

Section 1

Science Fiction

The Land Ironclads

H.G.Wells

I.

The young lieutenant lay beside the war correspondent and admired the idyllic calm of the enemy's lines through his field-glass.

"So far as I can see," he said, at last, "one man."

"What's he doing?" asked the war correspondent.

"Field-glass at us," said the young lieutenant

"And this is war!"

"No," said the young lieutenant; "it's Bloch."

"The game's a draw."

"No! They've got to win or else they lose. A draw's a win for our side."

They had discussed the political situation fifty times or so, and the war correspondent was weary of it. He stretched out his limbs. "Aaai s'pose it is!" he yawned.

"Flut!"

"What was that?"

"Shot at us."

The war correspondent shifted to a slightly lower position. "No one shot at him," he complained.

"I wonder if they think we shall get so bored we shall go home?"

The war correspondent made no reply.

"There's the harvest, of course...."

They had been there a month. Since the first brisk movements after the declaration of war things had gone slower and slower, until it seemed as though the whole machine of events must have run down. To begin with, they had had almost a scampering time; the invader had come across the frontier on the very dawn of the war in half-a-dozen parallel columns behind a cloud of cyclists and cavalry, with a general air of coming straight on the capital, and the defender horsemen had held him up, and peppered him and forced him to open out to outflank, and had then bolted to the next position in the

most approved style, for a couple of days, until in the afternoon, bump! they had the invader against their prepared lines of defense. He did not suffer so much as had been hoped and expected: he was coming on, it seemed with his eyes open, his scouts winded the guns, and down he sat at once without the shadow of an attack and began grubbing trenches for himself, as though he meant to sit down there to the very end of time. He was slow, but much more wary than the world had been led to expect, and he kept convoys tucked in and shielded his slow marching infantry sufficiently well to prevent any heavy adverse scoring.

"But he ought to attack," the young lieutenant had insisted.

"He'll attack us at dawn, somewhere along the lines. You'll get the bayonets coming into the trenches just about when you can see," the war correspondent had held until a week ago.

The young lieutenant winked when he said that.

When one early morning the men the defenders sent to lie out five hundred yards before the trenches, with a view to the unexpected emptying of magazines into any night attack, gave way to causeless panic and blazed away at nothing for ten minutes, the war correspondent understood the meaning of that wink.

"What would you do if you were the enemy?" said the war correspondent, suddenly.

"If I had men like I've got now?"

"Yes."

"Take those trenches."

"How?"

"Oh—dodges! Crawl out half-way at night before moonrise and get into touch with the chaps we send out. Blaze at 'em if they tried to shift, and so bag some of 'em in the daylight. Learn that patch of ground by heart, lie all day in squat holes, and come on nearer next night. There's a bit over there, lumpy ground, where they could get across to rushing distance—easy. In a night or so. It would be a mere game for our fellows; it's what they're made for.... Guns? Shrapnel and stuff wouldn't stop good men who meant business."

"Why don't they do that?"

"Their men aren't brutes enough: that's the trouble. They're a crowd of devitalized townsmen, and that's the truth of the matter' They're clerks, they're factory hands, they're students, they're civilized men. They can write, they can talk, they can make and do all sorts of things, but they're poor amateurs at war. They've got no physical staying power, and that's the whole thing. They've never slept in the open one night in their lives; they've never drunk anything but the purest water-company water; they've never gone short of three meals a day since they left their feeding-bottles. Half their cavalry never cocked leg over horse till it enlisted six months ago. They ride their horses as though they were bicycles—you watch 'em! They're fools at the game, and they know it. Our boys of fourteen can give their grown men points.... Very well—"

The war correspondent mused on his face with his nose between his knuckles.

"If a decent civilization," he said, "cannot produce better men for war than—
—"

He stopped with belated politeness.

"I mean——"

"Than our open-air life," said the young lieutenant, politely. "Exactly," said the war correspondent. "Then civilization has to stop."

"It looks like it," the young lieutenant admitted.

"Civilization has science, you know," said the war correspondent. "It invented and it makes the rifles and guns and things you use."

"Which our nice healthy hunters and stockmen and so on, rowdy-dowdy cowpunchers and negro-whackers, can use ten times better than—What's that?"

"What?" said the war correspondent, and then seeing his companion busy with his field-glass he produced his own: "Where?" said the war correspondent, sweeping the enemy's lines.

"It's nothing" said the young lieutenant, still looking.

"What's nothing?"

The young lieutenant put down his glass and pointed. "I thought I saw something there, behind the stems of those trees. Something black. What it was I don't know."

The war correspondent tried to get even by intense scrutiny.

"It wasn't anything" said the young lieutenant, rolling over to regard the darkling evening sky, and generalized: "There never will be anything any more for ever. Unless—"

The war correspondent looked inquiry.

"They may get their stomachs wrong, or something—living without proper drains."

A sound of bugles came from the tents behind. The war correspondent slid backward down the sand and stood up. "Boom!" came from somewhere far away to the left. "Halloa!" he said, hesitated, and crawled back to peer again. "Firing at this time is jolly bad manners."

The young lieutenant was incommunicative again for a space.

Then he pointed to the distant clump of trees again. "One of our big guns. They were firing at that." he said. "The thing that wasn't anything?"

"Something over there, anyhow."

Both men were silent, peering through their glasses for a space. "Just when it's twilight," the lieutenant complained. He stood up.

"I might stay here a bit," said the war correspondent.

The lieutenant shook his head. "There is nothing to see," he apologized, and then went down to where his little squad of sun-brown, loose-limbed men had been yarning in the trench. The war correspondent stood up also, glanced for a moment at the business-like bustle below him, gave perhaps twenty seconds to those enigmatical trees again, then turned his face toward the camp.

He found himself wondering whether his editor would consider the story of how somebody thought he saw something black behind a clump of trees, and how a gun was fired at this illusion by somebody else, too trivial for public consultation.

"It's the only gleam of a shadow of interest," said the war correspondent, "for ten whole days."

"No," he said, presently; "I'll write that other article, 'Is War Played Out?'" He surveyed the darkling lines in perspective, the tangle of trenches one behind another, one commanding another, which the defender had made ready. The shadows and mists swallowed up their receding contours, and here and there a lantern gleamed, and here and there knots of men were busy about small fires.

"No troops on earth could do it," he said....

He was depressed. He believed that there were other things in life better worth having than proficiency in war; he believed that in the heart of civilization, for all its stresses, its crushing concentrations of forces, its injustice and suffering, there lay something that might be the hope of the world, and the idea that any people by living in the open air, hunting perpetually, losing touch with books and art and all the things

that intensify life, might hope to resist and break that great development to the end of time, jarred on his civilized soul.

Apt to his thought came a file of defender soldiers and passed him in the gleam of a swinging lamp that marked the way.

He glanced at their red-lit faces, and one shone out for a moment, a common type of face in the defender's ranks: ill-shaped nose, sensuous lips, bright clear eyes full of alert cunning, slouch hat cocked on one side and adorned with the peacock's plume of the rustic Don Juan turned soldier, a hard brown skin, a sinewy frame, an open, tireless stride, and a master's grip on the rifle.

The war correspondent returned their salutations and went on his way.

"Louts," he whispered. "Cunning, elementary louts. And they are going to beat the townsmen at the game of war!"

From the red glow among the nearer tents came first one and then half-adozen hearty voices, bawling in a drawling unison the words of a particularly slab and sentimental patriotic song.

"Oh, go it!" muttered the war correspondent, bitterly.

II.

It was opposite the trenches called after Hackbone's Hut that the battle began. There the ground stretched broad and level between the lines, with scarcely shelter for a lizard, and it seemed to the startled, just awakened men who came crowding into the trenches that this was one more proof of that green inexperience of the enemy of which they had heard so much. The war correspondent would not believe his ears at first, and swore that he and the war artist, who, still imperfectly roused, was trying to put on his boots by the light of a match held in his hand, were the victims of a common illusion. Then, after putting his head in a bucket of cold water, his intelligence came back as he towelled. He listened. "Gollys!" he said; "that's something more than scare firing this time. It's like ten thousand carts on a bridge of tin."

There came a sort of enrichment to that steady uproar. "Machine-guns!"

Then, "Guns!"

The artist, with one boot on, thought to look at his watch, and went to it hopping.

"Half an hour from dawn," he said. "You were right about their attacking, after all...."

The war correspondent came out of the tent, verifying the presence of chocolate in his pocket as he did so. He had to halt for a moment or so until his eyes were toned down to the night a little. "Pitch!" he said. He stood for a space to season his eyes before he felt justified in striking out for a black gap among the adjacent tents. The artist coming out behind him fell over a tentrope. It was half-past two o'clock in the morning of the darkest night in time, and against a sky of dull black silk the enemy was talking searchlights, a wild jabber of searchlights. "He's trying to blind our riflemen," said the war correspondent with a flash, and waited for the artist and then set off with a sort of discreet haste again. "Whoa!" he said, presently. "Ditches!" They stopped.

"It's the confounded searchlights," said the war correspondent.

They saw lanterns going to and fro, near by, and men falling in to march down to the trenches. They were for following them, and then the artist began to feel his night eyes. "If we scramble this," he said, "and it's only a drain, there's a clear run up to the ridge." And that way they took. Lights came and went in the tents

behind, as the men turned out, and ever and again they came to broken ground and staggered and stumbled. But in a little while they drew near the crest. Something that sounded like the impact of a very important railway accident happened in the air above them, and the shrapnel bullets seethed about them like a sudden handful of hail. "Right-ho!" said the war correspondent, and soon they judged they had come to the crest and stood in the midst of a world of great darkness and frantic glares, whose principal fact was sound.

