives, goat's cheese, bread, butter and the famous Turkish coffee. What a way to start out your 51st year of life!

The captain informed us that they needed to stock up on some provisions, so we lifted anchor and headed towards a small harbour about 1½ hours away, in a little secluded bay. We left just after 11.00, which just happened to be time for our 11.00 o'clock beer or, for those who preferred, the Turkish drink called Raki (being in the birthday mood and all, of course). The ***Estergon***, our "main" boat, was declared the sleeping boat, and various Floating University championships were carried out there during the ride to the harbour. Meanwhile, on the ***Trojan***, our second boat, Vanda, Lorraine, Tony and I practised some tricks and some chess (I sometimes wonder which is which!)

When the shopping was done, we all sat in a vine-shrouded and flower-filled local open cafe. And then it was time to sing happy birthday to Lorraine (which we did I think 10 or eleven times in as many variations on the theme.) At any rate, Lorraine at this point stated that this was already the best birthday she had ever had. (Little did she know of what was yet to come!)

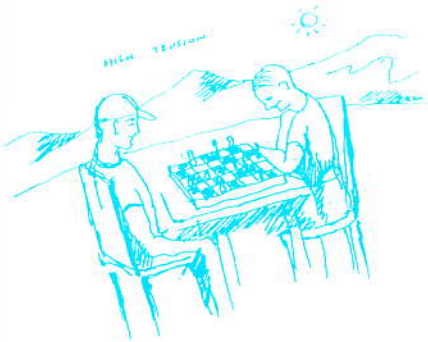
After having filled up on provisions and birthday wishes for Lorraine, we boarded the ***Estergon*** and headed on to the newly named Birthday Bay, a beautifully situated bay in the middle of everywhere. We were at the centre of the universe – everything rotated around us. The water was beautiful for swimming; Keene's chess problems in the latest **Synapsia** were being aggressively challenged; the captain was out catching octopus for our evening meal; the Raki was making its dent.

At about nine we sat down for the birthday dinner of fresh octopus, calamari, salads, champagnes, good company and another 10 variations on the song "Happy Birthday". This was the best meal on the trip and most probably one of the best in our lifetimes. The Turkish music and dancing came next, getting us all up and moving so that we could find room for the birthday cake to come. The crew were right in there with us, making this evening a very memorable experience indeed.

Along about Midnight (one last Happy Birthday Song for Lorraine) it was into the water for a midnight dip and an exchange of bathing suits between Vanda and Lorraine followed by a final toast to the future of the Brain Club Floating University.

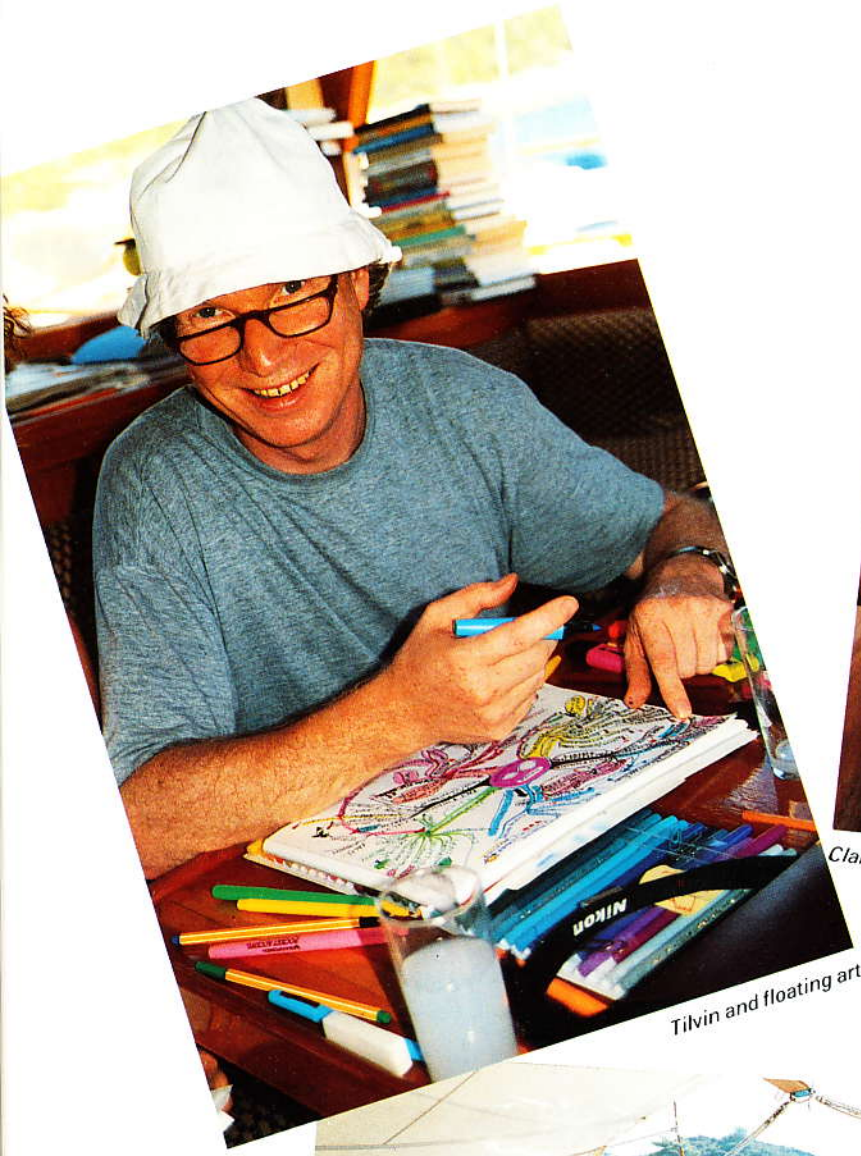
I sure hope my 50th will be as great as this was. Happy Birthday again Lorraine! Looking forward to next year in Jamaica!

Dancing under the stars



LAUGHTER & LEARNING:

BRAIN CLUB BONANZA BODRUM



Tilvin and floating art

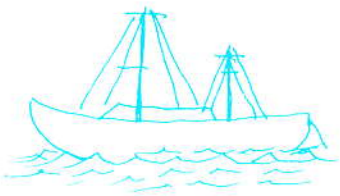
Clams up!

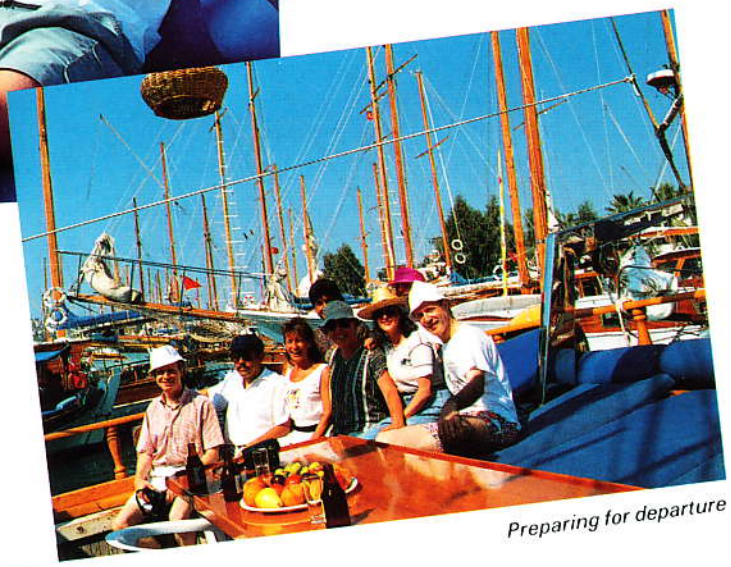
Synapsia on the high seas

Breakfast on the open sea

The two compadres

The chess champions





Preparing for departure

The master problem-solver

How can it ever be taken for granted: blue sea; boats like floating villas; glass and varnished wood; and heat that warms to the bone; relaxing slowly into what real life can seem like.

Upon arrival this year, September 21st, there were smiles of introduction to new Brain Club members represented by Mexico, Sweden, Germany, U.K. and the U.S.A.

Our two boats were waiting and it was good to see old members with the feeling that although a year had passed we were 'the old guys' – we knew what it was all about.

First things first though, check out the food and grog and Captain and crew; we were going to be lumped together for a week – everything in order? YES.

On the first night we all jumped about in a local Disco to drive those cares away and to get to know each other better; jumping about tribal fashion is a great leveller.

Next morning the boats growled into action and the same Captain Ibrahim as last year on our smaller boat took up the challenge; on the map he strategically cut a 45 degree angle to beat the bigger Captain and boat of the others but 'was done in' at our first port of call by the members being unable to decide in which bay to anchor.

All action stations: clear deep water – the dignified swimmers club ready for the first lesson. This is another leveller but the breast stroke seems to level more than anything else and most of us seem to have trouble keeping our face in water; we rivalled the boats chuffling and snorting and spouting and laughing again under the watchful eye of our tutor Tony, who cartooned our weaknesses in the water. Klaus this year managed to get into the water without having to wash himself down with the Aegean first and I could not see one shark.

Chess featured, and after the usual gourmet lunch, I personally did not look forward to playing, being a poor loser, which meant I would lose all the time not having played much. Vanda North proved to be more my style and we blundered into a draw which pleased us both very much. A tournament began which would end by the week and I found myself becoming addicted; high tension on the high seas as each member played the other to become the Brain Club University Champion. The organization could hardly be faulted as Tony and Vanda kept us interested: learning, laughing, fed and healthy.

Travelling from bay to bay, dinner under the stars; discussions of high calibre to suit our needs, especially Charlie's elephant jokes and his luminous pink hat; Tilvin's playing of chess so experienced and intense I nearly had to bulldoze him away from playing my side as well! Claude could mimick a Rooster so well our bellies hurt laughing. This rooster crowed in

the water, at dawn on the prow of the boat, and, one morning, from a local mountain top. This rooster also won the chess tournament, and in teaching me to play chess and the rules, I won by default.

Fortunately my birthday falls during this week and was the **most** memorable. Klaus orchestrated the birthday chorus from morning to night, and of course it was a good excuse to drink Turkish Raki. I shall never forget Charlie's ballet walking position across ricketty planks of the wharf where we stopped to stock up with food. I suppose the local people will not forget the birthday chorus either booming out across the water.

Birthday Bay escapees

That night Vanda and I swam without clothes believing we were invisible until the sight of little round heads peering from all over the boat told us differently. Champagne popped at the moon and Tilvin painted a delicate and beautiful card.

Being the art tutor I have forgotten to tell you of the progress of all students with drawing. Javier was not the most enthusiastic student at the beginning but by the end had conquered 'the inner man' by becoming a confident person at making marks and delighted me, us, and himself with his final drawing. The exhibition of works placed up was impressive and I believe impressed the group themselves. This also related to the Mind Maps done by each member except myself: my students were better than me – every teacher's dream come true.

The week went by too quickly. Suddenly each member was being 'roostered' down the gang plank on their way home and I always find it a little sad saying goodbye to friends newly made and respected. How can I forget Javier's achievement in drawing without understanding much English and in his final swimming exam where he took off so fast we thought the mountain or the boat would be cut in two. How to forget Claude's rooster mimicry at dawn from a local mountain top, or Charlie's Nureyev's ballet steps to

Deep discussions . . . . .

keep stabilized on my birthday or Tilvin's speech delivered on policy so well thought out or Klaus booming the birthday chorus or Vanda's lightning speed organization and Tony's ability to orchestrate the chess of us as a group with good humour, laughter and learning and perhaps the most important, revealing our eccentricities as personalities to gladden our hearts.

See you next year. Jamaica here we come!

Lorraine Gill BCM 49

Come to next year's Floating University in Jamaica! Saturday 19th to Saturday 26th September 1992.

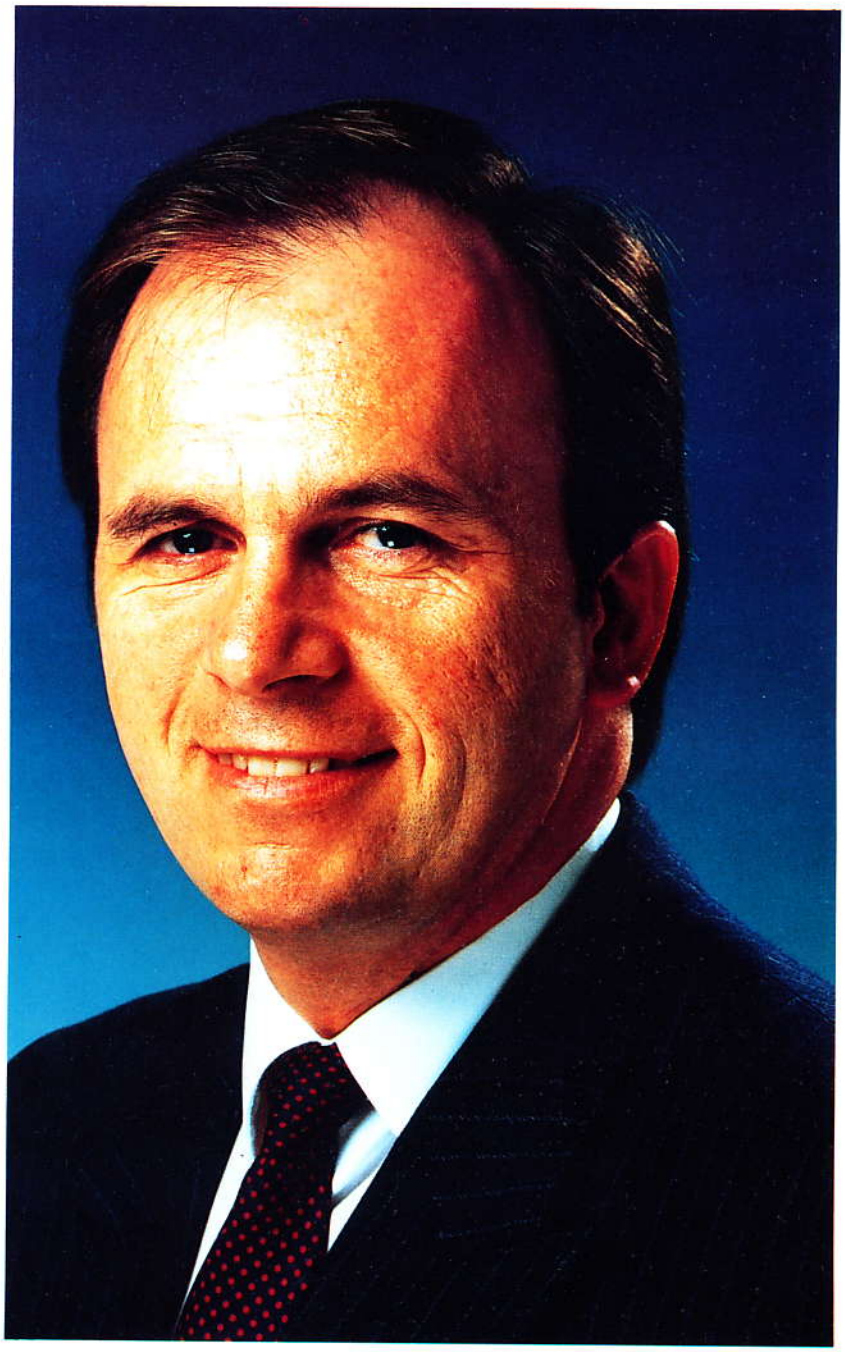
The Floating University participants unanimously elected Jamaica as the next location for the Brain Club Annual University. Come and join the fifteen who have already enrolled (we can take a maximum of forty). For University details, write to the Editor c/o 32 Hollingbury Road, Brighton BN1 7JA.

