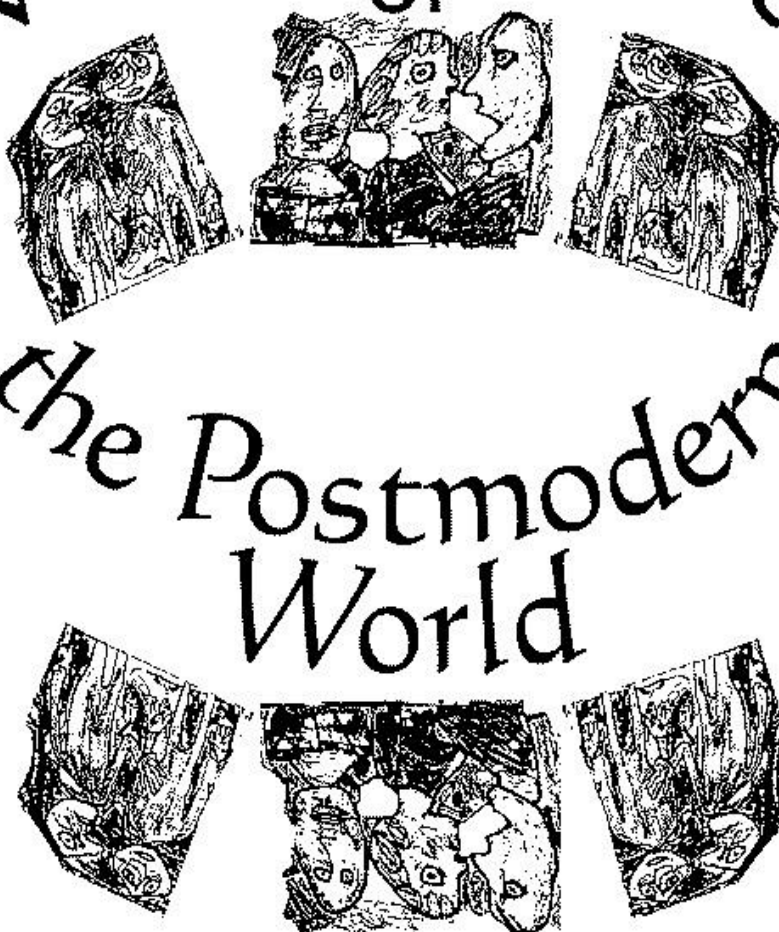


# Modern Issues of the Postmodern World



Reading for advanced students

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Новая коллекция оригинальных текстов, предлагаемая в этой книге, вводит читателя в мир современной англо-американской журнально-газетной публицистики, знакомя с актуальными формами живого английского языка как в британском, так и в американском его вариантах.

Впервые тексты научно-популярных статей, отобранные по принципу актуальности и типичности для современной языковой коммуникации, сопровождаются предлагаемой в предисловии схемой анализа. Это делает книгу особенно удобной в подготовке и проведении занятий по английскому языку.

Помимо чисто учебной цели, статьи дают читателю представление об интеллектуальной жизни человечества, каким оно видит себя в третьем тысячелетии.

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**This time, like all times, is a very good one, if we only  
know what to do with it.**

*Ralph Waldo Emerson*

## MANKIND IN THE NEW MILLENNIUM

*Modern Issues of the Postmodern World* is sure to attract the attention of readers who want to master their English, to enrich their vocabulary, to better express their thoughts in English, and to learn about modern concepts of the world. The collection will carry you away with its fascinating contents, carefully selected articles and essays which bring the spirit of a research laboratory, a strict scientific approach and, simultaneously, light, accessible, entertaining stories about the river of Time which rushes us into the future.

The book is a panoramic snapshot of the daily intellectual activity of mankind, of the activity which validates man's existence as a species and permits us to guess the meaning and goals of this existence. This collection of topical information, no matter how random it may be, helps us to comprehend the life of mankind as a network of the intellectual endeavors of individuals whose destiny is to lead others along the way usually called «scientific-technical progress» or which could be pictured as an arrow of time flying from the past into an unknown future. All the essays and articles of the book form an intellectual collage of mankind (or its traits) of the third millennium.

The future and the roads to it ... It is natural for man to regret the past, not to notice the present and to strive for the future ... What is true in this well-known saying? In fact the multicolored, diverse intellectual life presented to the reader of this collection is a snapshot from the present-day events. But if the future really casts shadows, then perhaps an image of the future may be seen in the articles reporting on (often humorously) topical facts and events.

What lies behind the attempts to find a gene for genius and what kind of future for mankind do they indicate? (*Is there a gene for genius?* - the section *Scientific Tales*). Can one imagine such future working conditions as six-month vacations, or «labor and management meeting in the nude»? (See the section *Work and Workaholics*). Will mankind be able to rid itself of crime in the future and what means will it invent to fight new evils? (*Computer hacking - high-tech crime*). How will the relations between men and women develop in the third millennium? It's evident from popular *gender issues* that they will change (See the section *Gender Issues*).

Mankind closely observes itself in the fields of health care, education, and intelligent purposeful activity. But mankind also closely observes the environment, seeking new relationships with it, from ecological protection to shaping new forms of intellectual interaction with the environment, right up to the creation of a special language to communicate with animals.

Is there any sense in all this? If there is, then what exactly?

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*Modern Issues of the Postmodern World* is intended for advanced students who are learning to interpret the design and meaning of articles. There are many ways to do it. In any case, it is a much simpler job than interpreting works of fiction.

Before you can interpret an article, you may need to give it one or more careful readings, and even then, as you begin to think further about it, you may probably have to thumb through it again to reread passages. On second look, you may find it useful to read with pencil in hand. To see the design and meaning of an article need not be a boring chore.

Then in one carefully thought-out paragraph try to sum up what you believe the author is saying in the article. In employing the method of summary, you express the content in fewer words. You can boil down events to their essentials and set them forth in a more general way. In a few words, summary can convey all the information we need more effectively than many pages. To decide which events and facts to summarize is a challenge to many students.

In interpreting an article, we usually ask a few questions:

What is the article about?

What is the tone of the article?

By what means and how effectively is it communicated?

What is the point of view of the writer?

Does the article show us unique and individual scenes, events - or laboured stereotypes?

How appropriate to the theme of the article, and to its subject matter, are its tone and style?

Does the author go beyond simply listing the events and facts in order to show us what they mean?

After you summarize the article and answer these preliminary questions, you can take up a comprehensive interpretation. Here is one possible plan for interpreting an article.

1. Determine the theme of the article. Is the title connected with the theme? Is the connection direct or indirect (through a metaphor, a pun or an intentional paronym)?
2. What is the major idea of the text? Here you have to single out the author's semantic attitude. How does the author display his attitude to the facts and events described?

In a publicistic text the author's point of view is usually merged with the point of view of the text. For example, a story about «scandalous events» is given in a sympathetic interpretation, thus lending a negative meaning to the events described, or, on the contrary, reinforcement is achieved through the author's admiration for the meaning of the objectively amazing facts.

Another type of relationship between the author and the text is divergence between their points of view, i.e. the author's irony is present. The degree of irony may vary - from light, to malicious (which deforms semantic relations



within the text). Anyway, an acceptance of the events presented without taking into account the manner in which they are reported is false and will lead to gross semantic misinterpretation.

3. Text composition is understood as the semantic sequence of the text's development (internal composition) and its division into parts, chapters, paragraphs, which also follow the author's thought (external composition).
4. Forms of thought expression. At this point you have to pay attention to repeated syntactical, morphological, phonetic, lexical, and stylistic devices. Any repeated device of any level must express formal-semantic regularity, the causality of the formal elements by the meaningful ones or the equivalence of formal and meaningful elements.
5. Coming to a conclusion about the functional-stylistic peculiarities of the text must take into account all four stages of interpretation.
6. Finally, give an evaluation of the article as a whole, concisely setting forth your opinion of it.

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The ball is in your court now! I hope you will get the Nabokov touch when interpreting the texts of this collection.

Best of luck,

Alexander Kochetkov

## **HUMAN RELATIONS**

### **Rules of Relationships**

Getting on well with colleagues, as anyone who works in an office knows, is a vital element in our working lives. Many office jobs involve a great deal of time spent talking. One British study of 160 managers, for example, found that they spent between one third and 90 per cent of their time with other people.

'Working relationships,' write social psychologists Michael Argyle and Monika Henderson, are first brought about by the formal system of work, but are elaborated in several ways by informal contacts of different kinds... It is essential for such relationships to develop if co-operation at work is to succeed.' And good relationships at work, research shows, are one of the main sources of job satisfaction and well-being.

Are there any 'rules of relationships' that might be useful as general markers of what to do and what not to do in your dealings with others?

#### **'Universal' rules**

Michael Argyle and his colleagues have found that there are such rules. Through interviews with people they generated a number of possible rules. Then they asked others to rate how important those rules were in twenty-two different kinds of relationships. These included relationships with spouses, close friends, siblings and work colleagues as well as relationships between work subordinates and their superiors.

The researchers discovered five 'universal' rules that applied to over half of all these relationships;

1. Respect the other's privacy.
2. Look the other person in the eye during conversation.
3. Do not discuss what has been said in confidence with the other person.
4. Do not criticize the other person publicly.
5. Repay debts, favours or compliments no matter how small.

This doesn't mean that nobody breaks these rules, as we all know — it just means that they are seen as important. 'The looking in the eye' rule, for example, is a crucial aspect of good social skills. It is very uncomfortable to have to talk to someone who never, or hardly ever, looks at you during the conversation. One needs to look at the person one is talking to to see if they're still attending and to monitor their reactions (if they've completely stopped looking at you and appear transfixed by the flowers in the window-box, it means shut up). To signal interest, the listener has to look quite frequently at the person who is speaking.

#### **Work rules**

As well as these general guidelines for keeping good relationships, Argyle and his associates questioned people about rules that apply very specifically to

work settings. In addition to the 'universal' rules they came up with nine 'rules for co-workers':

1. Accept one's fair share of the workload.
2. Be cooperative with regard to the shared physical working conditions (e.g. light, temperature, noise).
3. Be willing to help when requested.
4. Work cooperatively despite feelings of dislike.
5. Don't denigrate co-workers to superiors.
6. Address the co-worker by first name.
7. Ask for help and advice when necessary.
8. Don't be over-inquisitive about each other's private lives.
9. Stand up for the co-worker in his/her absence.

Again, these make a lot of sense. And number 4 is an interesting one - it raises the big problem of colleagues with whom you simply don't get on.

In one of their studies, Monika Henderson, Michael Argyle and coworkers defined four categories of work relationships:

1. *Social friends*. 'friends in the normal sense who are known through work and seen at social events outside the work setting'. Research shows that up to a quarter of friends are made through work.
2. *Friends at work*. 'friends who interact together over work or socially at work, but who are not invited home and do not engage in joint leisure activities outside the work setting'.
3. *Work-mates*. people at work seen simply through formal work contacts and with whom interactions are relatively superficial and task-oriented, and not characterised by either liking or dislike'.
4. *Conflict relations*. 'work colleagues who are actively disliked'.

### Disliked colleagues

Argyle and Co. have come up with a special list of endorsed 'rules for people we can't get on with'. The main ones are:

1. Respect each others privacy.
2. Strive to be fair in relations with one another.
3. Don't discuss what is said in confidence.
4. Don't feel free to take up as much of the other's time as one desires.
5. Don't denigrate the other behind their back.
6. Don't ignore the other person.
7. Repay debts, favours or compliments no matter how small.
8. Look the other person in the eye during conversation.
9. Don't display hypocritical liking.

Argyle and Henderson also suggest: 'Another approach to resolving interpersonal conflicts is increasing the amount of communication between those involved, so that each side comes to understand and to trust the other more.

Suspicion and hostility are increased by ignorance of what the other is up to.'

Trying to get to know the other person a bit more, if you can manage it, is really quite a good approach. You might find they're really not so bad after all.

## **Reading the Signals**

A pleasant smile is a strong indication of a friendly and open attitude and a willingness to communicate. It is a positive, nonverbal signal sent with the hope that the other person will smile back. When you smile, you demonstrate that you have noticed the person in a positive manner. The other person considers it a compliment and will usually feel good. The result? The other person will usually smile back.

Smiling does not mean that you have to put on a phony face or pretend that you are happy all of the time. But when you see someone you know, or would like to make contact with, do smile. By smiling you are demonstrating an open attitude to conversation.

You might not realize that closed posture is the cause of many conversational problems. Typical closed posture is sitting with your arms and legs crossed and your hand covering your mouth or chin. This is often called the "thinking pose," but just ask yourself this question: Are you going to interrupt someone who appears to be deep in thought? Not only does this posture give off "stay away" signals to others, but it also prevents your main "signal sender" (your mouth) from being seen by others looking for receptive conversational signals. Without these receptive signals, another person will most likely avoid you and look for someone who appears to be more available for contact.

To overcome this habitual way of standing or sitting, start by keeping your hands away from your mouth, and keep your arms uncrossed. Crossed arms tend to indicate a defensive frame of mind, and thus one not particularly favorable to outside contact. They can also indicate impatience, displeasure, or judgment - any of which would discourage people from opening up.

Open posture is most effective when you place yourself within communicating distance of the other person - that is, within about five feet. Take care, however, not to violate someone's "personal space" by getting too close, too soon.

Leaning forward slightly while a person is talking to you indicates interest on your part, and shows you are listening to what the person is saying. This is usually taken as a compliment by the other person, and will encourage him to continue talking.

Often people will lean back with their hands over their mouth, chin, or behind their head in the "thinking" pose. This posture gives off signals of judgment, skepticism, and boredom from the listener. Since most people do not

feel comfortable when they think they are being judged, this leaning-back posture tends to inhibit the speaker from continuing.

It's far better to lean forward slightly in a casual and natural way. By doing this, you are saying: 'I hear what you're saying, and I'm interested - keep talking!' This usually lets the other person feel that what he is saying is interesting, and encourages him to continue speaking.

In many cultures the most acceptable form of first contact between two people who are just meeting is a warm handshake. This is true when meeting members of the same or opposite sex - and not just in business, but in social situations, too. In nearly every situation, a warm and firm handshake is a safe and positive way of showing an open and friendly attitude toward the people you meet.

Be the first to extend your hand in greeting. Couple this with a friendly 'Hello', a nice smile, and your name, and you have made the first step to open the channels of communication between you and the other person.

The strongest of the nonverbal gestures are sent through the eyes. Direct eye contact indicates that you are listening to the other person, and that you want to know about her.

Eye contact should be natural and not forced or overdone. It is perfectly okay to have brief periods of eye contact while you observe other parts of the person's face – particularly the mouth. When the person smiles, be sure to smile back. But always make an effort to return your gaze to the person's eyes as she speaks. It is common to look up, down, and all around when speaking to others, and it's acceptable not to have eye contact at all times.

Too much eye contact, especially if it is forced, can be counterproductive. If you stare at a person, or leer in a suspicious manner, the other person may feel uncomfortable and even suspicious about your intentions. A fixed stare can appear as aggressive behavior if it takes the form of a challenge as to who will look away first.

## **Parkinson's Law**

WORK expands so as to fill the time available for its completion.

. . . Omitting technicalities (which are numerous) we may distinguish at the outset two motive force. They can be represented for the present purpose by two almost axiomatic statements, thus: (1) 'An official wants to multiply subordinates 'not rivals' and (2) 'Officials make work for each other'.

To comprehend Factor I, we must picture a civil servant, called A, who finds himself overworked. Whether this overwork is real or imaginary is immaterial, but we should observe, in passing, that A's sensation (or illusion) might easily result from his own de-creasing energy: a normal symptom of middle age. For

this real or imagined overwork there are, broadly speaking, three possible remedies. He may resign; he may ask to halve the work with a colleague called B; he may demand the assistance of two subordinates, to be called C and D. There is probably no instance in history, however, of A choosing any but the third alternative. By resignation he would lose his pension rights. By having B appointed, on his own level in the hierarchy, he would merely bring in a rival for promotion to W's vacancy when W (at long last) retires. So A would rather have C and D, junior men, below him. They will add to his consequence and, by dividing the work into two categories, as between C and D, he will have the merit of being the only man who comprehends them both. It is essential to realize at this point that C and D are, as it were, inseparable. To appoint C alone would have been impossible. Why? Because C, if by himself, would divide the work with A and so assume almost the equal status that has been refused in the first instance to B; a status the more emphasized if C is A's only possible successor. Subordinates must thus number two or more, each being thus kept in order by fear of the other's promotion. When C complains in turn of being overworked (as he certainly will) A will, with the concurrence of C, advise the appointment of two assistants to help C. But he can then avert internal friction only by advising the appointment of two more assistants to help D, whose position is much the same. With this recruitment of E, F, G, and H the promotion of A is now practically certain.

Seven officials are now doing what one did before. This is where Factor 2 comes into operation. For these seven make so much work for each other that all are fully occupied and A is actually working harder than ever. An incoming document may well come before each of them in turn. Official E decides that it falls within the province of F, who places a draft reply before C, who amends it drastically before consulting D, who asks G to deal with it. But G goes on leave at this point, handing the file over to H, who drafts a minute that is signed by D and returned to C, who revises his draft accordingly and lays the new version before A. What does A do?

A might be tempted to sign C's draft and have done with it. But A is a conscientious man. Beset as he is with problems created by his colleagues for themselves and for him - created by the mere fact of these officials' existence - he is not the man to shirk his duty. He reads through the draft with care, deletes the fussy paragraphs added by C and H, and restores the thing back to the form preferred in the first instance by the able (if quarrelsome) F. He corrects the English - none of these young men can write grammatically - and finally produces the same reply he would have written if officials C to H had never been born. Far more people have taken far longer to produce the same result. No one has been idle. All have done their best. And it is late in the evening before A finally quits his office and begins the return journey to Ealing. The last of the office lights are being turned off in the gathering dusk that marks the end of another day's

administrative toil. Among the last to leave, A reflects with bowed shoulders and a wry smile that late hours, like gray hairs, are among the penalties of success.

### **When the Answer Is to Question . . .**

*DrJean Hammond, of Management Dynamics,  
deals with issues she encounters during the course of her work.*

Recently I found myself (informally) counselling a senior manager who was bewildered and furious in equal proportions.

The cause? He had done something benevolent for the people in his division only to have it blow up in his face in an apparently unpredictable way. His entirely predictable reaction was 'The ungrateful so-and-so's. Never again'.

It is easy to empathise with the injured party, but why do things go wrong in this way? This week I have chosen two case histories to illustrate the problem, and have then gone on to see what generalisations are possible so that we can avoid 'doing the right thing wrong'.

The first case concerns the managing director in a client company who booked two of his middle managers on a team building seminar.

This was a prestigious event being led by a sought-after consultant with an international reputation and held in the opulence of a posh London hotel. The attendance fee was not much under £500 apiece, so the direct cost was over £1000, plus the opportunity cost of their time.

He had singled them out because they were both keen on and normally receptive to the idea of self development, they were hard workers and high flyers, and he wanted to send a clear message to them about how pleased he was with their performance.

#### **Warm**

When he handed over their tickets, he received a response that could generously be described as luke warm, and the only feedback he had from them after the event was that it had been 'all right'.

When he probed further, he discovered simmering resentment which could be paraphrased as 'We head up two of the best and smoothest functioning teams in the place. Why pick on us? What have we done wrong?' Hardly able to credit such ingratitude our man went off in a huff and with the silent resolve to be less generous in the future.

#### **Gesture**

The second example, from the States, concerns the Berkshire Foundry where they had a profitable year. The board wanted to make a gesture of appreciation and after some brain storming decided that they would air-condition the refectory.

In the production areas the ambient temperature was 40 degrees centigrade or more, and it was felt that being able to retreat into a cool environment over

lunch time would be a real treat. The work was duly carried out.

A year later profits were once again good, and once again the board found itself wondering how it might reward productivity. Someone pointed out that there had been no follow-up study of the air-conditioning of the refectory. Had the gesture been appreciated? Had it perhaps even contributed to the excellent productivity? Since the answers to these questions were not known, the chairman asked the personnel director to undertake an internal survey to establish reaction to the air-conditioning of the refectory.

The majority response to his survey was 'I didn't know that it was air-conditioned'. Some 20% of the sample revealed that they never ate there. A similar number complained 'If management can chuck money around like this they should be paying us more'. Others took the line 'Why isn't the whole plant air-conditioned?'

No more than 5% of the sample gave it a stamp of approval if 'It's OK' can be called that.

This was clearly not the outcome the board had been expecting, nor was it one that was likely to fire them with enthusiasm for their next benevolent gesture.

### **Wrong**

Despite the many differences that must apply, the two cases have much in common. What went wrong? A major part of the answer is 'No one asked me'. It is not a question of pandering to egalitarianism. It is common sense.

This approach is no more than a special case of the general principle: Where possible, involve everyone who is going to be affected by a decision.

We operate in an age where consultation is, or should be, part of the fabric of work. These cases show that no matter how unfair it seems, it is a terrible mistake to think that it can be bypassed just because we are doing something 'nice'.



## Finding Friends

It was an enquiring mind that took me to Texas and my spare room that put me in touch with the Sattersfield family. Between the two - acting as a kind of marriage broker - was an organisation called *Home and Awaystay Holidays*.

The machinery is set in motion following completion of a comprehensive questionnaire detailing the requirements of the guest family, their interests and preferences. This information allows *HAH* to set about arranging an introduction with a compatible host family from their records.

When a likely match is found the applicant is sent a full description of the potential hosts and, if approved both ways, the address is released. Only then is the agency fee payable.

Then you are on your own. In direct contact the guest and host family can make whatever arrangements they choose including that of the 'return match' that would normally follow. Me, I had gone alone to Texas on a voyage of discovery to see how the system worked subsequent to *HAH's* initial commitment.

An oil township out West they had said, so I expected the worst; a timber saloon bar and Joe's Place community centre with, maybe, an oil derrick or two on the horizon. And, as my comfortable Trailways bus headed out of Downtown Dallas on Interstate 20 and into the limitless horizons of central Texas, I believed it.

Imagine my surprise, therefore, when nine hours and 300 miles later, Midland, my destination, loomed before me. There, rising phoenix-like from a semi-desert of scrub and lurnbleweed, was a concrete city of soaring skyscrapers.

Though a three-bedroomed home like my own, the Sattersfield residence was more spacious and lavish. It was an open-plan single-storey construction but not at all the sort of house you would call a bungalow. An enclosed patio, fully equipped for a barbecue party, led to a sizeable lawn and orchard. A utility room contained an automatic washer, washing-up machine and 'trash-compressor', and a large garage housed two cars with a third standing on the 'drive-in'. With a husband away at frequent intervals as a pilot of an oil-tycoon's private jet, Jean Sattersfield, like my own wife married to a travel writer, was something of a grass widow. ' They had a married daughter, aged 26; a working son of 22. In my family we have a married daughter - 21 next birthday - and a son of 17 mad keen on flying. I could raise but one car. Yes, the match was as good as one could expect from the sparse completion of a questionnaire I had been sent.

Midland was an enclave of great wealth, high-powered business activity and aggressive Texan bonhomie. It might be situated in a kind of desert and collect the odd summer dust storm but its residents were certainly no nomads. Many lived in stupefying luxury and I began to wish *my* hometown stood on a large proportion of my country's entire supply of crude oil and natural gas.

In one of the three cars I explored the region and learnt of the vast distances

that are taken for granted in the United States. The sea is 500 miles away - yet is still in Texas. The famous Carlsbad caverns in New Mexico are 150 while Midland's neighbour, the slightly larger Odessa, is 30 miles or 20 breezy minutes down Interslate 20 or Highway 80. With cars that cost a third less than ours to put on the road and petrol prices half our own, such travel is cheap while the sheer size, power and comfort of the vehicles themselves make short work of the miles. Midland alone sports two airports seething with private aircraft that are relatively cheap to run.

The lower cost of living compared to our own, further enhanced by higher incomes, was a fact that became increasingly clear as I delved into the lives of my new Texan friends and, in turn, their friends who soon became my own. The variety of goods in shops and supermarkets, the choice in restaurants, is astounding.

Learning how the other half of the English-speaking world goes round can be an exasperating exercise but getting to the grass roots of a country is no bad thing. America has learnt much from us; maybe she can return the compliment as I shall my new Texan friends' astounding hospitality.

## Quarrelling

Great emotional and intellectual resources are demanded in quarrels; stamina helps, as does a capacity for obsession. But no one is born a good quarreller; the craft must be learned.

There are two generally recognised apprenticeships. First, and universally preferred, is a long childhood spent in the company of fractious siblings. After several years of rainy afternoons, brothers and sisters develop a sure feel for the tactics of attrition and the niceties of strategy so necessary in first-rate quarrelling.

The only child, or the child of peaceful or repressed households, is likely to grow up failing to understand that quarrels, unlike arguments, are not *about* anything, least of all the pursuit of truth. The apparent subject of a quarrel is a mere pretext; the real business is the quarrel itself.

Essentially, adversaries in a quarrel are out to establish or rescue their dignity. Hence the elementary principle: *anything may be said*. The unschooled, probably no less quarrelsome by inclination than anyone else, may spend an hour with knocking heart, sifting the consequences of calling this old acquaintance a lying fraud. Too late! With a cheerful wave the old acquaintance has left the room.

Those who miss their first apprenticeship may care to enrol in the second, the bad marriage. This can be perilous for the neophyte; the mutual intimacy of spouses makes them at once more vulnerable and more dangerous in attack. Once

sex is involved, the stakes are higher all round. And there is an unspoken rule that those who love, or have loved, one another are granted a licence for unlimited beastliness such as is denied to mere sworn enemies. For all that, some of our most tenacious black belt quarrellers have come to it late in life and mastered every throw, from the Crushing Silence to the Gloating Apology, in less than ten years of marriage.

A quarrel may last years. Among brooding types with lime on their hands, like writers, half a lifetime is not uncommon. In its most refined form, a quarrel may consist of the participants not talking to each other. They will need to scheme laboriously to appear in public together to register their silence.

Brief, violent quarrels are also known as rows. In all cases the essential ingredient remains the same; the original cause must be forgotten as soon as possible. From here on, dignity, pride, self-esteem, honour are the crucial issues, which is why quarrelling, like jealousy, is an all-consuming business, virtually *a profession*. For the quarreller's very self-hood is on the line. To lose an argument is a brief disappointment, much like losing a game of tennis; but to be crushed in a quarrel. . . rather bite off your tongue and spread it at your opponent's feet.

## Neighbours

The best neighbour I ever had was an Italian restaurant. Emergency lasagne available night and day, change for the launderette on Sundays, a permanent door-keeper against gatecrashers and policemen with parking tickets. Even if our fourth floor bath water did run dry every time they filled up the Espresso machine, I miss them still.

Bad neighbours can blight a house worse than dry rot but there is no insurance against them, no effective barricades in the compulsory intimacy except a decent caution and conversation ruthlessly restricted to matters of meteorology. And it only takes a tiny breach in the wall of platitudes to unleash appalling dramas of persecution and passion.

And what can be done if the people next door breed maggots or wake up to the Body Snatchers (or some other punk group) in quadrophonic or poison the cat with their slug doom? What happens when one man's trumpet practice is another's thumping headache, when two neighbouring life styles are just incompatible? There are three basic responses to what the law calls Nuisance: surrender, retaliate or sue,

Joan and Andrew live next to a couple who have been having screaming, shouting and banging fights two or three times a week for the best part of five years. It sometimes gets so bad that our whole house shakes, pictures rattle on the wall,' said Joan. She has tried sympathetic chats, face to face confrontation and even recourse to the local social services department and the police when she

feared that the child of the family might be at risk. 'Every time I say something, she is apologetic but says she can't help it. I don't think the child is subject to physical abuse, but the verbal onslaughts are frightful. It's worrying as well as infuriating but it seems there's nothing to be done. There would be no point in bringing an action against them, it's just how they are.'

Retaliation - or crash for crash - is a dangerous game which calls for nerves of steel and considerable perseverance. It is a winner take all strategy from which there is no turning back, because it becomes a war of escalation and the side which is prepared to go nuclear wins. Michael's neighbour in Surrey made every summer afternoon noxious with the sound of his motor mower. Negotiations got nowhere so Michael bought an electric hedge trimmer and plied it right where the neighbour's wife liked to sunbathe. Neighbour opened up with a chain saw. Michael lit bonfires full of wet leaves when the wind was westerly. Neighbour left his car engine running with the exhaust pointing through the fence. Michael served an ultimatum: either an end to hostilities or he would sow a plantation of ground elder right along his side of the hedge. Legal, but a lethal threat to neighbour's well-tended acre and a half. Mowing now takes place on weekday evenings and the weekends are silent.

There are two main areas where the law has a role: in boundary disputes where the title deeds are not clear and in cases of nuisance from noise or fumes or some other persistent interference in someone's peaceful enjoyment of their home. The remedies available in case of nuisance are either an injunction -a court order to stop it - or damages in compensation for the victim's suffering.

There is only one thing worse than having to take your neighbour to court, and that is letting your fury build up so long that you lose your temper and end up in the dock yourself like Mrs Edith Holmes of Huntingdon who was driven mad by her neighbour's incessant hammering, drilling and other £ activities between 7.30 and 11.30 every night. She ended up throwing a brick through his done-it-himself double glazing and had to plead guilty to criminal damage. A merciful magistrate gave her a conditional discharge and allowed only £35 of her neighbour's £70.41 claim for compensation. The neighbour, he said, was an expert and could do his own repairs.

But judges and ten-foot walls and conciliation and bribery can only do so much. In this one vital area of living you are entirely at the mercy of luck, which may deal you a curse or a blessing regardless of any attempts to arrange things otherwise.

## Loneliness

Loneliness is a curious thing. Most of us can remember feeling most lonely when we were not in fact alone at all, but when we were surrounded by people. Everyone has experienced, at some time, that utter sense of isolation that comes over you when you are at a party, in a room full of happy laughing people, or in an audience at a theatre or a lecture. It suddenly seems to you as if everybody knows everybody else, everybody is sure of himself, everybody knows what is going on; everybody, that is, except you.

This feeling of loneliness which can overcome you when you are in a crowd is very difficult to get rid of. People living alone - divorced, widowed or single people - are advised to tackle their loneliness by joining a club or a society, by going out and meeting people. Does this really help? And what do you do if you are already surrounded by people?

There are no easy solutions. Your first day at work, or at a new school or university, is a typical situation in which you are likely to feel lonely. You feel lonely because you feel left out of things. You feel that everybody else is full of confidence and knows what to do, but you are adrift and helpless. The fact of the matter is that, in order to survive, we all put on a show of self-confidence to hide our uncertainties and doubts. So it is wrong to assume that you are alone.

In a big city it is particularly easy to get the feeling that everybody except you is leading a full, rich, busy life. Everybody is going *somewhere*, and you tend to assume that they are going somewhere nice and interesting, where they can find life and fulfilment. You are also going somewhere, and there is no reason at all to believe that your destination is any less, or, for that matter, any more exciting than the next man's.

The trouble is that you may not be able to hide the fact that you are lonely, and the miserable look on your face might well put people off. After all, if you are at a party you are not likely to try to strike up a conversation with a person who has a gloomy expression on his face and his lips turned down at the corners. So trying to look reasonably cheerful is a good starting point in combating loneliness, even if you are choking inside.