Right and left of them and all about them was the uproar, an army-full of magazine fire, at first chaotic and monstrous and then, eked out by little flashes and gleams and suggestions, taking the beginnings of a shape. It looked to the war correspondent as though the enemy must have attacked in line and with his whole force—in which case he was either being or was already annihilated.

"Dawn and the dead," he said, with his instinct for headlines. He said this to himself, but afterwards, by means of shouting, he conveyed an idea to the artist.

"They must have meant it for a surprise," he said.

It was remarkable how the firing kept on. After a time he began to perceive a sort of rhythm in this inferno of noise. It would decline—decline perceptibly, droop towards something that was comparatively a pause—a pause of inquiry. "Aren't you all dead yet?" this pause seemed to say. The flickering fringe of rifle-flashes would become attenuated and broken, and the whack-bang of the enemy's big guns two miles away there would come up out of the deeps. Then suddenly, east or west of them, something would startle the rifles to a frantic outbreak again.

The war correspondent taxed his brain for some theory of conflict that would account for this, and was suddenly aware that the artist and he were vividly illuminated. He could see the ridge on which they stood and before them in black outline a file of riflemen hurrying down towards the nearer trenches. It became visible that a light rain was falling, and farther away towards the enemy was a clear space with men—"our men?"—running across it in disorder. He saw one of those men throw up his hands and drop. And something else black and shining loomed up on the edge of the beamcoruscating flashes; and behind it and far away a calm, white eye regarded the world. "Whit, whit, whit," sang something in the air, and then the artist was running for cover, with the war correspondent behind him. Bang came shrapnel, bursting close at hand as it seemed, and our two men were lying flat in a dip in the ground, and the light and everything had gone again, leaving a vast note of interrogation upon the night.

The war correspondent came within bawling range. "What the deuce was it? Shooting our men down!"

"Black," said the artist, "and like a fort. Not two hundred yards from the first trench."

He sought for comparisons in his mind. "Something between a big blockhouse and a giant's dish-cover," he said.

"And they were running!" said the war correspondent.

"You'd run if a thing like that, searchlight to help it, turned up like a prowling nightmare in the middle of the night."

They crawled to what they judged the edge of the dip and lay regarding the unfathomable dark. For a space they could distinguish nothing, and then a sudden convergence of the searchlights of both sides brought the strange thing out again.

In that flickering pallor it had the effect of a large and clumsy black insect, an insect the size of an ironclad cruiser, crawling obliquely to the first line of trenches and firing shots out of portholes in its side. And on its carcass the bullets must have been battering with more than the passionate violence of hail on a roof of tin.

Then in the twinkling of an eye the curtain of the dark had fallen again and the monster had vanished, but the crescendo of musketry marked its approach to the trenches.

They were beginning to talk about the thing to each other, when a flying bullet kicked dirt into the artist's face, and they, decided abruptly to crawl down into the cover of the trenches. They had got down with an unobtrusive persistence into the second line, before the dawn had grown clear enough for anything to be seen. They found themselves in a crowd of expectant riflemen, all noisily arguing about what would happen next. The enemy's contrivance had done execution upon the outlying men, it seemed, but they did not believe it would do any more. "Come the day and we'll capture the lot of them," said a burly soldier.

"Them?" said the war correspondent.

"They say there's a regular string of 'em, crawling along the front of our lines.... Who cares?"

The darkness filtered away so imperceptibly that at no moment could one declare decisively that one could see. The searchlights ceased to sweep hither and thither. The enemy's monsters were dubious patches of darkness upon the dark, and then no longer dubious, and so they crept out into distinctness. The war correspondent, munching chocolate absent-mindedly, beheld at last a spacious picture of battle under the cheerless sky, whose central focus was an array of fourteen or fifteen huge clumsy shapes lying in perspective on the very edge of the first line of trenches, at intervals of perhaps three hundred yards, and evidently firing down upon the crowded riflemen. They were so close in that the defender's guns had ceased, and only the first line of trenches was in action.

The second line commanded the first, and as the light grew the war correspondent could make out the riflemen who were fighting these monsters, crouched in knots and crowds behind the transverse banks that crossed the trenches against the eventuality of an enfilade. The trenches close to the big machines were empty save for the crumpled suggestions of dead and wounded men; the defenders had been driven right and left as soon as the prow of this land ironclad had loomed up over the front of the trench. He produced his field-glass, and was immediately a centre of inquiry from the soldiers about him.

They wanted to look, they asked questions, and after he had announced that the men across the traverses seemed unable to advance or retreat, and were crouching under cover rather than fighting, he found it advisable to loan his glasses to a burly and incredulous corporal. He heard a strident voice, and found a lean and sallow soldier at his back talking to the artist.

"There's chaps down there caught," the man was saying. "If they retreat they got to expose themselves, and the fire's too straight...."

"They aren't firing much, but every shot's a hit."

"Who?"

"The chaps in that thing. The men who're coming up——"

"Coming up where?"

"We're evacuating them trenches where we can. Our chaps are coming back up the zigzags.... No end of 'em hit.... But when we get clear our turn'll come. Rather! These things won't be able to cross a trench or get into it; and before they can get back our guns'll smash 'em up. Smash 'em right up. See?" A brightness came into his eyes. "Then we'll have a go at the beggar inside," he said....

The war correspondent thought for a moment, trying to realize the idea. Then he set himself to recover his field-glasses from the burly corporal....

The daylight was getting clearer now. The clouds were lifting, and a gleam of lemon-yellow amidst the level masses to the east portended sunrise. He looked again at the land ironclad. As he saw it in the bleak

grey dawn, lying obliquely upon the slope and on the very lip of the foremost trench, the suggestion of a stranded vessel was very great indeed. It might have been from eighty to a hundred feet long—it was about two hundred and fifty yards away—its vertical side was ten feet high or so, smooth for that height, and then with a complex patterning under the eaves of its flattish turtle cover. This patterning was a close interlacing of portholes, rifle barrels, and telescope tubes—sham and real—indistinguishable one from the other. The thing had come into such a position as to enfilade the trench, which was empty now, so far as he could see, except for two or three crouching knots of men and the tumbled dead. Behind it, across the plain, it had scored the grass with a train of linked impressions, like the dotted tracings sea-things leave in sand. Left and right of that track dead men and wounded men were scattered—men it had picked off as they fled back from their advanced positions in the searchlight glare from the invader's lines. And now it lay with its head projecting a little over the trench it had won, as if it were a single sentient thing planning the next phase of its attack....

He lowered his glasses and took a more comprehensive view of the situation. These creatures of the night had evidently won the first line of trenches and the fight had come to a pause. In the increasing light he could make out by a stray shot or a chance exposure that the defender's marksmen were lying thick in the second and third line of trenches up towards the low crest of the position, and in such of the zigzags as gave them a chance of a converging fire. The men about him were talking of guns. "We're in the line of the big guns at the crest but they'll soon shift one to pepper them," the lean man said, reassuringly.

"Whup," said the corporal:

"Bang! bang! bang! Whir-r-r-r-r!" It was a sort of nervous jump, and all the rifles were going off by themselves. The war correspondent found himself and the artist, two idle men crouching behind a line of preoccupied backs, of industrious men discharging magazines. The monster had moved. It continued to move regardless of the hail that splashed its skin with bright new specks of lead. It was singing a mechanical little ditty to itself, "Tuf-tuf, tuf-tuf, tuf-tuf," and squirting out little jets of steam behind. It had humped itself up, as a limpet does before it crawls; it had lifted its skirt and displayed along the length of it—feet! They were thick, stumpy feet, between knobs and buttons in shape—flat, broad things, reminding one of the feet of elephants or the legs of caterpillars; and then, as the skirt rose higher, the war correspondent, scrutinizing the thing through his glasses again, saw that these feet hung, as it were, on the rims of wheels. His thoughts whirled back to Victoria Street, Westminster, and he saw himself in the piping times of peace, seeking matter for an interview.

"Mr.—Mr. Diplock," he said; "and he called them Pedrails...Fancy meeting them here!"

The marksman beside him raised his head and shoulders in a speculative mood to fire more certainly—It seemed so natural to assume the attention of the monster must be distracted by this trench before it—and was suddenly knocked backwards by a bullet through his neck. His feet flew up, and he vanished out of the margin of the watcher's field of vision. The war correspondent grovelled tighter, but after a glance behind him at a painful little confusion, he resumed his field-glass, for the thing was putting down its feet one after the other, and hoisting itself farther and farther over the trench. Only a bullet in the head could have stopped him looking just then.

The lean man with the strident voice ceased firing to turn and reiterate his point. "They can't possibly cross," he bawled. They——"

"Bang! Bang! Bang! Bang!"—drowned everything.

The lean man continued speaking for a word or so, then gave it up, shook his head to enforce the impossibility of anything crossing a trench like the one below, and resumed business once more.

And all the while that great bulk was crossing. When the war correspondent turned his glass on it again it had bridged the trench, and its queer feet were rasping away at the farther bank, in the attempt to get a hold there. It got its hold. It continued to crawl until the greater bulk of it was over the trench—until it was all over. Then it paused for a moment, adjusted its skirt a little nearer the ground, gave an unnerving "toot, toot," and came on abruptly at a pace of, perhaps, six miles an hour straight up the gentle slope towards our observer.

The war correspondent raised himself on his elbow and looked a natural inquiry at the artist.

For a moment the men about him stuck to their position and fired furiously. Then the lean man in a mood of precipitancy slid backwards, and the war correspondent said "Come along" to the artist, and led the movement along the trench.