Jamaica – site for Brain Club University 1992

BUSINESS BRAIN

Fraser Morrison, BCFM 457, wins Scotland's premier business award: The Scottish Business Achievement Award.

In the following interview with *Synapsia*, Fraser describes his company's incredible success, and gives valuable advice to all practising and aspiring Brain Club 'Business Brains'.



Fraser Morrison, BCFM 457, Managing Director of Morrison Construction Group, was given his prize by the Scottish Business Achievement Award Trust. The award is designed to honour an individual's outstanding achievement in maintaining the continual growth and success in a business he/she started or build up. The award also recognises sustainable achievement of a significant size which demonstrates proper business structure and organisation. Fraser, a graduate of Edinburgh University, entered Morrison Construction in 1970, when the Highland-based building contracting concern had an annual turnover of approximately £1 million. The latest consolidated year's accounts show a turnover in excess of £160,000,000 with profits of £4,700,000.

The recent highlight for the Company was the group becoming the first, and at the time, the only U.K. company to win a recovery contract in Kuwait within days of the war's ending.

In this issue, Fraser Morrison describes for Brain Club members the secrets of his business and personal success.

As the Scottish Businessman of the Year, would you please describe for members of the Brain Club, what characteristics in your own business life you have applied to your formula of success.

In relation to this, what recommendations do you have for Brain Club members should they wish to pursue a business career, which many of them do? Edison said, "Genius is 99% perspiration, 1% inspiration". I think success in business is 99.**9**% perspiration! It's basically just a lot of hard work. In my experience, persistence is particularly important. We're in a business which has fairly enormous inherent risks. Civil engineering particularly has tendering risks, ground conditions changing, contracts constantly changing – and you can find yourself in a black hole. Having the confidence to work at it when you're in that situation and climb out of the black hole – that is probably one of the single most important features of running a successful business, especially a construction business.

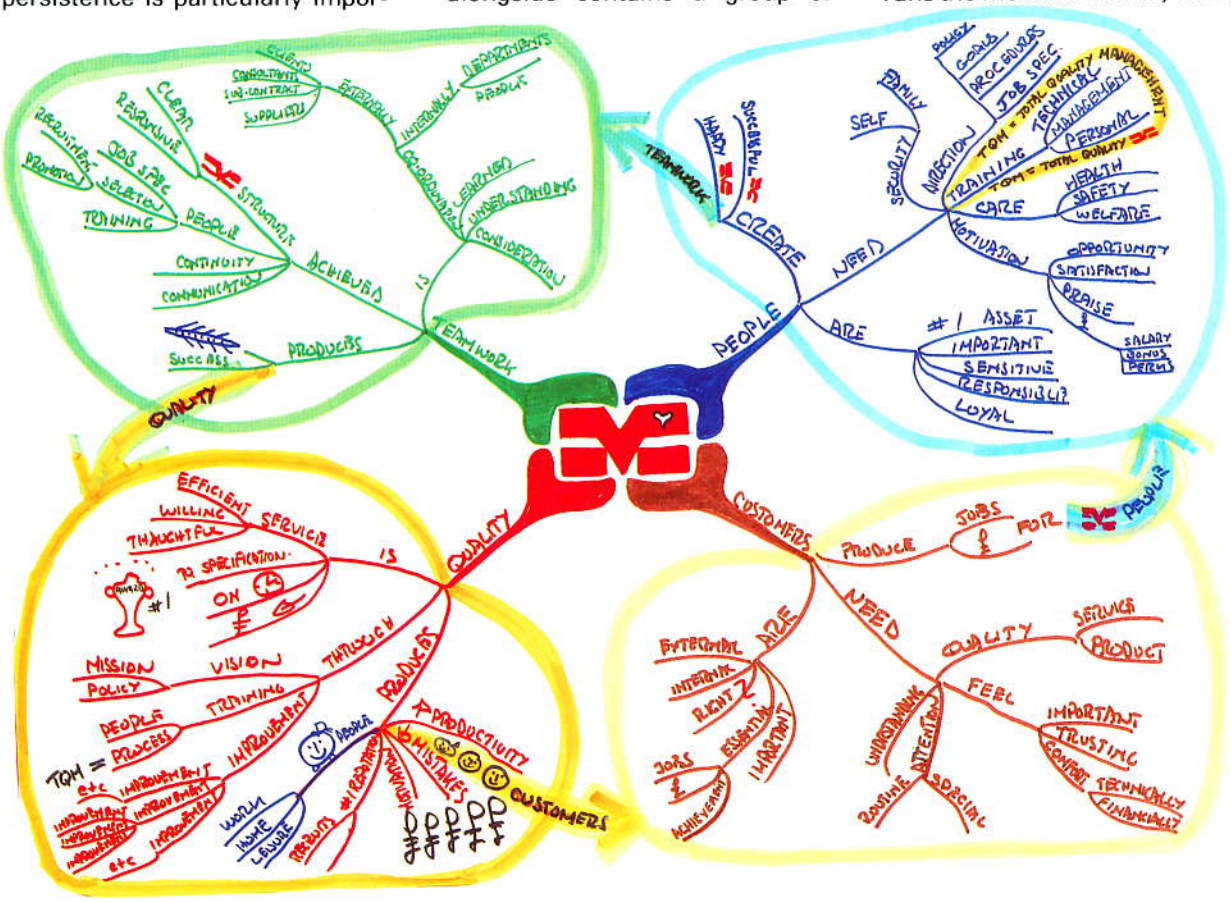
Our success is not based on individual success but team success. We have a fantastic **team** spirit within the company and work particularly hard at getting people to work together. We have a total quality management programme and have used a series of devices to get the message across to people. One of them is a rather marvellous cartoon: a finely tuned rowing crew moving forward at fantastic speed . The other boat alongside contains a group of people in construction helmets, with oars up in the air and all higgledy-piggledy.

It gets the message across particularly well that team work is a hugely important aspect of what we do and, I think, of success in almost any business.

We use art a lot to get our messages across and have a whole book of cartoons, which is distributed throughout our quality management programme.

In terms of the specific mental skills, things like memory, creativity, concentration, *Mind Mapping*, and general learning, what of those have you emphasised in your own personal career, and what have you used, or encouraged others to use, in your organisation? I have used *Mind Mapping* myself. It has also cropped up as part of our total quality management programme. We have a full-time Manager who runs the Morrison Quality College. The College incorporates a range of fifteen distinct learning modules. One of the main modules is problem-solving, and *Mind Mapping* is one of the major techniques taught as part of this programme.

I personally have used *Mind Mapping*, for organising my own thoughts. If I have a sticky prob-



Fraser Morrison's Mind Map of his company's philosophies, aims and goals.

lem or am trying to identify relationships one to another, I put my thoughts down on a piece of paper in the form of a *Mind Map*, and I find it particularly helpful.

The *Mind Map* notes I have kept have been from YPO Universities, one of the main lecture situations in which I find myself. Since I was first introduced to them, I have taken *Mind Map* notes in every lecture I have attended.

Could you tell us what your long-term professional vision is? We started out in business as a very small company. If, fifteen years ago when we were turning over only £1,000,000 with a minimal staff, you had said that we would be where we are today, I wouldn't have believed you. We are now turning over £170,000,000. We employ 2,500 people, operating throughout the U.K., and the Middle East. We have expanded very dramatically. I tend to look at our vision in terms of a very specific corporate plan: a five year plan in which we try to project what is going to happen in the various parts of our business.

Underlying this is a *broad* vision, which is to develop a broadly based international construction business, consistently expanding while at the same time improving the return on turnover. We have found this philosophy to be far more effective than 'going for turnover' just for the sake of it.

Part of our long-term vision is to continue to have a business in which people actually *enjoy* working with us. The introduction to the cartoon book has a very small introduction from me which ends by saying that the bottom line in our quality programme is improving quality of life for everybody in the business. That is what it's all about.

In addition to your organisational goals, what are your own personal life goals? Quality of life is the bottom line as far as I am concerned. A hugely important part of my life is my family and a happy family life. I don't have any particular goals in terms of things that I want. All my goals are related to health and happiness. Becoming physically very fit was something I did a few years ago – I ran in the Glasgow Marathon, at a time when businesswise we were finding things very difficult. I felt so much better for it. I briefly let that slip but have started to run again now and become more locked in to wanting to be physically fit.

How did you find your mental processes changed as you trained and practised for the marathon? Most importantly I didn't start off trying to run the marathon.

It became an all-consuming passion for a period. After I had done it, I decided I must keep fit and run two or three times a week – I did it once after the marathon and then let it slip completely!

But, three weeks ago, Clare, my daughter, and I started running and we're both going to run in a ten kilometre race in September, so we are into the fitness thing again.

When you were going from the ten kilometre to the marathon, did you notice any change in your mental ability to concentrate, your alertness, your memory, your mental focus in other areas? In terms of my ability to concentrate at work, I felt much less tired than I do when I am unfit. I found it very therapeutic to get out and run, thinking about issues that were going on in my life. At the end of the run I would think, "Gosh! What a good idea!" The whole process was marvellous and I thoroughly recommend it!

You are employing many fairly young people, who have just graduated from school. What do you think students need to study in order to prepare themselves to be successful in business today? I think a broad education at school level is very important. I would very much like to see more effort put into the general thought-teaching process, teaching children that what we now know about the brain and learning, and the extraordinary potential of each individual to accomplish goals that we would previously have thought unobtainable, is vital to their scholastic and general survival. So rarely do children get the opportunity to learn how to learn and to solve problems, how to brainstorm and how to gain knowledge about the

various techniques that demonstrate the true nature of who they are! I think kids would respond fantastically but it rarely happens in my experience.

If you could construct an ideal educational system for the world, what would that system be? I would have a much broader education. I think specialising at an early age is a mistake. To study three subjects at sixteen and concentrate on those subjects to the exclusion of anything else is a problem.

I would place more emphasis on continuous assessment as it can keep appropriate pressure on people right through the whole learning process, and it takes the pressure off some people in an exam-type situation.

I would also keep education positively competitive. In my experience, life is very competitive and I think it's a bad thing to have a child brought up in an environment where there isn't that element of competition.

How would you define competition and what is its goal? Competition is measuring one's performance against yourself or somebody else's. Competition sharpens one's thought processes, one's commercial ability, everything in terms of one's life. I think competition improves performance. When I was running the marathon, I was competing with myself to try to do it in a reasonable time. In an exam, by using the techniques we've now gained knowledge about, about learning how to learn, one can actually tilt the playing field in one's own favour. In our business, I am always looking at ways of improving our competitive advantage, tilting the playing field in our favour, and it is usually by doing something very, very simple.

Imagine you were giving a television interview, which was going to be broadcast to every person on the planet and, as a result of which, everyone was going to do what you said they should do. Imagine also that it was the last statement you were going to make before you passed on: eternal principles for their own running of their individual lives and their relationships with others, and you knew they were going to do exactly what you recommended. What would you say?