The next thing to avoid is finding yourself in a group where in fact you are a stranger, that is, in the sort of group where all the other people already know each other. There is a natural tendency for people to stick together, to form 'cliques'. You will do yourself no good by trying to establish yourself in a group which has so far managed to do very well without you. Groups generally resent intrusion, not because they dislike you personally, but because they have already had to work quite hard to turn the group into a functioning unit. To include you means having to go over a lot of ground again, so that you can learn their language, as it were, and get involved in their conversation at their level. Of course if you can offer something the group needs, such as expert information, you can get in

quickly.

In fact the surest way of getting to know others is to have an interest in common with them. There is no guarantee that you will then like each other, but at least part of your life will be taken up with sharing experiences with others. It is much better than always feeling alone. If all this seems to be a rather pessimistic view of life, you have to accept the fact that we are all alone when it comes down to it. When the most loving couple in the world kiss and say goodnight, as soon as the husband falls asleep, the wife realises that she is alone, that her partner is as far away as if he were on another planet. But it is no cause for despair: there is always tomorrow.

## **Agony Columns**

There is one part of women's magazines that every man reads. It is the section popularly known as the 'agony column', where women, and increasingly men, write for advice on what are sometimes referred to as affairs of the heart'. The person who answers these letters usually has a very reassuring sort of name, which suggests a gentle middle-aged lady of great wisdom and experience, but who at the same time is as homely and approachable as your favourite aunt. At one time, it used to be widely believed that the letters were in fact all made up by someone on the editorial staff, and that the 'Aunt Mary' who provided the answers was a fat man with a beard, who drank like a fish, smoked like a chimney, and was unfaithful to his wife into the bargain. Although this may be true in some cases, the majority of advice columns are completely genuine, and the advisory staff are highly-qualified people with a deep understanding of human problems.

At one time the letters, which were published and answered in full, dealt with problems of a very general emotional nature. The recurrent themes were loneliness, unhappiness in marriage, difficulties in bringing up children, and problems of adolescence. The two letters overleaf are typical.

Occasionally, only the answers were published, not the letters themselves. This gave rise to such mysterious comments as 'Do not worry, Miss B. of Bedford, yours is a common problem which will disappear when you are older'; or, 'Have nothing more to do with this man if he continues to do what you say he does'. Much of the fun in reading them lay in trying to work out what on earth the problem was that led to such peculiar answers.

Nowadays everything is much more explicit, and questions of the most intimate kind are fully dealt with. As the agony columns have become more professional and more frank, a lot of the fun has gone out of them. This is undoubtedly a good thing, because there is something very sad about our tendency to laugh at the misfortunes of our fellow men. For example, the advice columns get a lot of letters from people who are genuinely distressed

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*Letter A*

Dear Katy Brown,

My problem is that I'm terribly shy. I can't help blushing and stammering when I have to speak to new people. I went to a girls' school, so I didn't really have anything to do with boys till I started work. I work in an office, and there's one boy here who's very nice and friendly with everybody. The trouble is that, whenever he speaks to me, I just blush and stay silent: I just daren't open my mouth. I'd love to get to know him but I just get tense every time he comes up to me. If things go on like this, I'll never get married, because I'll never even get to know anyone. What should I do?

*Letter B*

Dear Katy Brown,

I'm a 19-year-old boy. I've got a good steady job, a lot of friends, but one big problem - my father. He always insists on knowing where I'm going, who I'm going with and what I'm going to do, every time I go out. I have to be home by eleven o'clock during the week, and eleven thirty at the latest on Saturdays and Sundays. To make matters worse, he usually waits up for me, and makes a terrible fuss if I'm even a few minutes late. The worst thing of all is that he doesn't treat my sister (she's 21 ) this way. She is allowed to do whatever she likes, more or less. It just isn't fair. How can I convince my father that at 19 I'm just as grown-up as my 21-year-old sister?

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about what they believe to be terrible physical deformities: stammering, acne, bad breath, protruding ears, and so on. Others are terrified of meeting people because they suffer from a crippling shyness, or are convinced that they are hopelessly unattractive. There is a joke about a psychiatrist who told a patient 'Don't worry about your inferiority complex, Mr Jones, because you are, in fact, inferior.' But it is not really funny to be so self-conscious about your appearance, or so lacking in self-confidence, that you stay in your room instead of going out and meeting people. If they do nothing else, the agony columns let you know that you are not the only one who worries about pimples, or whatever it is that is cramping your social life.

The advisers seem to be on much more dangerous ground when they start to give advice on the most delicate and intimate aspects of human relationships. This is not to doubt either their good intentions or their understanding of human nature. But it is a risky business to advise, say, a married couple on how to save their marriage, when you know about them only what they reveal to you in a short letter. Not only that, but the chances are that you only get one side of the story, because only one of the couple will write to tell you about the shortcomings of

the other. It is difficult to know how you can usefully answer such letters as those opposite, for example.

To their credit, the best advisers always make the point that without knowing more, they must limit themselves to general advice, and in some cases will even offer to enter into private correspondence in order to get more information and consequently to give more useful advice. Without doubt they are, in their way, performing a valuable social service. If they were not, the agony columns would soon dry up for lack of interest, and more importantly for lack of confidence.

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*Letter C*

My husband has just announced that he is going to end our seven-year marriage. He says he is absolutely convinced that I have been having a lot of affairs with other men. It simply isn't true, but he just will not listen to anything I say, and the more I express my innocence, the worse he becomes. I have even suggested that he should ask someone else about it, but he refuses. I am so desperate that I think the only solution is for me to take a 'lie detector' test. Can you tell me how I can get such a test?

*Letter D*

I am twenty years old and I have been going steady with a boy for more than a year. He is always telling me that he loves me, but whenever we go out, he stares at other girls and says how lovely and sexy they are. Things came to a head the other night: we went out with another couple and he told me he thought the girl was really pretty, and that before he met me he was always trying to date her, but she refused. He spent the whole evening talking to her, so you can imagine how miserable I felt by the time we left. I just don't know what to do. I'm afraid that if I get angry with him, he'll leave me, but on the other hand I can't stand much more of it.

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**Amanda Dear Answers Your Letters**

Match each reader's letter with the appropriate reply.

**GOSSIP**

My husband and I live in a very friendly road. Everyone gets on well together because we all respect each other's private lives. However, a widowed lady has just moved into our street, and she's always discussing all our movements and problems with everyone else. Although she has a 22-year-old son, she must be quite lonely, and we're sure she simply wants to join in as much as possible. But some of us are a little annoyed by her gossiping. We don't wish to be unkind, but how can we ask her to be more discreet?



*Congratulations for having the courage to contact him! Even in these liberated times, girls still don't want to seem too keen. But if he has such old-fashioned attitudes to women, he doesn't sound right for you. Good relationships depend on mental harmony as well as physical attraction. If his 'male' image is so important to him, I'd turn to someone less selfish and more sympathetic if I were you.*

#### UNWANTED

My son-in-law is making the autumn of my life very difficult. I live with him and my daughter because my husband died three years ago and I had to sell our house. My daughter is very kind, and I know it can't be easy to have an old person around the house. But her husband is always rude to me, particularly when I try to comfort my granddaughter who is often upset by his awful behaviour. It is hard for me to leave, but I sometimes wonder if that would be the best thing to do.

It is very hard to start a new life in a close community like yours. The newcomer is obviously interested in you all because she wants to make friends. You may think she should mind her own business, but she certainly deserves some sympathy and it's important not to hurt her feelings. Why don't you try talking to her son? He might be able to make her understand without offending her.

#### CAUTIOUS

My son has got to know a charming young lady who often visits me to chat and talk about herself, as she comes from a rather troubled home. He never says anything about his feelings but I feel that he is not brave enough to ask her out. He never asks her to visit but he obviously enjoys her company. How do I encourage him to be a bit more bold?

You have obviously thought about all this very carefully, and I'm sure the situation is difficult. But is it all so intolerable that any change will be for the better? As for your proposed new life, can you be sure that it is going to be so very different from your old one? I suggest that you get to know this new friend better before you decide anything.

#### INTOLERABLE

I find myself in an intolerable situation. My wife is so houseproud that I don't feel at home in my own house. Her mother who lives with us keeps interfering in our private lives. My daughter hardly ever speaks to me (when she does, she's rude) and her friends treat this place like a hotel. Now I've become very fond of a neighbour, and I'm sure she feels the same way about me. Should I leave while

## I'm young enough to enjoy myself?

Everyone has this problem at some time or other, and I do sympathise. But don't think that everyone is always talking about you! Have you thought of joining a local club, or going to evening classes? In this way, you'll meet new faces, but not just for social reasons. And the sooner you stop worrying, the sooner you'll have the confidence to talk to the girl you like.

## ATTRACTION

Six months ago, I broke up with my boyfriend. I was very upset for a few weeks, and then I met a rather strange but good-looking man who says he's in show business. We went out once or twice, then he didn't ring, so I called him. He sounded rather surprised, but agreed to meet me again. All evening he teased me about the fact that it was me who had got in touch. Now my former boyfriend has asked me to go back to him. He's very kind and unselfish, and I still care for him, but I'm more attracted to the other man. What do you think?

I understand your very natural concern but I doubt very much whether he will appreciate any help you want to give him. My advice is: don't interfere. This is something he must and will sort out on his own.

## SHY

Every time I meet a girl, I start to blush. One girl I know meets my mother often and I feel relaxed with her, but when we meet at a party or at the pub, I'm too shy to say anything. I'd like to get to know her best friend, but I feel they are just laughing at me. I'm so embarrassed - how do I get over this?

You must first of all ask yourselves if your fears are exaggerated. She might seem bossy, but don't forget that others will realise this too. You could talk to your boss, but remember that people like this are usually lonely. How about inviting her out for a drink? Maybe she's nicer than you imagine.

## DISAPPROVING

I'm planning to go abroad where I've got the chance of an exciting new career. I want my girlfriend to come with me, but her father disapproves of me. He's a violent man, and I think he drinks too much. Sometimes my girlfriend has red eyes and bruises; she says she's tired or has fallen over. She's old enough to live her own life but I don't want to force her to do anything she may regret. I love her very much, and only want to do the best for her. The question is, what?

You don't say if you have much of a life outside the house. It's a good idea to get out as much as possible and show your independence. Are you quite sure that you are the cause of his unpleasant attitude? Perhaps there is something worrying him at the moment which you don't know about. In any case, you should talk to him about your feelings. You might be imagining things.

## BOSSY

My friend and I work in an office which is not very exciting but we manage to enjoy ourselves. But we have to put up with the behaviour of a colleague who thinks she's superior to us in every way, telling us to type her letters for her,

checking on when we arrive and leave, etc. We've tried to ignore her, but recently she's been working very closely with our employer, and we're sure she's criticising us so that she can show how efficient she is. Now we're afraid of losing our jobs. What do you think we should do?

You sound a very sensitive and sensible person, and I'm sure you will do the right thing. Your friend must be very unhappy, and in the circumstances, you are probably the last person to be able to help. But contact the family, and try to arrange a meeting to discuss the matter and show that you're not as disagreeable as her father thinks. Ultimately, she is the only one who can make the decision.

## **What Is This Thing Called Love?**

According to a 1991 survey, at any one time about one in ten of us describe ourselves as 'madly in love'. Love is remarkably common; in the survey only one in five of the 1,000 people interviewed said they were 'not really in love', with most of the rest admitting to some land of romantic involvement. So what is this feeling called love? To many researchers the classic symptoms of butterflies in the tummy, rapid pulse rate and legs turning to jelly are far from mysterious. Many believe it can all be explained by our biochemistry.

Scientists believe the excitement of that fatal attraction is created by adrenaline - the same hormone that is produced when we are under stress. When stimulated, the adrenal glands also produce a hormone called cortisone, whose side-effects include feelings of great happiness.

Eyes give away the fact that you are in love, or at least very much attracted to someone because adrenaline enlarges or 'dilates' your pupils. Having large pupils also means that we are more appealing to others. Desmond Morris, a scientist who studies human behaviour, proved this point by showing a picture of a woman to a large number of men. He then told them that she had a twin sister, but presented the same woman with her pupils dilated. When the men were asked which of the twins they'd like to take out for the evening, most chose the one with larger pupils.

In another study, scientists used two bridges over the Capilano River in British Columbia. One was a very dangerous-looking bridge which was 70 metres above the river, while the other was a solid concrete bridge. An attractive female researcher stopped men coming off each bridge. She managed to give them her phone number while she pretended to get them to fill out a questionnaire. Many more of the men who had crossed the dangerous bridge later phoned the researcher to ask her out than those who had crossed the safe bridge. This made researchers think that love is much like any other emotional state. Because their adrenaline is flowing and their hearts are beating fast, people believe they are in love even if they are actually only a bit frightened.

But how do we select our partners from all the thousands of possible people? People are often attracted to others who have a lot in common with them - even if

they don't always realise that they have anything in common. We give out unspoken messages about ourselves every day from the way we walk, talk and hold ourselves. It's not just the way we dress, but our posture, facial expressions, movements, tone of voice, accent and so on. If you put a group of people who don't know each other in a room together and ask them to pair up, they will naturally choose partners who are of similar family background, social class and upbringing. We are all looking for something familiar though we may not be aware of exactly what it is.

Facial attractiveness is a big influence on our choice of partners, too. People have long-lasting relationships with others of a similar level of attractiveness. In a recent study, researchers took a selection of wedding photos and cut them up to separate the bride and groom. They then showed them to people who were asked to rate how attractive each person's face was. When the researchers put the photos back into pairs, they found most of the couples had been rated at similar levels.

Aside from our ability to rate others, each of us carries a rough estimate in our heads of how facially attractive we might be. We realise subconsciously that if we approach someone who is much better looking than we are, we run the risk of being rejected.

Whatever the explanation for how and why we fall in love, one thing is clear: Nature has made the whole process as wonderful and as addictive as possible. Perhaps that's why so many of us are at least a little bit 'in love' most of the time.

## **Marriage**

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Between 1971 and 1975, a researcher called Mark Abrams, at the Social Science Research Centre, conducted a complicated series of studies designed to gauge people's satisfaction with various domains of their lives.

Throughout the series, marriage emerged as by far the greatest source of satisfaction - ahead of 'family life', health, standard of living, house, job and much more. The obvious inference, that marriage makes you happy, is widely accepted among those who specialise in marital studies. So is the view that marriage, like happiness, is good for your health, a view borne out by a number of studies.

Some of these studies present a confused picture because they compare the health and life expectancy of married people with the health and life expectancy of the divorced, separated and bereaved. (The latter group invariably come out worse, but should that be blamed on the termination of their marriages or on the fact that they married, perhaps unhappily, in the first place?)

But other studies have specifically compared the married with the single and reached similar conclusions. Even these are slightly ambiguous. Are single

people more susceptible to serious illness because they are single? Or is their single status a result of their susceptibility?

None the less, the general message seems incontrovertible: marriage is not as bad as it seems. It is certainly not bad for you and almost certainly good for you. Few sociologists, doctors or statisticians would dispute the statement that married people live an average of five years longer than the unmarried and are significantly less susceptible to strokes, ulcers, cancer, heart attacks, depression, mental illness and high blood pressure.

Nor is the institution of marriage as beleaguered as it is sometimes made out to be. As well as having the second highest divorce rate in Europe (Denmark's is highest), Britain has the equal-highest marriage rate (along with Portugal). The divorce rate seems to have levelled out since 1985, and the huge long-term increase in the twentieth century probably owes as much to changing legislation as it does to worsening marital relations. The total numbers of marriages and of married people are much the same today as they were in 1961 (although both increased briefly in the early 1970s).

Since 1891 the proportion of the population who are married has increased significantly, while the proportion who are single has decreased. Today, around 85 per cent of men and 91 per cent of women will marry at some point in their lives. That said, marriage is clearly under threat, both from divorce and from the growing trend for unmarried cohabitation. The divorce rate is increasing, even since the last significant changes in the divorce laws: from 11.6 per thousand in 1978 (143,667) to 12.8 per thousand in 1988 (152,633). The marriage rate is declining, from 14.9 per thousand in 1978 (368,258) to 13.8 per thousand in 1988 (348,492).

And a growing proportion of marriages - about one in three - are remarriages (partly because the number of people in a position to marry again has increased so much). Unmarried cohabitation has never been more popular. The proportion of women aged 18 to 49 who are cohabiting almost tripled between 1979 and 1988, from 2.7 per cent to 7.7 per cent. The proportion of children born out of wedlock in the UK has increased from 5.8 per cent in 1961 to 26.9 per cent in 1989. And according to Gallup three adults in four no longer think that becoming pregnant is a reason for a single woman to marry.

One problem is that marriage is increasingly perceived, in popular culture, as lacking the spontaneity of unstructured love. Does reality bear this out? According to the *Observer*/Harris poll, people who cohabit are two-and-a-half times more likely to be 'madly in love' with their partners than married people (25 per cent to 10 per cent).

Yet most other indicators suggest that married couples derive more happiness from their relationships than nonmarried couples, and people's perception of their own marriages remains optimistic. The 1991 *Observer*/Harris poll showed that 91 per cent of married people expect their own

marriages to last until death. Their negative feelings about marriage are reserved for other people - 66 per cent rate the average marriage's chance of succeeding as 50:50 or worse.

Last year the Family Policy Studies Centre caused a great stir by predicting that, based on existing trends, 37 per cent of new marriages would end in divorce - an all-time high. Another way of looking at this, as several advocates of marriage have pointed out, is to say that nearly two-thirds of marriages will succeed.

## **The Odd Couple**

The story of Charlotte and John Fedders rocked Washington. It had all the ingredients: success, money, ambition, image-obsession and violence. It has become a modern fable, a cautionary tale that flashes a warning beacon throughout a whole upper echelon of tough young men pushing their way to the top, at the expense of their families.

Charlotte and John were the archetypal successful Washington couple. He was a young lawyer zooming up the status ladder in the fast lane. They were a crisp, clean-living Catholic couple with five young sons, living in a gleaming colonial-style mansion. From the outside they seemed to have it all: the best country clubs, the best Catholic private schools for their children, the best privately catered parties. He was selected for a top job which brought him into the public eye.

Then John Fedders' life fell apart. Or, at least, his image of it, which for him was the same thing. His private life had always been a catastrophe but one well hidden. The last straw for his wife came the day he started to turn his violent rage against his eldest son.

Charlotte Fedders filed for divorce. She hoped for a quiet divorce without dispute. But her husband wanted to battle it out. Perhaps he thought no one would notice an obscure hearing in a small courtroom in Maryland. But the *Wall Street Journal* sent a reporter to write the story, and what a story it was. Fedders had beaten his wife often and savagely. He thumped her repeatedly when she was pregnant. He ran the household with a set of iron rules: no one was permitted to enter the house in shoes; his sons had to do thirty press-ups whenever they came into the room. He was obsessively mean about money. Charlotte got virtually none for herself and the children. And yet she worried frantically about their rising debts. They lived way beyond their means.

The day after the *Wall Street Journal* ran the story, John Fedders was forced to resign. The story ran extensively on nationwide television. It rang new alarm bells. It showed that battered wives were not necessarily poor or confined to ghettos. Charlotte learned for the first time the FBI statistics: four women are

beaten to death every day in America by husbands or lovers.

Charlotte got her divorce. John Fedders took a lower paid job and paid \$12,000 a year to Charlotte and the children. The older children all worked and contributed their money to the household. Charlotte earned a little in a flower shop, but they were hard pressed. Then a publisher asked her to write the awful story of her life. But just before the book was to appear John Fedders took her back to the divorce court to try to get his puny payments to the family reduced. On top of that, he wanted 25% of the proceeds of the book on the grounds that he was the star of it. Everyone expected him to be laughed out of court: Imagine the shock when the court accepted his plea and did award that 25%.

Charlotte Fedders now seems like a self-confident and articulate woman. She makes speeches on battered wives up and down the country. Her book is a fascinating but dispiriting read. She was a poor, clinging pathetic creature who invested everything in her husband and her children. She thought as a young nurse that she would never find a husband with the sort of earning power that her family expected. When tall, handsome, athletic, clever Fedders looked on her with favour she thought she didn't deserve to land such a big fish. But he spied in her what he wanted: obedience, adoration, inferiority yet a sufficiently cultivated veneer for social acceptability. No danger of equality here.

It is a terrible pattern: this story has caused such a stir in America as it forces attention on the family life of the high achievers. When gilded young husbands work all the hours under the sun, who takes the strain? Who bears the brunt of all that bottled frenetic activity? What do wives and children have to tolerate in order to keep a man on the upward path?

## Sibling Rivalry

Nine-year-old Tom and five-year-old Camilla can fight like cat and dog. Never mind that their father is an eminent child psychologist. "Sibling rivalry" - as the professionals smoothly term these quarrels - is as old as the Bible and affects most families.

During half term, Britain will resound with maternal cries of "stop fighting" and childish rejoinders of "he hit me first". Now that the quick smack is increasingly out of fashion, specially since the recent Scottish Law Commission's recommendations that hitting a child violently should be made illegal, how should a parent retain their sanity?

'Break the rules,' says Charlie Lewis (lecturer in psychology at Lancaster University and father of Tom and Camilla). 'Bribery is not only acceptable, but essential. Offer them chocolate or a trip to the park if they stop quarrelling.'

Sending a child to a grandparent's or friend's house can also help, says Dr Lewis, who battled with his four brothers in an 18-year-long fight. If you can't do this, avoid pressure building up during the day by organising an outing during the later afternoon or early evening. A walk can ease tension and calm you down for the forthcoming bath and bed battles.'

If warfare has already broken out, Dr Lewis will threaten the aggressor with 'severe trouble' if the fighting escalates. If that does not work, punishments range from sending children to separate rooms and (for gross misdemeanours) a withdrawal of treats. In the heat of the moment, it is easy to be rash. Dr Lewis recently forbade Tom from playing in a long-awaited football game but relented without losing face by making him tidy up his room as an alternative correction.

Sarcasm, adds Dr Lewis, is a handy retort for the common childish accusation that 'you love her better because you never tell *her* off. If he replies 'yes, that's right,' in a joking way, it takes the power away from Tom's statement because his son can see his father is not taking him seriously. Ask yourself too if there's a grain of truth in the complaint, says Tim Kahn, father of two and co-ordinator of Parent Network, an advisory organisation. 'Pay some attention to the aggressor and find out *why* he's behaving badly.'

This is precisely the stage when one feels like smacking. So what does the organisation End Physical Punishment of Children advise? The best method is diversion, says Peter Newell, the organisation's co-ordinator and father of Finn, aged two, Joe, five, and Matthew, six. 'If the two-year-old has the five-year-old's construction bricks, I produce something which the younger one is equally interested in.'

'And how about multi-age activities like cooking? That's something you can get all the children involved in. Introduce laughter - arguments often start because



a parent is tired. It's easy for that mood of desperation to affect them. When I come home at night, I stand on the doorstep for a few moments to ask myself what kind of mood I am in and to jolly myself up.'

Analysing your own reactions is wise according to Dr Penny Munn, a psychologist at Strathclyde University, who (with Dr Judy Dunn) studied 43 toddlers and their siblings at play. 'Mothers who reprimanded children by talking about feelings ('He didn't *mean* to hurt you') had more effect than those who simply said 'Don't do that',' Dr Munn says. She confesses to being 'speechless with admiration' at other techniques displayed by mothers who would 'nip in with drinks or other diversions when the atmosphere got tricky'.

Persuading your children to sort out their own fracas is a technique learned by Jan and Peter Breed through a counselling course run by Parent Network. If they're arguing over a toy, get them to tell you their side of the story,' advises Mrs Breed, whose offspring (Rhiannon, aged seven, Cerys, five and Joel, two) are constantly at each other's throats. (The baby - 12 week old Sadie - is as yet too young to join in.) "Then say: 'This is the situation. You want it and he 'wants it so what are you going to do about it? They usually come up with a solution such as taking it in turns."

If all else fails, tell yourself that sibling arguments can be positive. So says Dr Lynn Beardsall, a psychologist at Sunderland University who sat in on 20 six-year-olds with their older brothers or sisters aged between seven and 12 when writing her thesis on conflicts between siblings. 'Younger children who had had physical fights with older brothers or sisters were best at identifying how people *feel*. We tested them by playing audio tapes of adults discussing their own problems. These children were more sensitive at identifying with the dilemma than others.' The study also revealed that out of the younger children, those who were most often the victim were better peace keepers partly because they had learnt sharing and negotiation strategies.

Gender, too, made a difference. Boys tended to be more physically aggressive, whereas girls favoured the sneaky pinch. There was also proof that some fighters are best left alone. 'One third of the children reached a mutually acceptable solution over an argument without parental interference,' Dr Beardsall says, 'I watched some very nasty punch-ups which mothers ignored before the children sorted it out themselves.'

## HOW PEOPLE COMMUNICATE

### **Beware of a Man Whose Stomach Does Not Move When He Laughs**

There is an ancient Chinese proverb which, says 'Beware of a man whose stomach does not move when he laughs.' We reveal a great deal of what we are thinking and feeling by the movements which we make quite unconsciously. When children are bored they start to fidget; tapping with the foot or drumming the fingers are sure signs of impatience; a man shows his nervousness by constantly adjusting his tie or patting his hair, particularly if he is waiting for an interview, or is about to meet his girlfriend. Sometimes you can work out what people are talking about, (or at least what kind of mood they are in) - even if you cannot hear a word they are saying - by the gestures they use. Occasionally it is even possible to identify a person's nationality: nobody shrugs quite like a Frenchman, or gesticulates quite like an Italian, or bows quite like a Japanese. Some say you can tell an Englishman by the fact that he hardly gestures at all!

All these are obvious, stereotyped gestures, widely recognised and understood. The only thing to watch out for is that a gesture which is polite and reasonable in one country might turn out to be very offensive in another. For example, an Englishman gives a 'thumbs up' sign to show approval but in some countries the same gesture is obscene and offensive. But we make, when we are talking, many much more subtle movements, which betray our attitude, or define our relationship to others. Take, for example, the ways people sit: leaning back, relaxed; sitting forward, earnest and interested; legs crossed and arms folded, hostile or insecure. There are many touching movements which, if you can read them, will tell you what someone is thinking, quite independently of what he is saying: stroking the chin, pulling the ear, scratching the head, tapping the nose, and so on. Then there are hand movements which give you away: hand-wringing, fist-clenching, steepling with the fingers.

It is also very interesting to consider how much meaning we convey, sometimes quite deliberately, with our eyes. I remember once being on a bus and looking at a stranger. He suddenly looked back at me - i.e. our eyes met. My instinctive reaction was to avert my gaze. It occurred to me that if I had continued to maintain eye contact, I would have been guilty of staring, which would have been rude and aggressive. You can observe the same phenomenon in zoos, where apes will refuse to look you in the eye after a short interval. Of course if a man stares at a woman in a bus and refuses to avert his gaze, his intentions are quite clear: he wishes to let her know that he is admiring her. The normal pattern of eye contact when two people are engaged in conversation is that the speaker only looks at the listener from time to time, in order to assure himself that the latter is listening and

grasping what is being said. The listener, on the other hand, will look more or less continuously at the speaker (except perhaps in such unnatural situations as in a car) as a sign that he is paying attention.

If a person looks you in the eye continuously while he is speaking to you, you are likely to be disconcerted. It is as if he were trying to dominate you. A bad liar usually gives himself away by looking too long at his victim, in the mistaken belief that to 'look a man straight in the eye' is a sign of honest dealing. It may be that the opposite is true, however. In fact, continuous eye contact is usually confined to lovers, who will gaze into each other's eyes for an eternity, conveying meanings that words cannot express, and baffling onlookers into the bargain.

There is even meaning to be found in how close people stand to each other, and at what angle. We may stand side by side, or face to face, which is more intimate, or at some intermediate angle in between. An interesting experiment is to stand back to back with someone and try to have a conversation: it is quite disconcerting not to be able to see or to establish contact with the other person, even though we have learnt to have conversations with people we cannot see, as on the telephone.

Careful studies have been made of all these non-verbal forms of communication, and there is no doubt that what we say with words is only a part of the message we convey. It is important, however, to realise that gestures, like words, tend to come in clusters, and are often capable of more than one interpretation. You must look at the whole combination of words, facial expression, gesture and stance. If you learn to read the signs, you can tell whether what a person says is what he really means; or whether, like the man whose stomach does not move when he laughs, he is trying to deceive you.

## **Communication**

Communicating - or getting our message across - is the concern of us all in our daily lives in whatever language we happen to use. Learning to be better communicators is important to all of us in both our private and public lives. Better communication means better understanding of ourselves and others; less isolation from those around us and more productive, happy lives.

We begin at birth by interacting with those around us to keep warm, dry and fed. We learn very soon that the success of a particular communication strategy depends on the willingness of others to understand and on the interpretation they give to our meaning. Whereas a baby's cry will be enough to bring a mother running with a clean nappy and warm milk in one instance, it may produce no response at all in another. We learn then that meaning is never one-sided. Rather, it is *negotiated*, between the persons involved.

As we grow up our needs grow increasingly complex, and along with them,

our communication efforts. Different words, we discover, are appropriate in different settings. The expressions we hear in the playground or through the bedroom door may or may not be suitable at the supper table. We may decide to use them anyway to attract attention. Along with words, we learn to use intonation, gestures, facial expression, and many other features of communication to convey our meaning to persons around us. Most of our communication strategies develop unconsciously, through imitation of persons we admire and would like to resemble to some extent - and the success we experience in our interactions.

Formal training in the classroom affords us an opportunity to gain systematic practice in an even greater range of communicative activities. Group discussions, moderated by the teacher, give young learners important practice in taking turns, getting the attention of the group, stating one's views and perhaps disagreeing with others in a setting other than the informal family or playground situations with which they are familiar. Classrooms also provide practice in written communications of many kinds. Birthday cards are an early writing task for many children. Reports, essays, poems, business letters, and job application forms are routinely included in many school curricula and provide older learners with practical writing experience.

A concern for communication extends beyond school years and into adult life. Assertiveness training, the development of strategies for conquering stage fright, and an awareness of *body language* - the subtle messages conveyed by posture, hand movement, eyes, smile - are among the many avenues to improved communication as adults. The widespread popularity of guides to improving communication within couples and between parents and children illustrates our ever present concern with learning to communicate more effectively in our most intimate relationships, to understand and be understood by those closest to us.

Training of an even more specialized nature is available to those whose professional responsibilities or aspirations require it. Advice on how to dress and appear 'businesslike', including a recommendation for the deliberate use of technical jargon to establish authority, is available to professional women who want to be taken seriously in what has historically been considered a man's world. Specialized courses in interviewing techniques are useful for employers and others who interview people frequently in their professional lives.

One of the important lessons to be learnt here, as in other communicative contexts, is that what matters is not the intent but the interpretation of the communicative act. Conveyance of meaning in unfamiliar contexts requires practice in the use of the appropriate *register* or *style* of speech. If a woman wants to sound like a business executive, she has to talk the way business executives talk while they are on the job. The same register would of course be inappropriate when talking of personal matters with a spouse or intimate friend. Similarly,

executives who must cope with an investigative reporter may be helped to develop an appropriate style. They need to learn how to convey a sense of calm and self-assurance. Effective communication in this particular context may require the use of language to avoid a direct answer or to hide one's intent while appearing to be open and forthright. In both instances an understanding of what is *really* happening, as opposed to what one would *like* to see happening is the first step towards improved communication.