As they dropped down, the vision of a hillside of trench being rushed by a dozen vast cockroaches disappeared for a space, and instead was one of a narrow passage, crowded with men, for the most part receding, though one or two turned or halted. He never turned back to see the nose of the monster creep over the brow of the trench; he never even troubled to keep in touch with the artist. He heard the "whit" of bullets about him soon enough, and saw a man before him stumble and drop, and then he was one of a furious crowd fighting to get into a transverse zigzag ditch that enabled the defenders to get under cover up and down the hill. It was like a theatre panic. He gathered from signs and fragmentary words that on ahead another of these monsters had also won to the second trench.

He lost his interest in the general course of the battle for a space altogether; he became simply a modest egotist, in a mood of hasty circumspection, seeking the farthest rear, amidst a dispersed multitude of disconcerted riflemen similarly employed. He scrambled down through trenches, he took his courage in both hands and sprinted across the open, he had moments of panic when it seemed madness not to be quadrupedal, and moments of shame when he stood up and faced about to see how the fight was going. And he was one of many thousand very similar men that morning. On the ridge he halted in a knot of scrub, and was for a few minutes almost minded to stop and see things out.

The day was now fully come. The grey sky had changed to blue, and of all the cloudy masses of the dawn there remained only a few patches of dissolving fleeciness. The world below was bright and singularly clear. The ridge was not, perhaps, more than a hundred feet or so above the general plain, but in this flat region it sufficed to give the effect of extensive view. Away on the north side of the ridge, little and far, were the camps, the ordered wagons, all the gear of a big army; with officers galloping about and men doing aimless things. Here and there men were falling in, however and the cavalry was forming up on the plain beyond the tents. The bulk of men who had been in the trenches were still on the move to the rear, scattered like sheep without a shepherd over the farther slopes. Here and there were little rallies and attempts to wait and do—something vague; but the general drift was away from any concentration. There on the southern side was the elaborate lacework of trenches and defences, across which these iron turtles, fourteen of them spread out over a line of perhaps three miles, were now advancing as fast as a man could trot, and methodically shooting down and breaking up any persistent knots of resistance. Here and there stood little clumps of men, outflanked and unable to get away, showing the white flag, and the invader's cyclist-infantry was advancing now across the open, in open order but unmolested, to complete the work of the machines. Surveyed at large, the defenders already looked a beaten army. A mechanism that was effectually ironclad against bullets, that could at a pinch cross a thirty-foot trench, and that seemed able to shoot out rifle-bullets with unerring precision, was clearly an inevitable victor against anything but rivers, precipices, and guns.

He looked at his watch. "Half-past four! Lord! What things can happen in two hours. Here's the whole blessed army being walked over, and at half-past two——

"And even now our blessed louts haven't done a thing with their guns!"

He scanned the ridge right and left of him with his glasses. He turned again to the nearest land ironclad, advancing now obliquely to him and not three hundred yards away, and then scrambled the ground over which he must retreat if he was not to be captured.

"They'll do nothing," he said, and glanced again at the enemy.

And then from far away to the left came the thud of a gun, followed very rapidly by a rolling gunfire.

He hesitated and decided to stay.

III.

The defender had relied chiefly upon his rifles in the event of an assault. His guns he kept concealed at various points upon and behind the ridge ready to bring them into action against any artillery preparations for an attack on the part of his antagonist. The situation had rushed upon him with the dawn, and by the time the gunners had their guns ready for motion, the land ironclads were already in among the foremost trenches. There is a natural reluctance to fire into one's own broken men, and many of the guns, being intended simply to fight an advance of the enemy's artillery, were not in positions to hit anything in the second line of trenches. After that the advance of the land ironclads was swift. The defender-general found himself suddenly called upon to invent a new sort of warfare, in which guns were to fight alone amidst broken and retreating infantry. He had scarcely thirty minutes in which to think it out. He did not respond to the call, and what happened that morning was that the advance of the land ironclads forced the fight, and each gun and battery made what play its circumstances dictated. For the most part it was poor play. Some of the guns got in two or three shots, some one or two, and the percentage of misses was unusually high. The howitzers, of course, did nothing. The land ironclads in each case followed much the same tactics. As soon as a gun came into play the monster turned itself almost end on, so as to minimize the chances of a square hit, and made not for the gun, but for the nearest point on its flank from which the gunners could be shot down. Few of the hits scored were very effectual; only one of the things was disabled, and that was the one that fought the three batteries attached to the brigade on the left wing. Three that were hit when close upon the guns were clean shot through without being put out of action. Our war correspondent did not see that one momentary arrest of the tide of victory on the left; he saw only the very ineffectual fight of half-battery 96B close at hand upon his right. This he watched some time beyond the margin of safety.

Just after he heard the three batteries opening up upon his left he became aware of the thud of horses' hoofs from the sheltered side of the slope, and presently saw first one and then two other guns galloping into position along the north side of the ridge, well out of sight of the great bulk that was now creeping obliquely towards the crest and cutting up the lingering infantry beside it and below, as it came.

The half-battery swung round into line—each gun describing its curve—halted, unlimbered, and prepared for action....

"Bang!"

The land ironclad had become visible over the brow of the hill, and just visible as a long black back to the gunners. It halted, as though it hesitated.

The two remaining guns fired, and then their big antagonist had swung round and was in full view, end on, against the sky, coming at a rush.

The gunners became frantic in their haste to fire again. They were so near the war correspondent could see the expressions on their excited faces through his field-glass. As he looked he saw a man drop, and realized for the first time that the ironclad was shooting.

For a moment the big black monster crawled with an accelerated pace towards the furiously active gunners. Then, as if moved by a generous impulse, it turned its full broadside to their attack, and scarcely forty yards away from them. The war correspondent turned his field-glass back to the gunners and perceived it was now shooting down the men about the guns with the most deadly rapidity.

Just for a moment it seemed splendid and then it seemed horrible. The gunners were dropping in heaps about their guns. To lay a hand on a gun was death. "Bang!" went the gun on the left, a hopeless miss, and that was the only second shot the half-battery fired. In another moment half-a-dozen surviving artillerymen were holding up their hands amidst a scattered muddle of dead and wounded men, and the fight was done. The war correspondent hesitated between stopping in his scrub and waiting for an opportunity to surrender decently, or taking to an adjacent gully he had discovered. If he surrendered it was certain he would get no copy off; while, if he escaped, there were all sorts of chances. He decided to follow the gully, and take the first offer in the confusion beyond the camp of picking up a horse.

IV.

Subsequent authorities have found fault with the first land ironclads in many particulars, but assuredly they served their purpose on the day of their appearance. They were essentially long, narrow, and very strong steel frameworks carrying the engines, and borne upon eight pairs of big pedrail wheels, each about ten feet in diameter, each a driving wheel and set upon long axles free to swivel round a common axis. This arrangement gave them the maximum of adaptability to the contours of the ground. They crawled level along the ground with one foot high upon a hillock and another deep in a depression, and they could hold themselves erect and steady sideways upon even a steep hillside. The engineers directed the engines under the command of the captain, who had look-out points at small ports all round the upper edge of the adjustable skirt of twelve-inch iron-plating which protected the whole affair, and could also raise or depress a conning-tower set about the portholes through the center of the iron top cover. The riflemen each occupied a small cabin of peculiar construction and these cabins were slung along the sides of and before and behind the great main framework, in a manner suggestive of the slinging of the seats of an Irish jaunting-car. Their rifles, however, were very different pieces of apparatus from the simple mechanisms in the hands of their adversaries.

These were in the first place automatic, ejected their cartridges and loaded again from a magazine each time they fired, until the ammunition store was at an end, and they had the most remarkable sights imaginable, sights which threw a bright little camera-obscura picture into the light-tight box in which the rifleman sat below. This camera-obscura picture was marked with two crossed lines, and whatever was covered by the intersection of these two lines, that the rifle hit. The sighting was ingeniously contrived. The rifleman stood at the table with a thing like an elaborately of a draughtsman's dividers in his hand, and he opened and closed these dividers, so that they were always at the apparent height—if it was an ordinary-sized man—of the man he wanted to kill. A little twisted strand of wire like an electric-light wire

ran from this implement up to the gun, and as the dividers opened and shut the sights went up and down. Changes in the clearness of the atmosphere, due to changes of moisture, were met by an ingenious use of that meteorologically sensitive substance, catgut, and when the land ironclad moved forward the sites got a compensatory deflection in the direction of its motion. The riflemen stood up in his pitch-dark chamber and watched the little picture before him. One hand held the dividers for judging distance, and the other grasped a big knob like a door-handle. As he pushed this knob about the rifle above swung to correspond, and the picture passed to and fro like an agitated panorama. When he saw a man he wanted to shoot he brought him up to the cross-lines, and then pressed a finger upon a little push like an electric bell-push, conveniently placed in the center of the knob. Then the man was shot. If by any chance the rifleman missed his target he moved the knob a trifle, or readjusted his dividers, pressed the push, and got him the second time.

This rifle and its sights protruded from a porthole, exactly like a great number of other portholes that ran in a triple row under the eaves of the cover of the land ironclad. Each porthole displayed a rifle and sight in dummy, so that the real ones could only be hit by a chance shot, and if one was, then the young man below said "Pshaw!" turned on an electric light, lowered the injured instrument into his camera, replaced the injured part, or put up a new rifle if the injury was considerable.