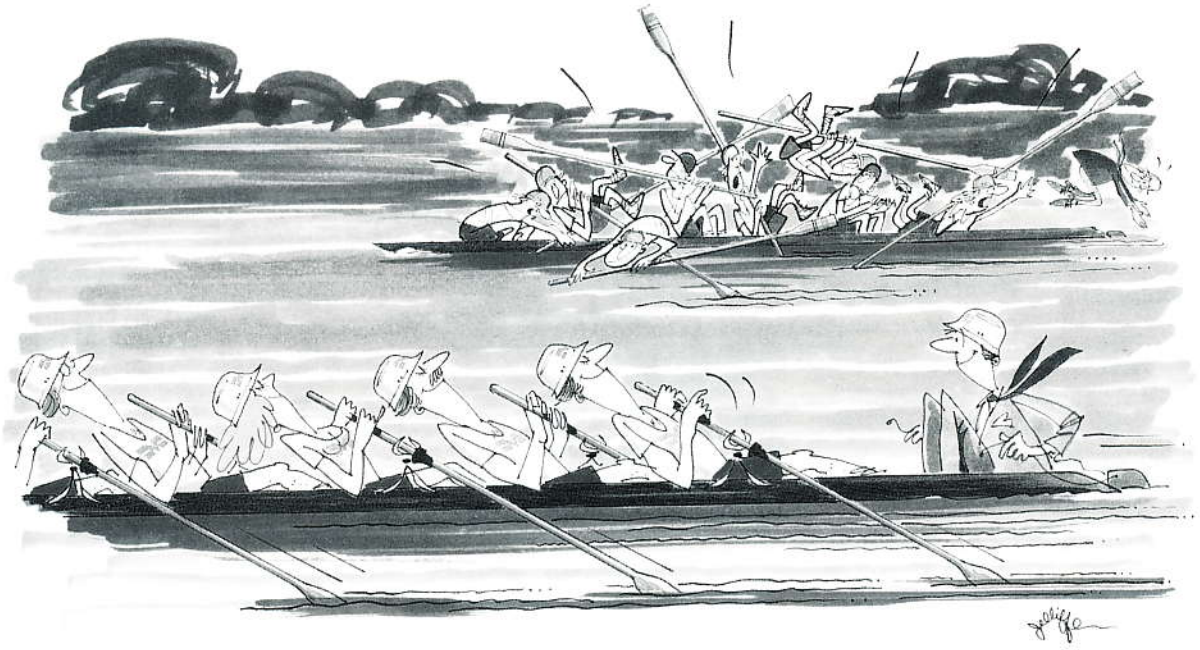
First, establish very, **very** clear, well-defined goals. I think it is *imperative* that you know where you are going. Not that you know vaguely what they are and that you think about them, but that you develop them, set them out and have them put down in a defined form.

Second, having a sense of proportion in one's life is vitally important. Anything can become all-consuming and life is a balance. It is very important to get that balance right: the balance between work, family, fun, and whatever else is important to you.

Third, I'm a great believer in perseverence and hard work. To a certain extent, you get out of life what you put into it. There are times when it seems that you don't, but perseverence and a huge amount of effort **do** pay major dividends in the long run.

Fourth, relationships *are* important. A lot of effort should be put into developing close relationships, because at the end of the day that makes everything worthwhile.

If you had six words to describe yourself, what would they be? Hard-working, committed, understanding, directed, loyal, happy.



One of the cartoons used by the Morrison Construction Group to get across the idea of good versus poor teamwork!

Is there anything else you would like to say to Brain Club members? Looking at people who have done well in life, they are not always the people who appeared to be 'brainy' when they were younger. It is important for youngsters to realise that it is not just the person at the top of the class who is going to do well. Learning a list of facts parrot fashion is not all there is to brains. Common sense, a sense of balance, confidence in what one is doing: these are also all important and are real 'brain skills'. *Everybody* is capable of *many* things: it is finding out what you are capable of and can do well that is important.

What is your outlook for the world in the next ten years or one hundred and ten years — positive or negative? I am *very* optimistic about the future. I think there are issues which have to be resolved in relation to the next one hundred years as far as the planet is concerned: the environment is certainly one of them.

Despite common trends to the contrary, I truly do have a lot of confidence in the way the world is going. If you study all the megatrends at the moment, every indication is that there is a move away from the post-war feeling of 'when is the next major war going to take place?'

Look at what is happening: the changes that are taking place in Eastern Europe and Russia are extraordinary and positive; the sense of concern about all the things that are happening in Africa is another indication. They are nearly all positive; there is a growing sense of wanting to do something about the problems we have with the environment and our planet, despite the accepted knowledge that there will be conflicts as we progress towards solutions in these areas.

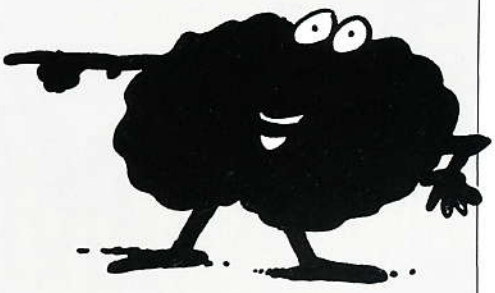
I believe that after many, many centuries of abusing the earth, we are now actively beginning to look positively at how we can do something to save ourselves and it.

Throughout this interview with you, Fraser, your daughter, Clare, has been with us. May we ask you, Clare, for your comments on our interview so far? I agree with everything he has said. I think that the use of *Mind Mapping* and exploring the brain is coming into life a lot more than it used to and I think it is very important. With regard to teaching in school, pupils need to be kept alert, teaching needs to be fun and appealing to everybody.

What is it like, Clare, being the daughter of the Scottish Businessman of the Year? It's lovely. Dad's not any different from anyone else – he's just natural. I'm really proud of him.

And so are we!

POETRY CORNER



The Brain

It's in us all, but do we care?
Not a lot, we forget it's there.
It does the work without a sound,
It stands us up and lies us down.
It sees and hears, and lets us breathe,
It pumps the blood, and helps us sneeze,
It wrings our hearts and makes them flutter
And it can even cure a stutter.

It tells us when we're hot or cold,
And helps all those who aim for gold.
And even when we've gone to bed
It keeps on working in our head.
It feeds our dreams, our hopes and fears,
And it can even stop our tears.

But will we ever have the gumption
To nurture that which makes us function?
In spite of all of our neglect,
It will continue to collect,
Retrieve and sort,
That long forgotten, hidden thought.

How it works, we'll never know,
For its secrets it will not show.
And never once will it complain
The lack of credit we give our brain.

Caro Ayre, BCM 372

THE MIND MAP WORD GAME

THE MIND-MAP-WORD-GAME
WORLD SPORTS MEETING

In the last issue of Synapsia we introduced a new mental game by Brain Club Member, Teri Bias, BCFM 30 – the Mind Map Word Game.

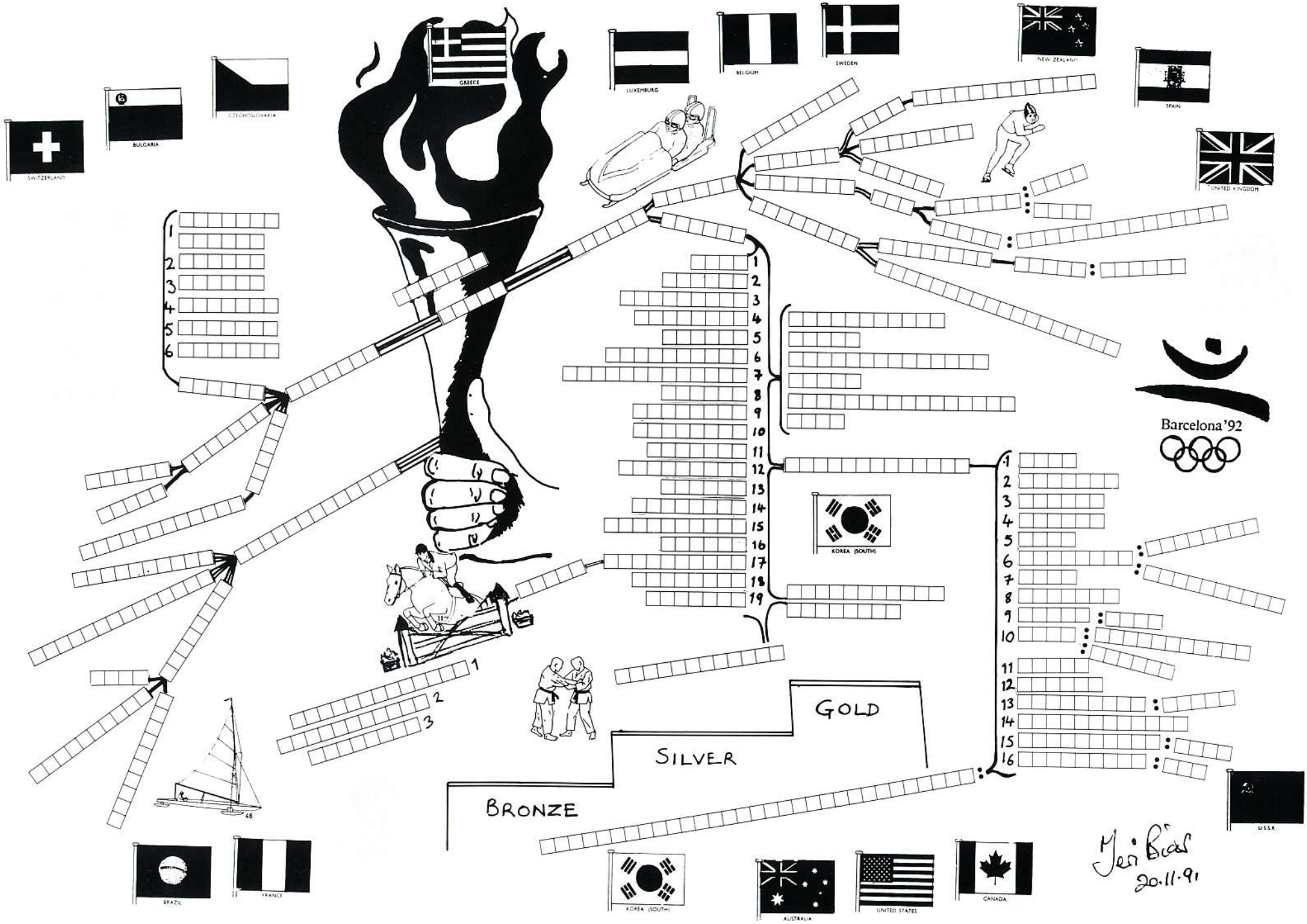
Teri's first game dealt with rivers. In this issue of **Synapsia**, Teri has devised a new Mind Map Word Game in honour of the forthcoming Olympics – a 'World Sports Meeting'.

The game consists of filling in the missing slots, much like a crossword puzzle. The answers to the last issue's puzzle are on page 38. The answers to this puzzle will be in the next issue of **Synapsia**.

Mind Map Word Game No. 2
Subject: World Sports Meeting (7.5)

1/ Up to date (6)
2/ Cold Season (6)
Holiday time (6)
3/ Type of Toboggan (9)
Moving on snow (6)
Moving on ice (7)
Tough winter sport (8)
Sporting Dan (4)
Uses Queensbury Rules (6)
Ring entertainment (9)
Butterfly, maybe (8)
Splash (6)
Body control (10)
Snatch and grab (13)
Pulling together (6)
Setting sail (8)
White watersport (8)
Robin Hood did this (7)
Track and field (9)
It's a racket (6)
Eleven a side (8)
played with the hands (10)
Jolly . . . . . sticks (6)
On horseback (10)
A possible 100 (8)
Pedal power (7)
4/ Leap (4)
Race to the Bottom (8)
with artificial obstacles (7)
Frozen Water (3)
Taking Aim (8)
Distance Race on Snow (5.7.6)
A men's Event (6.5)
Worn on the fingers (5)
Dance and Tumble (5.9)
Crypt (5)
Of Different Height (12.4)
Glow (4)
Athletics (5.3.5)
Circuit Racing (5, 6)
Yellow Jersey may be worn (4.4)
Fame (4.2.6)
Four legged friend (5)
She flies like a bird (5.3.5)
Played with Sticks (6)
Graceful Displays (5)
Carried over the Shoulder (5)
Report (4)
Fast Aircraft (7)
Heavy throwing implement (6)
House of Horrors (6)
Roughly ½ mile (4)
Far off (8)
Stroll (4)
Run over Obstacles (7)
Pass on (5)
Leap (4)
Nearly a mile (5)
Worlds fastest (6)
Assisted jump (4.5)
Horse race, maybe (12)
Once the most Prestigious
Event (10)
Daly Thompson (9)
6/ What is hit (4)
Same Side (4)
British Heroes (8.3.4)
Bull's Eye (6)
26 miles 385 yds (8)
? and ? Thousand metres (4.3.3)
National four (4)
Which Jumps (4.3.4)
3 off (6)
The Worlds best (5)
How many events (4)
How many events (3)
Gold, Silver, Bronze Holders
(7.12.5.7)
Equine Cross Country (5.3.5)
Clear round (4.7)
Looking your best (8)
1/ Fair play (13)
2/ Preparing (8)
Pride in your Country (8.6)
Hands across the Oceans (10)
3/ Devote to sport (10)
Strict with Oneself (10)
Adore (4)
1/ Very Old (7)
2/ Return (6)
120 miles West of Athens (7)
Happenings (6)
3/ What came from "the Sacred
Tree" (3.4.5)
776 Before Christ (3.1.1)
Country of origin (6)
Horse Driven Competitions (7.6)
Heavy metal plate (6)
Thumping One another (6)
Spear (7)
Sprint and marathon (7)
Leaping over Obstacles (7)

KEY 1/ ≡ 2/ ≡ 3/ — 4/ = 5/ — 6/ ••


GREECE
SWITZERLAND
BULGARIA
CZECHOSLOVAKIA
LUXEMBURG
BELGIUM
SWEDEN
NEW ZEALAND
SPAIN
UNITED KINGDOM
KOREA (SOUTH)
Barcelona'92
GOLD
SILVER
BRONZE
BRAZIL
FRANCE
KOREA (SOUTH)
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UNITED STATES
CANADA
USSR
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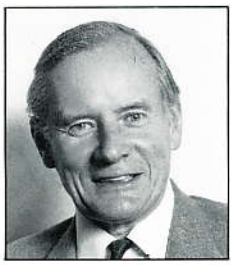
ANSWERS TO LAST ISSUE'S MIND-MAP-WORD-GAME NO. 1



What has jumping off a tower block roof got to do with too many notes and fireworks?

It was a typical day in July. The weather had been a mixture of damp gloom and bursts of brilliant light from the nuclear power station in the sky. Nothing unusual. In West London a young fellow with unkempt, thick black hair, wearing casual slacks and open-neck shirt, was cycling along the Harrow Road. No one paid any attention to him save perhaps, the young girl waiting at the bus stop who thought he looked rather groovy. Only last month he had graduated at Nottingham University with an upper second in history and was killing time whilst waiting to hear the results of an interview for an interesting job in a new publishing initiative. A life lay ahead.