Communication, then, is a continuous process of *expression, interpretation* and *negotiation*.

## **The Communication Industry**

Clearly if we are to participate in the society in which we live we must communicate with other people. A great deal of communicating is performed on a person-to-person basis by the simple means of speech. If we travel in buses, stand in football match queues, or eat in restaurants, we are likely to have conversations where we give information or opinions, receive news or comment, and very likely have our views challenged by other members of society.

Face-to-face contact is by no means the only form of communication and during the last two hundred years the art of mass *communication* has become one of the dominating factors of contemporary society. Two things, above others, have caused the enormous growth of the communication industry. Firstly, inventiveness has led to advances in printing, telecommunications, photography, radio and television. Secondly, speed has revolutionised the transmission and reception of communications so that local news often takes a back seat to national news, which itself is often almost eclipsed by international news. The Israeli raid on Entebbe airport, Uganda, in 1976 was followed by six books about the subject and two films within months of the event.

No longer is the possession of information confined to a privileged minority. In the last century the wealthy man with his own library was indeed fortunate, but today there are public libraries. Forty years ago people used to flock to the cinema, but now far more people sit at home and turn on the TV to watch a programme that is being channelled into millions of homes.

Communication is no longer merely concerned with the transmission of information. The modern communications industry influences the way people live in society and broadens their horizons by allowing access to information, education and entertainment. The printing, broadcasting and advertising industries are all involved with informing, educating and entertaining.

Although a great deal of the material communicated by the mass media is very valuable to the individual and to the society of which he is a part, the vast modern network of communications is open to abuse. However, the mass media

are with us for better, for worse, and there is no turning back.

## **A Medium of No Importance**

Grown-ups, as any child will tell you, are monstrous hypocrites, especially when it comes to television. It is to take their minds off their own telly-addiction that adults are so keen to hear and talk about the latest report on the effects of programmes on children. Surely all that nonsense they watch must be desensitising them, making them vicious, shallow, acquisitive, less responsible and generally sloppy about life and death? But no, not a scrap of convincing evidence from the sociologists and experts in the psyches of children.

The nation has lived with the box for more than 30 years now and has passed from total infatuation - revived temporarily by the advent of colour - to the present casual obsession which, is not unlike that of the well-adjusted alcoholic. And now the important and pleasant truth is breaking, to the horror of programme makers and their detractors alike, that television really does not affect much at all. This is tough on those diligent professionals who produce excellent work; but since - as everyone agrees - awful programmes far outnumber the good, it is a relief to know the former cannot do much harm. Television cannot even make impressionable children less pleasant.

Television turns out to be no great transformer of minds or society. We are not, *en masse*, as it was once predicted we would be, fantastically well-informed about other cultures or about the origins of life on earth. People do not remember much from television documentary beyond how *good* it was. Only those who knew something about the subject in the first place retain the information.

Documentaries are not what most people want to watch anyway. Television is at its most popular when it celebrates its own present. Its ideal subjects are those that need not be remembered and can be instantly replaced, where what matters most is what is happening *now* and what is going to happen *next*. Sport, news, panel games, cop shows, long-running soap operas, situation comedies - these occupy us only for as long as they are on. However good or bad it is, a night's viewing is wonderfully forgettable. It's a little sleep, it's Entertainment; our morals, and for that matter, our brutality, remain intact.

The box is further neutralised by the sheer quantity people watch. The more of it you see, the less any single bit of it matters. Of course, some programmes are infinitely better than others. There are gifted people working in television. But seen from a remoter perspective — say, four hours a night viewing for three months - the quality of individual programmes means as much as the quality of each car in the rush-hour traffic.

For the heavy viewer, TV has only two meaningful states - on and off. What are the kids doing? Watching TV. No need to ask what, the answer is sufficient.

Soon, I'll go up there and turn it off. Like a lightbulb it will go out and the children will do something else.

It appears the nation's children spend more time in front of their TVs than in the classroom. Their heads are full of TV - but that's *all*, just TV. The violence they witness is TV violence, sufficient to itself. It does not brutalise them to the point where they cannot grieve the loss of a pet, or be shocked at some minor playground violence. Children, like everyone else, know the difference between TV and life. TV knows its place. It imparts nothing but itself; it has its own rules, its own language, its own priorities. It is because this little glowing, chattering screen barely resembles life at all that it remains so usefully ineffectual. To stare at a brick wall would waste time in a similar way. The difference is that the brick wall would let you know you were wasting your time.

Whatever the TV/video industry might now say, television will never have the impact on civilisation that the invention of the written word has had. The book - this little hinged thing - is cheap, portable, virtually unbreakable, endlessly reusable, has instant replay facilities and in slow motion if you want it, needs no power lines, batteries or aerials, works in planes and train tunnels, can be stored indefinitely without much deterioration, is less amenable to censorship and centralised control, can be written and manufactured by relatively unprivileged individuals or groups, and - most sophisticated of all - dozens of different ones can be going at the same time, in the same room *without a sound*.

## Clothing Signals

It is impossible to wear clothes without transmitting social signals. Every costume tells a story, often a very subtle one, about its wearer. Even those people who insist that they despise attention to clothing, and dress as casually as possible, are making quite specific comments on their social roles and their attitudes towards the culture in which they live.

For the majority of people, Clothing Signals are the result of a single daily event - the act of dressing, performed each morning. At the top and bottom of the social scale this activity may lose its once-a-day frequency, with rich socialites changing several times daily as a matter of course, and poor vagrants sleeping rough in the same clothes they wear by day. Between these two extremes, the once-a-day routine is usually only broken for the donning of specialized clothing. The man who gets dirty wears working clothes, the sportsman wears high-activity clothes. People attending special ceremonies - weddings, funerals, garden parties, dances, festivals, club meetings, formal dinners - change into the appropriate costumes. But although these pursuits mean the doubling of the once-a-day act of dressing, the change is nearly always from 'everyday' clothes into 'special'

clothing. The old pattern, in which social rules demanded the changing from 'morning dress' to 'afternoon dress' to 'evening dress', as a matter of regular routine, has now virtually vanished.

The modern trend in dressing behaviour is usually referred to as one of increased informality, but this is misleading. In reality, there is no loss of formality, merely the exchange of old formalities for new. The wearing of a pair of jeans by a young male today is as much of a formality as was the wearing of a top hat by his equivalent in a previous epoch. He may feel that he is free to wear anything he pleases, and is rid at last of the suffocating rules of costume etiquette that once dominated social life, but what he wears is as much a uniform today as the costumes of his predecessors were in earlier times. The written rules of yesterday may have been scrapped, but they have rapidly been replaced by the unwritten rules of today.

There are many interwoven trends that can be observed in the complex world of Clothing Signals. Some are long-term, lasting for whole decades, while others are short-term, surviving only for a season or two. Not all are easy to explain. One of the most mysterious is the relationship between female skirt-length and economic conditions. During the present century, ever since the First World War, there has been a rather precise correlation between the length of female skirts and the periods of boom and depression. On the surface, one would expect long skirts, employing greater quantities of material, to be related to the boom periods, and the skimpier, shorter skirts to be made when money also was short. But an analysis of the facts reveals that the exact opposite is the case. As the stock market rises so too do the skirts, and when it falls they descend with it. Attempts to change this relationship have met with disaster. For example, in Britain back in the boom period of the 1960s, the fashion houses tried desperately to increase the amount of cloth used in skirt-making by the introduction of the 'midi', a skirt almost twice as long as the 'mini skirt' then in favour. The midi-skirt project was an expensive failure and skirts went soaring on upwards. Only with the recession of the 1970s did the longer skirt edge its way back into fashion.

Exactly why females should want to expose more of their legs when the economy is healthier, it is hard to understand. Perhaps the general atmosphere of financial activity makes them feel more physically active - a condition favoured by shorter, less hampering skirt-lengths. Hopefully, future fluctuations will give us a clearer explanation.

More short-term variations are at work in a hundred different ways, as fashion trends diffuse themselves rapidly around the globe. Many of these are no more than 'novelty changes', based on the need to signal up-to-dateness by the wearers. Displaying the latest mode indicates not only the social awareness of the individual but also the ability to pay for new clothes at regular intervals, and therefore has its own special status value. Each new minor trend of this type modifies or reverses the fashion of the previous season, and can often be



measured with precision. The width of male lapels, for example, has been growing during the last few years, as has trouser-bottom width, tie-width, shirt-collar height, and shoe-heel height. By measuring these changes, and hundreds of others like them, it should be possible to plot graphs of shifting Clothing Signals and demonstrate the ways in which first one element and then another is modified to produce a constantly varying costume display system. Unconsciously, we all plot such graphs, all the time, and, without knowing quite how we do it, we read off the many signals that our companions' clothes transmit to us in every social encounter. In this way clothing is as much a part of human body-language as gestures, facial expressions and postures.

## **GENDER ISSUES**

### **Why Some Women Cross the Finish Line Ahead of Men**

Women who apply for jobs in middle or senior management have a higher success rate than men, according to an employment survey. But of course far fewer of them apply for these positions: The study by recruitment consultants NB Selection, shows that while one in six men who appear on interview shortlists get jobs, the figure rises to one in four for women.

The study concentrated on applications for management positions in the \$45,000 to \$110,000 salary range and found that women are more successful than men in both the private and public sectors. Dr Elisabeth Marx from London-based NB Selection described the findings as encouraging for women, in that they send a positive message to them to apply for interesting management positions. But she added, 'We should not lose sight of the fact that significantly fewer women apply for senior positions in comparison with men.'

Reasons for higher success rates among women are difficult to isolate. One explanation suggested is that if a woman candidate manages to get on a shortlist, then she has probably already proved herself to be an exceptional candidate. Dr Marx said that when women apply for positions they tend to be better qualified than their male counterparts but are more selective and conservative in their job search. Women tend to research thoroughly before applying for positions or attending interviews. Men, on the other hand, seem to rely on their ability to sell themselves and to convince employers that any shortcomings they have will not prevent them from doing a good job.

Managerial and executive progress made by women is confirmed by the

annual survey of boards of directors, carried out by Korn/Ferry/Carre/ Orban International. This year the survey shows a doubling of the number of women serving as non-executive directors compared with the previous year. However, progress remains painfully slow and there were still only 18 posts filled by women out of a total of 354 non-executive positions surveyed. Hilary Sears, a partner with Korn/Ferry, said, 'Women have raised the level of grades we are employed in but we have still not broken through barriers to the top.'

In Europe a recent feature of corporate life in the recession has been the de-layering of management structures. Sears said that this has halted progress for women in as much as de-layering has taken place either where women are working or in layers they aspire to. Sears also noted a positive trend from the recession, which has been the growing number of women who have started up on their own.

In business as a whole, there are a number of factors encouraging the prospect of greater equality in the workforce. Demographic trends suggest that the number of women going into employment is steadily increasing. In addition a far greater number of women are now passing through higher education, making them better qualified to move into management positions.

Organisations such as the European Women's Management Development Network provide a range of opportunities for women to enhance their skills and contacts. Through a series of both pan-European and national workshops and conferences the barriers to women in employment are being broken down. However, Ariane Berthoin Antal, director of the International Institute for Organisational Change of Archamps in France, said that there is only anecdotal evidence of changes in recruitment patterns. And she said, 'It's still so hard for women to even get on to shortlists - there are so many hurdles and barriers.' Antal agreed that there have been some positive signs but said 'Until there is a belief among employers, until they value the difference, nothing will change.'

## **Girl Talk - Where You Can Buy Success in the Coffee Break**

The lights are relaxedly dimmed and lime juice cordial and iced water sparkle invitingly on green baize. Lisa Ford makes her entrance. She is expensively but discreetly dressed: the right suit with the right hemline, low-heeled shoes, high-necked blouse, the minimum of good jewellery. She hails from Atlanta, Georgia, and she's as fresh as if she'd just stepped out of the shower.

Close on two hundred women in business, government, and the professions have come to learn how to project themselves. By four o'clock today, I shall have crystallised my self-knowledge, dramatised my commitment goals, and eliminated the credibility robbers in my speech patterns. My body language will speak volumes.

'Excuse me, Joe,' I shall be able to say, when interrupted by a male colleague. Men interrupt women 76 per cent more often than they interrupt men. It is just another symptom of their sublime arrogance. 'Excuse me, Joe, ' - clear and direct, not submissive, my hand up, but close to the body without aggression, the gesture that says subliminally: Stop. 'I would like to finish making this point.' Note that I did not say, tentatively, 'Er, Joe, I'm sorry, but would you, - er - kind of mind if I-er - added something? I mean, you probably won't think this is at all important, and of course, do fee free to sort of, well, criticise it if you like, but I'd just like to say ...' And when Joe congratulates me on my profundity, I shall swallow the good British instinct that might lead me to say, self-effacingly, 'Gosh. It was nothing!' and say, as a man would, 'Thank you. When you are as talented as I am, it comes naturally.'

The lights are gleaming now on a glossy video held aloft: *Success and Self-Programming*. We can buy it during the coffee break. We should share our knowledge because knowledge is power. Okay, let's get down to counteracting our stereotypes. Women, as we all know, are seen as too emotional, lacking the ability to handle criticism. Women are seen as having nothing important to say. Women make it worse for themselves by voicing their anxieties. I must avoid power-robbing appearance mistakes and mannerisms that say I am a lightweight. 'Powerless people smile to please,' warns Lisa. Women are expected to smile, where men aren't. I must develop a strategy for investing in my own image: promote myself for positive visibility. Being decisive is a power skill - I must breeze into the office on Monday morning full of positive thoughts and ready to defuse unwarranted criticism.

Like toothpaste, it's the inner ring of confidence that counts because as Lisa says, 'The scary thing is, around 80 per cent of our internal dialogue is negative.' That's okay as far as it goes. I'm not knocking assertiveness training or the teaching of techniques to combat sexism. But isn't it frightfully un-British? I've got this uneasy feeling that if we all package ourselves as the self-projectionists

advocate, we'll produce a race of all-American clones.

Please, may I hang on to my occasional bursts of temper or bouts of moodiness? Do you mind my crooked teeth? On the way to school, I used to take out my hated brace as soon as I was out of sight of the house. When the dentist expressed mystification that the treatment wasn't working, and I had to defend myself by saying that I found it difficult to splutter German through all the metalwork, he told me sternly that I would later regret my vanity. My teeth are not perfect. But I can speak German.

Now an American miss would not have done this. American misses know that confidence is engendered through a flashing smile. It is engendered, too, through a high school and college education which positively encourages self-promotion and self-analysis. American misses would have no reservations about writing a 'Dear Boss' letter as advocated by this seminar in order to increase value and visibility. It would not stick in their throat to say, 'Thanks for approving my attendance at the Image and Self-projection Workshop. I learned a lot! Here are some of the highlights.'

No, allow me a bit of unpredictability, please. Woman, after all, is at best a contradiction still. Sorry, Joe. You wanted to say something?

## **Women's Rights**

We live in a man-made society. Man devised and built the framework of government that controls our daily lives. Our rulers, representatives and arbitrators have almost all been men. Male judges and justices of the peace compiled our system of common law. Men drafted and interpreted our statute laws. Men constructed a bureaucracy to administer the law. Men cultivated the jungle of red tape which often threatens to engulf us. Men outnumber women in Parliament by twenty-four to one. Over 80 per cent of local councillors are men. Two in three magistrates are men. Juries seldom include more than a couple of token women. Men have an overwhelming majority in the legal profession, in the police force, in the upper ranks of the civil service, and even among trade-union officials.

The authority which men exercise over women is a major source of oppression in our society - as fundamental as class oppression. The fact that most of the nation's wealth is concentrated in the hands of a few means that the vast majority of women and men are deprived of their rights. But women are doubly deprived. At no level of society do they have equal rights with men.

At the beginning of the nineteenth century, women had virtually no rights at all. They were the chattels of their fathers and husbands. They were bought and sold in marriage. They could not vote. They could not sign contracts. When married, they could not own property. They had no rights over their children and

no control over their own bodies. Their husbands could rape and beat them without fear of legal reprisals. When they were not confined to the home, they were forced by growing industrialisation to join the lowest levels of the labour force.

Since then, progress towards equal rights for women has been very slow indeed. There have even been times when the tide seemed to turn against them. The first law against abortion was passed in 1803. It imposed a sentence of life imprisonment for termination within the first fourteen weeks of pregnancy. In 1832 the first law was passed which forbade women to vote in elections. In 1877 the first Trades Union Congress upheld the tradition that woman's place was in the home whilst man's duty was to protect and provide for her.

Nevertheless, the latter half of the nineteenth century saw the gradual acceptance of women into the unions and the informal adoption of resolutions on the need for equal pay. Between 1831 and 1872 the major Factory Acts were passed, which checked the exploitation of women workers by placing restrictions on hours and conditions of labour and by limiting their employment at night. In 1882 married women won the right to own property.

Wartime inevitably advanced the cause of women's rights - women became indispensable as workers outside the home, as they had to keep the factories and government machinery running while the men went out to fight. They were allowed into new areas of employment and were conceded new degrees of responsibility. In 1918 they got the vote. Again, during the Second World War, state nurseries were built on a considerable scale to enable women to go out to work. When peace came, however, women were unable to hold on to their gains. Men reclaimed their jobs, and women were forced back into the home and confined to their traditionally low-paid, menial and supportive forms of work. The government closed down most of the nurseries. Theories about maternal deprivation emerged - women who had been told it was patriotic to go out to work during the war were now told that their children would suffer if they did not stay at home. Little progress was made for the next two decades.

## **Equal at Work?**

In the early seventies, when the Department of Employment and EEC alike said the answer to women's low pay - and perhaps to poverty in general - was for women 'to break through the ring-fence of special women's employment', it seemed improbable this social transformation would ever be achieved.

Hedged about by our own self-images, as much as by the opposition of employers, unions and husbands, it looked as if it would be impossible for us to grasp that the roles of Pamela the Great Man's Handmaiden and Dora the tea-lady *were* roles, imposed from outside, and not the limits of our capacities.

Events since have demonstrated the untruth of these impressions. Women of all types have blazed trails in new areas, so that in a matter of a few years the impossible has happened. There are women piloting British airliners, women as navigating and radio officers on ships, women detective superintendents leading murder enquiries, women military officers performing strenuous training exercises - all on equal terms.

The change has not been one of revolutionary speed but it has spread through a wide range of jobs. It is no longer only university graduates and the like who are breaking the boundaries of tradition. The late seventies was the time when June Wilson, a cleaning lady, Alison Crompton, a nightclub hostess, and Rosalba Turi, a clothing factory presser, left their 'traditional' jobs and became crane drivers. It was the time when Colette Clark and Margaret Chairman resisted all their schools' pressure for them to become shopgirls, clerks and seamstresses, to take up electrical trades apprenticeships. When Maureen Marshall gave up assembly work for skilled joinery. When Cristina Stuart, who abandoned her secretarial work to travel the roads of Europe as a rep, became Sales Manager of her Publishing House.

Even without high-flying ambitions, work of a more masculine cast has strong advantages. At Maureen Marshall's factory in Doncaster, work had been traditionally segregated - even though, ironically, all the work involved was of a 'masculine' character in a joinery factory making doors, window-frames and even housefronts. The bulk of the labour, however, was female and it was the women who supplied the joinery work which was frequently very heavy. Meanwhile the men minded cutting machines and drove fork-lift trucks at higher rates of pay.

The men were allowed day-release to become skilled apprentices; the women remained, in paper terms, uneducated even after 28 years in the same factory, and even when they were privately skilled in advanced cabinet-making. The men, as qualified machinists, had the option of moving elsewhere if better jobs presented themselves. And they progressed up the firm to become foremen and managers. The women, technically unqualified, were considered good only for the exact job they were in, however skilled they might individually be. When equal pay legislation came into force, the work done by the women, which in the pre-war past had been done by recognised qualified joiners, was downgraded by the employer to unskilled, and continued at an unequal rate to the men's. Maureen, whose foreman had encouraged her to move into the male area, was one of the few who got equal pay, and has a foot on the ladder towards supervisory work, or work options elsewhere.

Another problem for women, according to an industrial psychologist, is that 'they consistently undervalue themselves', taking a humble viewpoint. Cristina Stuart, in fact, has learned the male technique of making her own chances. 'There really are things you have to grow out of once you're moving, that sort of feeling you have at first of just being grateful for having a place on the bench alongside

the big boys, that initial wondering when you're talking to directors and managers in other companies of whether it will come over as what you intend, or whether they'll take what you say as female chatter. You have to train yourself out of that female lack of assertiveness. At least, I don't think it is specifically female - you see it in men too - they have to make an effort when they move into management from another job, to get the style - though I think it's harder for women because it goes against a lifetime's training. And you've also got to counter that female tendency to be overhelpful, insufficiently competitive and wary.

'And it is possible. Bit by bit, when you find things work, that you are effective, that you are indubitably really *there* as far as work results are concerned, any feeling that you are wearing a disguise gradually melts away. Suddenly you wake up one morning and you are a manager in the whole way you react and act and think, and it is second nature. There are an awful lot of girls in jobs below their capacities simply because of the way they think about themselves. In the end it all boils down to a matter of attitude.'

It is evident that women can, and are, adapting themselves to male professions. But for true equality, why can there not be a further stage - unmentioned as yet - valuing women's jobs properly. Why should not a nurse or a home help be considered as valuable and paid as well as a carpenter or plumber? When this equation is solved, equality will be here.

## **Women Beware, British Man about the House**

Europe's legion of working women who long for a caring 'new man' to share their duvet and the household chores would be ill-advised to start searching in the United Kingdom.

Researchers dispatched by Brussels to far corners of the European Union have found that few husbands are quite so disinclined to lift a finger round the house as the British. Even the stereotyped chauvinists of France and Italy emerge as better disposed to visit the supermarket or escort children to playschool.

Challenged with a list of six common domestic tasks, three out of four fathers in Britain claimed not to be in charge of any of them - a proportion larger than for the European Community as a whole. They left it to women to take the lead in shopping, washing-up, cooking, cleaning, transporting children or helping them to dress.

Ex-Communist Eastern Germany, the Netherlands and Greece emerge as the only places where a majority of fathers, interviewed about the years before their children went to school, agreed they were responsible for at least one of the items. In the case of Greek men it emerged that their burst of domesticity was overwhelmingly confined to visiting shops,

Spanish husbands, meanwhile, topped the league for all-round household

hopelessness, with almost 8 out of 10 admitting to no responsibilities at all-an assessment which was more than confirmed by the views of Spanish wives and partners who took part, in the survey. The strangest results, were from

Percentage of men who will NOT take responsibility for chores		
Country	They say	Partners say
Belgium	60.8	61.0
Denmark	51.1	47.5
Former W.Ger.	60.7	71.1
Former E.Ger.	42.7	62.7
Greece	47.2	49.8
Spain	76.6	79.7
France	58.4	60.7
Ireland	84.0	31.9
Italy	55.6	60.2
L'bourg	58.9	64.9
N'lands	45.7	46.2
Portugal	69.3	71.9
UK	74.2	70.6
EU average	61.6	65.4

Ireland, where 84 per cent of men stoutly maintain that they take no responsibility whatsoever for shopping, cleaning, cooking, washing-up, and dressing the children or driving them to school.

Yet the Irishmen's view of themselves as devil-may-care, unliberated, macho sort of fellows appears to be sheer fantasy. According to their wives and partners, nearly 70 per cent of their menfolk take responsibility for at least one household task, putting them among the most domesticated men in Europe.

The 'Family and Work' survey, one of a series commissioned by the European Commission's Employment and Social Affairs Directorate, was based on almost 17,000 interviews in the 12 member states.

Looking at the domestic tasks where European men - albeit the minority - are prepared to take a lead, the survey identifies a North-South divide. Men in Portugal and the Mediterranean countries appear more concerned with the "public" duties of shopping or dressing and driving their children; further north 'it is the "private" chores such as dish-washing, cooking and cleaning which are treated with above-average enthusiasm.

Those British husbands who do anything are at their best when clutching a dishcloth or tea towel at the kitchen sink, although their willingness to act as family chef is greater even than Frenchmen's. The survey authors, Marianne



Kempeneers of Montreal University and Eva Lelievre of the London School of Economics, found that British women were unusual in Europe because of the extensive availability of part-time jobs. Their working lives were marked by interruptions to care for children and they were more prone to feel that promotion had been sacrificed as a consequence.

Former West German, Dutch and Irish women were more likely to mark motherhood with a prolonged or permanent exit from the labour force. But women living in Denmark and southern Europe found less difficulty reconciling work with their family responsibilities - possibly because childcare was easier to obtain.

## **Men, the Emotional Sex**

Ever since Neanderthal man evolved into a creature with feelings, he has been trying to conceal them. But hiding the giveaway clues isn't easy. The smile that doesn't follow through to the eyes, the hint of a quaver in the voice, the merest suggestion of a furrowed brow - all conspire against people who don't wear their hearts on their sleeves ... and society has always believed that when it comes to picking up such clues, women have the edge on men.

However, a study released last week by scientists at the University of Pennsylvania indicates that it is men who have the stronger emotional response to other people's feelings. It throws a whole new light on to the male psyche and is one of the first investigations conducted into the differences in male and female ability to process emotions.

During the research, male and female 'guinea pigs' were shown photographs of actors and actresses making a range of facial expressions. They were then asked to describe the emotion portrayed. In virtually all areas, men consistently outperformed women - especially when it came to detecting sadness.

The findings are the latest to add weight to a theory that has confounded the equal opportunists. Quite simply, it proposes that men's and women's thought processes are fundamentally different.

The theory remains highly controversial in the medical world. But the evidence behind it has been accumulating for the past decade to the point where it can no longer be ignored - however politically incorrect its implications.

A catalogue of studies now strongly suggests that while there is 'no actual difference in male and female levels of intelligence, the sexes have markedly different patterns of ability and perception.

Numerous scientists have now come to the conclusion that men are more decisive, aggressive and driven by money and status than women. They also believe they tend to be more mechanically minded, better at targetting objects and better at activities which require spatial reasoning.

Women, on the other hand, are thought to have greater verbal fluency than men, though the sexes have equal vocabularies. They prefer amicable solutions to problems and perform better in non-competitive situations. They also outperform men in arithmetic calculation, can store more random information, and are far better than men at identifying matching items in a hurry.

The reason for the differences is thought to be largely due to levels of the hormone testosterone in both men and women.

Scientific evidence from all over the world supports this belief - including research conducted by Melissa Hines, a Los Angeles behavioural scientist. Dr Hines contacted a group of women born with a rare genetic abnormality which caused them to produce elevated levels of the hormone.

She found they had all developed skills traditionally thought of as 'male', and had entered fields such as architecture, mathematics and mechanics. It seems hormones create a mental divide between men and women even before puberty. Recent research by Professor Doreen Kimura, of the University of Western Ontario, has come down heavily in favour of the theory that babies are born with mental gender differences - because sex hormones have affected the brain as it develops in the womb.

It has been fashionable to insist that any differences in the intellectual thought processes of the sexes are only minimal and the result of different experiences during the development of a child. But, says Professor Kimura, the bulk of evidence now indicates that sex hormones take effect so early in life that, from the very start, the environment is acting on differently wired brains in girls and boys.

Professor Kimura has conducted extensive tests which show that three-year-old boys are better at targetting objects than girls of the same age. Animal studies she looked at confirmed these early differences.

Her studies show that major differences in the intellectual function appear to lie in patterns of ability rather than in the overall level of intelligence.

Scientists believe that the specific area of the brain affected by sex hormones is the hypothalamus, which is situated at the base of the brain and stimulates feelings of rage, hunger, thirst and desire. As well as creating differences in the thinking processes of the sexes, the same area of the brain appears to influence sexual orientation. Last summer, San Diego scientist Simon LeVay announced the intriguing discovery that part of the hypothalamus was twice as large in heterosexual men as in women or homosexual men.

## EDUCATION

### At a Prep School

The headmaster sighed and crossed to the window. His was a most expensive prep school. , 'The fact of the matter is, and you must appreciate that I have had some thirty years in the teaching profession, that Peregrine is an unusual boy. A most unusual boy.'

'I know that,' said Mr Clyde-Browne. 'And I also know that every report I've had says his behaviour is impeccable and that he tries hard. Now I can face facts as well as the next man. Are you suggesting he's stupid?'

The headmaster turned his back to the desk with a deprecatory gesture. 'I wouldn't go as far as to say that,' he murmured.

'Then how far would you go?'

'Perhaps "late developer" would be more accurate. The fact of the matter is that Peregrine has difficulty conceptualizing.'

'So do I, come to that,' said Mr Clyde-Browne. 'What on earth does it mean.'

'Well. as a matter of fact ... '

'That's the third time you've prefaced a matter of no fact whatsoever by using that phrase,' said Mr Clyde-Browne in his nastiest courtroom manner. 'Now I want the truth.'

'In short, he takes everything he's told as Gospel.'

'As Gospel?'

'Literally. Absolutely literally.'

'He takes the Gospel literally?' said Mr Clyde-Browne, hoping for a chance to vent his feelings about Religious Education in a rational world.

'Not just the Gospel. Everything,' said the headmaster, who was finding the interview almost as harassing as trying to teach Peregrine. 'He seems incapable of distinguishing between a general instruction and the particular. Take the time, for instance.'

'What time?' asked Mr Clyde-Browne, with a glazed look in his eyes.

'Just time. Now if one of the teachers sets the class some work to do and adds, "Take your own time." Peregrine invariably says "Eleven o'clock".

'Invariably says "Eleven o'clock"?''

'Or whatever the time happens to be. It could be half past nine or quarter to ten.'

'In that case he can't invariably say "Eleven o'clock",' said Mr Clyde-Browne, resorting to cross-examination to fight his way out of the confusion.

'Well, not invariably eleven o'clock,' conceded the headmaster, 'but invariably some time or other. Whatever his watch happens to tell him. That's

what I mean about him taking everything literally. It makes teaching him a distinctly unnerving experience. Only the other day I told his class they'd got to pull their socks up, and Peregrine promptly did. It was exactly the same in Bible Studies. The Reverend Wilkinson said that everyone ought to turn over a new leaf. During the break Peregrine went to work on the camellias. My wife was deeply upset.'

Mr Clyde-Browne followed his glance out of the window and surveyed the stripped bushes'. Isn't there some way of explaining the difference between metaphorical or colloquial expressions and factual ones?' he asked plaintively.

'Only at the expense of a great deal of time and effort. Besides we have the other children to consider. The English language is not easily adapted to pure logic. We must just hope that Peregrine will develop quite suddenly and learn not to do exactly what he's told.'

From *Vintage Stuff* by Tom Sharpe

### **A Training for Life in the Day of a Boarder**

Helen Taylor lives with 24 other boys and girls in a large white suburban house called Little Arundale with beehives and a vegetable garden. House-parents Mike and Jill Clement try to recreate family life in the boarding house, one of eight at St Christopher School, Letchworth.