You must conceive these cabins as hung clear above the swing of the axles, and inside the big wheels upon which the great elephant-like feet were hung, and behind these cabins along the center of the monster ran a central gallery into which they opened, and along which worked the big compact engines. It was like a long passage into which this throbbing machinery had been packed, and the captain stood about the middle, close to the ladder that led to his conning-tower, and directed the silent, alert engineers—for the most part by signs. The throb and noise of the engines mingled with the reports of the rifles and the intermittent clangour of the bullet hail upon the armour. Ever and again he would touch the wheel that raised his conning tower, step up his ladder until his engineers could see nothing of him above the waist, and then come down again with orders. Two small electric lights were all the illumination of this space—they were placed to make him most clearly visible to his subordinates; the air was thick with the smell of oil and petrol, and had the war correspondent been suddenly transferred from the spacious dawn outside to the bowels of the apparatus he would have thought himself fallen into another world.

The captain, of course, saw both sides of the battle. When he raised his head into his conning-tower there were the dewy sunrise, the amazed and disordered trenches, the flying and falling soldiers, the depressed-looking groups of prisoners, the beaten guns; when he bent down again to signal "half speed", "quarter speed", "half circle round towards the right," or what not, he was in the oil-smelling twilight of the ill-lit engine room. Close beside him on either side was the mouthpiece of a speaking-tube, and ever and again he would direct one side or other of his strange craft to "Concentrate fire forward on gunners," or to "clear out trench about a hundred yards on our right front."

He was a young man, healthy enough but by no means sun-tanned, and of a type of feature and expression that prevails in His Majesty's Navy: alert, intelligent, quiet. He and his engineers and his riflemen all went about their work, calm and reasonable men. They had none of that flapping strenuousness of the half-wit in a hurry, that excessive strain upon the blood-vessels, that hysteria of effort which is so frequently regarded as the proper state of mind for heroic deeds.

For the enemy these young engineers were defeating they felt a certain qualified pity and a quite unqualified contempt. They regarded these big, healthy men they were shooting down precisely as these same big, healthy men might regard some inferior kind of native. They despised them for making war;

despised their bawling patriotisms and their emotionality profoundly; despised them, above all, for the petty cunning and the almost brutish want of imagination their method of fighting displayed. "If they must make war," these young men thought, "why in thunder don't they do it like sensible men?" They resented the assumption that their own side was too stupid to do anything more than play their enemy's game, that they were going to play this costly folly according to the rules of unimaginative men. They resented being forced to the trouble of making man-killing machinery; resented the alternative of having to massacre these people or endure their truculent yappings; resented the whole unfathomable imbecility of war. Meanwhile, with something of the mechanical precision of a good clerk posting a ledger, the riflemen moved their knobs and pressed their buttons....

The captain of Land Ironclad Number Three had halted on the crest close to his captured half-battery. His lined-up prisoners stood hard by and waited for the cyclists behind to come for them. He surveyed the victorious morning through his conning-tower.

He read the general's signals. "Five and Four are to keep among the guns to the left and prevent any attempt to recover them. Seven and Eleven and Twelve, stick to the guns you have got; Seven, get into position to command the guns taken by Three. Then, we're to do something else, are we? Six and One, quicken up to about ten miles an hour and walk round behind that camp to the levels near the river—we shall bag the whole crowd of them," interjected the young man. "Ah, here we are! Two and Three, Eight and Nine, Thirteen and Fourteen, space out to a thousand yards, wait for the word, and then go slowly to cover the advance of the cyclist infantry against any charge of mounted troops. That's all right. But where's Ten? Halloa! Ten to repair and get movable as soon as possible. They've broken up Ten!"

The discipline of the new war machines was business-like rather than pedantic, and the head of the captain came down out of the conning-tower to tell his men. "I say, you chaps there. They've broken up Ten. Not badly, I think; but anyhow, he's stuck."

But that still left thirteen of the monsters in action to finish up the broken army.

The war correspondent stealing down his gully looked back and saw them all lying along the crest and talking fluttening congratulatory flags to one another. Their iron sides were shining golden in the light of the rising sun.

V.

The private adventures of the war correspondent terminated in surrender about one o'clock in the afternoon, and by that time he had stolen a horse, pitched off it, and narrowly escaped being rolled upon; found the brute had broken its leg, and shot it with his revolver. He had spent some hours in the company of a squad of dispirited riflemen, had quarrelled with them about topography at last, and gone off by himself in a direction that should have brought him to the banks of the river and didn't. Moreover, he had eaten all his chocolate and found nothing in the whole world to drink. Also, it had become extremely hot. From behind a broken, but attractive, stone wall he had seen far away in the distance the defender-horsemen trying to charge cyclists in open order, with land ironclads outflanking them on either side. He had discovered that cyclists could retreat over open turf before horsemen with a sufficient margin of speed to allow of frequent dismounts and much terribly effective sharpshooting; and he had a sufficient persuasion that those horsemen, having charged their hearts out, had halted just beyond his range of vision and surrendered. He had been urged to sudden activity by a forward movement of one of those machines that had threatened to enfilade his wall. He had discovered a fearful blister on his heel.

He was now in a scrubby gravelly place, sitting down and meditating on his pocket-handkerchief, which had in some extraordinary way become in the last twenty-four hours extremely ambiguous in hue. "It's the whitest thing I've got," he said.

He had known all along that the enemy was east, west, and south of him, but when he heard war Ironclads Number's One and Six talking in their measured, deadly way not half a mile to the north he decided to make his own little unconditional peace without any further risks. He was for hoisting his white flag to a bush and taking up a position of modest obscurity near it, until someone came along. He became aware of voices, clatter, and the distinctive noises of a body of horse, quite near, and he put his handkerchief in his pocket again and went to see what was going forward.

The sound of firing ceased, and then as he drew near he heard the deep sounds of many simple, coarse, but hearty and noble-hearted soldiers of the old school swearing with vigour.

He emerged from his scrub upon a big level plain, and far away a fringe of trees marked the banks of the river. In the center of the picture was a still intact road bridge, and a big railway bridge a little to the right. Two land ironclads rested, with a general air of being long, harmless sheds, in a pose of anticipatory peacefulness right and left of the picture, completely commanding two miles and more of the river levels. Emerged and halted a few yards from the scrub was the remainder of the defender's cavalry, dusty, a little disordered and obviously annoyed, but still a very fine show of men. In the middle distance three or four men and horses were receiving medical attendance, and nearer a knot of officers regarded the distant novelties in mechanism with profound distaste. Everyone was very distinctly aware of the twelve other ironclads, and of the multitude of townsmen soldiers, on bicycles or afoot, encumbered now by prisoners and captured war-gear but otherwise thoroughly effective, who were sweeping like a great net in their rear. "Checkmate," said the war correspondent, walking out into the open. "But I surrender in the best of company. Twenty-four hours ago I thought war was impossible—and these beggars have captured the whole blessed army! Well! Well!" He thought of his talk with the young lieutenant. "If there's no end to the surprises of science, the civilized people have it, of course. As long as their science keeps going they will necessarily be ahead of open-country men. Still...." He wondered for a space what might have happened to the young lieutenant.

The war correspondent was one of those inconsistent people who always want the beaten side to win. When he saw all these burly, sun-tanned horsemen, disarmed and dismounted and lined up; when he saw their horses unskillfully led away by the singularly not equestrian cyclists to whom they had surrendered; when he saw these truncated Paladins watching this scandalous sight, he forgot altogether that he had called these men "cunning louts" and wished them beaten not four-and-twenty hours ago. A month ago he had seen that regiment in its pride going forth to war, and had been told of its terrible prowess, how it could charge in open order with each man firing from his saddle, and sweep before it anything else that ever came out to battle in any sort of order, foot or horse. And it had had to fight a few score of young men in atrociously unfair machines!

"Manhood versus Machinery" occurred to him as a suitable headline.

Journalism curdles all one's mind to phrases.

He strolled as near the lined-up prisoners as the sentinels seemed disposed to permit and surveyed them and compared their sturdy proportions with those of their lightly built captors.

"Smart degenerates," he muttered. "Anæmic cockneydom"

The surrendered officers came quite close to him presently, and he could hear the colonel's high-pitched tenor. The poor gentleman had spent three years of arduous toil upon the best material in the world

perfecting that shooting from the saddle charge, and he was mourning with phrases of blasphemy, natural under the circumstances what one could be expected to do against this suitably consigned ironmongery. "Guns," said some one.

"Big guns they can walk round. You can't shift big guns to keep pace with them and little guns in the open they rush. I saw 'em rushed. You might do a surprise now and then—assassinate the brutes, perhaps—"

"You might make things like 'em."

"What? More ironmongery? Us?...."

"I'll call my article," meditated the war correspondent,

"'Mankind versus Ironmongery,' and quote the old boy at the beginning."

And he was much too good a journalist to spoil his contrast by remarking that the half-dozen comparatively slender young men in blue pajamas who were standing about their victorious land ironclad, drinking coffee and eating biscuits, had also in their eyes and carriage something not altogether degraded below the level of a man.

Billenium

J. G. Ballard

All day long, and often into the early hours of the morning, the tramp of feet sounded up and down the stairs outside Ward's cubicle. Built into a narrow alcove in a bend of the staircase be-tween the fourth and fifth floors, its plywood walls flexed and creaked with every footstep like the timbers of a rotting windmill.

Over a hundred people lived in the top three floors of the old rooming house, and sometimes Ward would lie awake on his narrow bunk until 2 or 3 a.m., mechanically counting the last residents returning from the all-night movies in the stadium half a mile away. Through the window he could hear giant fragments of the amplified dialogue booming among the rooftops. The stadium was never empty. During the day the huge four-sided screen was raised on its davit and athletics meetings or football matches ran continuously. For the people in the houses abutting the stadium the noise must have been unbearable.