He stopped at the large traffic intersection, wheeled his bicycle to the large block of flats, parked it against the wall, locked the chain and entered the building. The lift was in full working order save for the panel lights for 14 of the 18 floor level indicators.

A few minutes later he was on the top floor and walked through the half skylight door on to the roof. The views were spectacular. To the South lay the Houses of Parliament, to the West, the Royal Postgraduate Medical School with the ever popular Wormwood Scrubs next door. To the East lay the spidery flyover, with its rushing population of dinky vehicles driving towards the tawdry, allegedly modern but already out-of-date buildings for photocopiers and books. Tatty buildings that, like a daisy that shows its head at Lord's, would have been immediately uprooted in Washington, Manhattan, Denver or any American City, the minute they had dared to appear, and used for scrap. St. Pancras with its towers and fancy designs recklessly obscured by unthinking progress leaving the Euston Road to be condemned for another half century as a museum of third-rate architecture and lack of enterprise. To the North East, Hampstead and Highgate rose to fill the view with one of the many green lungs of London. A simple roof with excitement, history and bustle in whatever direction one looked.

A moment of reflective thought and he walked towards the edge and threw himself into the air. A child, playing in the street with an old-fashioned spinning top, heard the dull thud and found the reason in the shape of his crumpled, bent, flattened and disfigured corpse. He had killed time for ever.

"Too many notes – That's it – too many notes, Mr. Mozart." "Otherwise – well – too many notes, don't you think so, Capelle Maestro?" "But sire, it is perfect, each note is right, remove just one and you spoil the music . . . ."

In a hushed Albert Hall, Daniel Barenboim sat in front of the black Steinway, a lonely figure with an orchestra in a half moon on one side and a packed audience on the other. There was no escape. Could he do it? Was it too much to ask? Did he question his own confidence in those precious, intraperspective moments of isolation? Or was his ability so superb that his mind simply drained of all consciousness except the music ahead? Was he filled with excitement at the prospect of delivering music with so splendid an orchestra and a thirsting group of onlookers.

Moments later, piano and orchestra were engaged in a combat which was to last two nights. Was it one, two and four on the first, and third and fifth on the second night? All five Beethoven Concerto's delivered from memory and with the skill and unique interpretation of an undoubted master of music. Twenty nine hours later, the Emperor's last thundering chords yielded their final testimony to Beethoven's reluctance to halt his composition. Even before the final notes charged across the Hall, the audience was on its feet to applaud an outstanding and almost miraculous set of performances. A master at his peak.

John and Jane's eyes met. The Bodrum disco had been hard work and their friends had kept them up too late. Now, in the darkened room overlooking the sea, they touched each other, thankful for the peace and the chance to be alone together for the first time. Their hands met and feelings of admiration and love for each other filled their minds in an exchange which needed no words. As if almost by magic, their clothes fell to the ground and with a mystical grace, naked flesh touched naked flesh. With bodies tangled in the fulfilment of a love that had long waited to seek expression, they rose through the wide open balcony windows, spiralling in an ecstasy that sought greater and greater heights.

BA 0012 en route from Singapore to Heathrow had made good time but Mavis could not sleep. The film had been awful and anyway she could not make out the words on the sound track. All that running around and bashing each other. She dismissed the thought that the grandchildren might quite like the music, even if the sound track did garble the words. She had ▶

▶ the window seat and quite liked watching the night scenery beneath her in between reading the Hunt for Red October

"Hal wake up! Two people have just come through the clouds and they are making love. . . . Hal, Hal, wake up – just look at this!"

"Mavis what are you talking about – I was asleep."

"Hal – I am talking about two people making love above the clouds."

"Mavis, do go back to sleep. You've been dreaming."

"Hal, take off your eyeshades and just look. Hal, they are signalling to us. They are so close – they are on the wing now – they want us to enjoy it too – they want everyone to enjoy love – Hal, they are really beautiful like that."

"Hal, can we do it too – oh Hal – Let's do it now – now Hal . . . . "

"Dear Mavis . . . . go back to sleep."

"Dodo!"

It's funny how after such love-making, the male often crumples. Having dominated the scene (if he did), he sinks into the state of the sublime exhaustion which comes from a job well done: literally drained. At the same time the female rises serenely above the occasion, warm in the accomplishment and her capture of that tiny piece of her lover that will remain inside, join with her own flesh and flower into a new life that is hers. The supreme act of creation.

Back in their room, with the sound of BA 0012 dying in the distance, Jane looked impishly at her lover. "John," she whispered, "Lets do it again – this time with Sony Walkmen!"

(With apologies and thanks to the Hitch-H" Guide to the Galaxy).

So what have all of these things, suicide, composition, performance and sex, got to do with each other?

One simple characteristic: the overriding and remarkable power of the brain.

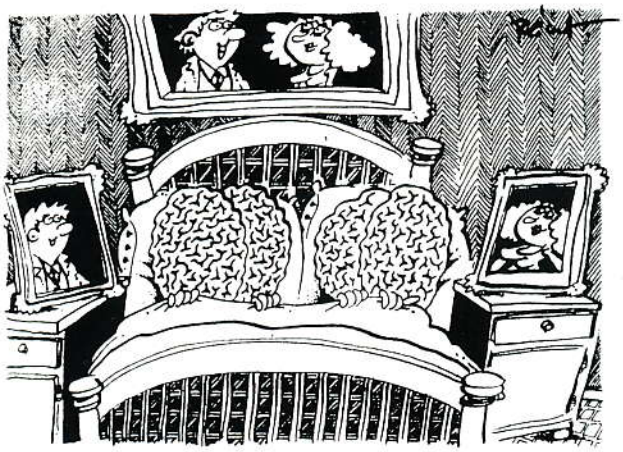
It is the brain which enjoys sex, not the sex organs. The amputee still feels sensation in the lost limb. It is the brain which conceived what was to one ear, too many notes, but to Mozart, just the right number. It is the brain which dreams and motivates, sometimes to great humanitarian heights and others to self-destruction. I would like to suggest that there is a common denominator between these diverse activities and if we examine each one that denominator reveals itself.

Why are we as a species so pre-occupied with sex? Baboons or chimpanzees do it, the male ejaculates, extracts himself and promptly returns to picking his nose or scratching his rear, whilst the female wonders what it was all about. Homo sapiens makes films about itself doing this sort of thing. The business is usually portrayed with a great deal of writing and caressing fore-play followed by much humping, groaning and moaning with the impression given that it is going to go on all day. There are quicky exceptions of course when people do it in the TV advertisement interval or are seen doing it on screen, in the kitchen sink: the shortness of action made up for by prolonged recrimination and depraved retaliation. The reason why we are so sexy is simply because we have so many peripheral nerve endings that the brain can enjoy receiving the millions of moving messages. The brain simply loves a great diversity of messages!

We talk of a spectacular fireworks display. What we really mean is that with each burst of light, which fills the sky with an expanding circle of twinkling colours, millions of photo-receptors in our retinas are caressed one after the other, with the lightest known particle which we can sense: a photon of light. Each photo-receptor in return responds to excite its synapse and despatch a signal to the rear of the brain, where the simultaneous, network of patterns are instantly activated to produce WOW!

What happens is that a whisp of a light wave penetrates the exposed part of the brain which is the retina: rhodopsin twists in response setting off a cascade with the signal amplified some 1,000 times through a sea of DHA down to the fire, the synapse which flashes the signal to the command centre. If the same photo-receptor is continually stimulated – that is boring. But if the stimulation dances from one to the next so that the command centre is provided with a huge array of different signals, all of which need to be interpreted simultaneously – that is WOW! The greater the change in the array the greater the WOW factor.

The auditory receptors can join in to accentuate the flow of messages and if there is a big bang, so much the better. WOW and SEX are the same: it is the brain enjoying a myriad of different signals. Hence there is a similarity between watching fireworks and sex. ▶



In the same way, the auditory receptors take over in listening to, creating or performing music. It was Barenboim's massive memory store that instantly reacted to the downward sweep of the batton to produce a flow of data which was interpreted on the trot to respond to the mood of the occasion tempered by the discipline training to perfection. Maybe the 'too many notes' people do not have enough synapses to enjoy it all. Maybe, a shortage of untrained, unused or undeveloped synapses leads to a simple thump thump music! This is not an attack on popular music, for some modern stuff can be quite complex.

In a reverse way, the excitement of composition became all consuming in Mozart and others like him. He was listening to his own music. He could sit down and play a piece of music, which he had only just heard once, and indeed, develop its themes. The same information store in his mind, would similarly put together music, the like of which had never been heard before and was therefore all the more exciting to Mozart himself. The flood of synaptic exchanges of this type, exchanges which the synapses had never experienced before, consumed his being and dominated his short life. The difference between sex and fireworks is that the stimulus was coming from outside the brain: Mozart's stimulus was from inside. Yet at the same time, the stimulus inside Mozart's brain was dependent on learned sounds, harmonies and tempos with his memory leading to the creation of symphonies, operas and concertos that were new. The brain never ceases to send information around its internal networks. When it does, the individual is dead. The opposite of death is this internal synaptic chatter which, in some of us, produces idle gossip but, in others, creates the new combination of words that is poetry, the new concept that is invention, the new visual experience that is art or the sounds that makes music.

But in all of this creative power there is also the power of self-destruction. Try for a moment to think inside your own mind of suicide. What kind of thought process must go on that takes a young person to the brink of the tower block roof and over? What was he thinking about during that week? What power was it that made him peddle his cycle along the Harrow Road to where he knew there was a tower block? What made him single-mindedly climb to the top, go out onto the roof, walk to the edge and throw himself over? It is frightening to contemplate the thought processes that occupied his mind.

I suppose the excitement must have gone. Is it that the wide-ranging chatter of thought had been silenced and replaced by a sinister, single path which is unrewarding, unrelenting in its perception: as all-consuming as Mozart's thirst for creation but focussed on a different direction – the exclusion of further thought. What was it that created that focus? In a way, the alcoholic or drug addict is driven towards the next fix and then the next by that same remarkable and powerful drive. The brain gets stuck in a groove; it seems to seek oblivion, perhaps to seek sleep. No matter what logic is offered to abandon the suicide, the drink or drugs, the drive is there, powerful, determined and final. The sex drive, the drive to creation, the search for pleasure, the drive to death – are they all expressions of the same ability? Not quite. The mind of the suicide or alcoholic have probably, through a process of erosion or some other focussing process, become a single-tracked railway line, robotic, almost computer-like. Unlike one of BR's railway trains, the brain cannot sit in a siding. It has to keep on going. If the brain sees its destiny in the finality, it will command the body to obey. It will be the hands that sink the needle into the vein and the legs that walk into space but it is the brain that dictates.

What these examples do is to try to put the brain into perspective. Aspects of behaviour that we consider to be the property of this or that part of our anatomy are both enjoyed and hated by the brain. We take its function for granted and seldom really think just how much is involved in the service it provides, devoted to running our daily lives and motives.

They also show something of its awesome power, which is not properly understood, appreciated nor properly used in teaching or therapy. The power to create, to be happy or to defeat the most primitive instinct of self-preservation are all facets of synaptic transmission and memory. It was the same mechanism that created music and sought to end it all: it was the brain which decided to end or create life.

"The wrong kind of leaves". One wonders how many synapses it took to think that one up!

Professor Michael Crawford, BCM 257

ANIMAL INTELLIGENCE

DOLPHIN DEBATE - THE HEDGEHOG'S BRAIN MORE COMPLEX?

In Vol. 1 Nos. 2, 3 and 4, Animal Intelligence featured the extraordinary brain of the dolphin.

Nigel Hawkes, Science Editor of *The Times* (London) reported on December 14th the controversial viewpoint of Dr. Margaret Klinowska of the Department of Physiology at Cambridge University. Dr. Klinowska holds that dolphins do not have their own language: their whistles are no more sophisticated a means of communication than bird song; their brains, although large, are less complex than that of a hedgehog!; and dolphins are not by nature especially friendly to humans (for an opposite experience see the following item); and the dolphin is one of only two mammals that does not dream.

Dr. Klinowska claims that dolphins use clicks only for echolocation and whistles only as a means of identification. The young females whistle very much like their mothers, while young males develop a more distinctive individual sound, which could mean that the whistle is a mating signal.

Dr. Klinowska also claims that the idea of high intelligence in dolphins, to a neuroanatomist, is ludicrous. She claims that because dolphins have spent their entire evolutionary history in the sea, they will necessarily have failed to develop the extra complexity in the brain that land mammals possess.

"Anatomically their brains just have not developed - the hedgehog has a more sophisticated brain", says Dr. Klinowska.

The dolphin brain is big, she agrees, but so is the spiny anteater's (the only other mammal that does not dream). Dr. Klinowska speculates that this may be because neither of these mammals experience rapid eye movement (REM) sleep, which in humans and other mammals occurs during dreaming. One theory claims that dreaming is the process by which the experiences of the day are incorporated into the memory. Lacking this facility, the dolphin may use its bigger brain to carry out the same process in a conscious and less sophisticated way, she says.

Nigel Hawkes further reports: "Neither Dr. Klinowska nor Christina Lockyer of the Sea Mammal Research Unit, also at Cambridge, is happy about the practice of humans swimming with dolphins". Dr. Lockyer, who says that "a lot of people have written a lot of tripe about dolphins", believes it is dangerous; people have been bitten or butted. "It starts off alright, but then the animal gets harassed or excited," she says. "People should be aware of the risks."

Dr. Klinowska wonders if it is fair to the dolphin. "Peole say that dolphins like Freddy, the one at Amble, are free to go, but I wonder how free they are", she says. "Contact with humans is a challenge, and animals won't duck a challenge unless they lose. Against humans of course, dolphins don't lose so they feel compelled to stay."