Helen's day begins at 7.30am when Mike comes in to "Woodpeckers", the cosy room she shares with her fellow pupils Louise and Zoe, and opens the curtains. The girls put on jeans, rugby shirts and trainers and go downstairs for breakfast. Then, picking up a vinyl shopping bag full of books and a baggy green cardigan, Helen walks to school to see Penny, her personal advisor, to plan the day's activities around the set lessons.

Helen, daughter of an army lieutenant-colonel, swears she has not been homesick since the day she arrived five months ago with her twin sister Caroline, "It's brilliant here, the most magnificent school in the world! And I've been to seven schools so I know," she says.

"I haven't cried once yet - well, I cried when Caroline had tonsillitis and I cried when I had a cold and didn't feel well, but I haven't cried because I miss home. If you have a problem here you can speak up and people will listen to you. You are treated like a person, and not just a body or a £5 note."

Having her sister there obviously makes it easier to settle away from home, but it did not help at the strict prep school where the two began to board at the age of nine. "It was really terrible. We weren't allowed to ring our mum, and she could ring us on Thursdays only. Every Thursday we cried all night. We used to ask her to take us away. The matron wouldn't let us go to the loo at night or see the nurse when we were sick. If you didn't get up they poured cold water on your face."

St Christopher was a good choice of senior school for Helen and Caroline because it gives special help for problems such as the twins' spelling difficulties. After a morning of academic lessons and a vegetarian lunch of salads, wholemeal pudding and custard, Helen's friends try to persuade her to come to netball practice instead of one-to-one tutoring in spelling. Sensibly, she refuses.

"Oh great!" says spelling coach Anthea when she looks at Helen's English homework. "You're not behind any longer, in fact you're ahead, but there is still a gap between this and what you will be able to do." The rest of the afternoon is spent making pottery with Mike in a large studio. Today's theme is totem poles.

"We are going to assemble geometric shapes in an interesting way, because it pleases you," says Mike, who is dressed in khaki denim, handing out wet brown clay. "That's wicked," says one boy, "I wish it was chocolate," says another. The girls are already hard at work sculpting pyramids, cylinders and trapezoids.

Soon it is 3.40 and the children are free. Suddenly the grounds are full of children wheeling on bikes, careering on roller-skates and skate-boards. Helen has a medical examination and then goes back to Little Arundale for vege-burgers and chips. At 5.30 there is a mass exodus to watch a soap. For homework Helen and other girls go to Caroline's room, "Skylarks", a triangular room in the attic with ship's bunks. Instead of doing homework the girls gossip and eat illicit fruit gums.

Mike conies in to see if they have done their prep. It's time for swimming. In the bus to the local leisure centre, the children shout, scream and howl at the moon like werewolves. Fortunately Tony, the teacher on duty, is very tolerant.

Back home at 8.00pm. Plum tart and fresh lemonade are laid out for supper in the kitchen. Everyone puts on their night clothes. 'Helen's mother phones, for the fourth time that week. Older boys play snooker with Mike while the little boys appear with teddy bears and furry slippers and beg to be allowed to phone their mums. While they are waiting, they hang around Jill in the kitchen on the pretext of helping to clear up.

Helen's last chore of the day is to throw away cold lumpy custard. Then at 9pm, to squeals of protest, Mike shepherds them all to bed where Helen quietly reads *Peter Pan*.

## **I Was Bigger than the Entire Class I Went Down Into**

We lived in a village in Suffolk where my mother was the headmistress of the local school, while my father stayed at home writing and looking after the children. We all went to my mother's primary school, and then, luckily, we all got scholarships to go to the Friends' School as boarders.

The Friends' School in Saffron Walden, near Cambridge, was a progressive Quaker coeducational boarding school, a large Victorian red-brick building on a hill, with the most wonderful, enormous playing fields stretching out at the back.

It was a school where the Quaker ethic of self-determination was tremendously important, so there wasn't any pressure to push you through, and as I was totally preoccupied with football and cricket, and as I actually found the work rather difficult, it meant that schoolwork just wasn't part of my consciousness, and I was doing very badly. My reports would be covered with black crosses, although there'd be the occasional line of praise from the sports master, which gave me infinitely more pleasure than any dissatisfaction with the crosses.

I don't have any memory of my parents giving me a hard time about my work either. My parents suggested I leave school at 15 and take up bricklaying, which they thought was the sort of thing I'd be rather good at, although in retrospect I wonder if perhaps that was their reaction to my school reports.

But one summer a letter arrived in the holidays saying that I was to be held back a year. I can picture myself standing on the stairs, reading the letter, and being absolutely transfixed with horror at the prospect. . .

Even at that age, you see the implications. Here one was at a time where the differences between age and status are magnified enormously, six months' difference in age was like 10 years now. One really did think this was the end of everything, that this humiliation was more than one could possibly cope with.

Well, I was tremendously upset and panicky, and at an age when one is extraordinarily vulnerable and sensitive, I had to go back to school in September to be with boys and girls a year younger than me, which was intensely demeaning. Physically I was conspicuous, I was bigger than the entire form I went down into. In fact, all the time I felt humiliated, I mean, it preoccupied all my days, and I thought about it a lot at night.

So appalling did I find it, that when we had to queue up in forms to file in to supper, I always queued up with the form I'd been kept out of. It was revealing of the teachers, because the nice ones would just leave it, but the pigs would say, 'Evans, you're standing in the wrong line,' and so there was then the utter humiliation of being pulled out.

It caused various things to be triggered in my mind which have never left me. A fear of failure, certainly; a preoccupation with making sure that one isn't kept down in life, and a sort of general feeling of unease that something is always likely to happen which could push you backwards.

But what it also did was to make me realise that work could actually affect my life, and I think I became a slightly more rounded and interesting person in some ways. I saw that the world and the way one approached it wasn't seen through the games field, and one discovered a whole new way of thinking and looking at things through schoolwork.

Not that I was grateful at first, I felt very bitter about it all, feeling terrible pain and anguish for at least two terms, a long time in a boy's life.

But school went very well eventually. I became a different person in that I embraced learning and read a lot, and really worked very hard. I got four O-levels - which the school regarded as an amazing achievement - and then I went on to do A-levels, and actually did quite well again, and went to university. I was prefect, captain of football and cricket, and became a rather appallingly well-rounded schoolboy, and one crossed over item being the problem child to being somebody the headmaster came to for advice about other children.

It's probably less traumatic than things which have happened to other people, but it had a fairly traumatic effect on me. It's only now that I realise it gave me a determination to try not to fail, which I might not have had otherwise.

## **The School that I'd Like**

IN DECEMBER 1967, The Observer newspaper organised a competition for secondary school children (age 11-18) to write an essay on "The school that I'd like.' In most of the entries, the children's ideal school was not at all like their present one. Here is a selection of their views.

The school I'd like would be one whose primary aim was to teach me how to live, and make me a responsible member of society. *Christa, 16*

At the moment we seem to be working merely for the sake of examinations, whereas we should work to satisfy our curiosities. *Patricia, 15*

The discipline and life of the school would be based on freedom for the pupil. No uniforms and a minimum of control would be vital, and the pupils, male and female, would be treated as adults and allowed to see if they can live together in a community like intelligent people. *Christopher, 16*

Essentially school must be part of family life, and for this reason, day schools should be the usual form of school. For how will a teenager, if unable at this stage of his life to combine school and home life, be able to cope with the frustrations and difficulties of life later? *Mary, 14*

. . . tables would replace desks, which are small and an enemy of knees.

*Judith, 75*

The pupils would talk freely about religion, politics, music, sport or whatever else they would wish to discuss. They would quietly (or loudly) debate, read and laugh. *Judith, 13*

The pupils should be given more chance to speak and the teacher should be given a chance to listen. *Susan, 13*

The school I would like is one where there are young teachers because I find that most teachers who have been teaching for a long time try to model schools on what it was like in their own schooldays when it was not as enjoyable as today. *Mark, 11*

The school would be a large spacious building with underfloor central heating so that people who enjoyed going without their shoes could do so, if they wished, in comfort. *Angela, 15*

I myself would like more English and less arithmetic. English is so much more imaginative. The only imagination I use in arithmetic is when I guess the answers. *Melissa, 11*

If school-goers were treated as responsible people, many rules could be abolished. *Janet, 16*

I would like my school to be called St Monica's and if possible to be situated in the Austrian Alps. *Colette, 13*

The object is to promote creative ability in the individual, and not simply to present facts. In the future, the school will try to present material so that the student will become deeply involved and interested in his work; for the student who enjoys his work is always the one who makes good progress and understands his work as opposed to simply learning it. *K (boy), 17*

Schools usually have one thing in common - they are institutions of today run on the principles of yesterday. *M (girl), 15*



## **Going to School Far from Home**

Flight 830. Departure 10.45 p.m. At first glance, just another routine flight to Los Angeles, California. Yet for 38 young passengers between 15 and 18 years of age, it is the start of a new experience: they will spend 10 months of their lives studying abroad, far from their families. Every year the United States is host to an average 78,000 foreign high school-level students, of which 3,000 are Brazilian. They all go for the same reasons - to become fluent in English, complete high school, and understand everything they can about the American way of life.

For the majority, the decision to study abroad is taken only after a period of careful planning, at least six months. "For me," says 17-year-old Gloria Marcato, "it's more important to learn to speak English and live through this experience than it is to receive a diploma from the American government." Others, more ambitious, dream of continuing on to college. "I want to be a conductor, and I've already chosen the best American music school," enthuses Sandro Rodrigo de Barros.

Things, as they say, are not always so easy. Even young students who plan on staying in the United States just long enough to finish two semesters of high school have difficulty finding a host family. Very few arrive in the country with all the details worked out. Gloria Marcato is one of the lucky ones. Before leaving, she had received two letters and some photos of her new "parents." "I think it all depends," says Gloria, "on how you answer the questionnaire sent by the overseas study company here in Brazil. For example, I didn't economize on words. I even wrote about my four dogs, and said I went to church every Sunday." She hit the target. Americans are quite religious (the majority being Protestant) and have a special place in their hearts for pets.

Each student is expected to cover his or her own expenses with articles for personal use, entertainment, long distance telephone calls and clothing. Towards this, they should budget between US\$ 200 to US\$ 300 a month. American families which host foreign students are not reimbursed, though they are allowed a small income tax deduction.

In the event of illness, each student has a medical assistance card. Health insurance does not cover AIDS, abortion and suicide, nor dentist and optometrist bills. At the end of each semester, as long as the student passes final exams, American authorities grant a certificate which is recognized in Brazil. One important regulation of the foreign study program has to do with the curfew stipulated by the host "parents" to be at home on weekend nights. "They're really tough," says Juliana Martini, who just finished her first semester - "You have to be in by 10.30 p.m., and if you disobey, you get punished."

Another moment of tension descends as students await the domestic flight that will take them to their temporary home. From then on it's everyone for himself. No one really knows how he or she will adapt to such new customs.

Though most foreign students remain in California, some are sent to Texas, Arizona, Idaho, Oklahoma or Virginia.

After a few days, the general complaint is about the food. "Even though I adapted easily, I really miss rice and beans. The food here doesn't look too nourishing," pines Fernando Andrade. Another big problem encountered by most youngsters is homesickness.

A few arrive in the United States with little command of English. In such cases the only recourse is private language study. This in turn pushes up the cost of the program, estimated at about US\$ 3,800, including air fare.

On the whole, most students leave knowing they will have to do without their accustomed parental protection and learn to take care of themselves. However no one packs his or her bags alone. Parents always give suggestions, or even take on the task themselves. The kids frequently show their lack of practice at such things. They take along unnecessary items. One student from the Brazilian South succeeded in cramming two enormous suitcases to the brim, and had to contend with her carry-on luggage as well. As a result, she couldn't lug them around by herself.

For many the departure at the airport is the worst moment. Even though friends and family support the idea of going, it is difficult to say good-bye at this moment. "It's not easy to leave behind the people you love, especially a boyfriend. I cried at the departure and I cried on the plane too," tells Patricia Caglian, 16.

## **Taking a Year Off**

Unfortunately, many students overlook the value of taking a year off from their studies. Far from being a year wasted, a gap year between school and university could actually be of benefit to your future, especially if you make the most of it by working and travelling abroad. Not only are you likely to increase your self-confidence by living in another country, you'll add valuable work experience to your CV- a bonus when it comes to job hunting after college.

Planning to take 12 to 15 months off need not be difficult if you do your homework. Although travelling or working abroad for voluntary organisations may prove expensive if you lack sufficient funds, it is possible to combine your ravel with paid work experience.

Since 1962, BUNAC, a non-profit organisation, has enabled thousands of full-time students to work in America, Canada and Australia each year. There is a wide range of programmes to choose from and they are designed to be self-financing, So you should be able to earn back your initial expenses and have sufficient money to pay for your post-work travels.

Work America and Work Canada are open to full time students and those

who have postponed their entry and have a place at a university for the following year. Those taking part in the programme can take almost any job anywhere for the summer (up to 12 months in Canada). It is even possible to pack fish in Alaska, if that appeals! Most, however, would tend to work in temporary jobs within the tourism industry, mainly in restaurants and hotels.

BUNACAMP Counsellors places both students and non-students at children's summer camps in the USA. Those aged between 19 and 35, with relevant experience of working with groups of children, can spend up to eight weeks teaching sporting, arts and dramatic activities at camp and have time to travel around North America afterwards. For those who would rather work behind the scenes, the KAMP programme places students in kitchen and maintenance positions. Both programmes include return transatlantic flights, free board and lodging and pocket-money.

Work Australia offers 18-25 year olds with more time to spare, the opportunity to work and travel 'down under' for up to 12 months. There are several departures from London or Los Angeles throughout August, September and October so it's an ideal programme for gap-year students or those who have just graduated. You can even link it to one of the North American programmes to get the most out of the experience.

Kathryn Jackson spent a year travelling around Australia. 'My most enjoyable job in Australia was as a receptionist, cook and cleaner at "Backpack Australia", a crazy place in Adelaide,' said Kathryn. 'I left there with great memories and a bursting address book.'

Over the next month Kathryn travelled around in a station wagon with friends. 'We went diving at the Great Barrier Reef, drove through sugarcane fields and tropical fruit plantations, watched the sunset over Ayers Rock and lived on cheese and jam sandwiches. It was incredible!' On the importance of her year off, Kathryn said, 'I feel my trip has taught me a lot - from the importance of tolerance and experiencing new cultures to how to cook. My self-confidence has improved amazingly.'

Taking a year off does require forward planning, so you'll need to apply this October for next year's summer programme. BUNAC arranges visas, flights, airport greetings and back-up support for participants, which makes organising your trip very easy. All you have to do is decide where you want to go!

## **How to Pass Your Exams!**

Preparing for exams involves more than just trying to remember a series of facts at the last minute. It means careful study and efficient revision right from the start of your course. Try this questionnaire and see if you're ready.

1 When you study, do you:

- a) try and find a quiet well-lit room?
- b) read while lying on your bed or taking a bath?
- c) play the latest rock record?

2 Do you study:

- a) if possible, during the morning with regular breaks every two or three hours?
- b) for twenty minutes, then get up and make some coffee, phone a friend, another twenty minutes, more coffee . . . ?
- c) mostly at night?

3 When you learn something, how long do you remember it?

- a) I don't know, about a month. I suppose.
- b) Once I've learnt something, I can remember it — that's just common sense!
- c) Probably less than twenty-four hours, so I must make an effort to revise.

4 If you come across a word you don't understand, do you:

- a) ignore it?
- b) look it up in the dictionary immediately?
- c) read on and try to work out the meaning from the context?

5 How often do you go over your notes?

- a) Everyday.
- b) Every month.
- c) The night before the exam.

6 When you're in class, do you:

- a) read the newspaper?
- b) talk as much as possible?
- c) join in as much as possible and ask questions when you don't understand?

7 When you're given homework, do you:

- a) hand it in on time?
- b) hand it in late?
- c) think of an excuse (e.g. the dog ate it) and not hand it in at all?

8 If you get bad marks, do you:

- a) check how the others did, to see if they got bad marks as well?
- b) ask the teacher to give you better marks?
- c) leave the room in a temper?

9 When the teacher corrects your work, do you:

- a) try and understand the mistakes you made?
- b) put it in your bag and forget about it?
- c) put it in your bag and promise to look at it later?

10 Can you reproduce what was taught in class by looking at your notes? .

- a) Yes.
- b) Yes, if I can read my handwriting.
- c) No, because I don't take any.

11 Do you ever take notes in diagram form?

- a) No, I just write down what the teacher says.
- b) Yes. I think it's clearer when I revise.
- c) What's a diagram?

12 At the end of your class, do you:

- a) ask your friend for his notes?
- b) fold up your newspaper and go and have a coffee?
- c) think over what you've just learnt?

13 How much do you know about the exams you're taking?

- a) Well, I know there are five papers.
- b) I'm still waiting for the teacher to tell me.
- c) I've looked at some of the past papers.

14 When you start revising for exams, do you:

- a) panic a few weeks before and work all day and night?
- b) not worry at all and put it off until the night before?
- c) work out a timetable which allows you plenty of time?

15 What material do you use for your revision?

- a) The course book, because the authors know it all.
- b) Notes, course book, further reference books, e.g. dictionary. grammar.
- c) Lists of words.

16 The evening before an exam, do you:

- a) work all night?

- b) do something other than revision and go to bed, early?
- c) take your mind off the exam by staying out late?

17 In the exam, do you:

- a) read the whole paper carefully and answer those questions you can do quickly?
- b) work steadily through the paper without reading it through?
- c) read the whole paper and then move closer to your neighbour so you can copy his answers?

18 If the exam paper says. 'DO NOT WRITE IN THIS MARGIN', what do you do?

- a) I don't write in the margin.
- b) I *try* not to write in the margin.
- c) I put candle wax in the margin, so the examiner can't write in it.

### How to score

- |        |      |      |         |      |                                   |
|--------|------|------|---------|------|-----------------------------------|
| 1 a) 5 | b) 2 | c) 0 | 10 a) 5 | b) 2 | c) 0                              |
| 2 a) 5 | b) 0 | c) 1 | 11 a) 2 | b) 5 | c) 0                              |
| 3 a) 2 | b) 0 | c) 5 | 12 a) 2 | b) 0 | c) 5                              |
| 4 a) 0 | b) 2 | c) 5 | 13 a) 1 | b) 0 | c) 5                              |
| 5 a) 5 | b) 3 | c) 0 | 14 a) 2 | b) 0 | c) 5                              |
| 6 a) 0 | b) 0 | c) 5 | 15 a) 1 | b) 5 | c) 1                              |
| 7 a) 5 | b) 2 | c) 0 | 18 a) 1 | b) 5 | c) 1                              |
| 8 a) 5 | b) 0 | c) 0 | 17 a) 5 | b) 2 | c) Oh dear!                       |
| 9 a) 5 | b) 0 | c) 1 | 18 a) 5 | b) 1 | c) Are you sure you want to pass? |

Now add up your total score.

61 —90 points: Well done, you are preparing yourself for the exams very efficiently but don't be too satisfied with yourself. Make sure you keep up the good work with regular revision and by reading as much as possible. And don't forget to do some practice papers under exam conditions -and that means timing yourself!

31-60 points: You'll have to make more effort if you want to do well. Be a little more positive in class and do make sure you've made a revision timetable which you can stick to. Cut down on those discothèques and parties; studying can be fun as well!

0-30 points: Oh dear, you've got a lot of work to do if you're going to catch up! But there's still time if you get down to work immediately. Try and think very carefully about everything you do in class. Write your notes down on small cards and read them while you're cleaning your teeth or waiting for the bus. There's no time to lose!

## Finding a Job

Nowadays, an increasing number of school-leavers are having great difficulty in finding a job. There are many reasons for this; one is that industry is getting more efficient and simply needs fewer people to make the same number of products; another is that the whole pattern of work is changing. For example, more and more people are starting small businesses, often offering services to householders or producing high-quality hand-made goods. It takes imagination, organisation, determination and hard work, but it can pay off.

- In **Sheffield**, Mike Hindmarsh (19), did it ...

'In my later school years, I was quite certain I wanted to work for myself. I did all right at school, but left with no qualifications except Maths 'O' Level. The skills I had weren't brilliant - no particular knowledge about anything except music. At school, I helped to get a group together, organise concerts, design the sets and mix the sound. But I was never good enough to earn my living that way. But I have got a lot of imagination and determination. When I finally left school, I put my mind to what I could do for myself. Then I thought, since a lot of people are now into DIY, one way of earning money might be by servicing DIY equipment. For the moment I've-narrowed that down to tool sharpening. I specialise in giving fast, reliable service. It's the organisation that counts most. I'm a one man show, so I have to advertise, man the phone and keep track of the financial side myself. The tool sharpening is only one aspect. But now I'm managing to break even and I keep my eyes open for any ways of expanding the business.'

- In **Cambridge**, QPL Motorcycle Couriers - Quentin (22), Toby (21) and Lynne (21) did it. . .

Quenrin told us: 'We'd all had jobs, but been made redundant and spent some time out of work. I wanted to be a pop star, which meant going to London regularly. I decided that wasn't possible. I'd never make it, but I'd noticed a lot of motorcycle couriers in London, so I thought I'd try and get a job with a company locally. There wasn't one. I still had £100 of redundancy money and my bike. My girl-friend Lynne was good at accounts, so we set up with another friend Paul as the third partner. We started by advertising and that was terrible at first - the only thing that worked was putting a suit on and going round offering our services, and an advert in the Yellow Pages. When Paul left, Toby joined us but we kept the name QPL because we were starting to get known. Now we do a daily run to London and go anywhere in Great Britain. We use up to 20 riders and we buy ourselves a new bike every year. We've learned a tremendous lot about management and organisation and are now pretty confident about the future'.

- In **London**, Chrissie Roberts (24) Carpet Designer and Manufacturer, did it . . .

'I did screen printing at college and worked freelance for two years. But it didn't work out very well. Then I saw a programme about a Training Workshop on TV. I went there to do screen printing but finished up in the carpet department. I found that my designs were very suitable for the process of making carpets. I learned how use the machine and do everything myself. I suppose I also learned how to take responsibility for my own work and to be disciplined about it. I thought why don't I do this on my own? There seemed to be a gap in the market - I could offer really high quality carpets made to the customer's own specifications. So now I'm setting up a workshop and am out looking for orders.'

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Note:

'0' Level Ordinary Level examination, usually taken in 1-8 subjects at the age of 16

*mocorcycie couriers*: special messengers for parcels, letters, etc

*Yellow Pages*: yellow telephone directory of services

*screen printing*: process for printing on textiles, glass, metal, etc , as well as paper

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## **Stressed for Success**

There was a time when senior year in high school was supposed to be one of the best years in a young person's life. Tell that to most seniors today—or to their parents—and they'll laugh in your face. In a high-pressure area such as Washington, where almost every middle-class lad is expected to go to college, and preferably an elite one, senior year has tuned into a nightmare.

"This year has rivalled my divorce in tension," says Marilyn Clute, whose twin sons Erik and Chris are still trying to decide where they will go in September after each of them got accepted to nine colleges.

"It's been the most stressful year in my life and my son's since he was 2. It's harder than anyone is prepared for. There is something really wrong with the whole process," says Ruth Heitin, whose son Eli will attend Temple University next year.

In the last 20 years of teaching seniors, I have only seen the stress get worse. Admittedly, the causes are complex, the angst of leaving home and soaring tuitions not the least among them. Still, I can't help but believe that parents themselves are the biggest sources of senior misery. From what I see, if parents really want to help their children negotiate the world after high school, the best thing they can do is chill out, put their egos aside and start thinking seriously about the realities of education and success in this country.

Washington realtor Jim Coakley, father of two teenage boys, thinks that status is at the heart of parents' frenzy over college. "Anyone can lease a Jaguar or buy trendy clothing at discount. The only business in America that is not



discounting its product is higher education. For the double-degree, double-income parents in this area, getting a kid into a prestige college is the last defining social nugget." Coakley sees parents "trying to make little Johnnie as unique as possible to anticipate what the trends will be with college admissions officers in 10 years. They are making resumé builders out of 12-year-olds, getting them into every activity imaginable."

As kids get older they resent being made a status symbol for parents. Says one of my brightest students: "My parents want me to be the kind of daughter they can brag about to their friends. All of them sit around talking about what their kids are doing—their SATs and grades and where they are going to college. They don't care what we are feeling or thinking. I feel like a business they are managing. The reward for their investment is being able to say to their friends, 'Look at what my daughter has done.' "

"With almost every kid going to college today, parents try to separate themselves from the hoi polloi by having a kid go to what they think is a prestigious school," says the father of a college-bound senior. When he graduated from his small-town Ohio high school in the mid-'60s, he says that about 60 percent of his classmates didn't go on to college. "There wasn't any stress. Just going anywhere to college was a big deal that made you different from the others."

That's no longer the case with my *sewais* at T.C. Williams. "With a lot of parents, you just have to get into a name university," says Brooke Alexander, who's headed to James Madison University. "They aren't looking for what their kid wants in school but for what will make them look good. They won't settle for a school that may be a better match for their kid's personality or career goals."

And sometimes they won't settle for their kid's SAT scores. The parents of one girl, two of her friends told me, refused to show their daughter her SAT scores because they were afraid she'd be "so disappointed." She was forced to take three expensive SAT prep courses but her scores—which were respectable to begin with—didn't go up.

This year, as always, I heard lads complaining that they were "only going to UVA" or to some other terrific university that somehow was deemed "not good enough" by parents and peers. On another tier were kids who complained about not getting into the University of Virginia and having to "settle for" James Madison—JMU, sarcastically called "Just Missed UVA" by students at Mr. Jefferson's university.

Some misguided kids actually berated David Bray—winner of national and international awards for his work in designing computer programs, including one that's being used by the Department of Defense—for his choice of colleges. When this amazingly focused and well-rounded young man turned down a Jefferson Scholarship, University of Virginia's most prestigious award, to accept a full scholarship at Emory University in Atlanta, many peers and adults treated him as

if he had thrown his life away. "It was like I had committed the ultimate academic sin . . . that I had destroyed my future. I chose Emory because I love Atlanta and the friendly southern atmosphere. I also will be able to work at the Centers for Disease Control," says Bray, who plans to attend Emory's top-flight medical school when he graduates.

A lot of snobbery about colleges is endemic to affluent East Coast areas, says Kenyon College sophomore Liz Dunning. Last year when she turned down Williams College in Massachusetts to accept a full scholarship to Kenyon in Ohio, her T.C. Williams friends expressed concern that she wouldn't reach her potential. "They asked why I took calculus and other tough courses in high school if I was Just going to a little Midwest school.' They have no concept of the Midwest. They felt that anything less than a school with five stars in Lovejoy's [one of the many college rating guides] wasn't good enough for me. The idea that I would save my parents \$90,000 by going to a great school like Kenyon was foreign to them."

Bray thinks parents bear responsibility for their kids' naive, parochial thinking about colleges. "Many parents get kids feeling that they have to go to an Ivy League school, and if not there, then to UVA or else they are selling themselves short. It's as if they think the school's 'name will get them through life."

But Bray's classmate Courtney Boissonnault said many of her fellow seniors have only themselves to blame. "I'm sick of people whining about what Ivy League or other school they didn't get into. They are so sheltered and spoiled. They think they're entitled to go to whatever college they want and have parents shell out a fortune for it. They should be thrilled to be going to college at all and to have parents who can pay for it," says Boissonnault, a superb student on her way to UVA.

With some parents, even with kids already accepted in college, there is no letup in the scramble for bragging rights. One mother said she stopped going to the recent round of graduation parties because she couldn't stand listening to parents incessantly discussing and evaluating what colleges various kids were going to. "When some woman asked me where my child was going and I told her, I got a pitying look. Two seconds later when the same woman heard that another kid was going to Duke she lit up. 'Isn't that wonderful?' she said to the Duke mother. Another woman laughed in my face when. I told her my son had chosen a Virginia school over a pricey New England school where he was accepted:"

I've heard these tacky kinds of conversations for years and there always seems to be some unconscious assumption that going to the right school automatically brings success and the good life. But there are enough UVA and Ivy League graduates I know who are working in jobs they're embarrassed to tell you about, and there are enough kids from Virginia Tech and JMU flourishing in high-paying careers, to belie that assumption.

Pat Smith, director of T.C. Williams' s guidance resource centre, says that parents ought to start realising that there is "no-one school that is perfect for a kid. . . . There are whole bunches of schools that parents haven't even heard of where a lad can get a great education— schools with wonderful records of sending kids on to top grad schools." Smith says that a glance at the marriage announcements in the Sunday New York Times will prove that "people from Seton Hall and Trenton State and Indiana U. are making it in big-time New York companies. Going to those schools doesn't seem to have hurt their employment prospects."

Silver Spring educational psychologist Bill Stixrud feels sorry for today's-frenzied parents. "Parents are panicked about how well kids are doing in second grade. I see kids talking about college in the first grade. One was told that he would go to Harvard, Yale, Princeton or Brown. One day he came home and asked timidly if it was all right to go to Williams."

Such pressure, fears Stixrud, "increases the likelihood of burnout and physical illness.

## WORK AND WORKAHOLICS

### **New Ways to Work**

Six-month long vacations? Factories and offices designed by the employees themselves? Labour and management meetings in the nude? These are just a few of the innovations now being tried by business firms in Europe and the United States to combat the increasing dissatisfaction of employees at every level with the quality of their working lives; despite higher salaries, more attractive fringe benefits, and improvements in on-the-job-safety and comfort. In addition to the widely reported boredom of the assembly line, a growing number of white-collar workers see themselves as conscripted into a slave army of paper pushers. Such long-sought benefits as the five-day, (forty-hour week, the fixed vacation and the standard length of service pay raise are no longer enough to compensate many industrial and office workers for the drabness, lack of recognition, impersonality, and apparent pointlessness of their jobs.

#### The Ten Worst Jobs

Roy Walters, a private consultant in the fast growing field of job enrichment lists the following as the 'Ten Worst Jobs in America':

- Assembly-line worker
- Highway toll collector
- Car-watcher in a tunnel
- Pool typist

- Bank guard
- Copy-machine operator
- Bogus typesetter (those who set type not to be used)
- Computer tape librarian (which means 'tape-spool roller')
- Housewife (not to be confused with 'mother')
- Automatic-elevator operator

While readers may disagree with some of these choices, they were not made lightly. For instance, Walters did not put housewife on the list just to be provocative, but because he is firmly convinced that that job is 'one of the worst, most boring, unrewarding and unrewarded' that has ever been created.

What makes these jobs the worst in Walters' opinion is that they are stripped of almost every opportunity for meaningful self-development, and most opportunities for meaningful interaction with other human beings. In short, the jobs frustrate the worker's need to maintain his self-respect and win the respect of others.

The cost of worker dissatisfaction can be measured in dollars of lost profit, delays in production, careless damages, and even sabotage, let alone the cost to individuals in hostility, depression, and nervous tension, and to the stability of family life and social institutions.

There are hard-headed economic reasons as well as humanitarian motives behind current efforts to make work more meaningful and personally satisfying for the worker.

In the United States, most efforts to improve the work experience are identified as 'job enrichment'. But in Europe, particularly in Scandinavian countries, similar programs are described as experiments in 'industrial democracy'.