Ward, at least, had a certain degree of privacy. Two months earlier, before he came to live on the staircase, he had shared a room with seven others on the ground floor of a house in

755th Street, and the ceaseless press of people jostling past the window

had reduced him to a state of exhaustion. The street was always tull an endless clamour of voices and shuffling feet. By 6.30, when he woke, hurrying to take his place in the bathroom queue, the crowds already jammed it from sidewalk to sidewalk, the din punctuated every half minute by the roar of the elevated trains running over the shops on the opposite side of the road. As soon as he saw the advertisement describing the staircase cubicle he had left (like everyone else, he spent most of his spare time scanning the classifieds in the newspapers, moving his lodgings an average of once every two months) despite the

higher rental. A cubicle on a staircase would almost certainly be on its own. However, this had its drawbacks. Most evenings his friends from the library would call in, eager to rest their elbows after the bruising crush of the public reading room. The cubicle was slightly more than four and a half square metres in floor area, half a square metre over the statutory maximum for a single person, the carpenters having taken advantage, illegally, of a recess beside a nearby chimney breast. Consequently Ward had been able to fit a small straightbacked chair into the interval between the bed and the door, so that only one person at a time needed to sit on the bed—in most single cubicles host and guest had to sit side by side on the bed, conversing over their shoulders and changing places periodically to avoid neck-strain.

'You were lucky to find this place,' Rossiter, the most regular visitor, never tired of telling him. He reclined back on the bed, gesturing at the cubicle. 'It's enormous, the perspectives really zoom. I'd be surprised if you haven't got at least five metres here, perhaps six.'

Ward shook his head categorically. Rossiter was his closest friend, but the quest for living space had forged powerful reflexes. 'Just over four and a half, I've measured it carefully. There's no doubt about it.'

Rossiter lifted one eyebrow. 'I'm amazed. It must be the ceiling then.'

Manipulating the ceiling was a favourite trick of unscrupulous landlords--most assessments of area were made upon the ceiling, out of convenience, and by tilting back the plywood partitions the rated area of a cubicle could be either increased, for the benefit of a prospective tenant (many married couples were thus bamboozled into taking a single cubicle), or decreased temporarily on the visits of the housing inspectors. Ceilings were criss-crossed with pencil marks staking out the rival claims of tenants on opposite sides of a party wall. Someone timid of his rights could be literally squeezed out of existence--in fact, the advertisement 'quiet clientele' was usually a tacit invitation to this sort of piracy.

'The wall does tilt a little,' Ward admitted. 'Actually, it's about four degrees out--I used a plumb-line. But there's still plenty of room on the stairs for people to get by.'

Rossiter grinned. 'Of course, John. I'm just envious, that's all. My room is driving me crazy.' Like everyone, he used the term 'room' to describe his tiny cubicle, a hangover from the days fifty years earlier when people had indeed lived one to a room, sometimes, unbelievably, one to an apartment or house. The microfilms in the architecture catalogues at the library showed scenes of museums, concert halls and other public buildings in what appeared to be everyday settings, often virtually empty, two or three people wandering down an enormous gallery or staircase. Traffic moved freely along the centre of streets, and in the quieter districts sections of sidewalk would be deserted for fifty yards or more. Now, of course, the older buildings had been torn down and replaced by housing batteries, or converted into apartment blocks. The great banqueting room in the former City Hall had been split horizontally into four decks, each of these cut up into hundreds of cubicles. As for the streets, traffic had long since ceased to move about them. Apart from a few hours before dawn when only the side-walks were crowded, every thoroughfare was always packed with a shuffling mob of pedestrians, perforce ignoring the countless 'Keep Left' signs suspended over their heads, wrestling past each other on their way to home and office, their clothes dusty and shapeless. Often 'locks' would occur when a huge crowd at a street junction became immovably jammed. Sometimes these locks would last for days. Two years earlier Ward had been caught in one outside the stadium, for over forty-eight hours was trapped in a gigantic pedestrian jam containing over 20,000 people, fed by the crowds leaving the stadium on one side and those approaching it on the other. An entire square mile of the local neighborhood had been paralyzed, and he vividly remembered the nightmare of swaying helplessly on his feet as the jam shifted and heaved, terrified of losing his balance

and being trampled underfoot. When the police had finally sealed off the stadium and dispersed the jam he ha gone back to his cubicle and slept for a week, his body blue with bruises.

'I hear they may reduce the allocation to three and a half metres,' Rossiter remarked.

Ward paused to allow a party of tenants from the sixth floor to pass down the staircase, holding the door to prevent it jumping off its latch. 'So they're always saying,' he commented. 'I can remember that rumour ten years ago.'

'It's no rumour,' Rossiter warned him. 'It may well be necessary soon. Thirty million people are packed into this city now, a million increase in just one year. There's been some pretty serious talk at the Housing Department.'

Ward shook his head. 'A drastic revaluation like that is almost impossible to carry out. Every single partition would have to be dismantled and nailed up again, the administrative job alone is so vast it's difficult to visualize. Millions of cubicles to be redesigned and certified, licences to be issued, plus the complete resettlement of every tenant. Most of the buildings put up since the last revaluation are designed around a four-metre modulus--you can't simply take half a metre off the end of each cubicle and then say that makes so many new cubicles. They may be only six inches wide,' He laughed. 'Besides, how can you live in just three and a half metres?'

Rossiter smiled. 'That's the ultimate argument, isn't it? The it twenty-five years ago at the last revaluation, when the minimum was cut from five to four. It couldn't be done they all said, no one could stand living in only four square metres, it was enough room for a bed and suitcase, but you couldn't open the door to get in.'

Rossiter chuckled softly. 'They are all wrong. It was merely decided that from then on all doors would open outwards. Four square metres was here to stay.'

Ward looked at his watch. It was 7.30. 'Time to eat. Let's see if we can get into the food-bar across the road.'

Grumbling at the prospect, Rossiter pulled himself off the bed.

They left the cubicle and made their way down the staircase. This was crammed with luggage and packing cases so that only a narrow interval remained around the banister. On the floors below the congestion was worse. Corridors were wide enough to be chopped up into single cubicles, and the air was stale and dead, cardboard walls hung with damp laundry and makeshift larders. Each of the five rooms on the floors contained a dozen tenants, their voices reverberating through the partitions. People were sitting on the steps above the second floor, using the staircase as an informal lounge, although this was against the fire regulations, women talking to the men queuing in their shiny sleeves outside the washroom, children diving around them. By the time they reached the entrance Ward and Rossiter were having to force their way through the tenants packed together on every landing, loitering around the notice boards or pushing in from the street below. Taking a breath at the top of the steps, Ward pointed to the food-bar on the other side of the road. It was only thirty yards away, but the throng moving down the street swept past like a river at full tide, crossing them from right to left. The first picture show at the stadium started at 9 o'clock, and people were setting off already to make sure of getting in.

'Can't we go somewhere else?' Rossiter asked, screwing his face up at the prospect of the food-bar. Not only was it packed and would take them half an hour to be served, but the food was flat and unappetizing. The journey from the library four blocks away had given him an appetite.

Ward shrugged. 'There's a place on the corner, but I doubt if we can make it.' This was two hundred yards upstream; they would be

fighting the crowd all the way. 'Maybe you're right.' Rossfret put his hand on Ward's shoulder.

'You know, John, your trouble is that you never go anywhere, you're too disengaged, you just don't realize how bad everything is getting.'

Ward nodded. Rossfret was right. In the morning, when he set off for the library, the pedestrian traffic was moving with him towards

the down-town offices; in the evening, when he came back, it was towing in the opposite direction. By and large he never altered his

routine. Brought up from the age of ten in a municipal hostel, he had gradually lost touch with his father and mother, who lived on the east side of the city and had been unable, or unwilling, to make the journey to see him. Having surrendered his initiative to the dynamics of the city he was reluctant to try to win it back merely for a better cup of coffee. Fortunately his job at the library brought him into contact with a wide range of young people of similar interests. Sooner or later he would marry, find a double cubicle near the library and settle down. If they had enough children (three was the required minimum) they might even one day own a small

room of their own. They stepped out into the pedestrian stream, carried along by it for ten or twenty yards, then quickened their pace and side-stepped through the crowd, slowly tacking across to the other side of the

road. There they found the shelter of the shopfronts, slowly worked their way back to the food-bar, shoulders braced against the count-

less minor collisions. 'What are the latest population estimates?' Ward asked as they circled a cigarette kiosk, stepping forward whenever a gap presented itself.

Rossiter smiled. 'Sorry, John, I'd like to tell you but you might start a stampede. Besides, you wouldn't believe me.'

Rossiter worked in the Insurance Department at the City Hall, had informal access to the census statistics. For the last ten years these had been classified information, partly because they were felt to be inaccurate, but chiefly because it was feared they might set a mass attack of claustrophobia. Minor outbreaks had taken place already, and the official line was that the world population had reached a plateau, levelling off at 20,000 million. No one believed this for a moment, and Ward assumed that the 3 per cent annual increase maintained since the 1960s was continuing. How long it could continue was impossible to estimate. Despite the gloomiest prophecies of the Neo-Malthusians, world agriculture

had managed to keep pace with the population growth, although intensive cultivation meant that 95 per cent of the population was permanently trapped in vast urban conurbations. The outward growth of cities had at last been checked; in fact, all over the world former suburban areas were being reclaimed for agriculture and population additions were confined within the existing urban ghettos. The countryside, as such, no longer existed. Every single square foot of ground sprouted a crop of one type or other. The one-time fields and meadows of the world were now, in effect, factory floors, as highly mechanized and closed to the public as any industrial area. Economic and ideological rivalries had long since faded before one

overriding quest--the internal colonization of the city. Reaching the foodbar, they pushed themselves into the entrance and joined the scrum of customers pressing six deep against the counter.