What, finally, of the oldest myth of all, that dolphins will help drowning swimmers? If it happens, it is by accident. Dolphins will sometimes lift things onto their foreheads, but do so by an indiscriminate instinct. "They are as likely to carry you out to sea as towards the shore," Dr. Klinowska says.

Mowgli awaits the views of **Synapsia** readers, and especially those of Professor Michael Crawford.

In the meantime, read on . . . .

BY MOWGLI

HEALED BY DOLPHINS!

At the age of 20, Jemima Biggs, then an undergraduate, was suffering from anorexia and clinical depression. She had given up hope: "I thought I'd be dead from starvation or suicide before I finished my studies."

Now 25, Jemima Biggs is working for her PhD, happier and more confident. "I'm not yet fully fit, but I can dream of a future."

Once a year, for the past five years, she's swum with dolphins. She believes they have helped save her life. **An Uncommon Touch** on BBC Radio 4 recently revealed her magical contact with Freddie the dolphin, along with the experiences of six others, in an investigation of the therapeutic effects of dolphins organised by Dr. Horace Dobbs of International Dolphin Watch.

"Dolphins have an uplifting effect. Some people suffering from depression find relief by swimming with them," he says.

Jemima Biggs' first contact with dolphins was with Fungie, off the Irish coast. "I was at my lowest, unable to cope," she says. "But Fungie accepted me. He didn't care who I was or what I looked like. Swimming with him gave me a fantastic high at a time when I was in the depths of despair."

When she met Freddie she was again extremely depressed. "He was full of life and energy, I was low and looking awful. But like Fungie, he valued me. When I came out of the water, I burst into tears of joy. I've always found it hard to let go of my feelings, but at that moment I couldn't stop crying.

"The dolphins taught me to look at myself in an entirely different way. I'm not saying categorically I'd have killed myself, if I hadn't

swum with them. But it's a real possibility."

SQUIRRELS USE MIND MAPS

Using sophisticated 'internal mental maps', grey squirrels store memory and recall **where** they have buried their nuts. Lucia Jacobs and Emily Liman of Princeton University have provided convincing evidence that the squirrels have remarkable powers of recall. Their findings challenge two traditional and more simplistic notions of the squirrel's brain: first the fairy-tale notion of the forgetting squirrel, and second the idea that squirrels rely mainly on their sense of smell to track down their buried treasures.

Jacobs and Liman persuaded captive grey squirrels to bury hazlenuts in an outdoor enclosure. Because they used several squirrels in the experiment, the enclosure soon became studded with individual cache sites (**Animal Behaviour**, vol. 41, p. 103).

After a few days, the biologists gave the squirrels the opportunity to recover their hazlenuts. The researchers hypothesised that if memory was at work, the squirrels would tend to seek out their own nuts, but that if, on the other hand, it was smell alone that guided the squirrels to their nuts, no such preferences would be shown.

The results? Squirrels took advantage of both hypotheses! They used their smell to sample (steal) the nuts buried by the other squirrels, and dominantly used their memory to take significantly more nuts from their own caches. Showing consideration for their fellow squirrels, they often ignored a nearby nut that had been hidden by another squirrel in favour of a more distant one that they themselves had buried. This behaviour makes sense only if memory is the prime guide in the search.

This conclusion was further reinforced by the way the squirrels actually behaved during the trials. It was observed that they tended to take a direct route between food depots, rarely retracing their steps. Jacobs and Liman interpreted this as a sign that squirrels may construct a **mental map** of their surroundings on which cache sites are plotted.

This last observation reveals the fact that squirrels can not only locate items in relation to a specific 'base'; they can also locate items in relation to other items – a far more complex and elegant form of intellectual behaviour.

Considering that in the wild the grey squirrel will conceal **thousands** of nuts and recover them after a period of months, rather than days, the real capacity of its recall must be thousands of times greater than even the myth-busting capacity of 'the Princeton Nutters'!

MONTAIGNE MIRRORS MOWGLI

1991 was the fourth centenary of the death of the great French essayist, Montaigne.

Montaigne was one of the great 'self explorers' (see Intelligence about Intelligence page 24).

In his self-exploration, he also became one of the first to explore animal intelligence, dislaying the extraordinary gentleness and openness of mind towards our animal friends that Mowgli and others have promoted in these columns.

In one essay Montaigne muses: "When I play with my cat, how do I know that she is not passing time with me, rather than I with her? We entertain ourselves with mutual tricks. If I have times when I want to begin, or say no: so does she . . . ."

Animal Intelligence invites similar musings from Brain Club Members.

CLEVER CANINES

Ripleys "Believe It Or Not" reports that Elisabeth Mann Borgese, a writer in Sambro Head, N.S., Canada, has taught her six dogs to use a typewriter and play Beethoven's "Ode to Joy" on the piano!

OF CATERPILLARS, ANTS, DOGS AND WOLVES . . .

Following Spider-brain versus Insect-brain **Synapsia** Vol. 1 No. 2, comes the news that caterpillars and ants have developed a new dimension to their mutually beneficial relationship.

It's old news that caterpillars of the families *Riodinidae* and *Lycaenidae* often enter into co-operative relationships with various ant species. The caterpillars secrete a combination of proteins and sugars to feed the ants, and the ants, in turn, protect the caterpillars from marauding wasps.

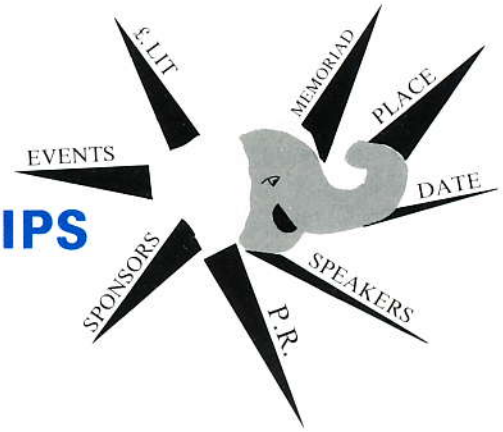
The **new** news is even more exciting, and shows that the brains of the caterpillars and ants are acting at a far more sophisticated level than we had previously thought.

University of Texas entomologist Philip DeVries has discovered that alarmed caterpillars actually send out an audible call to the ants much as a rancher might call to his dogs when wolves are around.

Bill Lawren of *Omni* magazine reports that DeVries detected the call after clipping ultrasensitive micro-phones to a paper-covered lab tray where caterpillars milled about. The communication system operates something like a telegraph: the caterpillar's call travels through the leaves, branches, and bark of a tree rather than through the air.

As ants receive the signal – which, when amplified, sounds "like a snare drum played with brushes" – they gather around the caterpillars like a pack of guard dogs protecting their charges. As with man and dog, "these caterpillars," DeVries says, "have evolved a specialised system for maintaining a profitable association with ants."

MEMORIAD '91



THE FIRST WORLD MEMORY CHAMPIONSHIPS AN EXCITING AND MEMORABLE EVENT!

On Saturday 26 October over one hundred spectators, numerous journalists, and television crews including America's National Broadcasting Corporation, and the seven Memoriad finalists, descended upon The Athenaeum Club in London for **Memoriad '91 - The First World Memory Championships**.

The Memoriad, under the auspices of The Brain Club and sponsored by The Buzan Centres offered prizes including the Encyclopaedia Britannica, a set of 'Brain Books' from the BBC, the complete set of Shakespeare from Viking Penguin, and membership to the Brain Club, not to mention world wide fame!

SUCCESS The event was a success on every level. Press and media coverage was exceptional, more than 65 media representatives reporting on the event. Memoriad '91 was featured in every major English newspaper, including front page coverage in *The Times*, was reported by Associated Press around the world, and accomplished tens of millions of 'viewers hours' in television coverage around the world. Within hours of completion of the event, further enquiries and congratulations came to the Brain Club from all corners of the globe, including Sidney, Auckland, Moscow, Rome, Barcelona, Berlin, New York and Los Angeles.

The event, which included recognition of verifiable World Records, attracted an international contingent of 'Memory Stars' including:

1. Bruce Balmer, who learnt 2,000 foreign words in one day (18 hours)
2. Philip Bond, holder of the World Number Memory Record at 236 random numbers memorised in 30 minutes
3. Creighton Carvello, who has memorised the number PI to 20,013 places
4. Jonathon Hancock, 1988 World Record Holder for memorising six packs of cards, and student at Christchurch, Oxford
5. Harry Lorayne, the doyen of American memory masters and the 'elder statesman' of world memory experts
6. Dominic O'Brien, Guinness Book of World Records holder for consecutive card park memory (35!)
7. Nwodo Ohaka, the 'telecom memory man' known as the 'organic computer' for his ability to memorise 6,755 U.K. telephone dialling codes
8. Kenneth Wilshire, mentathlete whose memory is so good it allows him to play Casino Blackjack successfully

Professions represented by the competitors included:

Banker
Telephone Operator
Student of English
Psychiatric Nurse
Operations Manager, cleaning company, Stansted Airport
Business Consultant
Computer Operator

The World Championships themselves were a suspense-filled affair, with world records smashed along the way, and the overall Championship being decided with the last competition.

After the first three of seven events, Memorisation of Names and Faces, Numbers, and Random Words, the two favourites, Creighton Carvello and Dominic O'Brien, were lying third and first respectively, with the young outsider, Jonathon Hancock, being a surprising second, having won two of the events, but having done poorly in the Memorisation of Random Numbers. In this event, in

which the competitors were given 15 minutes to memorise a thousand-digit number, Dominic O'Brien came first, smashing Philip Bond's previous record with the perfect memorisation of **266 numbers, backwards and forwards, in fifteen minutes**.

In the next three competitions, the Memorisation of Chess Positions, Written Text, and Chinese Vocabulary, O'Brien and Hancock increased the tension, battling it out for first place in each competition, O'Brien winning Chess and Chinese memorisation, Hancock Text.

Thus, going into the final event, the Speed Memorisation of a shuffled pack of 52 cards, both O'Brien and Hancock had won three competitions each, while Carvello posed a constant threat. This was particularly true in the final competition, where Carvello held the world record for the memorisation of a pack of cards at 2 minutes 59 seconds with only one error.

On this last competition rested: the overall championship; Carvello's world record; and the reputation of at least four of the competitors who had publicly stated that they felt they could beat Carvello's bench-mark!

The cards were shuffled by David Berglas, President of the Inner Circle of Magicians. Each competitor was handed a pack of cards by his own personal adjudicator, and the mental combat began. The task was to memorise, in order, the pack of cards, and when having done so immediately to hand the cards to the adjudicator while raising the hand. Thus the competitor had not only to memorise the entire pack perfectly (in the competition no errors were allowed) but had to **know** when the memorisation was complete.

David Berglas, President of the Inner Circle of Magicians who shuffled the cards for the world record-breaking Memory Championships.

After 2 minutes and 29 seconds, Dominic O'Brien's hand shot up as he handed his pack to the adjudicator. He then buried his head in his hands. Carvello finished in just under 4 minutes, and the remaining competitors took the maximum of 5.

As the adjudicators walked away with the competitors, no one knew whether O'Brien had misjudged his memory, whether Carvello had indeed memorised perfectly and therefore maintained his number one ranking, or whether the more cautious competitors had been justifiably so.

After ten minutes of adjudication, all the results were in with the exception of Dominic O'Brien, and Jonathon Hancock was well ahead of the field with 46 cards perfectly memorised in order before making an error. Carvello had slipped up on an early card.

All then rested on the return of the final adjudicator: the World Championship, the World Speed Card Memory Record, and the individual winner of the final event.

Raymond Keene, O.B.E., Dominic O'Brien's adjudicator, finally marched in with the comment 'Perfect!'

In what was the equivalent to the Shoot-Out at the O.K. Corral and to High Noon, Dominic O'Brien had convincingly and brilliantly won the first World Memory Championships, breaking two world records in the process, and becoming a 'Brain Star' overnight. His first words after having been announced the winner and being asked by NBC what his reactions were to being the first World Memory Champion were 'To win it again next year!'

The competition begins! The seven finalists are introduced from left to right: Dominic O'Brien, Creighton Carvello, Bruce Balmer, Philip Bond, Jonathon Hancock, Kenneth Wilshire and Nwodo Ohaka.

MENTAL WORLD RECORDS (MEMORY)

Throughout the day World Memory Records were recognised in the following areas:

- Chess positions
- Names and Faces
- Pack of cards memory – speed
- Packs of cards memory – multiple
- Religious texts
- Sports Data
- Telephone dialling codes
- Telephone numbers
- The number Pi

These records included the two established by Dominic O'Brien during the competition, and other staggering mental feats such as the complete memorisation of the Koran, and the public memorisation of names and faces by Harry Lorayne totalling over 7,500,000!

For the complete list of newly recognised Mental World Memory Records, see box page 46.

THE FINAL RESULTS After the Gargantuan Battle of the Memory Giants, and Dominic O'Brien's extra-ordinary victory, the final standings in the first World Memory Championships were as follows:

1. Dominic O'Brien
2. Jonathon Hancock
3. Kenneth Wilshire
4. Creighton Carvello
5. Phillip Bond
6. Bruce Balmer
7. Nwodo Ohaka

ON-GOING ACTIVITIES The Memoriad has spurred both the competitors and the Press to on-going activities. Carvello, who felt that his memorisation of 24,000 names and telephone numbers from his local telephone directory had worn him out for the championships, is preparing for the next championships with gusto, and is already planning to take back his card speed record in early 1992 with a public demonstration under the auspices of The Brain Club and the Memoriad. Jonathon Hancock, who aspires to be the King of Memory rather than the Crown Prince, is similarly planning attacks on memory world records, and Dominic O'Brien has ten world records in mind, as well as the defence of his Championship.