One technique that has succeeded on both sides of the Atlantic is to redesign the workplace itself.

Office workers at the Federal Aviation Agency's new facility in Seattle, Washington, took an active role in planning both the appearance and the layout of the building, opened in 1973.

In Sweden, industrial workers at SAAB and Volvo have helped to design new factories and even special low-noise tools. The Swedish workers have also redesigned their jobs in ways that provide variety and opportunity for continually learning more about their present jobs and acquiring skills that will prepare them for taking on greater responsibilities later.

Naked Negotiators

Another example of 'industrial democracy' is a company in Finland whose labour and management representatives meet regularly in a sauna to discuss matters of company policy and conditions in the factory.

An officer of the Finnish company explained the reasoning behind this

policy:

'First, it makes the meetings more relaxed and, second, when you're sitting in a sauna, you're not reminded who is a manager and who is a worker - because nobody has any clothes on.'

Innovations are also being made in the area of work scheduling. As of summer 1974, more than 2,000 companies in the United States had switched all or part of their employees to a work-week of four ten-hour days.

A less spectacular but increasingly popular form of re-arranging the work schedule has developed in Germany. Many German firms now allow their employees to arrive at work anytime within a two-hour period in the morning and leave at an unspecified time within a similar time-frame in the afternoon. While the employees must still accumulate the total standard German work-week of 40 hours, they have greater freedom now to accommodate leisure time activities and family responsibilities more easily.

Sabbatical for Workers?

There is good reason to predict therefore, that the future of work is likely to be based on increasing flexibility, more scope for personal decision-making, and continuous learning on the job and off. One recommendation of the US Department of Health, Education and Welfare's 1972 study, *Work in America*, was that every employee be offered the opportunity to take a six-month 'sabbatical leave' with pay so that he can return to school for more education. Sabbaticals have long been traditional among college professors; and in some places, local laws already require certain professionals (notably physicians) to return periodically to school to familiarise themselves with the latest advances in their field.

## **A Marketing Revolution**

The first time it appeared it didn't seem possible: a poster promising new school equipment for those children who collected labels from the cans of a certain brand of baked beans.

Since then a pox of advertising bill boards has confirmed the gist of the soft sell. It seems that things are now so bad in the aftermath of public sector spending cuts that a multi-national company was inviting us to eat our way to our children's education facilities.

If the state no longer proposes to provide, perhaps God has disposed the commercial hearts of giant business to find a way of doing so and making money at the same time, but oddly the implications of this recent advertising campaign have attracted no comment. Apathy, or indeed gratitude makes it unremarkable that the breakdown of a social service has led private enterprise capitalists to mask the deficiencies of government-funded departments.

Yet this is a marketing revolution. Gimmicks and give-aways have gone before, but the moral overtones of selling on the basis of making penny-pinched mothers aware that the more beans they buy, the better their children's school facilities will be, is something else again.

The baked beans company is not the only concern selling on the basis of helping family tight-spots in other ways. Take the chocolate ad on television, offering vouchers for rail tickets or lawnmowers if the kids eat enough bars. But the baked beans company is different in that it is actually plugging a hole in the state dam. We are all used to supporting the lifeboats or guidedogs for the blind, but the need to help a full-blown department of a democratic state takes Robin Hood into the realms of Kafka.

Recently there has been a shift in attitudes - or at least emphasis - among the multi-nationals themselves. They have begun to admit, rather than hide, how powerful they are as a social force. The trouble governments take just to have them build factories or set up shop in their countries demonstrates their political clout, now they are tending to set up departments within themselves, such as the 'Division for International Social Action' at General Motors, or Shell's recently formed committee to take care of social responsibility for the company. Conscience is beginning to make commercial sense.

The baked beans poster campaign, though, raises questions which could shift marketing out of psychology and into domination. It has changed the accepted selling philosophy that you try to make people choose a particular brand or product by giving away a plastic submarine or a picture of a famous cricketer. This campaign - coming at a time when everyone is pressed for money as unemployment rises and the value of earnings evaporates in inflation - adds the element of guilt. If you do not spend the money, your child may be deprived at school, if you buy another brand of beans, which might be cheaper, will the

school go without?

## **A Workaholic Economy**

For the first century or so of the industrial revolution, increased productivity led to decreases in working hours. Employees who had been putting in 12-hour days, six days a week, found their time on the job shrinking to 10 hours daily, then, finally, to eight hours, five days a week. Only a generation ago social planners worried about what people would do with all this new-found free time. In the US, at least, it seems they need not have bothered.

Although the output per hour of work has more than doubled since 1945, leisure seems reserved largely for the unemployed and underemployed. Those who work full-time spend as much time on the job as they did at the end of World War II. In fact, working hours have increased noticeably since 1970 - perhaps because real wages have stagnated since that year. Bookstores now abound with manuals describing how to manage time and cope with stress.

There are several reasons for lost leisure. Since 1979, companies have responded to improvements in the business climate by having employees work overtime rather than by hiring extra personnel, says economist Juliet B. Schor of Harvard University. Indeed, the current economic recovery has gained a certain amount of notoriety for its 'jobless' nature: increased production has been almost entirely decoupled from employment. Some firms are even downsizing as their profits climb. 'All things being equal, we'd be better off spreading around the work,' observes labour economist Ronald G. Ehrenberg of Cornell University.

Yet a host of factors pushes employers to hire fewer workers for more hours and, at the same time, compels workers to spend more time on the job. Most of those incentives involve what Ehrenberg calls the structure of compensation: quirks in the way salaries and benefits are organised that make it more profitable to ask 40 employees to labour an extra hour each than to hire one more worker to do the same 40-hour job.

Professional and managerial employees supply the most obvious lesson along these lines. Once people are on salary, their cost to a firm is the same whether they spend 35 hours a week in the office or 70. Diminishing returns may eventually set in as overworked employees lose efficiency or leave for more arable pastures. But in the short run, the employer's incentive is clear.

Even hourly employees receive benefits — such as pension contributions and medical insurance — that are not tied to the number of hours they work. Therefore, it is more profitable for employers to work their existing employees harder.

For all that employees complain about long hours, they, too, have reasons

not to trade money for leisure. 'People who work reduced hours pay a huge penalty in career terms,' Schor maintains. 'It's taken as a negative signal' about their commitment to the firm.' [Lotte] Bailyn [of Massachusetts Institute of Technology] adds that many corporate managers find it difficult to measure the contribution of their underlings to a firm's well-being, so they use the number of hours worked as a proxy for output. 'Employees know this,' she says, and they adjust their behavior accordingly.

'Although the image of the good worker is the one whose life belongs to the company,' Bailyn says, 'it doesn't fit the facts.' She cites both quantitative and qualitative studies that show increased productivity for part-time workers: they make better use of the time they have, and they are less likely to succumb to fatigue in stressful jobs. Companies that employ more workers for less time also gain from the resulting redundancy, she asserts. 'The extra people can cover the contingencies that you know are going to happen, such as when crises take people away from the workplace.' Positive experiences with reduced hours have begun to change the more-is-better culture at some companies, Schor reports.

Larger firms, in particular, appear to be more willing to experiment with flexible working arrangements....

It may take even more than changes in the financial and cultural structures of employment for workers successfully to trade increased productivity and money for leisure time, Schor contends. She says the U.S. market for goods has become skewed by the assumption of full-time, two-career households. Automobile makers no longer manufacture cheap models, and developers do not build the tiny bungalows that served the first postwar generation of home buyers. Not even the humblest household object is made without a microprocessor. As Schor notes, the situation is a curious inversion of the 'appropriate technology' vision that designers have had for developing countries: U.S. goods are appropriate only for high incomes and long hours.

## **How Much are You Worth?**

One of the most difficult questions to answer is how much a job is worth. We naturally expect that a doctor's salary will be higher than a bus conductor's wages. But the question becomes much more difficult to answer when we compare say, a miner with an engineer, or an unskilled man working on an oil-rig in the North Sea with a teacher in a secondary school. What the doctor, the engineer and the teacher have in common is that they have devoted several years of their lives to studying in order to obtain the necessary qualifications for their professions. We feel instinctively that these skills and these years, when they were studying instead of earning money, should be rewarded. At the same time we recognise that the work of the miner and the oil-rig labourer is both hard and



dangerous, and that they must be highly paid for the risks they take.

Another factor we must take into consideration is how socially useful a man's work is, regardless of the talents he may bring to it. Most people would agree that looking after the sick or teaching children is more important than, say, selling second-hand cars or improving the taste of toothpaste by adding a red stripe to it. Yet it is almost certain that the used-car salesman earns more than the nurse, and the research chemist earns more than the schoolteacher.

Indeed, this whole question of just rewards can be turned on its head. You can argue that a man who does a job which brings him personal satisfaction is already receiving part of his reward in the form of a so-called 'psychic wage', and that it is the man with the boring, repetitive job who needs more money to make up for the soul-destroying monotony of his work. It is significant that those jobs which are traditionally regarded as 'vocations' - nursing, teaching and the Church, for example - continue to be poorly paid, while others, such as those in the world of sport or entertainment, carry financial rewards out of all proportion to their social worth.

Although the amount of money that people earn is in reality largely determined by market forces, this should not prevent us from seeking some way to decide what is the right pay for the job. A starting point for such an investigation would be to try to decide the ratio which ought to exist between the highest and the lowest paid. The picture is made more complicated by two factors: firstly by the 'social wage', i.e. the welfare benefits which every citizen receives; and, secondly, by the taxation system, which is often used as an instrument of social justice by taxing high incomes at a very high rate indeed. Allowing for these two things, most countries now regard a ratio of 7:1 as socially acceptable. If it is less, the highly-qualified people carrying heavy responsibilities become disillusioned, and might even end up by emigrating (the so-called 'brain drain' is evidence that this can happen). If it is more, the gap between rich and poor will be so great that it will lead to social tensions and ultimately to violence.

## EVERYDAY ROUTINE

### A Life in the Day of . . .

Imagine having to live the same day of your life over and over again. Whatever you do on that day, you wake up the following morning to discover the same day beginning again. In some ways this is good: you can stop worrying about cholesterol, for a start. Concern for the future becomes a thing of the past. But if you're trying to make Andie MacDowell fall in love with you, it's not so good. No matter how much progress you make, the following day you'll have to start again.

This is Bill Murray's predicament in *Groundhog Day*, a romantic comedy directed by Harold Ramis. Murray plays a weatherman for a Pittsburgh television station who has to travel to the small town of Punxsatawney every year to cover a local festival, in which a groundhog is asked by the town elders whether they should expect six more weeks of winter or an early spring. This awful little town and its loathsome ritual represent everything Murray despises about his dead-end career. Yet he is forced to live the day of the groundhog festival until the end of time.

*Groundhog Day* is unusual in that its single idea is so ingenious you're happy to sit back and watch as all its implications are worked out. It's also weirdly engrossing. As it dawns on Murray that he is stuck in the same day for eternity, you feel something close to panic.

Being destined to relive the same 24 hours for ever soon becomes a curse. Murray falls in love with his producer, Andie MacDowell. He has barely spoken to her before the day of the festival, so he only has the remainder of the day to win her. Even if he succeeds it scarcely matters, because the next day he'll be back to square one.

Not that this stops him trying. The funniest sequence in the film occurs as Murray attempts to impress MacDowell with clever conversation. Each time he fluffs it, he starts again the following day and corrects his mistake. When he proposes a toast to the groundhog, MacDowell says: 'I usually drink to world peace.' Next time round he gets it right. After months of practice, he finally gets the routine perfect, only to be rebuffed at the last minute. The prospect of starting all over again is appalling, but not as appalling as it is when she finally falls for him. As Murray says to her 'The worst part is that tomorrow you'll have forgotten all about this, and you'll treat me like a jerk again.'

The horror of Murray's situation leaves you reeling. What is the point of living in a world in which nothing you do affects the future? Murray could forget about MacDowell and spend his time in the local library, studying Western

philosophy, but what would be the point if any work he produced would have to be written all over again the following day? He could rob a bank - come to think of it, he does rob a bank - but the money is gone the next morning, along with the house he bought with it. Murray, an ambitious man, finds himself in a world in which it is impossible to achieve anything.

Of course, the effect of all this is to teach Murray the true meaning of life, and in this respect *Groundhog Day* is unremarkable. But it would be churlish to condemn it for its lapse into sentimentality. *Groundhog Day* is an ordinary comedy transformed into a dazzling piece of entertainment by an extraordinary idea.

## **A Day in My Life**

I wake up about nine o'clock most mornings because I usually go to bed quite late. As I get out of bed, all my bones click, reminding me of the familiar ache that follows exercises. Every day I have to go through a certain amount of pain. A ballet dancer's life may seem glamorous but most of it is very hard work. As you develop as a dancer, you stretch your body to the limit, and that means that you have to suffer a little more, too, mentally as well as physically, because you are constantly trying to refine your technique, discovering new things and struggling to master them.

Luckily, I live quite near the Ballet School so I can walk to work. I have to be there every morning at 10.30, including Saturdays, because we perform almost every evening and there are sometimes matinées as well. A lot of my work is simply routine. The morning class lasts for an hour and a quarter. Then we have a quick break for a quarter of an hour before the rehearsal for the performance later in the day. We generally finish about 1.30, and I go home for lunch and a rest.

Ballet dancers have to look after themselves more than actors. I get my shoes ready when I arrive at the theatre and do my own hair and make-up. Then I change into my costume and do a few limbering-up exercises to make my body supple. It is a ritual, the same every time, but the funny thing is that I always feel nervous before a performance. I'm not worried about worrying. A little stage fright helps your concentration.

Of course ballet offers a lot of rewards. When things go well, and people come to the dressing-room afterwards with bouquets of flowers, I feel completely relaxed, as if I could go straight back onto the stage and do the whole performance again. I particularly like matinées because children come. It's lovely for them to see you in your make-up. You recognise their excitement in their eyes and at moments like that you forget all the routine and only feel the magic you have tried to convey to them.

After an evening performance, I go out with my friends and have a quiet,

late dinner. I don't usually get home before midnight. Then it's not easy to get to sleep. I go over the whole performance in my mind, asking myself: 'Was it all right?' And the next day, the same thing begins again.

Ballet is becoming a more demanding profession. These days audiences have seen young girls of 14 like Nadia Comaneci performing extraordinary feats in gymnastic competitions and they expect us to be very athletic, as well as graceful. But I never stop to ask myself: 'Why do I do this? Is it worth the effort?' I need to dance. It's as necessary to me as breathing.

## **Making Use of Your Time**

Everybody wastes time. Instead of doing his homework, the schoolboy watches television. Instead of writing her essay, the student goes out with her friends. Instead of reading his book, the commuter gazes out of the window. The writer neglects his work, and wanders round the house making cups of coffee and day-dreaming. They all have good intentions, but they keep putting off the moment when they must start work. As a consequence, they begin to feel guilty, and then waste even more time wishing they had not allowed themselves to be distracted.

When someone else is organising our time for us, as for instance during lessons or working hours, we do not necessarily work more efficiently, but at least we are subject to the discipline of a routine. It is when we are responsible for organising our own time that the need for self-discipline arises. Self-employed people, particularly those engaged in such creative activities as writing, can only survive, let alone prosper, if they can organise their time efficiently.

I know two writers who seem to me to have got to grips with the problem, but in quite different ways. Bob is extremely methodical. He arrives at his office at 9 a.m. and is creative until 12.30. At 2 p.m. he returns to his desk and is creative until 5 p.m., when he goes home and switches off until the following morning. Alan would deny that you can regulate your creativity in this way, by the clock as it were. He works in inspired bursts, often missing meals and sleep in order to get down on paper the ideas which are in his head. Such periods of intense activity are usually followed by days of lethargy, when he potters around his flat, listening to Mozart and flicking through magazines.

Their places of work reflect their styles. Bob's books are neatly arranged on the shelves by his desk, he can always find the books he wants, and there is not a single book in his office which is not directly relevant to his work. Alan, on the other hand, has books and magazines all over the place, some on shelves, some in piles on the floor and the table, even some on and under his bed. Moreover, they are about every subject under the sun, most of them apparently unconnected with his work; needless to say, there is no hint of system or order. All the same he has

a marvellous knack of making use of the most unlikely information, which he gleans from this random collection, to illuminate and enliven his books.

Bob, as you might imagine, has an immaculate filing system, keeps a diary, and always carries a small notebook in which to jot down things he has to do. If Alan ever made a list of things to do, he would immediately lose the paper on which he had written it. He now has a novel and rather desperate system for remembering something. He writes it down on the largest piece of paper he can find. Then, instead of folding the paper neatly, he crumples it up and stuffs it in his jacket pocket, where it makes such an enormous bulge that he cannot possibly forget that it is there - until he changes his jacket, that is.

Both Bob and Alan have managed to organise their lives in such a way that they are able to produce work of very high quality. Obviously, each works in the way that suits his character, and it would be foolish to take either as a model. All the same, there is a lot we can learn from them. For example, Bob has the excellent idea of setting targets for each week. As long as he is 'on target', he has no qualms about taking an afternoon off in the middle of the week. In other words, he will occasionally waste time deliberately, rather in the way that you might treat yourself one day to a lunch you could not normally afford. It seems to be a much better idea to relax and enjoy your time-wasting, rather than to feel guilty about it both at the time and afterwards.

## HEALTH

### **Hypochondriacs Arise!**

How many hypochondriacs are there? Can anybody in the great social science industry tell me?

I doubt it, and I think I know why. The trouble about being a hypochondriac (and I speak from a lifetime of practice) is that you feel silly.

My rational mind tells me that, just because the cut on my finger has been throbbing for two days, I am unlikely to die of gangrene; but in a hypochondriacal mood I can see the gangrene creeping up my arm as my finger turns black. My hypochondria is fed, in constant doses, by half the scientific knowledge I need, and twice the imagination. I know enough anatomy to identify the twitch in my chest as the first spasm of coronary thrombosis, and to point to my duodenum with the authority of a second-year medical student.

Of course, like many hypochondriacs, I enjoy (not exactly the word) sound health. My fat medical file contains very little of substance, though there is a fine selection of negative barium meal tests. In fact, the only spell I ever had in

hospital took place when I actually had something. What I thought was a cold turned out to be pneumonia. So much for my diagnostic accuracy.

Hypochondria lies between the rational self which says, 'Nonsense, you're fine,' and the deeply pessimistic self, which fingers a swelling discovered under the jaw as you shave and converts it into the first lump of a fatal cancer of the lymph gland.

These feelings are embarrassing enough but they are made worse by the brisk treatment I get from the many overt anti-hypochondriacs about: people like wives or editors, who say, 'Get up! There's nothing wrong with you', or 'Never seen you looking better, old boy', when the first stages of a brain tumour have begun to paralyse my left arm.

Such persons know nothing. They are capable of astonishing acts of self-forgetfulness. They walk about with lips so chapped that a penny could fit in the cracks. They go so far as to forget to take medicine prescribed for them. For these creatures of the light, the world is a simple place. You are either well or sick and that's that, categories which admit of no confusion. If you are ill, anti-hypochondriacs say, 'you ought to go to bed and stop moping.' They remind me of the story told of the economist, Keynes, and his Russian ballerina wife, staring silently into the fire. Keynes asked, 'What are you thinking, my dear?' She replied, 'Nothing.' and he said, 'I wish I could do that.'

There is not much comfort to be had from other hypochondriacs, either. I had lunch once with a distinguished writer whom I very much wanted to impress. He greeted me with the words, 'Please excuse the condition of my nose.' During the next few minutes, fascinated but trying not to be caught staring, I established two things: first, that he had a small inflammation by his right nostril, and second, that he was a fellow-hypochondriac. The combination meant that I could have been three other people for all he cared. As we parted, he again apologised about his nose. I was furious.

## **How to Be Ill**

I hate being ill. I do not simply mean that I dislike the illness itself (although that is true), but I hate what being ill does to my character. As soon as I have a headache or a cold or the first signs of flu coming on, I start to behave as if I were in the grip of some fatal illness, and to wear an expression of suffering which is supposed to indicate that I will bravely face the few days of life that are left to me. The fact is that I really know how to make use of the ability to feel sorry for myself, and, which is more important, how to wring sympathy out of the women who surround me. I *love* being nursed and fussed over, and I make a three-day cold last a good week by a combination of carefully-produced and well-timed groans and grimaces. Of course, being a man I have to show that I suffer my pain

*bravely*, but I make it quite clear that I am none the less *suffering*. I suffer beautifully. I am really good at it, and I can melt the hardest female heart the minute I show symptoms of, for instance, migraine - even though I am probably suffering from nothing more serious than a hangover.

The first thing you must do is deny that you are suffering, because they will be reluctant to give you any sympathy if they think that that is what you are after. But at the same time that you deny you are ill, you must furrow your brow and clutch the part of you that is in agony to show that the pain is overwhelming you in spite of your efforts to put on a brave front. Once you are into your pyjamas and your bed, the battle is as good as won. Do not, at first, ask for anything: you do not want to be a bother to anyone, you are prepared to lie there alone and suffering in silence until the end comes. Under no circumstances should you ask for food: nobody can have a really worthwhile illness *and* an appetite. In no time at all, they are all over you, full of concern and caresses, stroking your brow and destroying themselves in an attempt to restore you to health.

Most men are naturally good at this sort of thing, and will exploit a minor illness to good effect. But men are not hypochondriacs - sufferers from imaginary illnesses - as most women assert. The fact is that most men are fully aware that they are performing a valuable social service by making out that they are more ill than they really are. You see, women love illness. They do not, on the whole, like to be ill themselves, although they will occasionally take to their beds on some flimsy pretext, just to make sure that they are not being taken completely for granted. No, a wife actually *likes* her husband to be ill from time to time so that she can show off her talents as an amateur Florence Nightingale. It is the spirit of noble self-sacrifice that really fulfils her.

In this she is encouraged by all the television commercials she sees. They show a calm, caring wife/mother-figure mopping fevered brows, administering soothing medicines, and generally behaving like a 'ministering angel'. And when she shakes the thermometer and sticks it into your unprotesting mouth.. . well, you would think that it was a magic wand, and that she was a fairy godmother!

Still, there is no doubt that we males get the benefit; it can be nice to be ill once you get the hang of it. If, in addition, you want to make your loved one even happier, keep her awake night after night with your moans and groans and your requests for hot drinks and a cool hand on your brow. There is a bonus for her in all this: when you are better and back at work, think of the pleasure she will get from telling the neighbours about the hell she has been through!

## Easy Does It

Relaxing isn't easy. I know - I have tried it.

I can see, therefore, why Japan's Ministry of International Trade and Industry should want corporations to have full-time "leisure advisers". It seems an idea worth copying.

A start should, perhaps, be made at the very top. Captains of industry often find it hardest of all to relax.

Workers at least have the excuse that they need to protect their job and pay off the mortgage. Many tycoons have all the money they could ever hope to spend. So why don't they ease up?

Some buy a luxurious yacht, a beach house, or even an island, but seldom make use of these expensive leisure facilities. "I don't have time for a holiday," they insist.

What they usually mean is that they *could* find the time, if pressed, but that they don't want to.

Some consider themselves so indispensable that their business would collapse if they were not around to supervise every detail.

Some are prisoners of their own success: they sit on so many boards of directors, and have such a heavy schedule of appointments, that they "haven't a moment to spare".

But more often than not the plain truth is that they don't know how to ease up. No-one has ever told them how to do it.

You can't be a frantic executive one day and a leisurely beachcomber the next: the contrast is too great. The bronzed young drifters who make it look simple have had years of practice.

Put a captain of industry on a beach and he tends to get bored and restless. He misses the pace, the action.

Invite him to play tennis and he will probably decline, because he fears that he will look foolish - he prefers to play games in the office, where he is a proven winner.

If he has a holiday home, or stays in a plush hotel, he will be on the telephone six times a day, doing what he does best. Relaxing is for wimps.

So what can a "leisure adviser" do for him - or, increasingly, her?

The basic task is to change attitudes, and *gradually* to introduce him to various leisure activities.

Some experts believe in playing what is known as the "fear card". The executive is warned of the risk of "burnout" and told that, if he doesn't take care of his health, the business will suffer.

Does he realise what it would cost if he had to go into hospital? More, much more than a holiday. That is the bottom line.



But I believe in a more positive approach. A good start is to persuade him that holidays are a "psychological investment", and that it is perfectly feasible to combine business with pleasure.

This has to be done step by step: the cold turkey treatment is rarely effective.

They can take work with them. (A recent survey by the Hyatt Corporation showed that nearly half of the executives questioned do so.) For a captain of industry, holidays are ideal for strategic planning.

They can call the office, though the aim must be to reduce the number of calls as the holiday progresses.

They can have faxes sent to them, though the staff should try to cut down on the rolls of fax paper: one should be sufficient after a while.

They can be persuaded to take up golf. It is not only a pleasant (and healthy) way of going for a leisurely walk, but it can also be good for business.

Some of the biggest deals of the past decade have begun with a casual remark on the golf course, and bankers have acquired some of their most lucrative clients while blasting their way out of a bunker. It no doubt helps to explain why golf has become the favourite sport of senior executives throughout the world. If he needs that little extra push, show him the formula developed by a British leisure expert:

$$RP = T/2 + (Z - 4) = CD = CA$$

The RP stands for rest period, and you needn't bother with the other stuff. The formula proves convincingly that a few days on the golf course are absolutely vital.

There are plenty of courses in the sun. Executives should be reminded that this is the time of the year when it becomes imperative to embark on inspection tours of overseas subsidiaries in places like Florida, Australia and Jamaica.

Once the initial leisure training period has been completed you can try to hook him on other activities which are every bit as challenging as a takeover bid. He can climb mountains, ride river rapids, go scuba diving. He may well end up making a happy discovery: leisure *can* be fun.

## Blind to the Dangers

When Susie Forbes swapped her spectacles for disposable soft contact lenses, she was delighted. However, within a few months she started to get sore eyes and severe light-sensitivity. "When I put in my lenses, my eyes watered and it was as if I was temporarily blinded."

Like others with similar problems, Miss Forbes, who is features editor of *SKY Magazine*, went to the casualty department at Moorfields Eye Hospital, London. "I was told I had a corneal ulcer, though fortunately it was on the mend because I had left the lenses out for some time" She was advised to return to spectacles for several months. A corneal ulcer is a bacterial infection, which can advance quickly and may damage sight permanently.

Miss Forbes, 26, is among 2,000 contact-lens wearers, who are being studied by Mr John Dart, consultant ophthalmologist, and colleagues at Moorfields and the Institute of Ophthalmology. This investigation, which finishes next month, is expected to confirm a smaller pilot study last year, which showed that wearers of disposable soft lenses are at greater risk of infection than wearers of conventional reusable soft lenses.

Those wearing disposables during the day may be up to four times more likely to suffer a corneal ulcer than those wearing reusable soft lenses. Continuous wear of both disposable and reusable soft lenses at night increases the risk of infection with about one in 500 likely to suffer an ulcer. While wearing lenses for 24 hours a day and changing them each week is still popular in the United States, most British eye specialists and contact-lenses practitioners advise against it for most people.

With more than two million people wearing all types of contact lenses in this country, the Moorfields' study focuses fresh attention on the safest use of all types. Soft lenses, which many say are more comfortable to get used to than rigid, gas-permeable lenses, are worn by four in five contact-lens users; about one in 14 wear disposables. According to one estimate, the incidence of corneal ulcer is one in 2,500 for reusable soft lenses worn daily, against one in 10,000 among gas-permeable lens wearers.

Although relatively the risks are small, specialists stress that the sheer numbers of people wearing lenses have led to an increasing stream of sufferers from infections and from 20 or so other possible complications. Many problems are due, says Mr Dart, to poor hygiene or using disposables for longer than the recommended two weeks or so.

Miss Forbes pleads guilty. "I blame myself. There seems to be an impression that you do not need to bother with disinfecting or cleaning them - it is enough to soak the lenses in saline each night. I am now wearing them again but am careful about cleaning daily and weekly and have not had any more trouble."

However, some eye specialists, including Mr Dart, do not blame wearers

entirely. When disposables were first marketed it was believed infection risks might be lower. Advice from many optometrists on cleaning was not initially as rigorous as for reusable lenses.

Prof Nathan Effron, director of the European Centre for Contact Lens Research in Manchester, says: "It could have been predicted that ulcers would occur. Some of these lenses are made of material that easily attracts protein deposits, an ideal sticky breeding ground for bacteria."

Mr Dart says: "The eye is not a sterile environment, We have pictures of bugs growing in slime on the lens surface."

Concern over disposables has led to more intense scrutiny of all lenses. While good hygiene is crucial, emphasis has grown on replacing conventional soft lenses more frequently than in the past, as Jean Brown, a 25-year-old graphics editor, found. "After wearing soft lenses for 10 years, I developed a capillary conjunctivitis. My eyelids became red with lumps inside and the veins looked like crazy paving. I was lucky it was caught early. Otherwise there might have been permanent damage and I would not be able to wear lenses at all."

To her astonishment, she was advised to renew her soft lenses every 12 months after previously changing them every three or four years. Now, it emerges, not only may slight damage to the surface over several years lead to increased irritation, dryness and discomfort, but vision may also be marginally impaired. Dr Sudi Patel, of Caledonian University in Glasgow, who has carried out a two-year study of 150 lens wearers, says: "There is a measurable loss of contrast vision after six months. It happens so slowly that you may not be aware of it but, reading say restaurant menus in low light might become harder. Put in a new lens and the vision is fine again." The same may happen to a lesser extent, he believes, with gas-permeable lenses.

In the final analysis, Mr Dart now recommends that those considering switching from spectacles to contact lenses are advised first to try gas-permeable lenses. "They may take a little longer to get used to, but physiologically they allow the cornea to breathe with much more oxygen exchange than soft lenses, which cover a larger surface of the eye. The infection risk is also less."

For the future he believes disposable soft lenses will come into their own only when they are truly able to be thrown away every night after wearing during the day.

Many manufacturers are piloting such a lens, but they are unlikely to be introduced until the price can be comparable with present lenses.

One British laboratory is working on a way to introduce hundreds of tiny holes into the outer rim of soft lenses. This development, which is being followed closely by manufacturers around the world, would mean more oxygen exchange and lower infection risk.

Not least, several researchers talk of adding some kind of self-destruct mechanism into disposable lenses to make sure people throw them away when

recommended. Prof Effron says: "One idea is for a red ring to appear after a certain number of days' exposure to tears in the eye." That would give another meaning to the term 'pink eyes'.

## **Drinking: Easy on the Heart, Hard on the Liver**

One definition of an alcoholic is someone who drinks more than his doctor. This cynical comment focuses attention on the differences among doctors in the advice they give on drinking. Recommendations vary from country to country, with health authorities in southern Europe being less restrictive than those further north. Around the world, however, medical experts are now agreed that people who drink "moderate" amounts of alcohol run a lower risk of dying from heart disease than do total abstainers. The drinks industry and some social campaigners have seized on this message as grounds for easing restrictions on the sale of alcoholic drinks. Countries with a tradition of tight alcohol control are worried by these trends, fearing that a change in attitude could lead to more people drinking excessively.