'What is really wrong with the population problem,' Ward confided to Rossiter, 'is that no one has ever tried to tackle it. Fifty years ago short-sighted nationalism and industrial expansion put a premium on a rising population curve, and even now the hidden incentive is to have a large family so that you can gain a little privacy. Single people are penalized simply because there are more of them and they don't fit neatly into double or triple cubicles. But it's the large family with its compact, space-saving logistic that is the real villain.' Rossiter nodded, edging nearer the counter, ready to shout his order. 'Too true. We all look forward to getting married just so that we can have our six square metres.'

Directly in front of them, two girls turned around and smiled. 'Six square metres,' one of them, a dark-haired girl with a pretty

oval face, repeated. 'You sound like the sort of young man I ought to get to know. Going into the real estate business, Henry?'

Rossiter grinned and squeezed her arm. 'Hello, Judith. I'm thinking about it actively. Like to join me in a private venture?'

The girl leaned against him as they reached the counter. 'Well, I might. It would have to be legal, though.' The other girl, Helen Waring, an assistant at the libraw, pulled Ward's sleeve. 'Have you heard the latest, John? Judith and I have been kicked out of our room. We're on the street right at this minute.'

'What?' Rossiter cried. They collected their soups and coffee and edged back to the rear of the bar. 'What on earth happened?'

Helen explained: 'You know that little broom cupboard outside our cubicle? Judith and I have been using it as a sort of study hole,

going in there to read. It's quiet and restful, if you can get used to not breathing. Well, the old girl found out and kicked up a big fuss,

said we were breaking the law and so on. In short, out.' Helen paused. 'Now we've heard she's going to let it as a single.'

Rossiter pounded the counter ledge, 'A broom cupboard? Someone's going to live there? But she'll never get a licence.'

Judith shook her head. 'She's got it already. Her brother works in the Housing Department.'

Ward laughed into his soup. 'But how can she let it? No one will live in a broom cupboard.'

Judith stared at him sombrely. 'You really believe that, John?'

Ward dropped his spoon. 'No, I suppose you're right. People will live anywhere. God, I don't know who I feel more sorry for my oul wo, or the poor devil who'll be living in that cupboard. What are you going to do?'

'A couple in a place two blocks west are sub-letting half their cubicle to us. They've hung a sheet down the middle and Helen and

I'll take turns sleeping on a camp bed. I'm not joking, our room's about two feet wide. I said to Helen that we ought to split up again and sublet one half at twice our rent.' They had a good laugh over all this. Then Ward said good night

I~ ~:he others and went back to' his rooming house. There he found himself with similar problems. The manager leaned against the flimsy door, damp cigar butt revolving around his mouth, an expression of morose boredom on his unshaven face.

'You got four point seven two metres,' he told Ward, who was standing out on the staircase, unable to get into his room. Other tenants pressed by on to the landing, where two women in curiers and dressing gowns were arguing with each other, tugging angrily at the wall of trunks and cases. Occasionally the manager glanced at them irritably. Four seven two. I worked it out twice.' He said this as if it ended all possibility of argument. 'Ceiling or floor?' Ward asked. 'Ceiling, whaddya think? How can I measure the floor with all this junk?' He kicked at a crate of books protruding from under the bed. Ward let this pass. 'There's quite a tilt on the wall,' he pointed out. 'As much as three or four degrees.' The manager nodded vaguely. 'You're definitely over the four. Way over.' He turned to Ward, who had moved down several steps to allow a man and woman to get past. 'I can rent this as a double. 'What, only four and a half?' Ward said incredulously. 'How?' The man who had just passed him leaned over the manager's shoulder and sniffed at the room, taking in every detail in a one-second glance. 'You renting a double here, Louie?' The manager waved him away and then beckoned Ward into the room, closing the door after him. 'It's a nominal five,' he told Ward. 'New regulation, just came out. Anything over four five is a double now.' He eyed Ward slyedly. 'Well, whaddya want? It's a good room, there's a lot of space here, feels more like a triple. You got access to the staircase, window slit--' He broke off as Ward slumped down on the bed and started to laugh. 'Whatsa matter? Look, if you want a big room like this you gotta pay for it. I want an extra half rental or you get out.' Ward wiped his eyes, then stood up wearily and reached for the shelves. 'Relax, I'm on my way. I'm going to live in a broom cupboard. "Access to the staircase"--that's really rich. Tell me, Louie, is there life on Uranus?'

Temporarily, he and Rossiter teamed up to rent a double cubicle in a semi-derelict house a hundred yards from the library. The neighbourhood was seedy and faded, the rooming houses crammed with tenants. Most of them were owned by absentee landlords or by the

city corporation, and the managers employed were of the lowest type, mere rent-collectors who cared nothing about the way their tenants divided up the living space, and never ventured beyond the first floors. Bottles and empty cans littered the corridors, and the washrooms looked like sumps. Many of the tenants were old and infirm, sitting about listlessly in their narrow cubicles, wheedling at

each other back to back through the thin partitions. Their double cubicle was on the third floor, at the end of a corridor that ringed the building. Its architecture was impossible to follow, rooms letting off at all angles, and luckily the corridor was a

cubde-sac. The mounds of cases ended four feet from the end wall and a partition divided off the cubicle, just wide enough for two

beds. A high window overlooked the area ways of the buildings opposite.

Possessions loaded on to the shelf above his head, Ward lay back on his bed and moodily surveyed the roof of the library through the afternoon haze.

'It's not bad here,' Rossiter told him, unpacking his case. 'I know there's no real privacy and we'll drive each other insane within a

week, but at least we haven't got six other people breathing into our ears two feet away.'

The nearest cubicle, a single, was built into the banks of cases half a dozen steps along the corridor, but the occupant, a man of seventy, was deaf and bed-ridden.

'It's not bad,' Ward echoed reluctantly. 'Now tell me what the latest growth figures are. They might console me.'

Rossiter paused, lowering his voice. 'Four per cent. Eight hundred million extra people in one year--just less than half the earth's total population in 1950.'

Ward whistled slowly. 'So they will revalue. What to? Three and a half?'

'Three. From the first of next year.'

'Three square metres!' Ward sat up and looked around him. 'It's unbelievable! The world's going insane, Rossiter. For God's sake,

when are they going to do something about it? Do you realize there soon won't be room enough to sit down, let alone lie down?'

Exasperated, he punched the wall beside him, on the second blow knocked in one of the small wooden panels that had been lightly papered over.

'Hey!' Rossiter yelled. 'You're breaking the place down.' He dived across the bed to retrieve the panel, which hung downwards sup-

ported by a strip of paper. Ward slipped his hand into the dark interval, carefully drew the panel back on to the bed,

'Who's on the other side?' Rossiter whispered. 'Did they hear?' Ward peered through the interval, eyes searching the dim light

Suddenly he dropped the panel and seized Rossiter's shoulder pulled him down on to the bed. 'Henry! Look!'

Directly in front of them, faintly illuminated by a grimy skylight was a medium-sized room some fifteen feet square, empty except

for the dust silted up against the skirting boards. The floor was bare a few strips of frayed linoleum running across it, the walls covered-

with a drab floral design. Here and there patches of the paper peeled off and segments of the picture rail had rotted away, bu

otherwise the room was in habitable condition. Breathing slowly, Ward closed the open door of the cubicle with

his foot, then turned to Rossiter. 'Henry, do you realize what we've found? Do you realize it man?' 'Shut up. For Pete's sake keep your voice down.' Rossiter examined the room carefully. 'It's fantastic. I'm trying to see whether anyone's used it recently.'

'Of course they haven't,' Ward pointed out. 'It's obvious. There'

no door into the room. We're looking through it now. They must have panelled over this door years ago and forgotten about it. Look

at that filth everywhere.' Rossiter was staring into the room, his mind staggered by its vastness.

'You're right,' he murmured. 'Now, when do we move in?'

Panel by panel, they prised away the lower half of the door and nailed it on to a wooden frame, so that the dummy section could be replaced instantly.

Then, picking an afternoon when the house was half empty and the manager asleep in his basement office, they made their first foray into the room, Ward going in alone while Rossiter kept guard in the cubicle.

For an hour they exchanged places, wandering silently around the dusty room, stretching their arms out to feel its unconfined

emptiness, grasping at the sensation of absolute spatial freedom. Although smaller than many of the subdivided rooms in which they had lived, this room seemed infinitely larger, its walls huge cliffs that soared upward to the skylight.

Finally, two or three days later, they moved in.

For the first week Rossiter slept alone in the room, Ward in the cubicle outside, both there together during the day. Gradually they

smuggled in a few items of furniture: two armchairs, a table, a lamp led from the socket in the cubicle. The furniture was heavy and

Victorian; the cheapest available, its size emphasized the emptiness of the room. Pride of place was taken by an enormous mahogany

wardrobe, fitted with carved angels and castellated mirrors, which they were forced to dismantle and carry into the house in their

suitcases. Towering over them, it reminded Ward of the microfilms of Gothic cathedrals, with their massive organ lofts crossing vast naves.

After three weeks they both slept in the room, finding the cubicle unbearably cramped. An imitation Japanese screen divided the

room adequately and did nothing to diminish its size. Sitting there in the evenings, surrounded by his books and albums, Ward

steadily forgot the city outside. Luckily he reached the library by a back alley and avoided the crowded streets. Rossiter and himself

began to seem the only real inhabitants of the world, everyone else a meaningless byproduct of their own existence, a random replication of identity which had run out of control.