MEMORABLE LECTURES

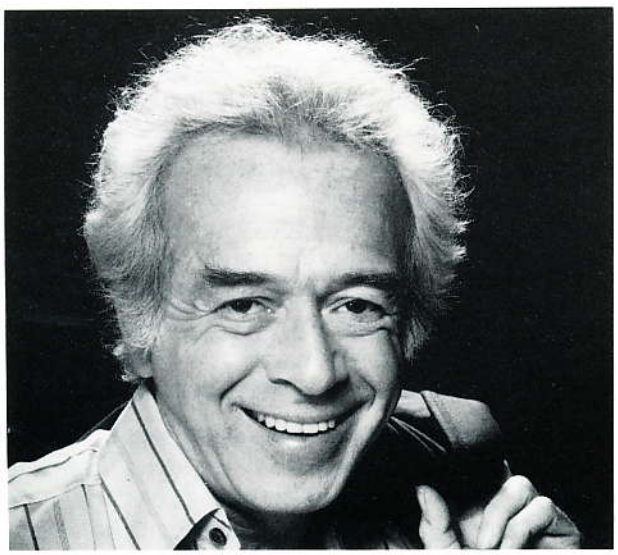
Interspersed throughout the day were lectures from leading authorities in the fields of memory and thinking.

Dr. Elizabeth Valentine, of Royal Holloway and Bedford New College, spoke on Tom Morton: a living telephone directory.

Professor Barry Buzan, of Warwick University, spoke on Mind Mapping as a multi-dimensional mnemonic.

David Levy, President of the International Computer Chess Association, talked about Memory and Chess.

Raymond Keene, O.B.E., similarly spoke and gave a simultaneous chess demonstration, in which he registered another perfect score against allcomer



Harry Lorayne, world record holder for the memorisation of names and faces – memorised over seven million five hundred thousand (7,500,000) names and faces in his lifetime so far!

Dominic O'Brien, the eventual champion, discusses his mid-competition tactics with the media.

SUMMARY Memoriad 91, the first World Memory Championships, has unequivocably established the fact that memory is of major international interest, and that publicity is an automatic accompaniment to any such event.

The event has also established bench-marks, an official World Champion, and on-going compeititon for the overall and specific Championships and Records.

All those who made the first event such a success have already committed even more time and effort to the second Memoriad, inlcuding all journalists and television reporters.

An enormous opportunity exists for the development of the Memoriad into a regular and major international event.

As the Memoriad serves entertainment, 'competitive' and educational interests, it provides an ideal opportunity for sponsorship, publications, products and profit.

May your 1992 be memorable!

MEMORIAD 1992

Make sure you plan to attend or participate in Memoriad 1992!

The event is already planned for Saturday 31 October and Sunday 1 November 1992 in London (the actual venue to be arranged) and will feature all seven of the 1991 finalists, with a large number of new international challengers!

COMPETITIONS The competitions will include the seven from Memoriad 1991, and will have added to them the following additional events:

1. Memorisation of Paintings
2. Memorisation of Poetry
3. Physical/dance movements/positions
4. Binary digits
5. Chess positions (a series of one hundred pictorial representations)
6. Music – written
7. Music – heard
8. Open for suggestions!

Stay tuned to the pages of **Synapsia**, and to your local press and media for continuing updates.

And start practising!

WORLD MEMORY RECORDS

1. **Card Speed Memory (52-card pack)**

   Dominic O'Brien of Furneaux Pelham, Herts. – 26 October 1991, The Athenaeum Club, London – Perfect memorisation in 2 minutes 29 seconds.

2. **Card Memory (inter-shuffled packs)**

   Dominic O'Brien of Furneux Pelham, Herts. – 22 July 1990, The Star, Furneux Pelham, Herts. – 35 packs (1,820 cards).

3. **The Number Pi**

   Hideaki Tomoyori – at the Tsukuba University Club House – 9/10 March 1987 – 40,000 places in 17 hours 21 minutes, including breaks of 4 hours 15 minutes.

   British Record: Creighton Herbert James Carvello – Saltsear Comprehensive School, Redcar, Cleveland – 27 June 1980 in 9 hours 10 minutes. (The average ability for the memorisation of random numbers is slightly above seven hours.)

4. **Cell Memory** – The Human Lymphocyte

   With successive generations of lymphocytes being produced throughout life, the cells always remember an enemy. For example, once a baby's lymphocytes have been introduced to a virus such as measles, these master memorisers of the immune system will be able to remember, and therefore recognise and destroy the measles virus one hundred years later. Thus a human never gets measles twice!

5. **Number Memorisation**

   Memorisation of random digits (15 minutes), Dominic O'Brien of Furneux Pelham, Herts. Saturday 16 October 1991, The Athenaeum Club, London, 266 digits perfectly memorised **forwards and backwards**.

6. **Memorisation of Names and Faces**

   Harry Lorayne, of New York, NY, 7,500,000 +! over a 'memorising lifetime' of approximately 40 years, including over 200 personal appearances a year, memorising between 400 and 800 people at a time, often more than two to three times per day, and including numerous national and international television appearances. Harry Lorayne has established a record that may never be broken.

7. **Memorisation of Sports Facts**

   Frank Felberbaum, of New York, NY – Saturday 26 October 1991 – The Athenaeum Club, London – perfect memorisation of national league baseball statistics from 1876 to 1990, covering year, pennant winning team, manager, total winning games for season, and winning percentage. Over 2,000 differing bits of information and data.

8. **Memorisation of Prophetic Sayings**

   Imam Al-Bukhari 9th Century AD. Memorised over 300,000 prophetic sayings word for word. (Approximately 21,000,000 words.) (Average length of saying is about 5 lines, about equal to this statement.)

9. **Memorisation of Holy Texts**

   Mr Ahand Didat memorised by heart the Holy Koran, and most of the 46 versions of the Bible (Old Testament).

10. **Memorisation of Canonical Texts**

    Bhandanta Vicitsara – in Yangon Myanmar (former Rangoon, Burmah) in May 1974 – recited 16,000 pages of Buddhist canonical texts.

11. **Telephone Numbers**

    Gon Yang-ling, 15,000 telephone numbers recited in Harbin, China, according to the Xinhua News Agency.

12. **Chess Memory (Junior)**

    Matthew Saddler – BBC Shepperton Studios, England – 1988 – 24 Games (taken from Fishers Book "60 Memorable Games") knowing from any position the opponents, the year the game took place, and the result.

WORLD CHESS CHAMPIONSHIP

Coverage of World Chess Quarter Finals, Brussels by Raymond Keene, OBE, BCM 275.

My predictions for the World Chess Quarter Finals in Brussels to find a challenger to Garry Kasparov in 1993 scored 50%. I was completely correct about the result of the match between Britain's Nigel Short and the Russian Boris Gelfand, and my detailed comments on this come in the latter part of this article.

I also scored a bull's eye with my prediction that the former World Champion, Anatoly Karpov, would defeat his young Indian opponent Viswanathan Anand. Nevertheless, Karpov had to fight tooth and nail and as the play went he should in fact have lost. It was an outstanding performance by the Indian and if he had not exhibited undue impatience in overwhelming positions he would surely have won. I will now run through this match blow by blow.

Anatoly Karpov

Karpov (USSR) v Anand (India)

Game 1: bowled over by Anand's rapid playb Karpov misses a probable win in a long drawn out endgame. Score ½:½. Game 2: playing with the white pieces Karpov spends the entire game grovelling around feebly on his own back rank, but when the time comes to strike Anand goes astray and permits a second draw. Score 1:1. Game 3: on move 45, with plenty of time in hand, Anand makes a superficial attack on Karpov's Queen. Overlooking that by making a Queen move himself, he could force checkmate in three moves. A tragedy for the Indian. Score 1½:1½. Game 4: Karpov rouses himself to play a defensive masterpiece – the best game so far and leads by 2½:1½. Game 5: Anand squeezes Karpov to death but then misses a win after two days of play. Score 3:2 to Karpov. Game 6: Karpov falls prey to his ancient sin of excessive passivity. Score 3:3. Game 7: Anand once again outplays Karpov and has him at his mercy, but plays much too quickly and turns a win into a draw. Score 3½:3½. 8th and final game: Karpov rises to the occasion, casts off his sloth and scores a magnificent victory to take overall charge by 4½:3½, thus guaranteeing his qualification.

Thus far my predictions were correct but in the match between Timman (Holland) and Korchnoi (Switzerland) I was led astray by the fact the 60 year old Swiss veteran had a previous substantial plus score against the Dutchman, twenty years his junior.

Timman (The Netherlands) v Korchnoi (Switzerland)

In game 1 Timman pressed hard but could not break through. Score ½:½. In game 2 Korchnoi started like a whirlwind and seemed on the point of a very quick win. Sadly for him he succumbed to a temptation that has bedeviled him throughout his career, that of snatching material instead of playing for the attack. The advantage changed hands and Timman swept Korchnoi from the board with a victorious counter attack which, strangely, seemed to take the wind out of Korchnoi's sails for the rest of the entire match. Score 1½:½ to Timman. Game 3: after a somewhat suspect opening Korchnoi wastes too much time thinking and allows his position to fall apart. Score 2½:½ to Timman. Game 4: Timman easily holds the draw with black and maintains his 3-1 lead. Game 5: careless opening play by Korchnoi leads to a position where he is immediately lost. Timman misses a grand opportunity to finish the game on move 16 and eventually has to fight for the draw himself. Score 3½:1½ to Timman. Game 6: A short draw. Korchnoi with white fails to make any impression. Game 7: Korchnoi has to fight from an inferior position to make a draw, but this half point gives Timman the winning match margin of 4½ to 2½.

Jan Timman

Where every commentator in the world, myself included, came unstuck was on the outcome of the match between the two Russians, Yusupov and Ivanchuk. After Ivanchuk's devastating 1st prize in the Linares tournament, where he broke Kasparov's sequence of winning first prize in everything from 1981 to 1990, I had pinpointed Ivanchuk, not only as the qualifier against Yusupov, but also the likely challenger to Kasparov in 1993. Things turned out otherwise.

Ivanchuk (USSR) v Yusupov (USSR)

Game 1: Yusupov snatches a draw by the skin of his teeth from a hopeless position. Ivanchuk seems dangerously nervous. Game 2: a sensation as Yusupov wins a drawish-looking endgame and moves into a 1½:½ lead. Nevertheless, this is soon eradicated after game 3, which Ivanchuk wins with extreme ease. Score 1½:1½. Game 4: Yusupov, even though playing with white, is on the defensive throughout and has to account himself somewhat fortunate to hold the half point. Score 2:2. In game 5 Ivanchuk finally heartens his supporters by moving with great ease into a 3:2 lead. Yusupov is utterly outplayed and resigns on the 28th move. Game 6: Yusupov launches a great fightback, challenging Ivanchuk to a game of extreme complications. This ends in a draw. Ivanchuk leads 3½:2½ and needs one point from two games to qualify. Game 7: Ivanchuk swiftly reaches a winning position but blunders horribly on the 35th move. Thinking to win a bishop he overlooks that he must lose a rook. After a further up and down struggle and many errors on both sides the game is drawn. Score 4:3 to Ivanchuk with qualification beckoning if he can simply draw with black in the 8th and final game. Game 8: Yusupov pulls out all the stops and sacrifices piece after piece to lay Ivanchuk's position waste. A shattered Ivanchuk concedes the game on move 38 so the match goes into extra time to break the deadlock.

Two further games now had to be played at the rate of 45 moves per player per game. Yusupov wins the first and draws the second to achieve surprise qualification by 5½:4½.

Artur Yusupov

Nigel Short, England's highest rated chess grandmaster ever, became only the second British player to qualify for the world chess championship semi-finals. (The first was Jon Speelman in 1989 who defeated Short himself in the quarter-final stage). Nigel achieved this by comprehensively crushing his opponent in the quarter-finals in Brussels, the higher rated Soviet grandmaster Boris Gelfand. It was the most turbulent of the four concurrent quarter-finals with only two of the eight games ending as draws and with the outcome uncertain until the final move in the final game.

By winning Short assured himself of the lion's share (5/8ths) of the 75,000 Swiss Francs prize purse from the quarter-final stage and now goes on to join the Dutch grandmaster Jan Timman and living legend Anatoly Karpov, champion for a decade from 1975 to 1985, in the semi-finals. The fourth member of the victorious quadrumvirate is Artur Yusupov. The pairings for the semi-finals pit Short against Karpov and Yusupov against Timman. This will be the most difficult challenge ever in Nigel Short's career.

Short, together with Jon Speelman has revived English chess to heights previously undreamt of. His extraordinary potential has been evident since 1977 when, at the age of 12, he qualified for the final of the ▶

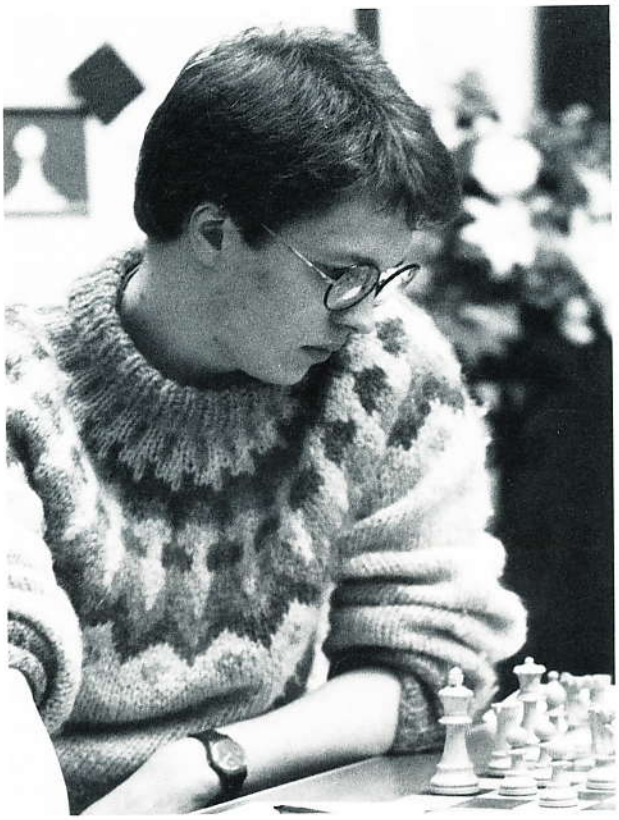
▶ British Championship. There he defeated the ten times British Champion Dr. Jonathan Penrose, causing a huge sensation in so doing. A tough pragmatist, self-educated and self-reliant Short is primarily concerned with the accumulation of points, with winning in the most effective fashion. Artistic considerations take second place and at the chess board he becomes a determined machine, with a powerful yet fluent and elegant style.