The effects of alcohol on heart disease have not yet been worked out in detail. The amount that has to be drunk to protect the heart is still uncertain, both in terms of how much and how often. Standard advice is for men to drink not more than 21 units of alcohol a week (one unit is a small glass of wine, a quarter-litre of beer or a small measure of spirits). Women should drink only 14 units a week. And some research from Australia has now shown that the health benefits will come only if the drinks are spread evenly through the week. Five dry days followed by a weekend of heavy drinking does no good.

The Australian study, published in the *British Medical Journal*, was part of the World Health Organization's research project on heart disease in different countries. It looked at the past drinking of 11,511 men and women admitted to hospital with heart attacks. Their lifestyles and previous health were compared with 6,077 people selected at random from the rest of the population. The results showed that men who had one to four drinks five or six days a week had lower rates of heart disease than total abstainers or men who did all their drinking on one or two days each week. The healthiest women were those who had one to two drinks on most days.

The explanation seems to be that alcohol has a protective effect (probably by making the blood less likely to clot), but that this protection wears off within 24 hours. Someone who drinks most keeps the blood consistently sticky than average.

Should we, then, all behave like the southern Europeans and have glass or two of wine with the evening meal as a routine? Unfortunately, it's not quite that simple. The thinning effect on the blood increases the risk of a stroke, due to

bleeding inside the brain and this risk increases with the amount of alcohol consumed. Another drawback is that at least some people who drink on most days tend, over time, to increase the amount they drink. Research has shown that anything that increases alcohol consumption - such as making alcohol cheaper and easier to obtain (or, possibly, telling readers that alcohol is good for their hearts) - will increase the number of people who drink so heavily that they damage their health.

The French and the Italians have fewer deaths from heart disease than the British or the Norwegians, but they don't live any longer: they have higher death-rates from diseases of the liver and other alcohol-related disorders and more deaths from road accidents (many of which are linked to alcohol).

The Nordic countries provide their own evidence on the effects of variations in drinking. Norway, Sweden, Finland and Iceland have restricted the availability of alcohol to state liquor stores. By contrast, Denmark has attempted to control consumption by taxation, with the result that the deaths from alcohol-related diseases have more than doubled in the past 25 years and the death-rate from liver cirrhosis is now as high as it is in France.

Now, another twist has been given to the story by a decision of the European Court (in a preliminary ruling) that the Swedish state alcohol monopoly may be illegal under European competition law. If upheld, this decision may also apply to Finland, Norway and Iceland, as members of the European Economic Area. If the sale of alcoholic drinks becomes unrestricted in these countries they are likely to follow the Danes in having southern European rates of alcohol-related problems.

## HOMEOSTASIS: MAN AND NATURE

### **Zoo Conservation Programmes**

One of London Zoo's recent advertisements caused me some irritation, so patently did it distort reality. Headlined 'Without zoos you might as well tell these animals to get stuffed', it was bordered with illustrations of several endangered species and went on to extol the myth that without zoos like London Zoo these animals 'will almost certainly disappear forever'. With the zoo world's rather mediocre record on conservation, one might be forgiven for being slightly sceptical about such an advertisement.

Zoos were originally created as places of entertainment, and their suggested involvement with conservation didn't seriously arise until about 30 years ago, when the Zoological Society of London held the first formal international meeting on the subject. Eight years later, a series of world conferences took place, entitled 'The Breeding of Endangered Species', and from this point onwards

conservation became the zoo community's buzzword. This commitment has now been clearly defined in *The World Zoo Conservation Strategy* (WZCS, September 1993), which - although an important and welcome document - does seem to be based on an unrealistic optimism about the nature of the zoo industry.

The WZCS estimates that there are about 10,000 zoos in the world, of which around 1,000 represent a core of quality collections capable of participating in co-ordinated conservation programmes. This is probably the document's first failing, as I believe that 10,000 is a serious underestimate of the total number of places masquerading as zoological establishments. Of course it is difficult to get accurate data but, to put the issue into perspective, I have found that, in a year of working in Eastern Europe, I discover fresh zoos on almost a weekly basis.

The second flaw in the reasoning of the WZCS document is the naive faith it places in its 1,000 core zoos. One would assume that the calibre of these institutions would have been carefully examined, but it appears that the criterion for inclusion on this select list might merely be that the zoo is a member of a zoo federation or association. This might be a good starting point, working on the premise that members must meet certain standards, but again the facts don't support the theory. The greatly respected American Association of Zoological Parks and Aquariums (AAZPA) has had extremely dubious members, and in the UK the Federation of Zoological Gardens of Great Britain and Ireland has occasionally had members that have been roundly censured in the national press. These include Robin Hill Adventure Park on the Isle of Wight, which many considered the most notorious collection of animals in the country. This establishment, which for years was protected by the Isle's local council (which viewed it as a tourist amenity), was finally closed down following a damning report by a veterinary inspector appointed under the terms of the Zoo Licensing Act 1981. As it was always a collection of dubious repute, one is obliged to reflect upon the standards that the Zoo Federation sets when granting membership. The situation is even worse in developing countries where little money is available for redevelopment and it is hard to see a way of incorporating collections into the overall scheme of the WZCS.

Even assuming that the WZCS's 1,000 core zoos are all of a high standard - complete with scientific staff and research facilities, trained and dedicated keepers, accommodation that permits normal or natural behaviour, and a policy of co-operating fully with one another - what might be the potential for conservation? Colin Tudge, author of *Last Animals at the Zoo* (Oxford University Press, 1992), argues that 'if the world's zoos worked together in co-operative breeding programmes, then even without further expansion they could save around 2,000 species of endangered land vertebrates'. This seems an extremely optimistic proposition from a man who must be aware of the failings and weaknesses of the zoo industry — the man who, when a member of the council of London Zoo, had to persuade the zoo to devote more of its activities to

conservation. Moreover, where are the facts to support such optimism?

Today approximately 16 species might be said to have been 'saved' by captive breeding programmes, although a number of these can hardly be looked upon as resounding successes. Beyond that, about a further 20 species are being seriously considered for zoo conservation programmes. Given that the international conference at London Zoo was held 30 years ago, this is pretty slow progress, and a long way off Tudge's target of 2,000.

## **Animal Liberation**

Our attitudes to animals begin to form when we are very young, and they are dominated by the fact that we begin to eat meat at an early age. Interestingly enough, many children at first refuse to eat animal flesh, and only become accustomed to it after strenuous efforts by their parents, who mistakenly believe that it is necessary for good health. Whatever the child's initial reaction, though, the point to notice is that we eat animal flesh long before we are capable of understanding that what we eat is the dead body of an animal. Thus we never make a conscious, informed decision, free from the bias that accompanies any long-established habit, re-inforced by all the pressures of social conformity, to eat animal flesh. At the same time children have a natural love of animals, and our society encourages them to be affectionate towards pets and cuddly, stuffed toy animals. From these facts stems the most distinctive characteristic of the attitude of children in our society to animals - namely, that there is not one unified attitude to animals, but two conflicting attitudes that coexist in one individual, carefully segregated so that the inherent contradiction between them rarely causes trouble.

Not so long ago children were brought up on fairy tales in which, animals, especially wolves, were pictured as cunning enemies of man. A characteristic happy ending would leave the wolf drowning in a pond, weighed down by stones which the ingenious hero had sewn in its belly while it was asleep. And in case children missed the implications of these stories, they could all join hands and sing a nursery rhyme like:

*'Three blind mice, see how they run!  
They all ran after the farmer's wife  
Who cut off their tails with a carving knife.  
Did you ever see such a thing in your life  
As three blind mice?'*

For children brought up on these stories and rhymes there was no inconsistency between what they were taught and what they ate. Today, however, such stories have gone out of fashion, and on the surface all is sweetness and

light, so far as children's attitudes to animals are concerned. Thereby a problem has arisen: what about the animals we eat?

One response to this problem is simple evasion. The child's affection for animals is directed towards animals that are not eaten: dogs, cats and other pets. These are the animals that an urban or suburban child is most likely to see. Cuddly, stuffed toy animals are more likely to be bears or lions than pigs or cows. When farm animals are mentioned in picture books and stories, however, evasion may become a deliberate attempt to mislead the child about the nature of modern farms, and so screen him from reality. An example of this is the popular Hallmark book *Farm Animals* which presents the child with pictures of hens, turkeys, cows and pigs, all surrounded by their young, with not a cage, shed or stall in sight. The text tells us that pigs '*enjoy a good meal, then roll in the mud and let out a squeall*' while '*Cows don't have a thing to do, but switch their tails, eat grass and moo*'. British books, like *The Farm* in the best-selling Ladybird series, convey the same impression of rural simplicity, showing the hen running freely in an orchard with her chicks, and all the other animals living with their offspring in spacious quarters. With this kind of early reading it is not surprising that children grow up believing that even if animals 'must' die to provide human beings with food, they live happily until that time comes.

Recognizing the importance of the attitudes we form when young, the Women's Liberation movement has suggested changes in the stories we read to our children. They want brave princesses to rescue helpless princes occasionally. To alter the stories about animals that we read to our children will not be easy, since cruelty is not an ideal subject for children's stories. Yet it should be possible to avoid the more gruesome details, and still give children picture books and stories that encourage respect for animals as independent beings, and not as cute little objects that exist for our amusement and table; and as children grow older, they can be made aware that most animals live under conditions that are not very pleasant. The difficulty will be that non-vegetarian parents are going to be reluctant to let their children learn the full story, for fear that the child's affection for animals may disrupt family meals. Even now, one frequently hears that, on learning that animals are killed to provide meat, a friend's child has refused to eat meat. Unfortunately this instinctive rebellion is likely to meet strong resistance from non-vegetarian parents, and most children are unable to keep up their refusal in the face of opposition from parents who provide their meals and tell them that they will not grow up big and strong without meat. One hopes, as knowledge of nutrition spreads, more parents will realize that on this issue their children may be wiser than they are.



## Teaching Animals to Talk

In discussing attempt to teach language to animals it is important to distinguish mimicry from 'true' language. Parrots and mynah birds can imitate humans with uncanny accuracy. But it is unlikely that they ever understand what people are saying. There are reports of a grey parrot which could say 'Good morning' and 'Good evening' at the right times, and 'Good-bye' when guests left. But most talking birds are merely 'parrotting' back what they hear. For example, a budgerigar I knew heard a puppy being trained with words such as 'Sit!' 'Naughty boy!' and used to shriek 'Sit!' 'Naughty boy!' whenever anyone went near its cage, whether or not the dog was present. Although psychologists have spent considerable time experimenting with mynah birds, it is perhaps not surprising that the results have been disappointing. Apes seem more promising candidates. Over the past fifty or so years several attempts have been made to teach human language to chimpanzees. The first experiment was a failure. An animal named Gua was acquired by Professor and Mrs Kellogg in 1931, when she was seven months old. She was brought up as if she was a human baby, and was fed with a spoon, bathed, pinned up in nappies, and continuously exposed to speech. Although she eventually managed to understand the meaning of over seventy single words, she never spoke. Gua showed clearly that it was not just lack of opportunity which prevents a chimp from learning language. The Kelloggs' son Donald, who was brought up alongside *Gua*, and was approximately the same age, grew up speaking normally.

A second chimp acquired by Keith and Cathy Hayes in 1947 also proved disappointing. Viki was given intensive coaching in English. She eventually learnt four words: PAPA, MAMA, CUP, UP. But these were very unclearly articulated, and remained the sum total of Viki's utterances after three years of hard training.

It is now clear why these attempts failed. Chimps are not physiologically capable of uttering human sounds. More recent experiments have avoided this trap and used sign language, the manipulation of tokens, or button pressing. Let us consider some of this later research.

Over the past twenty years, teaching language to apes has become a popular pastime among American psychologists. There was a minor population explosion of 'talking chimps' in the 1970s. Washoe was one of the first chimps to acquire a significant amount of language.

Washoe's exact age is unknown. She is a female chimp acquired by Professor and Mrs Gardner in 1966, when she was thought to be approximately a year old. She has been taught to use modified American sign language (ASL). In this system signs stand for words. For example, Washoe's word for 'sweet' is made by putting her finger on the top of her tongue, while wagging the tongue.

Her word for 'funny' is signalled by pressing the tip of her finger on to her nose, and uttering a snort.

Washoe acquired her language in a fairly 'natural' way. The Gardners kept her continuously surrounded by humans who communicated with her and each other by signs. They hoped that some of this would 'rub off' on her. Sometimes they asked her to imitate them, or tried to correct her. But there were no rigorous training schedules.

Even so, teaching a wild chimpanzee can be quite a problem: Washoe can become completely diverted from her original object, she may ask for something entirely different, run away, go into a tantrum, or even bite her tutor.' But her progress was impressive and, at least in the early stages, her language development was not unlike that of a human child.

First, she acquired a number of single words, for example, COME, GIMME, HURRY, SWEET, TICKLE -which amounted to thirty-four after twenty-one months, but later crept up to well over one hundred. The number is accurate because a rota of students and researchers made sure that Washoe, who lived in a caravan in the Gardners' garden, was never alone when she was awake. And a sign was assumed to be acquired only after Washoe had used it spontaneously and appropriately on consecutive days.

Washoe's speech clearly had meaning. She had no difficulty in understanding that a sign 'means' a certain object or action, as was shown by her acquisition of the word for 'toothbrush' (index finger rubbed against teeth). She was forced, at first against her will, to have her teeth brushed after every meal. Consequently, she had seen the sign for 'toothbrush' on numerous occasions, though she had never used it herself. One day, when she was visiting the Gardners' home she found a mug of toothbrushes in the bathroom. Spontaneously, she made the sign for 'toothbrush' She was not asking for a toothbrush, as they were within reach. Nor was she asking to have her teeth brushed, a procedure she hated. She appeared simply to be 'naming' the object. Similarly, Washoe made the sign for 'flower' (holding the fingertips of one hand together and touching the nostrils with them) when she was walking towards a flower garden, and another time when she was shown a picture of flowers.

Washoe could also generalise from one situation to another, as was clear from her use of the sign meaning 'more'. Like all chimps, she loved being tickled, and she would pester any companion to continue tickling her by using the 'more' sign. At first the sign was specific to the tickling situation. Later, she used it to request continuation of another favourite activity - being pushed across the floor in a laundry basket. Eventually she extended the 'more' sign to feeding and other activities. Similarly the word for 'key' referred originally only to the key used to unlock the doors and cupboards in Washoe's caravan. Later, she used the sign spontaneously to refer to a wide variety of keys, including car ignition keys. Her 'speech' also incorporated a limited amount of displacement, since she could ask

for absent objects and people.

## **Changing the Climate**

Antonio Ibañez is under siege. Since a Spanish TV crew visited his laboratory outside Barcelona last year, he has fielded inquiries from all over the world. Libya, Morocco, Algeria, Mauritania, Brazil, Peru, India, Australia and Saudi Arabia are all interested in what could prove to be a way of turning tracts of desert into cultivatable land. They want to try Ibanez's plastic palm tree.

The spark for Ibañez's invention was hearing of widespread frosts in desert areas at night. How, he wanted to know, could that water be prevented from evaporating rapidly when the sun rose. He decided to look for a natural solution - and copy it.

His plastic palm tree is a passive device, designed to be planted on a grand scale -thousands of them - and left to get on with it. "Basically, the trees do two things," says Ibanez. "They lower the temperature and raise humidity." Cooler air tends to encourage clouds to move in, increasing moisture and lowering temperatures.

Tiny capillaries in the trees' trunks and leaves absorb water, while polyurethane layers of differing densities in the trunk retain water and release it slowly during the day. The temperature-sensitive foam leaves open to increase water absorption at night and close to reduce evaporation during daylight.

The roots are pumped into the ground in liquid form to a depth of 25 metres, where the non-toxic polyurethane quickly sets. The roots then absorb water from the soil and anchor the tree against the violent winds that can sweep desert zones. In an artificial plantation, the trees' height varies from eight metres in the centre to five metres at the edge, to force wind to blow harmlessly over any life growing in the gaps between the trees.

It is under the canopies and between trees that a new microclimate will start to form, Ibañez believes. It will be a cooler, humid zone with a daytime high of 22°C, rather than the hostile 70°C of before. At night, rather than temperatures of about -5°C, the air could be a life-supporting +5°C.

Once a stable microclimate has been reached, says Ibañez, very gradually the plastic trees can be replaced by natural ones - and the synthetic frontline moved on. "In this way we can win back kilometres of desert," he says. It is not just desert areas that could benefit, he suggests, but rainforests too.

Somewhere in Libya, his theory is being put to the test. Packed into a couple of hectares of desert are 30,000 of Ibañez's trees. The plantation is "working," he has been told, but the details are "top secret". Plantations are also planned for Morocco and the Canary Islands.

But sceptics remain. Jorge Wagensberg, director of Spain's Museum of Science, doesn't believe the trees will work at all. "The designer ignores the distance between an idea and its practical application." To hope to change the climate with a few trees, he says, is wildly optimistic.

Ibañez agrees his idea won't work on a small scale. "To change an area with one tree is impossible, but with thousands it can be done."

His palm trees, if they prove effective, could make him a rich man. All he wants, though, he says, is money to build a centre for scientific investigation. "It's sad, but the government isn't interested in funding it."

## **Tower Slums Wait for the Hammer**

Few people now believe that system-built lower blocks are the answer to the country's housing problem. For any lingering doubters, the story of Towerhill, on Merseyside, could be instructive. Less than five years after their completion, 16 huge blocks were standing forlorn, wrecked and uninhabitable - an ugly and cosily memorial to the bulk-building policies that spawned them.

Sixteen blocks of flats at Towerhill, on Merseyside, were built between 1971 and 1973 to house 3,000 people. They stand now - damp, derelict and wrecked - as the ghastliest, most expensive folly in the history of British local authority housing.

The only problem still facing the owners, Knowsley District Council, is how best to demolish them. Only 80 families remain to endure the wetness and decay; and their recriminations echo loudly in the emptiness.

In the block called Stanforth House opened on November 4, 1972, the Joyce family are one of the last four households to remain. All six of them - two adults and four children - sleep in one bedroom.

Spreading patches of damp mould have made the others unusable.

"I'm terrified at night," says Mrs Patricia Joyce, who is expecting her fifth child. "The doors of all the empty flats slam in the wind. It's eerie. I'm, frightened to be left alone. Outside, the place is like a battlefield."

Along the abandoned landing, several of the empty flats have suffered fires. Walls are blackened; doors and cupboards badly charred. The flat next door to the Joyces' has been smashed by a gas explosion. Others overflow with household rubbish, broken cots, twisted prams, fragments of wastepipe and heaps of insulating material. The copper piping, water tanks and other fittings have been looted, and the walls are being devoured by mould.

On the fifth floor of Lime Court, opened on November 24, 1971, lives the Rev Dave Thomas. The water seeping through his bedroom ceiling trickles down the electric light flex and drips from the bulb into an orange plastic bucket.

"The flats become flooded when the pipes are ripped out of empty flats

above them," he says. "The places are not boarded up and you don't see a policeman around here from one day to the next. The council itself has removed the window frames and the rain just rushes in, collects in huge puddles and finds its way down here."

Thomas is the driving force behind the Towerhill Flat Dwellers' Association, which has campaigned for years to have the flats evacuated. "The problem is that the council regards us as the scum of the earth, the butt end of the borough. These were dud buildings to start off with. They sent all the social problem families here - all the people they thought wouldn't protest."

Radshaw Court, opened on March 29, 1973, also now houses only four families. It was in this block that the Towerhill Flat Dwellers' Association commissioned Liverpool architect Jim Hunter to report on the flats' construction and design.

Hunter found water penetration in every room of the flat he examined. Throughout his report he stressed the building's poor weather-resistance. Last year he asked Knowsley Council for access to construction drawings so that he could more precisely pinpoint the structural shortcomings, but permission was refused.

Towerhill was the last great example of system-built council homes - vast slabs of concrete crane-hoisted together. The flats were never popular with tenants, who disliked the curiously interlocking designs. Some families had to walk upstairs from their front doors to their living rooms; others had to step down. And it was hardly a favourite feature that one family's bedroom would adjoin another's living room.

Knowsley Director of Housing, Kenneth Hodgson, told *The Sunday Times*. "We'd rather be living quietly without all this attention. The only thing we can do is empty those flats and seal them off. I would admit that there are the problems of modern concrete construction, but it's the people living up there who have wrecked the place. It's been a bloody shambles."

Chairman of the council's Housing Committee is Jim Lloyd. He blames the Towerhill disaster on a combination of failed housing policies and the wilful behaviour of tenants. "The truth is when we do something up there it doesn't last four hours. But what has failed here is system-building, which the Government pressured councils into adopting so that it could get quick results in terms of homes built."

This month Knowsley commissioned its own report from structural engineers, designed to discover just how difficult the flats will be to demolish.

"It's not a simple matter of a dumper truck with two bloody navvies and a 5lb hammer," says Lloyd. "These places are built of pre-stressed concrete with special steel reinforcing."

The flats won't fall without a struggle. It will take Knowsley 60 years to pay off the debts incurred in *building* them - and winning further Government loan

sanction for their demolition is not likely to be easy.

## **Paper Recycling**

Paper is different from other waste produce because it comes from a sustainable resource: trees. Unlike the minerals and oil used to make plastics and metals, trees are replaceable. Paper is also biodegradable, so it does not pose as much threat to the environment when it is discarded. While 45 out of every 100 tonnes of wood fibre used to make paper in Australia comes from waste paper, the rest comes directly from virgin fibre from forests and plantations. By world standards this is a good performance since the world-wide average is 33 per cent waste paper. Governments have encouraged waste paper collection and sorting schemes and at the same time, the paper industry has responded by developing new recycling technologies that have paved the way for even greater utilisation of used fibre. As a result, industry's use of recycled fibres is expected to increase at twice the rate of -virgin fibre over the coming years.

Already, waste paper constitutes 70% of paper used for packaging and advances in the technology required to remove ink from the paper have allowed a higher recycled content in newsprint and writing paper. To achieve the benefits of recycling, the community must also contribute. We need to accept a change in the quality of paper products; for example stationery may be less white and of a rougher texture. There also needs to be support from the community for waste paper collection programs. Not only do we need to make the paper available to collectors but it also needs to be separated into different types and sorted from contaminants such as staples, paperclips, string and other miscellaneous items.

There are technical limitations to the amount of paper which can be recycled and some paper products cannot be collected for re-use. These include paper in the form of books and permanent records, photographic paper and paper which is badly contaminated. The four most common sources of paper for recycling are factories and retail stores which gather large amounts of packaging material in which goods are delivered, also offices which have unwanted business documents and computer output, paper converters and printers and lastly households which discard newspapers and packaging material. The paper manufacturer pays a price for the paper and may also incur the collection cost.

Once collected, the paper has to be sorted by hand by people trained to recognise various types of paper. This is necessary because some types of paper can only be made from particular kinds of recycled fibre. The sorted paper then has to be repulped or mixed with water and broken down into its individual fibres. This mixture is called *stock* and may contain a wide variety of

contaminating materials, particularly if it is made from mixed waste paper which has had little sorting. Various machinery is used to remove other materials from the stock. After passing through the repulping process, the fibres from printed waste paper are grey in colour because the printing ink has soaked into the individual fibres. This recycled material can only be used in products where the grey colour does not matter, such as cardboard boxes but if the grey colour is not acceptable, the fibres must be de-inked. This involves adding chemicals such as caustic soda or other alkalis, soaps and detergents, water-hardening agents such as calcium chloride, frothing agents and bleaching agents. Before the recycled fibres can be made into paper they must be refined or treated in such a way that they bond together.

Most paper products must contain some virgin fibre as well as recycled fibres and unlike glass, paper cannot be recycled indefinitely. Most paper is down-cycled which means that a product made from recycled paper is of an inferior quality to the original paper. Recycling paper is beneficial in that it saves some of the energy, labour and capital that goes into producing virgin pulp. However, recycling requires the use of fossil fuel, a non-renewable energy source, to collect the waste paper from the community and to process it to produce new paper. And the recycling process still creates emissions which require treatment before they can be disposed of safely. Nevertheless, paper recycling is an important economical and environmental practice but one which must be carried out in a rational and viable manner for it to be useful to both industry and the community.

## **Population Viability Analysis**

### **Part A**

To make political decisions about the extent and type of forestry in a region it is important to understand the consequences of those decisions. One tool for assessing the impact of forestry on the ecosystem is population viability analysis (PVA). This is a tool for predicting the probability that a species will become extinct in a particular region over a specific period. It has been successfully used in the United States to provide input into resource exploitation decisions and assist wildlife managers and there is now enormous potential for using population viability to assist wildlife management in Australia's forests.

A species becomes extinct when the last individual dies. This observation is a useful starting point for any discussion of extinction as it highlights the role of luck and chance in the extinction process. To make a prediction about extinction we need to understand the processes that can contribute to it and these fall into four broad categories which are discussed below.

### **Part B**

- A** Early attempts to predict population viability were based on demographic uncertainty. Whether an individual survives from one year to the next will largely be a matter of chance. Some pairs may produce several young in a single year while others may produce none in that same year. Small populations will fluctuate enormously because of the random nature of birth and death and these chance fluctuations can cause species extinctions even if, on average, the population size should increase. Taking only this uncertainty of ability to reproduce into account, extinction is unlikely if the number of individuals in a population is above about 50 and the population is growing.
- B** Small populations cannot avoid a certain amount of inbreeding. This is particularly true if there is a very small number of one sex. For example, if there are only 20 individuals of a species and only one is a male, all future individuals in the species must be descended from that one male. For most animal species such individuals are less likely to survive and reproduce. Inbreeding increases the chance of extinction.
- C** Variation within a species is the raw material upon which natural selection acts. Without genetic variability a species lacks the capacity to evolve and cannot adapt to changes in its environment or to new predators and new diseases. The loss of genetic diversity associated with reductions in population size will contribute to the likelihood of extinction.
- D** Recent research has shown that other factors need to be considered. Australia's environment fluctuates enormously from year to year. These fluctuations add yet another degree of uncertainty to the survival of many species. Catastrophes such



as fire, flood, drought or epidemic may reduce population sizes to a small fraction of their average level. When allowance is made for these two additional elements of uncertainty the population size necessary to be confident of persistence for a few hundred years may increase to several thousand.

### **Part C**

Beside these processes we need to bear in mind the distribution of a population. A species that occurs in five isolated places each containing 20 individuals will not have the same probability of extinction as a species with a single population of 100 individuals in a single locality.

Where logging occurs (that is, the cutting down of forests for timber) forest-dependent creatures in that area will be forced to leave. Ground-dwelling herbivores may return within a decade. However, arboreal marsupials (that is animals which live in trees) may not recover to pre-logging densities for over a century. As more forests are logged, animal population sizes will be reduced further. Regardless of the theory or model that we choose, a reduction in population size decreases the genetic diversity of a population and increases the probability of extinction because of any or all of the processes listed above. It is therefore a scientific fact that increasing the area that is logged in any region will increase the probability that forest-dependent animals will become extinct.

## **HOLIDAYS, HOBBIES, AND SPORT**

### **Holiday Choice**

Over 300 million people take holidays abroad every year, and a recent survey has shown that they would rather cut back spending on food and clothing than spend less on holidays. Choosing the ideal holiday is not always easy, but in this day and age there is a wide range of choice, and you should be able to find something to suit your taste and pocket.

Some people like planning their holiday independently, while others prefer to book a package. It depends on where you're going, how much money you have, and whether you're travelling alone, or with friends or family.

The obvious advantage of a package holiday is that it's simple to organise. You book the holiday through a travel agent, and transport, insurance and accommodation are all arranged for you. All you have to do is pay the bill. If you take an independent holiday, on the other hand, you can spend a lot of time and a small fortune checking complicated timetables, chasing cheap flights, and trying to make hotel bookings in a language you can't even speak. What is more, package holidays are often incredibly cheap. For the price of a suit, you can have

a fortnight in a foreign resort, including accommodation, meals, and air travel. A similar independent holiday, however, can work out much more expensive.

Yet the advantages of planning your holiday yourself are considerable. You are free to choose exactly where and when you want to go, how you want to travel, and how long you want to stay. You can avoid the large resorts, whereas holiday-makers on package tours are often trapped among crowds of other tourists. You can eat the food of the region at reasonable prices in local restaurants, while they are served with 'international' dishes and chips with everything. Besides, although package holidays are usually extremely good value for money, they are not always cheaper. If you're willing to take a little trouble, you may be able to save money by fixing up a foreign holiday yourself.

Moreover, although most people return from package holidays reasonably satisfied, this is not always the case. Take, for instance, the nightmare experience of a Frenchman who went on a package to Colombia. The hotel in the small Caribbean port was overbooked. The holidaymaker was wandering round the streets, looking for a bed and breakfast place, when he was arrested for vagrancy. He was taken to court, where he told the magistrate that it was the hotel's fault. The magistrate was the hotel-owner's brother, and he charged the tourist with making false accusations and sent him to prison for eight days. By the time of his release, his return flight had left. He had insufficient funds to buy a return ticket, so he went to the Post Office to send a telegram to his home in Montpellier, asking for money. He was re-arrested before he could send it. This time he was charged with illegal immigration. It was explained that, having missed his return flight, he could no longer be classified as a tourist. He now needed a work permit, and he didn't have one. He was fined \$500 for this offence, and a further \$500 when he again blamed the hotel for overbooking. His luggage was confiscated because he couldn't pay the fines. Down to the clothes he stood up in, he hitch-hiked to Bogota where the consulate finally arranged to send him home.

All things considered, I would prefer to plan my holiday independently. In my view, it's safer to 'do it yourself'!

## **How to Beat Holiday Stress**

Sunshine and Sangria may sound like the ideal cure for all your ills. But holidays can also be a source of stress — and that can affect your health. So if you want to really relax while you're away, follow these simple rules.

Stress is now a major health issue of the nineties. One survey put the annual cost to British business at £1.3 billion in absenteeism, with around 100 million workdays lost each year.

If left unchecked, stress can lead to illnesses which affect physical fitness, such as heart disease, high blood pressure and severe aches and pains, particularly

neck and backache.

Yet although work is frequently cited as the main cause, holiday stress can be even more damaging. The traditional summer break, regarded by most people as the highlight of their year, can actually undermine health and put pressure on family relationships.

Instead of tackling the problems before they go away, a lot of people believe a holiday will work magic for them. But holidays are spent in strange places where it may be difficult for tense people to relax.

They may feel even more disturbed if they get the idea that others are having a more wonderful time than they are. It becomes a complex vicious circle, with people coming home more stressed than before they went away.

Holiday preparations involve a series of mini stresses, like tying up loose ends at work, remembering to cancel the milk and newspapers, boarding the family pet, arranging foreign currency, last minute shopping, working out how much spending money to take and worrying about securing the home against burglars.

Crowded airports, delayed flights and packed hotels are also major stress factors for most holidaymakers.

Stress experts say we should take two or three short holidays a year instead of a long mid-summer one.

Professor Gary Cooper, psychologist at the University of Manchester Institute of Science and Technology, says "If your one holiday a year turns out to be a disaster you have nothing to look forward to for another year "

"A big mistake is to take your holidays according to the month, instead of when your body tells you it is time to unwind. July and August can be the two most disastrous months for holidays because there are always crowds, queues and delays. Some people like crowds, but holidays are a time for peace, quiet and personal space."