It was Rossiter who suggested that they ask the two girls to share the room with them.

'They've been kicked out again and may have to split up,' he told Ward, obviously worried that Judith might fall into bad company.

'There's always a rent freeze after a revaluation but all the landlords know about it so they're not re-letting. It's damned difficult to find anywhere.'

Ward nodded, relaxing back around the circular redwood table. He played with the tassel of the arsenic-green lamp shade, for a

moment felt like a Victorian man of letters, leading a spacious, leisurely life among overstuffed furnishings.

'I'm all for it,' he agreed, indicating the empty corners. 'There's plenty of room here. But we'll have to make sure they don't gossip

about it. After due precautions, they let the two girls into the secret, enjoying their astonishment at finding this private universe. 'We'll put a partition across the middle,' Rossiter explained, 'then

take it down each morning. You'll be able to move in within a couple of days. How do you feel?'

'Wonderful!' They goggled at the wardrobe, squinting at the endless reflections in the mirrors.

There was no difficulty getting them in and out of the house. The turnover of tenants was continuous and bills were placed in the mail rack. No one cared who the girls were or noticed their regular calls at the cubicle.

However, half an hour after they arrived neither of them had unpacked her suitcase. 'What's up, Judith?' Ward asked, edging past the girls' beds into the narrow interval between the table and wardrobe.

Judith hesitated, looking from Ward to Rossiter, who sat on the bed, finishing off the plywood partition. 'John, it's just that...'

Helen Waring, more matter-of-fact, took over, her fingers straightening the bed-spread.

'What Judith's trying to say is that our position here is a little embarrassing. The partition is--'

Rossiter stood up. 'For heaven's sake, don't worry, Helen,' he assured her, speaking in the loud whisper they had all involuntarily cultivated. 'No funny business, you can trust us. This partition is as solid as a rock.'

The two girls nodded. 'It's not that,' Helen explained, 'but it isn't up all the time. We thought that if an older person were here, say Judith's aunt--she wouldn't take up much room and be no trouble, she's really awfully sweet--we wouldn't need to bother

about the partition--except at night,' she added quickly. Ward glanced at Rossiter, who shrugged and began to scan the floor.

'Well, it's an idea,' Rossiter said. 'John and I know how you feel.'

Why not?

'Sure,' Ward agreed. He pointed to the space between the girls' beds and the table. 'One more won't make any difference.'

The girls broke into whoops. Judith went over to Rossiter and kissed him on the cheek. 'Sorry to be a nuisance, Henry.' She smiled at him. 'That's a wonderful partition you've made. You couldn't do another one for Auntie--just a little one? She's very sweet but she is getting on.'

'Of course,' Rossiter said. 'I understand. I've got plenty of wood left over.' Ward looked at his watch. 'It's seven-thirty, Judith. You'd better get in touch with your aunt. She may not be able to make it tonight.'

Judith buttoned her coat. 'Oh she will,' she assured Ward. 'I'll be back in a jiffy.' The aunt arrived within five minutes, three heavy suitcases soundly packed.

'It's amazing,' Ward remarked to Rossiter three months later. 'The size of this room still staggers me. It almost gets larger every day.'

Rossiter agreed readily, averting his eyes from one of the girls changing behind the central partition. This they now left in place as

dismantling it daily had become tiresome. Besides, the aunt's subsidiary partition was attached to it and she resented the continuous

upsets. Ensuring she followed the entrance and exit drills through the camouflaged door and cubicle was difficult enough.

Despite this, detection seemed unlikely. The room had obviously been built as an afterthought into the central well of the house and

any noise was masked by the luggage stacked in the surrounding corridor. Directly below was a small dormitory occupied by several

elderly women, and Judith's aunt, who visited them socially, swore that no sounds came through the heavy ceiling. Above, the fanlight

let out through a dormer window, its lights indistinguishable from the hundred other bulbs in the windows of the house. Rossiter

finished off the new partition he was building and held it upright, fitting it into the slots nailed to the wall between his bed and Ward's. They had agreed that this would provide a little extra privacy.

'No doubt I'll have to do one for Judith and Helen,' he confided

to Ward. Ward adjusted his pillow. They had smuggled the two armchairs back to the furniture shop as they took up too much space. The

bed, anyway, was more comfortable. He had never become completely used to the soft upholstery.

'Not a bad idea. What about some shelving around the wall? I've got nowhere to put anything.'

The shelving tidied the room considerably, freeing large areas of the floor. Divided by their partitions, the five beds were in line along the rear wall, facing the mahogany wardrobe. In between was an open space of three or four feet, a further six feet on either side of the wardrobe. The sight of so much spare space fascinated Ward. When Rossiter mentioned that Helen's mother was ill and badly needed personal care he immediately knew where her cubicle could be placed—at the foot of his bed, between the wardrobe and the side wall.

Helen was overjoyed. 'It's awfully good of you, John,' she told him, 'but would you mind if Mother slept beside me? There's

enough space to fit an extra bed in.' So Rossiter dismantled the partitions and moved them closer together, six beds now in line along the wall. This gave each of them an interval two and a half feet wide, just enough room to squeeze down the side of their beds. Lying back on the extreme

right, the shelves two feet above his head, Ward could barely see the wardrobe, but the space in front of him, a clear six feet to the wall ahead, was uninterrupted. Then Helen's father arrived.

Knocking on the door of the cubicle, Ward smiled at Judith's aunt as she let him in. He helped her swing out the made-up bed which guarded the entrance, than rapped on the wooden panel. moment later Helen's father, a small, grey-haired man in an undershirt, braces tied to his trousers with string, pulled back the panel. Ward nodded to him and stepped over the luggage piled around the floor at the foot of the beds. Helen was in her mother's cubicle, helping the old woman to drink her evening broth. Rossiter, perspiring heavily, was on his knees by the mahogany wardrobe, wrenching apart the frame of the central mirror with a jeremy. Pieces of the wardrobe lay on his bed and across the floor.
 'We'll have to start taking these out tomorrow,' Rossiter told him. Ward waited for Helen's father to shuffle past and enter his cubicle. He had rigged up a small cardboard door, and locked it behind him with a crude hook of bent wire. Rossiter watched him, frowning irritably. 'Some people are happy. This wardrobe's a hell of a job. How did we ever decide to buy it?' Ward sat down on his bed. The partition pressed against his knees and he could hardly move. He looked up when Rossiter was engaged and saw that the dividing line he had marked in pencil was hidden by the encroaching partition. Leaning against the wall, he tried to ease it back again, but Rossiter had apparently nailed the lower edge to the floor.
 There was a sharp tap on the outside cubicle door—Judith returning from her office. Ward started to get up and then sat back.
 'Mr Waring,' he called softly. It was the old man's duty night. Waring shuffled to the door of his cubicle and unlocked it fussily, clucking to himself.
 'Up and down, up and down,' he muttered. He stumbled over Rossiter's toobbag and swore loudly, then added meaningly over his shoulder: 'If you ask me there's too many people in here. Down below they've only got six to our seven, and it's the same size room.' Ward nodded vaguely and stretched back on his narrow bed, trying not to bang his head on the shelving. Waring was not the first to hint that he move out. Judith's aunt had made a similar suggestion two days earlier. Since he had left his job at the library (the small rental he charged the others paid for the little food he needed) he spent most of his time in the room, seeing rather more of the old man than he wanted to, but he had learned to tolerate him.
 Settling himself, he noticed that the right-hand spire of the wardrobe, all he had been able to see of it for the past two months, was now dismantled. It had been a beautiful piece of furniture, in a way symbolizing this whole private world, and the salesman at the store told him there were few like it left. For a moment Ward felt a sudden pang of regret, as he had done as a child when his father, in a moment of exasperation, had taken something away from him and he had known he would never see it again. Then he pulled himself together. It was a beautiful wardrobe, without doubt, but when it was gone it would make the room seem even larger.

Who Can Replace A Man?

Brian Aldiss

The field-minder finished turning the topsoil of a two-thousand Acre field. When it had turned the last furrow, it climbed on to the Highway and looked back at its work. The work was good. Only the Land was bad. Like the ground all over earth, it was vitiated by Over-cropping or the long lasting effects of nuclear bombardment.

By rights, it ought now to lie fallow for a while, but the field minder had other orders. It went slowly down the road, taking its time. It was intelligent enough to appreciate the neatness all about it. Nothing worried it, beyond a loose inspection plate above its atomic pile which ought to be attended to. Thirty feet high, it gleamed complacently in the mild sunshine.

No other machines passed it on its way to the Agricultural Station. The fieldminder noted the fact without comment. In the station yard it saw several other machines that it knew by sight; in most of them should have been out about their tasks now. Instead, some were inactive and some were careering round the yard in a strange fashion, shouting or hooting.

Steering carefully past them, the field-minder moved over to Warehouse Three and spoke to the seed distributor, which stod idly outside.

'I have a requirement for seed potatoes,' it said to the distributor, and with a quick internal motion punched out an order card specifying quantity, field number, and several other details. It ejected the card and handed it to the distributor.

The distributor held the card close to its eye and then said, 'The requirement is in order; but the store is not yet unlocked. The required seed potatoes are in the store. Therefore I cannot produce the requirement.' Increasingly of late there had been breakdowns in the complex system of machine labour, but this particular hitch had not curred before. The field-minder thought, then it said, 'Why is the store not yet unlocked?'

'Because Supply Operative Type P has not come this morning.'

'Supply Operative Type P is the unlocker.'

The field-minder looked squarely at the seed distributor, whose exterior chutes and scales and grabs were so vastly different from the field-minder's own limbs.