Short went on to win the British championship himself in 1984 and 1987 and has played a key role in the English silver medals in the chess olympics of 1984, 1986 and 1988. 15 years ago Britain had no grandmasters and not long before that the English team was finishing way down in the chess olympics. Now, with Nigel Short at their head, British grandmasters are regularly defeating their rivals from Russia and Eastern Europe.

Nigel Short (born in Bolton on June 1st 1965) reached the quarter-finals by qualifying in 1990 from a mass tournament of grandmasters participating from all over the globe held in the Philippine capital Manila. Ironically, he then had to face his British rival grandmaster Jon Speelman in the first round of the qualifying tournament, which was held in London over January and February of 1991. Short won, but only by the narrowest of possible margins after the match had gone into extra time. A relieved Short said of his victory against arch rival Speelman, against whom he had always experienced difficulties in the past, "It was like laying an old ghost" and having overcome Speelman he felt he could play more freely. This prediction came dramatically true in Brussels.

Short (UK) v Gelfand (USSR)

A blow by blow account of Nigel's match against Boris Gelfand in Brussels reveals the following: Game 1 – Nigel shatters his supporters hopes after being wiped out with White in little over 20 moves in the first game. He appears to be out of his depth. Score 1:0 to Gelfand. Game 2 – An encouraging fightback to win a hard-fought game with Black. Score 1:1. Game 3 – Short moves into a 2-1 lead utilising a brilliant and original attacking formation against Gelfand's Sicilian Defence. Game 4 – a hard fought draw of more than 90 moves lasting two days. Score 2½:1½ to Short. Game 5 – A nerve-wracking race of passed pawns which could have gone either way. Short wins and leads 3½:1½. He needs one more point to qualify. Game 6 – Gelfand strikes back with a polished performance, a typically erudite product of the Soviet school. Score 3½:2½. Game 7 – An exciting draw. Score 4:3 leaving Nigel half a point short of his goal. Game 8 – A brilliant counter-attack saves the day and Short goes on to win. Final score 5:3 to Short plus qualification to the semi-finals.



Nigel Short

Just before Nigel Short set off for his Candidates quarter final against Boris Gelfand in Brussels, he was invited to the studio of artist Barry Martin for a series of interviews for the Thames Television coverage of the Brussels bouts. At the close of the interviews Martin presented him with a drawing of a knight, symbolically representing the Knight St. George advancing into Europe to do battle with foreign hordes.

Whether the picture had anything to do with the style of play in the match is debateable, but it was certainly noticeable that Nigel's contest was just about the most bloodthirsty of the four quarter-finals. After six games only one game had been drawn and the nature of the play was chivalrous and romantic, harking back to the blood and thunder of the early 19th century.

The most evocative game in this respect was game 3, where Nigel utilised an opening which has become renowned as the Grand Prix Attack but which also might have come straight out of a game by Adolf Anderssen from the very first international tournament of London in 1851. Nigel's Russian opponent, Boris Gelfand is noted as a scientific player of great erudition and this direct challenge to a more or less uncharted rough and tumble in a theoretical byway was excellent psychology by Nigel.

My predictions in *Synapsia* for the semi-finals are: Short will beat Karpov and Yusupov will beat Timman.

CHESS

by PHILIDOR

Brain Club Charity Event – in a fund-raising venture for the Brain Club, Chess Grandmaster Raymond Keene, O.B.E., plays 29 simultaneous games of chess.

Simultaneous displays, or 'simuls' as they are generally known, are events held in public, during which a player of master or grandmaster strength, takes on at one and the same time, a number of opponents, usually twenty or thirty.

The British record for the fastest simul was set up in Oxford in 1973. Ray Keene, who had won the British Championship two years previously, and was on the verge of making the first ever British Grandmaster result, took on no less than 107 opponents at the Dragon School. They came from all over the country and were participating in a national schools team championship. Keene finished them off in three hours winning 101 games, drawing five and losing just one.

On June 29 1991, Raymond Keene was in action again for the Brain Club, challenging 29 pupils from local public schools in a simul at his old school, Dulwich College. He won every game, but there were several lengthy battles. This was all to the good since every pupil was sponsored by consortia of friends, relations and supporters, for every move they survived. Thus a schoolboy sponsored for £1 a move by ten people, who lasted twenty five moves before being checkmated, could single-handedly raise £250 from that one game.

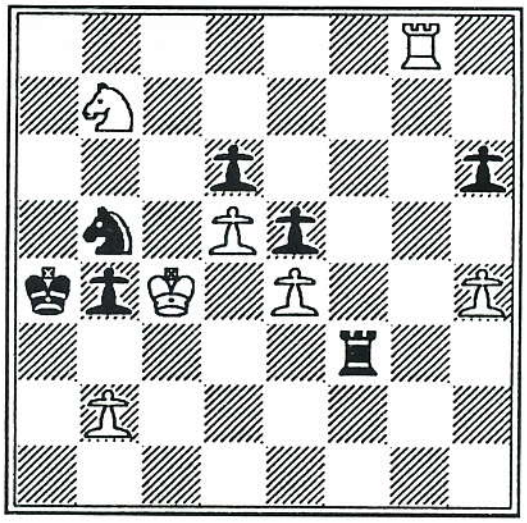
The event was compered by Tony Buzan, the Brain Club founder, who made the business of announcing each result as it came in quite a drama in itself. All the proceeds, which are expected to be between £500 and £1,000, will be going to the Brain Club and associated activities.

Prizes for excellent games were won by George Wills, the Senior Chess Captain, Chris Lang, the Junior Chess Captain, Imran Mohammad, the Junior Chess Captain at Alleyn's Secondary School, Mark Annear from Dulwich College Preparatory School, and Leo van der Borgh, who raised more money than anyone else, and as the youngest player of the 29 lasted nearly forty moves!

The enthusiasm of the players was evident and this event could well form the model for a whole future series of Brain Club charity functions. Meanwhile, as

a result of the display, Tony Buzan and Ray Keene hatched a masterplan to increase dramatically chess interest in schools. More will be revealed on page 52.

CHECK MATE



This position is taken from the game White – Nedeljkovic Black – Udovcic Yugoslavian Championship 1958.
How does Black close the net around the White King?

See Solution on page 57.

BRAIN CLUB ESTABLISHES BRITISH SCHOOLS CHESS LEAGUE

The Brain Club has established the British Schools Chess League, with the active co-operation of the Times British Schools Championships, the Sunday Times, and the British Schools Junior Chess Association.

The Brain Club Board of Advisors for the League consists of Richard Furness, Director of the British Schools Junior Chess League, Mitchell Taylor, Chief Conductor of the Times British Schools Chess Championships, and Raymond Keene OBE, Times Chess Correspondent and Chess Grandmaster.

The first League Table was established by reviewing the Sunday Times and the Times British Schools Championships from 1958 to 1991. An 'order of merit' was established. The order was based on the number of times the schools had won, come second, third, fourth, or had been a zone winner. Points were awarded on the following basis:

Winner	–	10
Second	–	7
Third	–	5
Fourth	–	3
Zone Winner	–	1

The 'Top Twenty' turned into the 'Top Twenty-one', because of a joint tie for positions seventeen to twenty-one.
form Chess clubs in schools.

Of interest is the fact that the Top Ten schools produced three of England's greatest chess players and Grandmasters. Number Two, Dulwich College, was the school of the young Raymond Keene: Number Four, Bolton, graduated Nigel Short (see World Mental Records page 54): and Number Nine, King Edwards's Birmingham, was the school of Grandmaster Tony Miles, who beat his schools Number Nine ranking by being currently ranked as England's Number Six.

The League has the following initial aims:

1. To provide a comprehensive League Table for **all** British Schools.
2. To encourage the teaching of chess in schools as an art, science and sport, and as a basis for other forms of learning.
3. To provide teachers with the encouragement to
4. To provide material support for such initiative.
5. To provide a base for data collection, communication, and networking.
6. To publicise the game of chess.
7. To give each teacher and each pupil a means of 'self-grading' by which all students can see where they stand on a comprehensive individual league table.
8. To support all current chess initiatives in schools.
9. To expand the British Schools Chess League into a Global Schools Chess League.
10. To co-operate with governments, businesses, professions and individuals, to raise funds, and to gain support for the above goals.

Check with Synapsia for further developments!

JUNIOR CHESS
SUNDAY TIMES and THE TIMES BRITISH SCHOOLS' CHAMPIONSHIPS 1958-1991
"ORDER OF MERIT"

Position	School	No. of times Winners Champions	2nd	3rd	4th	Zone Winners	Points
1.	St. Pauls', London	9	1	1	–	15	117
2.	Dulwich College	3	3	–	–	17	68
3.	Manchester Grammar	1	3	1	2	17	59
4.	Bolton	3	1	–	–	12	49
5.	Royal Grammar, Newcastle	1	–	3	–	19	44
6.	Calstay Grange, Wirral	2	–	1	–	12	37
7.	Queen Mary's Grammar, Walsall	2	—	1	1	9	37
8.	Nottingham High	–	2	1	1	15	37
9.	King Edward's, Birmingham	–	1	2	–	19	36
10.	Ayr Academy	2	1	–	–	7	34
11.	Plymouth College	1	1	–	1	14	34
12.	King Edward VI, Southampton	1	–	–	3	12	31
13.	Glyn, Epsom	–	1	1	2	13	31
14.	Bluecoat, Liverpool	1	–	1	1	11	29
15.	Bedford Modern	–	1	–	–	20	27
16.	Trinity, Croydon	–	–	3	–	8	23
17.	Bradford Grammar	–	–	–	2	16	22
18.	Ilford County High	–	1	1	–	9	21
19.	Watford Boys' Grammar	–	2	–	–	7	21
20.	Methodist College, Belfast	–	–	2	1	8	21
21.	Bristol Grammar	–	–	1	2	10	21

The Brain Has A Mind Of its Own

Insights from a Practising Neurologist

Richard Restak, M.D.
Harmony Books, 204 pages

The human brain is the most complex and inscrutable object in all of creation, but medical science has only begun to fathom its secrets. *The Brain Has a Mind of Its Own* is a collection of essays written over the last couple of years on various aspects of discovery about the brain, the mind, and what we have learned (and discounted) about the connection between the two.

Restak begins with a discussion on Dualism and Descartes, and moves through time to a concept of Quantum Physics in which the observer cannot be meaningfully separated from the events in which he or she is involved. He observes that because the brain is a physical structure, it exists in space; but the mind operates in time alone. Mind can affect brain: brain can affect mind. But can either be separated from the other?

The author goes on to attempt a formula to explain a topography of inner space and suggests the following state-space continuum:

INTENTION
INTENSION + EXTENSION
ATTENTION

Most of us, most of the time, are involved in the intention-extension space: we want to change something about the world. On infrequent occasions we recognize that perhaps it's our inner attitudes that demand change (the intention-intension space). At the other end of the vertical axis is attention: encountering the inner *and* outer world *without* trying to influence or change it in any way. To be complete and whole, we must have the courage to let our minds wander into every available space. We all live and travel on the same planet, but we are truly free only if we permit ourselves to visit at any time the different, exciting, and challenging worlds that exist solely within our own minds.

Some wit once said that people should be divided into two groups: those who believe that people can be so divided and those who don't. A more useful division would be those who believe the world is stable – that seeing is believing – and those for whom the world consists of dynamic processes.

Restak definitely leans towards the second view, delving into the concept that mental exercise can favourably modify the structure of the brain just as physical exercise can change one's bodily proportions. In fact, he takes the view that the experimental environment is a major factor in maintaining the healthy brain, particularly in our later years, and that there is evidence that a compassionate, loving, gentle environment exerts a beneficial effect on the brain.

The author covers a wide range of subjects including: Compassion, Anguish, Self-Destruction, Habits, Creativity, Information Overload, Dreaming, the Last Grade of Mastery and Prescription for Insight. In addition, he addresses the question 'Do we really only use 10% (or 5%) of our brain', which leads into a fascinating discussion of the development of neuronal networks and the evidence that points to the psychobiological basis for genius being the number of networks and the intricacy of their interweaving.

The final chapter is an outlook for the *Decade of the Brain* (our current decade) and the advances in brain science that will most likely have the biggest impact on the quality of human life in the coming years: Alzheimer's research, understanding the brain's chemistry, neurotoxicology, neural transplants, nerve regeneration, and the biological basis for mental illness.

This is Restak's seventh book and perhaps this is his most accessible work – his marvellous ability as a storyteller and humorist make what could be a difficult subject quite enjoyable. If you are looking to cast about in inner space, this is a refreshing guide!

PAUL H. WILCOX

JANUARY 1992 WORLD CHESS RATINGS – ALL PLAYERS

In **Synapsia** Vol. 2 No. 2, when we updated you on the July 1991 World Chess Ratings, we observed an unprecedented shake-up of the previous World Rankings and the first time in ten years that Anatoly Karpov had been ousted from his number two position.

The January 1992 Ratings show more major changes, with a single return to normal, in that Karpov has regained his number two position.