"Another strain is not being able to do what you want on holiday, so you end up compromising, and no one has a really good time. If the holiday is self-catering, a wife is going to feel stressed at having to cook, look after the children and do all the other chores she handles at home, while her husband goes off to play golf."

"Disappointment is very stressful. If you have high hopes of your holiday and it lets you down, you won't be refreshed, and may feel in need of another holiday. It's not going to kill you, but it won't help you to recharge your batteries."

"Some people become over anxious when they are going on holiday," says Professor Ben Fletcher, head of psychology at Hertfordshire University, "and worry about what happens if they are taken ill. So, for them their chosen holiday spot is not a secure place."

"Many couples and families are simply not used to spending a long time

with each other, and some people cannot cope with that. Others may try to establish who is boss on holiday, while a lot of people just find it difficult to relax."

## **Camp America**

Every year, thousands of students fly to the United States to spend their holidays working at summer camps. In return, they get a free return flight, full board, pocket money and the chance to travel. Lucy Gribble joined Camp America and spent eight weeks working at a summer camp for six to sixteen-year-olds.

I applied at the last minute and was so thrilled at the prospect of spending the holidays doing something more exciting than working in the local supermarket, that I hastily accepted the only job left - in the camp laundry.

I started to have my doubts while squashed between the windsurfing instructor and the aerobics teacher during the bumpy three-hour ride to the camp, about 90 miles from New York City.

On arrival I was told by the camp director that I would be doing the washing for 200 children - on my own. For the first week, the party sent out by the jobs agency - seven English students and one Welsh, one Pole and one Australian - became a full-time cleaning squad, getting the place ready for its grand opening.

We swept out dead birds from the bunkrooms; scrubbed the lavatories, gymnasium and kitchen; polished the cooking equipment; mowed the lawns; put up the sports nets, and lugged any luggage sent on ahead to the bedrooms.

After the children's arrival I had to work from 8.45 in the morning to 10.30 at night to get all my work done. 'Don't worry,' said the director. 'The kids always throw all their clothes in the wash after five minutes in the first week.' I smiled through gritted teeth.

Considering there was no hot water in the laundry and the rickety old machines, the washing came out remarkably well. But with so many clothes to wash and dry, some washing did get mixed up. I had six-year-olds marching up and telling me their parents would be very angry if I did not find their favourite sweater.

The kitchen workers and myself found ourselves at the bottom of the camp's class system. We were never invited to join in the evening activities and at the talent show we were the only six out of the entire camp to be excluded. When we did manage to get out of the camp, our evenings tended to consist of eating ice-cream in the local gas station or driving 20 miles to a restaurant to drink cheap lemonade. Despite the unexciting venues, we made the best of the situation and enjoyed a lot of laughs throughout the summer.

The camp itself had a large lake and excellent sporting activities. But because organised activities for the children carried on into the evening we usually only got the chance to use the tennis courts or the swimming pool.

I shared a room with three 18-year-old girls from New York. They had never been away from home before and spent most of the night screaming with excitement. They each had three trunks full of clothes and thought it was hilarious that I had only a rucksack. On some nights the only way to get any rest was to 'go sick' and sleep in the medical centre.

The camp food was poor with child-sized portions; fresh fruit and vegetables were rare. One catering worker even stood over the pineapple rings checking that you took only one each.

The plus points of the camp were the beautiful parkland setting, meeting a great bunch of travelling companions and managing to work my way through far more of my course books for my English degree than I would have done back home.

And without Camp America's free flight to the US - and a rail ticket from my parents - I would never have seen Niagara Falls, climbed the Empire State building, visited Washington DC or had my picture taken with Mickey Mouse at Disney World, all of which I did after the camp closed down.

## **Amateur Photography**

In a few short weeks the camera season begins. Loaded down with film and filters and huge black boxes, the first of hordes of tourists will start to flood across the world, an infestation of locusts that give out a myriad of dry clickings as they land. Smile, click. Say cheese, click. A bit to the left, click. Keep still, click.

All travel is now merely a means of moving a camera from place to place, all travellers are ruled by the all-powerful lens. Visitors old-fashioned enough to wish only to stand and look with their anachronistic eyes are shoved aside by the photographers, who take it for granted that while they do their ritual focusing, nothing else may move or cross their vision. Those peculiar souls without a camera must step aside for those more properly occupied, must wait while the rituals take place, and must bide their time while whole coaches stop and unleash upon the landscape the Instamatic God. And the populations of whole countries seeing themselves cannibalised, swallowed up, vacuumed into the black-ringed staring eye, wrench what they can from the cannibals You want take picture me? You pay. You want picture my house, my camel? You pay.

None of this would matter, perhaps, if anything worthwhile was being accomplished. If all the constant clicking produced, at its end, what had not existed before, images of beauty captured or truth told, then who could complain? But, sadly, this isn't so. The camera is simply graffiti made respectable. Nice people do not cut their initials on walls any more. Nice people aim their lenses, develop their film, and prove in that way the same age-old human message - Kilroy Was

Here.

The camera is the means by which we stamp ourselves on everything we see, under cover of recording the Wonders of the World already wonderfully recorded by professionals and on sale at every corner bookshop and newsagent. But what use to us an illustrated book of perfect photographs? What use to show Aunt Maud, back home, postcards of the Taj Mahal, the Coliseum, the Leaning Tower of Pisa, a Tuscan landscape, since we are not in the picture to prove that we were there?

No stretch of rocks has verity unless I am within it. No monument exists but for my wife, leaning against it. No building is real if it does not contain my husband at its door. No temple is of interest without my face beside it, grinning. With my camera I appropriate everything beautiful, possess it, shrink it, domesticate it, and reproduce it on my blank sitting-room wall to prove to a selected audience of friends and family the one absolutely vital fact about these beauties: I saw them, I was there, I photographed them.

Even this immense ego-mania might be forgivable if some truth, some meaning emerged, albeit in the background, behind the smirking faces. But most amateur photographers show no interest in the world as it is, only in the world as it ideally should be. For tourists, it is a world of images as clichéd as brochures, calculated to arouse envy in the bosoms of the stay-at-homes.

Thus, all photographs of famous tourist sights must, for a start, eliminate their one overwhelming ingredient - other tourists. Patiently, the photographer waits while the crowds surge round about and pounces, clicks, in the one infinitesimal second when his target is clear of all others but Gladys. So Aunt Maud, at home, sees a peaceful idyll, an uncharted ruin far from the haunts of any human but Gladys. And lies are often more deliberate than that. You wish to show that you have been to places ancient, untouched, quite outside the stream of ordinary tourism, quite outside the stream of modern life. You want a picture of the Real Morocco - a scene as old as time. Unfortunately for you, a glassy modern building edges up to the mosque; behind the minaret television aerials spike the sky; beside the camel two Moroccans in unsuitable Western suits stand discussing business; and all around the cars hoot and squeal.

So you must stand and twist your camera, hold it up sideways, shift your position so that the little yellow lines just clear the building, just cut out the aerials and the telegraph wires, just exclude the business men and their cars while retaining the rest. And when all these alien elements have, for a precious moment, been obliterated, click. There, Aunt Maud. The Real Morocco. The Morocco nobody who has actually been there will ever actually see. That is the summit of the amateur photographer's art - total unreality. The World As It Isn't, and our Fred.

Travel with camera wonderfully narrows the mind.

## **Sporting Behaviour**

### **The biology of sport—a modern hunting ritual**

Sporting activities are essentially modified forms of hunting behaviour. Viewed biologically, the modern footballer is revealed as a member of a disguised hunting pack. His killing weapon has turned into a harmless football and his prey into a goal-mouth. If his aim is accurate and he scores a goal, he enjoys the hunter's triumph of killing his prey.

To understand how this transformation has taken place we must briefly look back at our ancient ancestors. They spent over a million years evolving as co-operative hunters. Their very survival depended on success in the hunting-field. Under this pressure their whole way of life, even their bodies, became radically changed. They became chasers, runners, jumpers, aimers, throwers and prey-killers. They co-operated as skilful male-group attackers.

Then, about ten thousand years ago, after this immensely long formative period of hunting their food, they became farmers. Their improved intelligence, so vital to their old hunting life, was put to a new use—that of penning, controlling and domesticating their prey. The hunt became suddenly obsolete. The food was there on the farms, awaiting their needs. The risks and uncertainties of the hunt were no longer essential for survival.

The hunting skills and the hunting urges remained, however, and demanded new outlets. Hunting for sport replaced hunting for necessity. This new activity involved all the original hunting sequences, but the aim of the operation was no longer to avoid starvation. Instead the sportsmen set off to test their skill against prey that were no longer essential to their well-being. To be sure, the kill may have been eaten, but there were other, much simpler ways of obtaining a meaty meal. The chase became exposed as an end in itself. The logical extension of this trend was the big-game hunter who never ate his kill, but merely hung its stuffed head on his wall, and the fox-hunter who has to breed foxes in order to release them to hunt them down. Here there is no longer even any pretence that the chasing and killing are a means to an end. They are openly accepted as their own reward.

An alternative solution was to transform the activities of the hunting pack into other patterns of behaviour. Superficially these new activities did not look like hunting, but beneath the surface all the basic elements were there. The key to the transformation lies in the fact that there was no longer any need to eat the prey. This being so, then why bother to kill an edible animal? Why indeed kill any animal at all? A symbolic killing is all that is needed, providing the thrill of the chase can be retained. The Greek solution was athletics—field-sports involving chasing (track-running), jumping, and throwing (discus and javelin).

The athletes experienced the vigorous physical activity so typical of the hunting scene, and the patterns they performed were all elements of the ancient hunting sequence, but their triumph was now transformed from the actual kill to a symbolic one of 'winning'.

In other parts of the world, ancient ball-games were making a small beginning: a form of polo in ancient Persia, bowls and hockey in ancient Egypt, football in ancient China. Here the element of the primeval hunting sequence to be retained and amplified was the all-important hunter's action of aiming. Whatever the rules of the game, the physical act of aiming was the essence of the operation. This more than any other has come to dominate the world of modern sport. There are more aiming sports today than all other forms of sport put together. One could almost define field-sports now as competitive aiming behaviour.

## CRIME

### **The Great Train Robbers Tell Their Story**

On Thursday August 8, 1963, fifteen masked men stopped the night train from Glasgow to London and robbed it of £2,500,000. It was called the crime of the century, and the thieves were relentlessly pursued by Scotland Yard until half the gang were behind bars serving huge prison terms. But the story did not end there. First one, then another escaped in thrilling style and fled abroad, catching the world's imagination and making the Train Robbers into folk heroes.

Thirteen years later the gang combined to tell their story, and Piers Paul Read, author of the bestselling *ALIVE*, agreed to write it. Here in his brilliant hands is the complete and exclusive story of the century's most audacious crime and its even more sensational aftermath.

. . . If we analyse more closely the Train Robbers and their milieu we may find that even this apparently evil act (the coshing of train-driver Mills) does not necessarily prove that they are wicked men. First there is their background, by which I do not mean only the context of their infancy and adolescence, but the whole sub-society of working-class South London. There is no doubt that there was and still is endemic poverty juxtaposed to conspicuous consumption north of the river. It is not difficult to imagine the young Bruce Reynolds, for example, bicycling across the Thames to London's West End where the houses were large, light and elegantly proportioned; where the shops and department stores of Bond Street and Knightsbridge displayed every variety of diverse and luxurious merchandise: nor hard to guess his feelings as he returned to the meagre tenement



where his father struggled to feed his family on the wages of unskilled labour.

The Train Robbers were all determined to change this inequality of condition but only for themselves. None was a Robin Hood. Even Bruce, the son of a Socialist and Trades Unionist, was consistently selfish in his drive to escape from the slums of Battersea.

Yet even where a thief does not act as a Robin Hood, he may still be seen as one. As E. J. Hobsbawm says of rural bandits, 'there is no doubt that the bandit is considered an agent of Justice, indeed a restorer of morality, and often considers himself as such'. The same might be said of those urban bandits, the Train Robbers, who were and still are regarded with considerable sympathy, and were given much tacit support in their own circles. A small army of auxiliaries brought them information, ran errands and hid their money - not just because they hoped for some of the money itself. Even total strangers brought them information, not for a whack or a drink, but because they enjoyed the discomfiture of the rich and powerful.

Certainly there would be an insignificant amount of crime if large numbers of ordinary people did not feel themselves to be the friends of thieves - or at any rate the enemies of the police, who they see as oppressive, hypocritical and cruel. The picture of the Metropolitan Police, particularly of the Flying Squad in the early 1960s, which emerges from the Train Robbers' story - some of them taking bribes to alter evidence or drop charges, and others fabricating evidence to secure convictions - may well be exaggerated, but because so many Metropolitan police officers have been convicted of corruption or dismissed from the force since the Train Robbery took place, it cannot be regarded as totally false.

The Train Robbers showed total repugnance for the rules and formalities of the modern state - licences, permits, taxes, National Insurance Stamps. This anarchism explains their appeal to the poor. I myself, who have everything to gain from literate values and everything to lose from savagery, find something seductive in the life and values of the Train Robbers. They seem the last traces of an age which drew upon fundamental human qualities of courage and loyalty, their lives as well as their liberty could stand or fall on the strength of friendship: love could mean the sharing of great luxury and great suffering. Poor youths like Buster, Bruce, Tommy and Charlie took to crime to escape not so much from the poverty of their condition as the emasculation of menial, repetitious labour for a paltry wage.

## Shooting Pain

On 21 December 1988, I stood with numerous other reporters at Kennedy Airport in New York, watching a mother writhe in agony, out of control, on the floor of the Pan Am terminal. She had just heard, in full sight of the New York press corps, that her 21-year-old daughter's plane Flight 103, had crashed in Scotland killing everyone on board.

I was there to get a story, so I didn't just watch. I ordered the cameraman I was working with to get a shot of the harrowing scene. The woman lay spread-eagled on her back, screaming, 'My baby, my baby'. The moment was successfully captured on videotape.

At least a dozen other camera crews were zooming in on the woman, who was partly smothered by her husband, trying to protect and comfort her. The press photographers started yelling at the television crews to get out of the way, so that they could get a better look. What we were doing began to feel profoundly intrusive, and possibly inhumane. I didn't have time to think further before a police officer ordered us away.

But, within minutes, TV images of the bereaved woman's anguish were being beamed round the world - which is how her relatives first learned of the family's loss.

The next day, a full-page photograph of the woman, lying undignified on the airport floor, appeared on the front page of the New York *Daily News*.

The short news report I compiled for the following morning's edition of *Breakfast Time* didn't include any pictures of the grief-stricken mother. I cannot, however, take full credit for this. That goes to a colleague in New York who, after viewing the videotape, insisted that the material should not be broadcast. A majority of reporters and editors covering the event did go ahead and transmit the footage. Invariably, the justification was that it helped convey, in human terms, the full horror of the Lockerbie disaster.

The editor of the *Daily News*, F. Gilman Spencer, maintains that, in putting the mother's photograph on Page One, he wasn't exploiting her - just doing his job as a professional 'picturing a tragedy'. The TV station WSTM, in Syracuse, New York, was one of hundreds across America to broadcast the pictures in their local news programmes that night. The station's executive news producer at the time, Karen Frankola, says she decided to use the videotape because 'it gave an emotion - gave an element of the story that was missing'.

The bereaved mother's name is Janine Boulanger. A few weeks after the event, with some trepidation, I contacted her. It was still difficult for her to discuss the scene at the airport. Unsurprisingly, she says it was the most painful moment in her life, and she can't understand why those pictures were so important in telling the Lockerbie story.

At the *Daily News*, F. Oilman Spencer claims that his photograph of Mrs

Boulanger did not violate her privacy because she was in a public place when she learned the news of her daughter's death.

To me, that no longer makes sense. It's like saying it's all right to show pictures of a woman being raped so long as it happens in public. When I suggested to Karen Frankola of WSTM that she, too, might have exploited Mrs Boulanger, she made an astonishing assertion: 'Perhaps I was exploiting her. But we do that as journalists'.

Another, wider question also needs to be addressed: did there need to be quite so many journalists at Kennedy Airport that night? When I arrived at the Pan Am terminal, the airline was making arrangements to brief reporters at a news conference. However, at the last minute, the airline changed its plans, and moved the conference to another site. At that point, the airport journalists had little to do but gather material of those who'd waited in vain for Flight 103. Many reporters and crews loitered in the terminal like hungry sharks, going into a feeding frenzy when they encountered a distraught friend or relative.

Most journalists say it's necessary to show human distress at times of disaster. A common refrain from many at Kennedy was that, although they felt uncomfortable, they went ahead because they were only 'doing their job'. Their bosses would have been displeased if they'd returned to base empty-handed.

For my part, I knew it was wrong to be watching Mrs Boulanger in agony that night. Out of respect to her, I should have turned away. And I think many other reporters felt the same way, too. But we didn't turn away. Most of us felt compelled to shoot the pictures to please our editors and beat the competition, and in doing so we only added to the tragedy.

People in television argue that the medium requires pictures, but does it have to be so all-devouring? Eli Wiesel, the Nobel Peace Prize-winner recently commented on this while reviewing films about concentration camps. 'Why this determination to show "everything" in pictures?' he asked - when 'a word, a glance, silence itself communicates more and better?'

I think that every reporter at Kennedy Airport could have filed perfectly adequate stories without using the pictures of Mrs Boulanger. I think those who included them in their reports knew, consciously or not, that they had behaved wrongly.

Mrs Boulanger says: 'I almost felt they were barbaric. We distinguish between animals and people by their intellect and their sense of compassion and humanity. In that moment those things were completely absent'. She would like reporters to think a little in the future about what they are doing. Is it to enlighten the public - or to exploit the innocent?'

## **Computer Hacking - High-tech Crime**

You can rob a bank without leaving the house these days. Who needs stocking masks, guns and getaway cars? If you're a computer whizz-kid, you could grab your first million armed with nothing more dangerous than a personal computer (PC), a telephone and a modem to connect them.

All you have to do is dial into the networks that link the computers in large organisations together, type in a couple of passwords and you can rummage about in the information that's stored there to your heart's content.

Fortunately it isn't always quite as easy as it sounds. But, as more and more information is processed and stored on computer, whether it's details of your bank account or the number of tins of baked beans in the stockroom at the supermarket, computer crime seems set to grow.

A couple of months ago a newspaper reported that five British banks were being held to ransom by a gang of hackers who had managed to break into their computer. The hackers were demanding money in return for revealing exactly how they did it. In cases like this, banks may consider paying just so they can protect themselves better in the future.

No one knows exactly how much money is stolen by keyboard criminals - banks and other companies tend to be very secretive if it happens to them. It doesn't exactly fill customers with confidence if they think their bank account can be accessed by anyone with a PC! Some experts believe that only around a tenth of all computer crimes are actually reported. Insurance company Hogg Robinson estimate that computer frauds cost British companies an incredible £400 million a year.

Most computer crimes are 'inside jobs', where staff with access to the company's computers fiddle with the records. A comparatively small amount are committed by the more glamorous - and headline-grabbing - hackers.

The true hacker, it seems, doesn't do it for financial gain. The thrill appears to be, not in getting rich, but in beating the system. Two of Britain's most notorious hackers are Nicholas 'Mad Hacker' Whiteley and Edward Singh. The renegade pair have been the scourge of organisations with insecure computers for years, seemingly competing for the title of Britain's best hacker.

Whiteley's hacking days came to an abrupt halt in June, when the 21-year-old was sent to prison for four months for damaging computer discs. Edward Singh first came to public attention after claiming that he had hacked into American and British government and military computers.

'It has never been my intention to steal anything,' said Singh. 'I really see myself as a highly skilled software engineer.' His mission seems to be to prove just how insecure their systems are.

As with everything else, hackers start young in the States. A 12-year-old boy in Detroit was accused of entering a company's credit rating computer and

distributing the numbers he found there. His mother told reporters that he spent up to 14 hours on his computer during the weekend. 'He didn't bother me,' she said. 'I figured, computers, that's the thing of the day.'

Last month, two New York teenagers, one aged 14 and one aged 17, were charged with breaking into a computer system owned by a company that publishes computer magazines. They are alleged to have changed polite recorded greetings to rude messages, added bomb threats and wiped advertisers' orders.

Customers linked into the system only to be told that 'Daffy Duck is not available"! The company estimates that the tampering has cost \$2.4 million.

Prevention is probably easier than detection, and many companies now spend lots of time and money devising programmes using passwords and codes. Of course, all this is no use at all if computer users tell each other their password, stick it on their screen so they don't forget it or use passwords like 'password'. It all happens.

There are plenty of software companies who specialise in writing software that make computers hacker-proof. One company in the States set out to prove that its system can defeat hackers by asking over 2,000 of them to try to hack in. The hackers were given two weeks to discover the secret message stored on two PCs in offices in New York and San Francisco. The message reads: 'The persistent hunter who wins his prize sooner or later becomes the hunted.' You'll be relieved - or perhaps disappointed - to learn that not one hacker managed it.

## **The Naked Truth about Road Safety**

Victims of what a BBC television documentary last year called The Greatest Epidemic of Our Time are mostly male, mostly in the prime of life, number some 6,000 a year in Britain, 50,000 in the USA, and worldwide more than quarter of a million. And it's not Aids but road accidents.

Some 10 million people have been killed on the roads this century. We're talking about something comparable only with natural disasters, famines, disease and war. As far as the citizens of the United States are concerned, cars have killed far more people than wars.

Since 1913 nearly 3 million of them have been killed on the roads. This is three times as many as the number killed in all wars that the USA has ever fought, including two World Wars, Korea and Vietnam.

Recent aircraft disasters have concentrated our minds on air safety. Yet the daily slaughter on the roads is largely ignored.

Our society contemplates road deaths with a remarkable equanimity which is only disturbed when a great many happen spectacularly in the same place at the same time, as when on Monday 13 people died in the motorway crash on the M6. Horrifying though that figure is, it is less than the average of 16 people in Britain

(136 in the USA) whose deaths *every day* have no memorial.

Another spectacular accident occurred the previous Monday when 120 vehicles piled up on the M1. This took place in thick fog, whereas the M6 crash was in what were described as near perfect driving conditions. Since nobody was killed in the fog crash, and 13 were killed in the other one, it is reasonable to ask what is meant by perfect weather conditions.

Common sense tells us that driving is more difficult when there is less daylight and more fog, and when there is less friction between the tyres and the surface of the road. Common sense also tells us to drive more carefully in such conditions, and therefore more safely. When people drive more slowly, collisions are less damaging. Even if there are more accidents, they are less serious.

This is confirmed by a ten-year study of traffic accidents in Ontario. The number of injuries was lowest in February, highest in August. The difference in fatalities was even more pronounced: just over 80 in February, nearly 200 in August. Statistics in Sweden tell a similar story. John Adams, a lecturer at University College London, speculates that "if all roads were to be paved with a substance having the same coefficient of friction as ice, the number of people killed on the roads would be substantially reduced."

If this proposal sounds a little over the top, it is far from the only one to be found in Dr Adams's recently published study of road safety regulations, *Risk and Freedom*. Here are some more of his thought-provoking statements, solidly documented and backed by abundant statistics.

As traffic increases, road accident deaths drop dramatically. Small cars are involved in fewer accidents than big cars. Bermuda, with a speed limit of 20 mph, has a worse road accident record than Britain.

The same is true of the United States, which not only has lower speed limits than ours but also better roads. There is no convincing evidence that motorcycle helmet laws or the compulsory wearing of seat belts have saved lives.

It is this last statement that Dr Adams's critics, and they are many, have found most contentious. Some of them misrepresent his views in a way which, if it is not wilful, must come from an inability to read. Adams does not deny, as some of them appear to think, that an individual in a car crash has a better chance of survival with some form of constraint (a car occupant's seat belt) or protection (a motor cyclist's crash helmet). What he queries is whether *compulsory* seat belts, crash helmets and other safety regulations reduce the overall accident and fatality rate.

He finds that though there have been reductions in fatalities in some countries in which seat belt laws have been passed, they have not been as great as the reductions that have occurred in the same period in countries in which seat belt laws have not been passed.

The argument centres on what is called risk-compensation. Prevent people from taking one risk and they'll substitute another.

Adams makes the point by asking motorcyclists to imagine two sets of circumstances. In one the rider wears helmet and visor, leather jacket and trousers, gauntlets and heavy duty boots. In the other he has no helmet and is wearing a T-shirt, shorts and sandals. Anyone who has ridden a motorbike would agree with Adams's respondents, that they would drive much more carefully in the less protected state. The Swedish safety poster showing two motorcyclists who are naked other than for their crash helmets unintentionally makes the same point. They would drive very carefully indeed, and not because of the crash helmets.

## SCIENTIFIC TALES

### **Is There a Gene for Genius?**

Dr Howard Gardner of Harvard University believes that geniuses are largely made. He has banned television from his home because he fears it might rot the minds of his family. He makes time every day to listen to his seven-year-old son, Benjamin, play the piano - even if it is no more than a few minutes during a transatlantic phone call while he is away at a conference.

Dr Sandra Scarr of Virginia University, president of the Society for Research in Child Development, believes geniuses are largely born. She says parents should not worry too much about whether to take their kids to a ball game or to a museum. Talent will out.

It seems psychologists are as divided as ever over the issue of nature versus nurture. This may, however, be about to change. A conference organised earlier this year by the Ciba Foundation brought to London some of the biggest names from both sides of the debate. Startling results from unpublished work were revealed - and the beginning of a consensus could be discerned.

The most exciting results came from those working on the biology of individual differences. Dr Robert Plomin of Penn State University, working with a team from Cardiff University, hopes to announce within the next few months that he has tracked down one of the genes that plays a part in determining intelligence. An unnamed gene has been identified but the results have yet to be confirmed.

At present, it is believed that genes account for at least half of what researchers call "g" - the general cognitive ability that IQ tests are supposed to measure - while environmental influences account for the other half. But so far

the evidence for a genetic component has been purely statistical, being inferred from comparisons of twins and other such hereditary studies. Plomin's method makes use of new gene mapping techniques and promises to provide direct evidence of the role that genes play.

Plomin stresses that the discovery of a first gene does not mean the riddle of intelligence has been solved. A single gene will code for only one of the many neurotransmitters and cell proteins that are the building blocks of the brain. This means that hundreds, if not thousands of genes must be involved in intelligence. The identification of even one gene does, however, have immense implications for the nature/nurture debate.

Another innovation, the computerised brain scanner, has led to a second discovery by those seeking the biological component of mental abilities. Professor Camilla Benbow of Iowa State University is head of a long-term study of the mathematically gifted. For many years she has been puzzled as to why so many of the children in her study should be boys - at the top level, boys outnumber girls by 13 to one. In a soon-to-be-published paper, Benbow reveals that the gifted boys' brains appear to process spatial information in a very different way from those of average boys and even of gifted girls.

The children in the study were scanned while being presented with a simple visual puzzle. The boys of average ability and the gifted girls showed strong activity on both sides of their brains as they thought about the puzzle. However, the gifted boys responded very differently. There was a sudden drop in activity in their left hemispheres - the side of the brain most involved in language - and an exaggerated reaction on the right, the side strongest at spatial thinking. It seems that the brains of boys with mathematical talent operate in a way that is physically distinctive.

Benbow says she was surprised that the gifted girls should lack this pattern of response. The only explanation she has is that male brains have a tendency to become more lateralised during development; when this lateralisation is taken to an extreme, unusual spatial abilities result.

Because females do not have this tendency (lateralisation is known to be hormonally governed), girls who perform well in mathematics are doing so because of a more general mental superiority. And because statistically such all-round ability is less common, this would be the reason for there being fewer mathematically gifted girls.

Benbow is quick to add, however, that cultural expectations probably exaggerate the imbalance. In China, where girls are more likely to get encouragement in mathematics, the number of gifted boys exceeds that of gifted girls by four to one rather than the 13 to one seen in the United States.

Both Plomin's and Benbow's findings would seem to give ammunition to the argument that exceptional mental abilities are largely innate. But the Ciba



conference heard equally strong evidence for the role that environmental factors play in creating genius. A theme repeatedly heard from the speakers was that special children invariably have special parents.

## **You'll Never Believe Who's on the Line**

A new type of telephone has arrived in Britain. It looks innocent enough, just like a normal household appliance, in fact, but there's one very big difference. The "truth phone" tells the user when the person on the other end of the line is lying.

Manufactured by an American company specialising in a range of surveillance and counter-surveillance equipment, the truth phone contains a "voice-stress analyser", otherwise known as a lie-detector. The company claims that it monitors uncontrollable, sub-audible tremors which exist in the human voice when the subject is under stress.

"Voice-stress analysis (VSA) has long been recognised as a proven method of lie detection," says Joanne O'Neill, manager of the shop in London which acts as the retail outlet in Britain. "What we've done is to combine the technology of VSA with the telephone, where so many of the most important conversations in life take place."

During a conversation, a digital read-out is constantly displayed on the telephone console, reflecting the sub-audible tremors in the subject's voice. An answer to a simple, stress-free question such as "Is today Saturday?" produces a reading somewhere between 10 and 40. A more searching question such as "Are you having an affair?" might produce a reading of 80 or 90.

According to the manufacturer, however, it's not just a case of the higher the reading, the bigger the whopper. Correct use of the truth phone requires a series of carefully structured questions in the context of a formal interrogation and a detailed analysis of the readings. (In America, where VSA is admissible as court evidence in certain states, there is a certificate of qualification for voice stress analysers. VSA is not admissible in a British court.)

"Control questions" help to distinguish between the anxiety of interrogation and the stress of lying. Unrelated to the main issue (a school theft, say), some of them are easy ("Are you wearing a tie?"), while others are designed to produce stress ("Have you ever shoplifted?"). These provide the interrogator with benchmarks to compare with the response to the main question ("Did you steal £200 from the bursar's office?").

The implications of the truth phone could be devastating, particularly in the business world. Employees suspected of pilfering company money, fiddling their expenses, talking to the opposition or leaking information could be summoned to

the phone. ("It's the boss. Wants a word with you on the truth phone.")

At £2,499, the phone is not cheap. According to the manufacturer, the first people to spot its potential in Britain have been insurance firms wanting to check the validity of their clients' claims.

But Liberty, a civil rights organisation, expresses some concern about the equipment. "I think it's an issue of privacy as much as anything," says John Wadham, Liberty's legal officer. "People could be measuring your emotional response without you knowing. The information could also be very inaccurate if it's taken out of context."

## Look Who's Calling ?

"Answer the phone, could you darling? I look an absolute mess." "Oh, let it ring. I don't much like the look of him, whoever he is." Telephones may never be the same again. The long-awaited "videophone" will be with us within a year or so, according to telephone engineers. They are working on a wide-screen model for use in offices, and a more compact version for the home. Both, they promise, will offer pin-sharp pictures. You can see who's calling you - and they can see you answer.

Cordless phones, phones in cars, phones in your pocket - and now this. Naturally, the telephone companies take it as read that such wonders of technology will be instant best-sellers. Who is going to want just to listen on the telephone, when they could be face-to-face on camera exchanging knowing glances, tell-tale gestures, loving smiles? Videophones will be so much more informative, more personal, they say. Revealing, in fact.