Top 20 Men, January 1992 Ratings

Rank	Name	Title	Country	RO
1	Kasparov, Garry	g	URS	2780
2	Karpov, Anatoly	g	URS	2725
3	Ivanchuk, Vassily	g	URS	2720
4	Short, Nigel D	g	ENG	2685
5	Anand, Viswanathan	g	IND	2670
6	Gelfand, Boris	g	URS	2655
7	Shirov, Alexei	g	LAT	2655
8	Kamsky, Geta	g	USA	2655
9	Yusupov, Artur	g	URS	2655
10	Salov, Valery	g	URS	2655
11	Bareev, Evgeny	g	URS	2635
12	Nikolic, Predrag	g	JUG	2635
13	Gurevich, Mikhail	g	URS	2635
14	Sokolov, Ivan	g	JUG	2630
15	Speelman, Jonathan S	g	ENG	2630
16	Polugaevsky, Lev	g	URS	2630
17	Khalifman, Alexander	g	GER	2625
18	Epishin, Vladimir	g	URS	2620
19	Timman, Jan H	g	NLD	2620
20	Beliavsky, Alexander G	g	URS	2620

Most noticeable among the advances is that of Nigel Short, who in a single year has gone from number fifteen, to number seven, to number four, obtaining the highest Grandmaster rating (2685) in the history of English chess.

Viswanathan Anand fought a brilliant and wide-ranging battle with Karpov in the World Championship Quarter-Finals, losing by a whisker.

Two other 'shooting stars' are Alexei Shirov, the Latvian Grandmaster, who entered the top twenty at number seven, and Gata Kamsky, the American Grandmaster, who dropped out of the top twenty in the middle of 1991, but reasserts himself with a firm re-entry at number eight.

Similarly rising dramatically is Artur Yusupov, the surprise and brilliant victor over Vassily Ivanchuk in the World Championship Quarter-Finals, and the man responsible for Ivanchuk's loss of his number two rating.

Major fallers in the new rankings include Evgeny Bareev, who drops from number four to number eleven, Jan Timman, who drops from number thirteen to number nineteen, the German Grandmaster, Robert Huebner, who drops out of the top twenty to number twenty-seven, and the young English Grandmaster, Michael Adams, who plummets out of the top twenty from number eighteen to number forty-eight.

JANUARY 1992 WORLD RATINGS – WOMEN

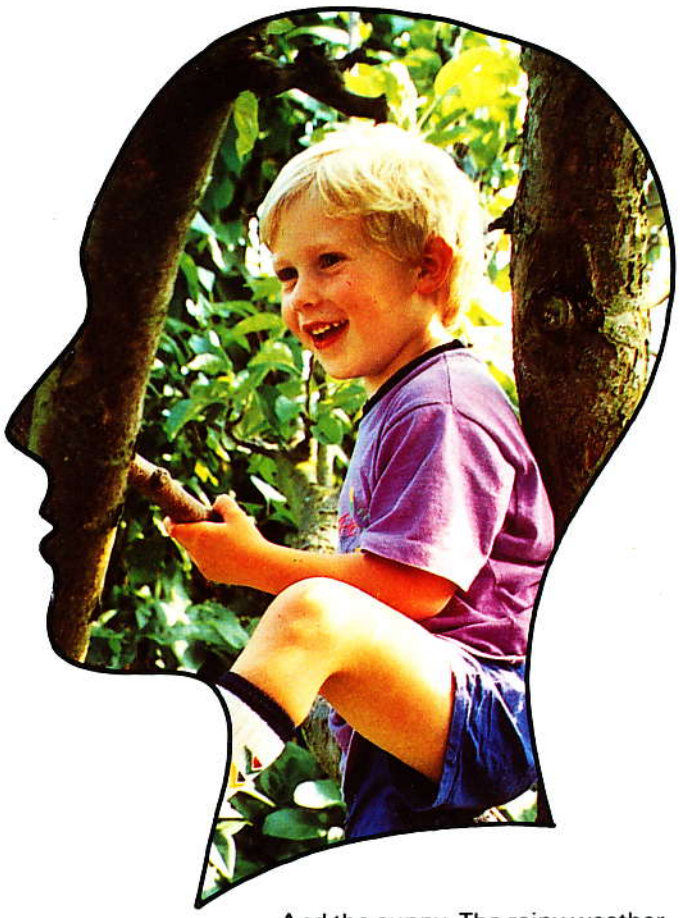
Synapsia is pleased to publish for the first time the World Top Twenty Women players. The ratings established the dominance of the three amazing Hungarian Polgar sisters, amidst a throng of Russians, and a rising challenge from both the U.S.A. and the People's Republic of China.

This challenge was most recently highlighted by the winning of the World Chess Championship by Jun Xie, the Chinese prodigy, who defeated the long-term reigning champion, Maya Chiburdanidze of Russia in the Autumn of last year. See the next issue of **Synapsia** for a comprehensive coverage of the 'state-of-the-art' in women's chess, and prognostications for the future.

Top 20 Women, January 1992 Ratings

Rank	Name	Title	Country	RO
1	Polgar, Judit (IM)	g	HUN	2550
2	Cramling, Pia (IM)	g	SVE	2530
3	Polgar, Zsuzsa (GM)	g	HUN	2530
4	Chiburdanidze, Maya (GM)	g	URS	2485
5	Xie, Jun	g	PRC	2480
6	Gaprindashvili, Nona (GM)	g	URS	2450
7	Arakhamia, Ketevan	g	URS	2445
8	Ioseliani, Nana M	g	URS	2445
9	Matveeva, Svetlana	g	URS	2425
10	Polgar, Sofia (IM)	g	HUN	2415
11	Galliamova, Alisa	g	URS	2410
12	Donaldson-Akhmilovskaya, Elena	g	USA	2405
13	Levitina, Irina S	g	USA	2400
14	Maric, Alisa	g	JUG	2400
15	Demina, Julia	g	URS	2390
16	Soifisva, Ainur	g	URS	2385
17	Akhsharusova, Anna M	g	USA	2385
18	Foisor, Christina Adela	g	ROM	2375
19	Madl, Ildiko	g	HUN	2375
20	Kakhiani, Ketevan	g	URS	2375

BRAIN CHILD



Interview with Michael Joseph Albert Collins BCFM 373- aged 4¾ by Tony Buzan

This interview was done in his garden in Somerset, sitting on his bench, after we had eaten raspberries and seen his tree, on Thursday evening, July 25th 1991.

What kind of things would you like to talk about to the children and adults in *Synapsia*: your favourite things, your thoughts on things, what you think about school, all that kind of stuff. My school, I think, is good, because its got all the things I like, like painting and play-doh. I've done lots of paintings, which were good ones.

I understand you play chess: what about that? I like chess because I think it's a good game and I like playing it. I like the part when you can do castling and when you get to move first step with the pawns.

What do you think about nature? I think it's very nice, because there are aminals you can stroke and feed. My favourite animals are lions and leopards, because they can do all sorts of neat stuff like climb trees.

There are two ants on your shoes!

Yes, there are, aren't there! If you could be a bird, what bird would you be? Uhhhh – it's hard to say, because there are so many different types of birds. They can fly and I would like to fly one day. I've flied in an aeroplane to America just before I was 4 ¾. That's what I am now – I'm **that** old!

How does it feel to be that old? Nice! Because you can do heavy work. When you're only 4 ½, you can't do as many heavy things as you can when you're 4 ¾. When you're 2, you can only do one type of heavy work and that is lifting logs – a few **little** logs.

What can you do when you're 4 ¾? Aaahh! You can lift all kinds of big branches.

Mummy and Daddy told me that you're interested in the sky. Yes. The whole world really does have a mouth – it's the sky. It's the whole universe!

Tell me about the sky. Sometimes it gets shiny and rainy. The rainy weather is good, isn't it? And the sunny. The rainy weather is good because all the plants live and in sunny weather they don't; they just sort of die down if they don't get enough water.

What's behind the sky? It gets all dark. Alfie said that to me. He's a little kid, the same age as me.

Do you know what the stars are? Little shiny things in the sky.

And do you know what the moon is? No.

It's like a small planet, you can actually stand on it. Ah!

Do you know what the universe is? Yes, space.

How big do you think space is? The biggest thing in the world, bigger than the world. It's as big as the sky. That's the biggest thing in the world, sky. It's bigger than a giant, bigger than a flower! That's a good one, isn't it?

If you could be a fish, what kind of fish would you be? An

octopus fish because I think they are nice. I like them because sometimes they're a bit red. They have eleven arms.

They have eight arms. It was just a close guess!

I understand you are a member of the Brain Club. What have you done in the Brain Club so far? With my Dad I've done just numbers. We changed them into stuff – we changed a 1 into an I, and then we changed a 3 into an M, an 8 into a bird – my Dad did a really silly one with glasses.

What do you think about being in the Brain Club? I think it's good and I think it's nice to help your brain, because it keeps it in good condition.

What do you want to keep your brain in good condition for? For thinking about school.

What will you think about school? I think I'll think about school like playing with all the kids and wearing my school uniform. I'll play the new computer. There are all sorts of games you can channel into. And we can play houses at school because there is a house there inside, and there is a climbing frame. I want to learn to be clever and learn to be better at the Brain Club.

What does clever mean? I would say that clever means you can make some pies, and get a bear to carry you the whole way back home in a basket! It means that when you get grown up you could cleverly buy an aeroplane or make one. You could get a seed and cleverly grow things.

I like roses because they're my favourite colour pink and red.

What do you think about the world? I think it's a nice place to be. And I think it's a nice place to build your home, and because you can meet all sorts of people, and stuff, and you can grow some plants.

What do you think the world will be like when you're a man? I think it'll be all ragged, because when the planets get old they go all ragged.

Do you think that the world will be old by the time you're a man? Yes.

And what is a planet? It's a round ball.

And where does it live? In space.

Do you know the names of any planets? I know He-Man's place – that is Mars. I know THAT planet! I've seen it out of my window. I was looking out of my window one night when I saw He-Man's sword in his back.

Aha! Do you know any other planets? No.

I'll tell you some. The one nearest the sun is Mercury, the next one is Venus, then there is Earth (that's us, we're number three from the Sun), then there is Mars, then a big one, Jupiter, then Saturn, then Uranus, then Neptune, and the littlest one, way, way away from the Sun, Pluto. That's where the Wizard of Oz lives.

What's your favourite fairy story? The Wizard of Oz, because it's a wizard story and wizards are my favourite person, because my favourite thing is magic and wizards can do magic. Magic can change things.

What do you want to do when you grow up into a man? I would like to be a magician. I would get a rabbit and change it into a person – only magicians can do that trick!

Very good! Do you believe in Santa Claus? Yes.

Where do you think he lives? He lives in space like Oz, that place.

There's a beautiful pussy cat. She's called Gypsy.

Do you like cats? Yeah!

Do you like dogs? Yeah! Especially our dog because he doesn't bite.

That's good. Do you think animals are intelligent? Yes, because you can play with them and you can do all sorts of neat things with them, like shake hands which my dog can do – he can shake hands with me.

That's very bright. And what is your favourite television programme? He-Man. He-Man has got one sword and he always has it in the back of his belt. And then there's Skeletor, the most evilist – he's quite evil. He-Man can beat him though.

And what are your favourite words? Do you have any favourite big words? No!

Tell me about your tree house? It doesn't have any boards in, but that doesn't matter because I know its parts are stable for me. I built it because I can do all sorts of writing and stuff in there. I write little pictures and I write my own name sometimes. I've got **two** tree houses now, because that one always scratches me.

Why have you got two? Because one doesn't scratch me, and one does, and it's that one! That's not my tree house any more.

What else do you do in your nice tree house? My pear tree I only write in and my tree house I draw in. You see I've got separate ones, otherwise I might forget when I'm going to write and when I'm going to do pictures.

So it's always pictures in the pear tree and writing in the apple tree. Yes. The pear tree never scratches but the apple tree does scratch sometimes. But I don't always mind if I get a scratch because it doesn't always hurt too much.

What do you think about pain? I think it's not very good for your blood, because every time you get less and less blood you get more die-able! So I'm more careful about falling off my bike and being in my tree houses now, and from hurting myself on metal.

You have a Mummy and Daddy. What's your Mummy's name? Lynne.

Tell me about your Mummy. Well, she sometimes gets a little surprise for me like Space Lego and paints. She sometimes lets me go for a walk with her around the block. She sometimes plays games with me, like snakes and ladders, but I always beat her, and sometimes she beats me.

Tell me about your Daddy. His name is Paul. He helps me do some writing sometimes and reads my books, and sometimes I plant my own plants in the garden.

And what is your Daddy's work? He does running and some teaching. He teaches Alexander.

And what does your Mummy do for work? She does do Hinckley things, and thats a very good one. She once let me come and I did some drawings for them. But they weren't too very good because I was only three then.

Does your Mummy play music? Yes. She used to play the oboe, but now she plays the flute like me. It's my favourite instrument, and my organ is.

You play the organ as well? Yes. The organ can do more tunes, I think. Sometimes with my Mum I do a run around the block. I like it and its a good sport.

If someone asked you what kind of a person do you think you are, what kind of words would you use to describe Michael Collins? I don't know. He's a person, an Englishman. Well, that's all about it.

What about the kind of things he thinks and the kind of person he is? Is he the same as all other English persons? No, every English person hasn't got a bike. My Mum hasn't got a bike. She's got an old bike, though, that needs fixing a lot.

What else about Michael Collins that makes him different? Well, he can make kites with his Mum, which everyone else can't do with those kind of sticks. He can make sandpies. He can do knitting.

And is he nice? Yes.

I think he is!

Would you like to go and have a game of chess now? Yeah!

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CHECK MATE SOLUTION

The solution to the Check Mate problem on page 51 is as follows **1 Na3+1 2 bxa3 Rc3 mate**

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