They have had them for years, of course, aboard space-ships in science fiction. But whether the real-life, down-to-earth thing will seem like such a good idea is another matter. There are times - a lot of times when you pause to consider - when the phone's "voice-only" limitations are its greatest asset.

"Darling, hi! Stuck late at the office again. I'm afraid. The meeting dragged on and on." *"What's that red smudge on your collar?"*

"Sorry I'm running a little late, sir. The traffic is just terrible."

*"Is that a new sofa you have in your car?"*

"We're just fine. mother."

*"You look thinner to me. Are those bags under your eyes?"*

Videophones are going to change all the games that telephone-users play.

Take the insistent ring - or warbling chirrup, as it is on most phones now. It is an insistent, even hectoring call. As with a baby's cry, it's a sound that you cannot ignore. When a call comes, you feel you have no choice but to answer it.

It will be a different matter if you know you're about to be seen. You'll not want to pick up the phone without at least straightening your tie, running a comb

through your hair, or powdering your nose. And extensions in the bathroom will presumably have to go.

Or supposing it's a long-distance call?

'Hank, what time is it your end? My God, Hank. are you ill?'

What is clearly going to be needed as a matter of urgency is a videophone equivalent of the answering machine. "I'm sorry, we're not able to take your call just at the moment, but if you'd like to leave a message, please speak after the tone; the holiday pictures you are about to see are of us all looking bronzed and fit in the South of France."

Anyone who has an answering machine on the home phone knows it has another sneaky use, besides answering calls when you're out. You can use it for "sampling" calls when actually you're in all the time. "Oh, darling, it's you. I forgot to turn the silly machine off." Or if the call turns out to be an unwelcome one, you can "forget to turn it off " again.

Will videophones feature a sort of preview button, doing much the same job as a peephole in your front door? A must, you might think.

The well-known office secretary's routines will have to be reconsidered as well. "Just a moment. I think he may be in a meeting. I'll see if I can locate him for you." Every caller knows that is code for "He is sitting right beside me, but he may not want to talk to you. Let me find out what sort of mood the old buzzard is in." But what happens if would-be callers happen to see the old buzzard sprinting for the door? Office videophones may well need curtains or some sort of pull-down modesty blind.

Or perhaps we'll have to get used to 'turning the lights off whenever the boss phones unexpectedly. "I think there must be a fault at your end, sir. I can see you loud and clear."

Picture quality: that's another thing. Definition will be sharp, promise the phone engineers - but they would say that, wouldn't they? What if you get a bad line or, worse still, a crossed line?

"Darling, you look just wonderful in black. Oh, I'm terribly sorry, madam, I must have a wrong number."

The much-vaunted business "conference calls" could turn out to be tricky things to handle on videophones, besides: rather like television hook-ups where people sit in the studio looking dazed, embarrassedly fiddling with their ear-pieces, as the satellite links vainly struggle to establish a connection.

"Just wave if you can hear me, would you, New York? Hong Kong is going to give us a close-up of the bottom line ... hello, hello? Look. it's no use just grinning at us, Moscow. Put the thing down and we'll try to call you back. I said *Put the thing down!* Oh, to hell with it, let's just send them a fax."

Perhaps videophones will be every bit as wonderful as they say. But if not, don't call us, we'll call - and try to picture - you.

## A First Course in Psychology

Two psychologists called Schachter and Singer performed a series of experiments designed to investigate just how much physiological changes *do* matter in emotions, and also how much our knowledge of what's going on is important.

In 1962, they performed experiments that involved injecting people with adrenaline, and noting how they reacted. They had three groups of subjects. One group was given an injection of adrenaline and told what it was, and the sort of reactions that they could expect from it. (A flushed face, slight tremblings, and sweaty hands.) A second group was also given an adrenaline injection, but they were misinformed about the symptoms: they were told that it might give them a slight headache, or other things like that. The third group had a *placebo* - that is, they were given a harmless injection of saline solution, which wouldn't have any effect at all. So this would show up any 'imaginary' effects from being given what they thought was a drug.

Schachter and Singer told their students that it would take some time for the injection to have its full effect, and asked them to wait in a waiting room in the meantime. In the waiting room, each subject (they were tested individually) met a 'stooge', who said that he was also waiting for the second part of the experiment. The stooge was really an actor, who was instructed to act either happy, or angry. With the angry condition, he would become increasingly impatient, complaining about the experimenters and the waiting period, and eventually showing every sign of becoming really angry. With the happy condition, the stooge would appear euphoric, making jokes, and playing with paper aeroplanes.

Schachter and Singer found that the mood that their real subjects fell into matched the mood of the stooge. If the stooge was angry, the subjects would get angry; but if the stooge was euphoric, the subjects, too, would start to become happier. So it seemed from these findings, that the emotions people experience can depend on the *social* factors around them.

But another thing which Schachter and Singer found, was that the *degree* to which their subjects reacted, depended on the injections that they had been given. The subjects who had been given adrenaline, and misinformed about its effects, reacted very extremely - they either became very angry, or very happy. But the ones who had had adrenaline, and been told what changes they could expect, didn't react so strongly, nor did the control group who had been given the placebo injection. So, from this, Schachter and Singer developed a theory about how emotions seemed to depend on *both* cognitive factors - the way that they understood their social surroundings; and on physiological factors - the physical changes caused by the autonomic nervous system (ANS).

From their studies, then, Schachter and Singer's theory was developed as follows: a stimulus triggers off the physiological response, and at the same time, the stimulus is *interpreted* in the brain, taking into account previous experiences of similar situations. The brain produces the actual emotion that the subject experiences, through cognitive factors, and the ANS produces the degree to which that emotion is felt. So emotion is a mixture of both cognitive and physiological factors.

Although criticism can be made of this study, it does seem to be likely that both cognitive and physiological factors play their part in the emotions that we feel. One theory argues that, in fact, we can divide the influences on emotion into three groups of factors, and that we receive information from each group. When we put all the information together, then this makes up the emotion that we experience.

The three groups of factors are: physiological factors, like the emergency reaction; stimulus factors - the actual event which has caused us to react; and cognitive factors in the form of the memories we have of previous events and experiences.

## **The Future**

We haven't conquered space. Not yet. We have sent some 20 men on camping trips to the Moon, and the US and Russia have sent people up to spend restricted lives orbiting the Earth. During the next few weeks, for instance, the US Space Shuttle will take Spacelab into orbit, showing that ordinary (non-astronaut) scientists can live and work in space - for a few days only.

All these are marvellous technical and human achievements, but none of them involves living independently in space. The Russians have been sustained by food parcels - even oxygen parcels - sent up from Earth. And they haven't gone far into space. The residents of Sheffield are farther from London than those of the Shuttle or the Russian Salyut. It is only in fiction, and in space movies, that people spend long periods living more or less normally deep in space.

But in a couple of decades - by the year 2000, say - this could have changed. There could be settlements in space that would house adventurers leading more or less normal lives. They would have to be near normal for the settlements to endure, because only eccentrics would want to spend years in space on a diet of survival foods.

The pictures on these pages show where the settlers would live. They seem like science fiction - but they are not. They are based on plans produced by hard-headed people: engineers and scientists, headed by Gerard O'Neill of Princeton University, summoned to a conference by NASA. They are space enthusiasts, of course, but they are not dreamers.

The settlement is a gigantic wheel, a tube more than 400ft in diameter bent into a ring just over a mile across. The wheel spins gently once a minute. It is this leisurely rotation that makes this settlement different from the Shuttle and Salyut, and infinitely different from the Lunar modules that took man for the first time to any non-terrestrial soil, because the spin produces a force that feels like gravity. Every space trip has shown that the human body needs gravity if it isn't to deteriorate, and gravity also makes normal activities practicable. Nobody would want to live for long in a space settlement where everything - people and equipment and the eggs they were trying to fry - drifted weightlessly around.

With gravity, life in space can be based on our experience on Earth. We can have farming and factories and houses and meeting-places that are not designed by guesswork.

The main settlement, as the picture on this page shows, is inside the tube, and the artificial gravity makes the "hubwards direction" equivalent to "up". The "ground" is inside the tube, farthest from the hub.

The need for gravity is one of the reasons for building a space colony, rather than sending settlers to an existing location such as the Moon or the planets. The Moon is irretrievably inhospitable. Its gravity is tiny - and any one place on the Moon has 14 days of sunlight followed by 14 of night, which makes agriculture impossible and puts paid to any hope of using solar energy.

In the settlement, which floats in permanent sunlight, the day-length is controlled. A gigantic mirror about a mile in diameter floats weightlessly above the ring of the settlement. It reflects sunlight on to smaller mirrors that direct it into the ring, through shutters that fix the day length.

The sunlight is constant during the "daytime," so farming is productive to an extent which can be reached on Earth only occasionally. The aim is to provide a diet similar to that on Earth, but the balance will be shifted.

The farms will be arranged in terraces with fish ponds and rice paddies in transparent tanks on the top layer; wheat below; vegetables, soya and maize below that.

The population of the settlement is fixed at about 10,000 people: farm output can be accurately planned. Research reports suggest that about 44 square metres of vegetables will be needed for each person, and just over five square metres of pastures.

The picture here shows where the people will live. It doesn't look very different from modern small towns on Earth, and this is deliberate. Science-fiction films feature vast glass tower blocks and subterranean warrens. But real-life space settlers won't want these. Throughout history, settlers have tried to put up buildings like the ones they left behind, because these are familiar: space settlers will do the same.

## **Love is Blind... to Genes**

How do I love thee? Psychologists have been counting the ways for decades, and have defined styles of romance that range from wild and passionate to cosy and affectionate. Now psychologists in California have published the first ever twin study on the subject. Genes, they found, have little to do with a person's attitudes to love. The result is a surprise, given the wealth of genetic studies on personality traits such as introversion-extroversion, aggression and even leisure-time activities, many of which are strongly influenced by genes. Such studies generally compare identical twins - whose genes are the same - with fraternal twins, who have roughly half their genes in common. If a trait is influenced by genes, identical twins should be more similar to each other than fraternal twins are. If genes are irrelevant, identical twins should be no more similar than fraternal twins.

Niels Waller and Philip Shaver, psychologists at the University of California at Davis, undertook the first ever genetic study of love attitudes 'in part because everybody's interested in the topic', says Waller, but also because they are studying the larger issue of how people make emotional attachments to each other.

Waller and Shaver recruited 445 pairs of twins, three-quarters of them identical and a quarter fraternal. A quarter of the pairs were male, three-quarters female. Each twin filled in a questionnaire designed to identify six basic love styles described by sociologist John Lee of the University of Toronto. These are Eros, Ludus, Storge, Pragma, Mania and Agape. Roughly speaking, Eros is a wild and passionate lover, Ludus enjoys the fun of love but is unwilling to commit, Storge is companionable and dependable, Agape is selfless. Pragma is practical. Mania is jealous and unstable. The twins were instructed to note how strongly they agreed or disagreed with statements such as 'I try to keep my lover a little uncertain about my commitment to him/her', or 'Our love-making is very passionate and exciting'. As a control, the twins answered other questions designed to measure personality traits known to be influenced by genes. As expected, these elicited very similar types of answers from identical twins.

Of all six love styles, Waller and Shaver found that five had hardly any genetic influence; the answers from identical twins were almost as similar as those from fraternal twins. Only Mania stood out as influenced by genes, which Waller says is not surprising because other researchers have found that neurotic personalities are genetically influenced. For the other five love types, environmental influences were paramount, although the study does not reveal what those factors are. The researchers found that spouses were very similar to their partners in love attitudes, more so than twins were to each other. The exception was for people with Mania and Ludus love attitudes. Perhaps, speculates Waller, two super-jealous partners or two 'free spirits' cannot sustain

relationships easily.

Why should love be blind to genes? The answer is not clear; Waller says, 'It could be that parents don't try to influence the personality of their children that much.' That would mean basic personality is relatively unmoulded by parental influence, giving genes more sway. 'But what I've been finding in my studies is that parents do get involved in their children's mate choices.' If this is the case, choosing a mate would be much more directed by parents and less by genes.

'It's interesting and I find it surprising,' says David Rose, a behaviour geneticist at the University of Arizona. How about a reason? 'You can make up any nice romantic explanation you want for why it should be,' he says. 'But I don't have the answer.'



## A BIT OF MYSTICISM

### **A Paranormal Phenomenon**

The summer of 1985 was windy and wet. In south-west Ireland, where I live, that's normal.

Ireland has been Christian since the fourth century, but has an even longer tradition of pilgrimage. The countryside is decorated with wayside shrines.

The shrine standing on crossroads just outside the village of Ballinspittle is typical. It consists of a life-size concrete statue of the Virgin Mary (mother of Jesus Christ) in ground-length white plaster robes, her hands raised with fingertips touched in prayer, her head looking upwards, slightly tilted to one side. She stands in an ivy covered cave about twenty feet above the road with a 100 watt halo of little lights above her head. Passers-by, if they feel so inclined, join the plaster child in a personal act of worship.

Seventeen-year-old Clare O'Mahoney felt no such inclination. She was walking past on her way home that Monday, thinking of the disco she had been to in Bandon, when the statue began to rock backwards and forwards, as though someone were pushing it from behind. Alarmed, she went to fetch her mother, Kathrine, who saw the same thing and climbed up to make sure that nobody was interfering with the shrine. The next evening several dozen local people turned up and reported that the monument was 'swaying to and fro' or 'shivering'. On Wednesday the crowd grew to hundreds, including police sergeant John Murray from Cork, who saw the head and shoulders 'shrug'. And by Thursday Ballinspittle was besieged by thousands of pilgrims who blocked the narrow roads with their cars. They were rewarded when, at 3.30 am, the Virgin seemed to open both her hands in benediction.

August was wet even by our standards, producing the heaviest rains this century. But despite the floods, an estimated quarter of a million people came to witness the phenomenon.

I went to watch in early September, intrigued as much by the crowd as by the chance of observing a paranormal phenomenon. By now it was necessary to park half an hour's walk from the shrine and to stand with a mass of pilgrims on a roped-off slope some fifty yards from the statue. Prayers were broadcast every twenty minutes and there was the constant distraction of flashing cameras and torch lights wandering over the grotto. But the atmosphere was electric. Six or seven thousand people were gathered there for the same purpose, to witness a miracle, and many did. Myself included, I think.

It was a cool night with constant gentle rain; the sort of weather the Irish describe as 'soft' and hardly seem to notice. There must have been a good

proportion of tourists and casual sightseers in the crowd, many like myself non-Catholic, but there were enough church-goers who knew the rituals to lend real cohesion and energy to the prayers. And between the rosaries and the responses there was a growing hum of people telling each other what they could see: 'Look, look, she's moving her head.' 'She *is*.' 'She *did*!.' 'I didn't see anything.' 'Oh God, her face, it's changing.' 'I think she's going to fall!' 'Mummy, can we go home now ...?'

I found it a little confusing. I had brought my binoculars and, through them, could see nothing untoward, just a plaster statue with crude features and a very vacant expression. But then something happened to change my mind.

Around midnight the crowd thinned a little and the loudspeakers took a rest. There were still thousands of us there and the air was charged with interest and emotion, but some of the early tension had dissipated. We were more relaxed. Or at least we were until there was a collective gasp, then wonderful confusion as everyone compared notes. And the wonder was that we had all seen the same thing. The statue had, very deliberately, looked down and around to her left, slightly spreading her hands in a gesture of acknowledgement.

I am left, as one always is in such things, without easy answers. Debate about whether or not the statue 'really moved' is pointless, though Jim O'Herlihy in Blarney has a series of photographs, taken in rapid succession with a long lens on a tripod, which seem to show the hands in several different positions. I have visited the grotto on other occasions since, by night and day, usually on my own - and have seen nothing out of the ordinary. There are few reports these days of anything much happening in Ballinspittle.

## Ghosts and Witches

My English host had just given a lecture on the supernatural in Shakespeare and I had asked him so many questions about the Ghost in *Hamlet* and the Witches in *Macbeth* that we had finished up discussing the subject over coffee in his rooms at the university.

'I have the impression, Juan,' he said, 'that in northern countries we have more experience of ghosts, or at least more stories about them, while you, in the Mediterranean, have more stories about witches.'

'That may be true,' I said. 'I've never met anyone who has seen a ghost. Have you?'

'No,' he said, 'But my grandmother and one of my uncles did. My grandmother was what they call "psychic". She had second sight. Or she may have had more imagination than most people. Anyway, many years ago, my grandfather rented a house in an old quarter of Brighton ...'

'I wonder why ghosts always appear in old houses,' I said.

'It may be that the wind blows through old houses more, and makes people nervous,' he said, 'but It might be because people have died there. My uncle,' he said, resuming the story, 'was a boy of about eight at the time, and he was sleeping alone in a bedroom on the first floor. One night he woke up, and saw a woman in a night dress standing by his bed. Naturally, he thought it was my grandmother, and spoke to her, but then the woman disappeared.'

'She must have gone out through the door. It must have been one of the servants,' I suggested.

'There weren't any servants,' he said. 'My grandfather was not very well off. That's the reason why he had rented a house instead of buying one. Anyway, when my uncle screamed for my grandmother, she found the door was locked.'

'Your uncle may have imagined it, or he may have been dreaming,' I said.

'Yes. My grandfather thought that might be the explanation. But then my grandmother, on two or three occasions, saw a woman in a night-dress standing at the head of the staircase. It may have been an effect of the light, but each time she saw her during the day. She didn't tell my grandfather at first because she thought he might think she was mad. And then, a month or so later, my grandfather found a more comfortable, more modern house, and they moved there.'

'And no one ever saw the ghost again, I suppose,' I said.

'Well, obviously my grandmother and my uncle couldn't have seen it,' my host replied, 'but there was a curious sequel to the story. One evening my grandfather was having a drink in the pub with a friend of his, and he said he had just moved from Princes Road, from number 73.'

'"73?", his friend said. "But that's where a woman committed suicide about five years ago. She was ill, and very depressed, and one day she came out of her bedroom on the first floor, and threw herself from the top of the stairs, down the staircase." So it must have been her ghost that my grandmother and my uncle saw.'

'It couldn't have been,' I said. 'There are no such things as ghosts. Witches, on the other hand, are a different matter. I may have met a witch once. She must have been a witch because ...'

## **Looking into the Future**

The French doctor and astrologer Michel de Notredame, known as Nostradamus, published his famous book of predictions in 1555. He concentrated mainly on facts about the future rather than dates. He even got the date of his own death wrong! But this did not affect the success of the book which is still in print today. The Bible is the best-selling book in the world. Many of his predictions have come true. For example, he foresaw the Great Fire of London of 1666, the French Revolution of 1789, the abdication of King Edward VIII of Britain in

1936 and the Hungarian Revolution of 1956. He often mentions the United States of America, saying, 'The great man struck down . . .' 'The great one will fall . . .', 'The world put into trouble by three brothers, their enemies will seize the marine city, hunger, fire, blood, plague, all evils doubled.' These words are generally taken as a warning of the assassinations of John Kennedy, President of the USA, and his brother, Robert, but does the 'marine city' refer to New York and its future destruction by fire? The capital of the USA is Washington DC. And what do we make of his prediction of a Third World War? We'll just have to wait and see, although it's clear that he sees all death and destruction as necessary if the ideal world is to be built on the ruins of the old one.

Edgar Cayce was one of the most famous psychic figures of recent times. He was able not only to heal sick people, sometimes from hundreds of miles away, but also to predict the future. By the time of his death, he had foreseen the invention of the laser, the Wall Street Crash of 1929 and the earthquakes, hurricanes and tidal waves that struck California, Japan and the Philippines in 1926. San Francisco was destroyed by earthquake and fire in 1906. In 1936 he had a vision. In it, he was reborn in the year 2000. He saw himself flying with some companions across North America in an odd-shaped aircraft at high speed. They landed among the ruins of a huge city which was in the process of being rebuilt. He asked what the name of it was. 'New York' was the reply. Along with this vision, he foresaw violent changes throughout the United States and the world. Nebraska had become the west coast after earthquakes had shattered the existing coastal strip, including Los Angeles and San Francisco. Much of Japan was underwater and Northern Europe had been completely altered. New lands had appeared from beneath both the Atlantic and Pacific Oceans.

JEANE DIXON became well-known throughout the United States of America for writing horoscopes which appeared in over 300 newspapers. The Japanese have the largest readership of newspapers in the world. Her predictions were amazingly accurate; she foresaw the deaths of Roosevelt and Gandhi, Churchill's defeat in the elections of 1945, Marilyn Monroe's suicide, and the fire which killed three young astronauts at Cape Kennedy in 1967. But the most extraordinary were her visions concerning the assassinations of John and Robert Kennedy, and the civil rights leader Martin Luther King. She believes that the years before 1999 will be a time of struggle for humanity, but that a better life for all will follow. This belief is based on a vision she had early one morning in 1962. Marilyn Monroe died on 5th August at the age of 36. She rose and looked out of her window in Washington. There, instead of city streets lined with bare autumn trees, she saw a desert scene. Out of the golden rays of the sun stepped Queen Nefertiti of Ancient Egypt, hand-in-hand with her Pharaoh. She carried a new-born baby. A few minutes later the baby had grown to manhood. He was surrounded by worshippers of every colour, race and creed. Mrs Dixon interpreted this vision as the birth of a new religion that will unite the whole

world in peace. The leader will be the baby of her vision who will grow in strength until 1999, at which time the peoples of the earth will probably discover the full meaning of the vision.

## **The Roots of Coincidence**

Some years ago George D. Bryson, an American businessman, was making a trip from St Louis to New York. He decided to break his journey in Louisville, Kentucky, a town he had never visited before. At the station he inquired for somewhere to stay, and was directed to the Brown Hotel. He went there, found they had a room - number 307 - and registered. Then, just for a joke and because he had nothing better to do, he idly wandered over to reception and asked if there was any mail for him. To his astonishment, the receptionist calmly handed him a letter addressed to Mr George D. Bryson, Room 307. On investigation it turned out that the previous occupant of the room had been another George D. Bryson, who worked with a firm in Montreal.

We have all had similar strange experiences that we put down to coincidence, chance or luck. Because these experiences are so common, scientists and philosophers have begun to wonder whether there is more to them than mere chance or coincidence. With this focusing of scientific and philosophical interest, more and more evidence has come to light that both the world we live in and the lives we lead are more mysterious than we might suppose.

To shrug off events like these as 'just chance' may be to shut off a significant area of knowledge. The eminent psychologist C. G. Jung certainly thought they were worth serious investigation. Over the years he noticed that both himself and his patients had had many experiences of what he called 'meaningful coincidences'. Many of these involved dreams or premonitions, and he devoted much time towards the end of his life in attempting to explain these experiences. Jung used the term *synchronicity* to describe the phenomenon of incidents that seemed to be connected by time and meaning, but not by cause and effect. He felt that these coincidences, in some way, had their roots in very strong unconscious feelings that came to the surface at certain times of stress or change. He gives several examples of this happening in his own life.

One day, as he was returning home by train, he was overpowered by the image of someone drowning. He was so upset that he was unable to read, and could only wonder whether there had been some sort of accident. When he got home he was met by his grandchildren, and discovered that the youngest had fallen in the lake and had almost been drowned. The little boy had been fished out just in time by his older brother. This nearly fatal accident had happened at exactly the time that the idea of someone drowning had occurred to Jung.

Many of us have had strange dreams and premonitions about our family or friends that have turned out to be true. As a psychoanalyst Jung also had a very close relationship with his patients. One night when Jung was sleeping alone in a hotel after a lecture, he awoke with a start. He was convinced that someone had opened the door and entered the room, but when he switched on the light there was no one to be seen. He then tried to remember what had happened. He had been wakened by a feeling of dull pain as if something had struck his forehead and the back of his skull. The following day he received a telegram informing him that a former patient, with whom he had lost contact after helping through a severe crisis, had shot himself. The bullet had lodged in the back of the skull.

Jung became convinced that synchronistic events of this kind had a deep significance, and he applied his tremendous knowledge, experience and diligence to the task of discovering their meaning. When he died, he was working on the idea that physics and psychology would ultimately come together under a common concept that would be a unifying key to the forces at work in the physical and psychical worlds.

## **The Search for Psychic Power**

Psychic energy is not new in terms of intuitive human awareness. Since the earliest history of civilization, philosophers and scientists have conceptualized its structure and potential according to their cultural conditioning and personal belief systems. It is new only in the sense that scientists have recently established its existence and are learning how to measure it in the laboratory.

Such modern psychics as Robert Pavlita have discovered that psychic energy is bipolar and capable of interacting with other bodies. It can be refracted, polarized, and combined with other energies. It can create effects similar to magnetism, electricity, heat, and luminous radiation, but in and of itself it is none of these. It can be conducted by paper, wood, glass, silk and many substances that insulate electricity. It can pass through water and any known metal.

Pat Price, a psychic being studied at Stanford Research Institute (SRI), is capable of receiving and transmitting psychic energy from within a shielded room designed to prevent the entrance, or exit, of any previously known waves. Ingo Swann, another psychic working with SRI, can use it to affect an underground instrument locked inside a similarly shielded canister.

Russian scientists working with Ninel Kulagina and Alla Vinogradova have developed machines that register psychic energy at a distance.

This energy seems to envelop the human body like a cocoon penetrating it and emanating from it. Certain psychics can actually see it.

Peter Hurkos, the famous psychometrist, has shown that it surrounds

inanimate objects and can be retrieved to learn about people and events surrounding those objects.

Harold Shennan, the ESP expert and himself a sensitive, believes that man's psychic sense can channel psychic energy for any number of mind-controlled purposes, including telepathy, mind over matter, and clairvoyance.

### **Peter Hurkos**

Hurkos is probably best known to the public as a psychic detective - a career that began in Holland when he was asked to help locate a little girl who was missing. After finding the body and helping solve the case, his reputation spread throughout Europe.

His next case concerned the coronation stone, which had been stolen from Westminster Abbey. Scotland Yard, which had heard of his work with the police in Holland, called him in as a consultant, and the stone was eventually found. Since, he has been involved in a number of widely publicized cases. He describes two of them:

'Once when I was in Palm Springs the chief of police called about a friend, a pilot who was missing on a flight. I told him I would need some personal object from his friend's belongings, like clothing. The chief called the air force base outside San Diego, and they sent up clothing from one of the pilots.

When I got the clothing I asked for a map of the general area they were flying in and began getting information about what happened. I sensed the plane was off course, and I saw an explosion. I saw only two people in the plane and one out of the plane - all dead. Nine hours later they found the plane where I said they would - I was a mile off in an area of 600 square miles.

Then there was the time the Citizens Committee in Detroit invited me to help on the Ann Arbor case, where six girls were murdered. There were no clues or fingerprints. When I arrived, they met me, and we later drove out to where one of the girls was killed about a year and a half previously. It was a test to see what I could come up with. I located the place where the body had been found and determined in what position they'd found her.

Later, I went on TV in Detroit, describing the murderer, who I felt had a trailer and a motorbike, and giving what I thought was his name. About two days later I received a threatening telephone call to get out of town.

The case was solved when the murderer's uncle found one of the victim's blood-stained pieces of clothing in his basement. His nephew had been staying there while he was gone. The uncle called the police, who picked up the young man. He did have a trailer, too, which was found in California.

Ironically, Hurkos' abilities cannot be self-applied; not only is he incapable of telling his own past, present, and future, but he is sometimes incapable of finding his own shoes. There are times, though, when he can sense danger. He describes his experience:

I never board a plane unless I touch someone who's also boarding. I can pick up the danger this way, if there is any. Also, when I see a person boarding a plane who no longer has color - who is blacked out - I won't go on that plane.

Once I was at the airport in Bangkok waiting to pass customs, and a plane landed for rest and refueling. I got talking with one of the passengers, a German attorney. When I looked out at the plane later, it was completely black - no color. Since this means danger to me, I said to the attorney, 'Why don't you wait for another plane? I don't think that one's going to make it. But he said he had to board, and he did.

The next morning we read in the paper that the plane had crashed in the mountains. I've tried to warn many people when I sense dangers on occasions like this, but they usually don't believe me; they won't listen. You see, everyone needs proof, and sometimes when proof comes, it's too late. But I do what I can at the time.'

## **Life after Death?**

The experience is a familiar one to many an emergency-room. A patient who has been pronounced dead and unexpectedly recovers later describes what happened to him during those moments - sometimes hours - when his body exhibited no signs of life. According to one repeated account the patient feels himself rushing through a long, dark tunnel while noise rings in his ears. Suddenly, he finds himself outside his own body, looking down with curious detachment at a medical team's efforts to resuscitate him. He hears what is said, notes what is happening but cannot communicate with anyone. Soon, his attention is drawn to other presences in the room - spirits of dead relatives or friends - who communicate with him nonverbally. Gradually, he is drawn to a vague 'being of light'. This being invites him to evaluate his life and shows him highlights of his past in panoramic vision. The patient longs to stay with the being of light but is reluctantly drawn back into his physical body and recovers.

**Clues:** Once dismissed as nothing more than hallucinations, these 'near death' experiences are now being seriously examined by several psychiatrists and psychologists for possible clues to what happens at the moment of death. One such researcher, Dr Elisabeth Kubler-Ross, an internationally respected expert on the psychiatric dimensions of dying, now claims that she has proof that 'there is life after death' on the basis of hundreds of such stories. Although other psychologists believe that Dr Kubler-Ross lends too much credence to tales told by the dying, her outspoken views have recently heightened scholarly interest in near-death phenomena.

What most impresses Kubler-Ross about the cases she has assembled over the last eight years is the evidence of out-of-body consciousness - that is, the apparent ability of people who exhibit no respiration, heartbeat or brain-wave



activity to describe events taking place around them. 'If you have a woman who has been declared dead in a hospital and she can tell you exactly how many people walked into the room and worked on her, this cannot be hallucination,' she argues. Although details of near-death accounts vary somewhat, Kubler-Ross says that all her subjects report certain common experiences: a pervasive sense of calm well-being, a feeling of personal wholeness - even among accident victims who have lost limbs - and the experience of being greeted by previously deceased loved ones. As a result of such experiences, she says, 'many of them resented?' our desperate attempts to bring them back to life. Death is the feeling of peace and hope. Not one of them has ever been afraid to die again.'

As part of yet another effort to track down clues 'that would suggest an after-life,' psychologist Karlis Osis of the American Society for Psychical Research in New York City has tabulated by computer interviews with 877 physicians who have reported deathbed visions by their patients. Most of them involve dying patients who see benign apparitions coming for their souls. Osis has determined, at least to his own satisfaction, that patients whose brains were impaired by high fever or disease reported fewer visions than those who were fully alert at death. Moreover, he asserts, powerful drugs such as morphine and Demerol actually decrease the coherence of such visions. 'The sick-brain hypotheses we considered do not explain the visions,' Osis concludes, 'and so far it looks as if patterns are emerging consistent with survival after death.'

Even if Kubler-Ross has not proved her point, she has presented phenomena that modern science has not yet adequately explained. 'I don't at all agree with Elisabeth when she says that the experiences she and I have both had working with the dying absolutely guarantee life after death,' says Dr Charles Garfield of the Cancer Research Institute of the University of California. 'I also don't take the extreme scientific-materialist position that these are the utterances of deranged persons. I don't really know what is happening, and I am willing to tolerate the ambiguity.'