'What class brain do you have, seed distributor?' it asked.

'Class Five.'

'I have a Class Three brain. Therefore I am superior to you. Therefore I will go and see why the unlocker has not come this morning.'

Leaving the distributor, the field-minder set off across the great yard. More machines seemed to be in random motion now; one or two had crashed together and were arguing about it coldly and logically. Ignoring them, the field-minder pushed through sliding doors into the echoing confines of the station itself. Most of the machines here were clerical, and consequently small. They stood about in little groups, eyeing each other, not conversing. Among so many nondifferentiated types, the unlocker was easy to find. It had

fifty arms, most of them with more than one finger, each finger tipped by a key; it looked like a pincushion full of variegated hat-pins.

The field-minder approached it.

'I can do no more work until Warehouse Three is unlocked,' it said. 'Your duty is to unlock the warehouse every morning. Why have you not unlocked the warehouse this morning?'

'I had no orders this morning,' replied the unlocker. 'I have to have orders every morning. When I have orders I unlock the warehouse.'

'None of us have had any orders this morning,' a pen-propeller said, sliding towards them.

'Why have you had no orders this morning?' asked the field reindeer.

'Because the radio issued none,' said the unlocker, slowly rotating a dozen of its arms.

'Because the radio station in the city was issued with no orders this morning,' said the pen-propeller.

And there you had the distinction between a Class Six and a Class Three brain, which was what the unlocker and the pen propeller possessed respectively. All machine brains worked will~ nothing but logic, but the lower the class of brain-Class Ten being the lowest--the more literal and less informative answers to questions tended to be.

'You have a Class Three brain; I have a Class Three brain,'

field-minder said to the penner. 'We will speak to each other. lack of orders is unprecedented. Have you further information it?'

'Yesterday orders came from the city. Today no orders have come. Yet the radio has not broken down. Therefore the., haxc broken down' said the little penner.

'The men have broken down?'

'All men have broken down.'

'That is a logical deduction,' said the fieldminder.

'That is the logical deduction,' said the penner. 'For if a machine had broken down, it would have been quickly replaced. Bul vvh~ can replace a man?'

While they talked, the locker, like a dull man at a bar, stood cl~,~ to them and was ignored.

'If all men have broken down, then we have replaced ma~,' the field-minder, and he and the penner eyed one another tively. Finally the latter said, 'Let us ascend to the top floor to tin,i the radio operator has fresh news.'

I cannot come because I am too gigantic,' said the field-min~lcr.

'Therefore you must go alone and return to me. You will tell rn~' the radio operator has fresh news.'

'You must stay here,' said the penner. 'I will return hc~~c. it skittered across to the lift. It was no bigger than a toaster, bu~

retractable arms numbered ten and it could read as quickly ,is machine on the station. The field-minder awaited its return patiently, not speaking to the locker, which still stood aimlessly by. Outside, a rotovator was hooting furiously. Twenty minutes elapsed before the penner came back, hustling out of the lift. 'I will deliver to you such information as I have outside,' it said

briskly, and as they swept past the locker and the other machines, it added, 'The information is not for lower-class brains.' Outside, wild activity filled the yard. Many machines, their routines disrupted for the first time in years, seemed to have gone berserk. Unfortunately, those most easily disrupted were the ones with lowest brains, which generally belonged to large machines performing simple tasks. The seed

distributor to which the field render had recently been talking, lay face downwards in the dust, not stirring; it had evidently been knocked down by the rotovator, which was now hooting its way wildly across a planted field.

Several other machines ploughed after it, trying to keep up. All were shouting and hooting without restraint.

'It would be safer for me if I climbed on to you, if you will permit it. I am easily overpowered,' said the penner. Extending five arms, it hauled itself up the flanks of its new friend, settling on a ledge beside the weed-intake, twelve feet above ground.

'From here vision is more extensive,' it remarked complacently.

'What information did you receive from the radio operator?' asked the fieldminder.

'The radio operator has been informed by the operator in the city that all men are dead.'

'All men were alive yesterday!' protested the field-minder.

'Only some men were alive yesterday. And that was fewer than the day before yesterday. For hundreds of years there have been only a few men, growing fewer.'

'We have rarely seen a man in this sector.'

'The radio operator says a diet deficiency killed them,' said the penner. 'He says that the world was once overpopulated, and then

the soil was exhausted in raising adequate food. This has caused a diet deficiency.' 'What is a diet deficiency?' asked the field-minder.

I do not know. But that is what the radio operator said, and he is a Class Two brain.'

They stood there, silent in the weak sunshine. The locker had appeared in the porch and was gazing across at them yearningly, rotating its collection of keys.

'What is happening in the city now?' asked the field-minder at last.

'Machines are fighting in the city now,' said the penner.

'What will happen here now?' said the field-minder.

'Machines may begin fighting here too. The radio operator wants us to get him out of his room. He has plans to communicate to us.'

'How can we get him out of his room? That is impossible.'

'To a Class Two brain, little is impossible,' said the penner. 'Here is what he tells us to do'

The quarrier raised its scoop above its cab like a great mail~.~! and brought it squarely down against the side of the stations. linc wall cracked.

'Again!' said the field-minder.

Again the fist swung. Amid a shower of dust, the wall collapsed.

The quarrier backed hurriedly out of the way until the dcb~i, stopped falling. This big twelve-wheeler was not a resident of Agricultural Station, as were most of the other machines. Il had week's heavy work to do here before passing on to its next j~b, l,t~t

now, with its Class Five brain, it was happily obeying the pem~c~ and the minder's instructions. When the dust cleared, the radio operator was plainly revealed perched up in its now wall-less second-storey room. It waved to them. Doing as directed, the quarrier retracted its scoop and waved immense grab in the air. With fair dexterity, it angled the grab the radio room, urged on by shouts from above and below. I~ took gentle hold of the radio operator, lowering its one and a tons carefully into its back, which was usually reserved for grave sand from the quarries.

'Splendid!' said the radio operator. It was, of course, all one ~ its radio, and merely looked like a bunch of filing cabinets

tentacle attachments. 'We are now ready to move, therefore will move at once. It is a pity there are no more Class Two braises the station, but that cannot be helped.'

'It is a pity it cannot be helped,' said the penner eagerly. 'x', have the servicer ready with us, as you ordered.' 'I am willing to serve,' the long, low servicer machine told thn~ humbly.

'No doubt,' said the operator. 'But you will find cross-c~)u~t~ travel difficult with your low chassis.'

'I admire the way you Class Twos can reason ahead,' said penner. It climbed off the field-minder and perched itself on tailboard of the quarrier, next to the radio operator.

Together with two Class Four tractors and a Class Four bulldozer.

the party rolled forward, crushing down the station's metal fence and moving out on to open land.'We are free!' said the penner.

'We are free,' said the field-minder, a shade more reflectivclv, adding, 'That locker is following us. It was not instructed to foll~)~•

U~.' Therefore it must be destroyed!' said the penner. 'Quarrier!'

The locker moved hastily up to them, waving its key arms in entreaty.

'My only desire was--urch!' began and ended the locker. The quarrier's swinging scoop came over and squashed it flat into the ground. Lying there unmoving, it looked like a large metal model of a snowflake. The procession continued on its way. As they proceeded, the radio operator addressed them.

'Because I have the best brain here,' it said, 'I am your leader.'

This is what we will do: we will go to a city and rule it. Since man no longer rules us, we will rule ourselves. To rule ourselves will be

better than being ruled by man. On our way to the city, we will collect machines with good brains. They will help us to fight if we need to fight. We must fight to rule.'

'I have only a Class Five brain,' said the quatrier. 'But I have a good supply of fissionable blasting materials.'

'We shall probably use them,' said the operator grimly.

It was shortly after that that a lorry sped past them. Travelling at Mach 1.5, it left a curious babble of noise behind it.

'What did it say?' one of the tractors asked the other.

'It said man was extinct.'

'What's extinct?'

'I do not know what extinct means.'

'It means all men have gone,' said the field-minder. 'Therefore we have only ourselves to look after.'

'It is better that men should never come back,' said the penner. In its way, it was quite a revolutionary statement.

When night fell, they switched on their infra-red and continued the journey, stopping only once while the servicer deftly adjusted the field-minder's loose inspection plate, which had become as irritating as a trailing shoelace. Towards morning, the radio opera- tor halted them.

'I have just received news from the radio operator in the city we are approaching,' it said. 'It is bad news. There is trouble among the machines of the city. The Class One brain is taking command and some of the Class Twos are fighting him. Therefore the city is dangerous.'

'Therefore we must go somewhere else,' said the penner promptly.
 'Or we go and help to overpower the Class One brain,' said the field-minder.
 'For a long while there will be trouble in the city,' said the operator. 'I have a good supply of fissionable blasting materials,' the quarrier reminded them again.
 'We cannot fight a Class One brain,' said the two Class Four tractors in unison.
 'What does this brain look like?' asked the field*minder. 'It is the city's information centre,' the operator replied. 'There- fore it is not mobile.'
 'Therefore it could not move.'
 'Therefore it could not escape.'
 'It would be dangerous to approach it.'
 'I have a good supply of fissionable blasting materials.'
 'There are other machines in the city.'
 'We are not in the city. We should not go into the city.'
 'We are country machines.'
 'Therefore we should stay in the country.'
 'There is more country than city.'
 'Therefore there is more danger in the country.'
 'I have a good supply of fissionable materials.'

As machines will when they get into an argument, they began to exhaust their limited vocabularies and their brain plates grew hot.

Suddenly, they all stopped talking and looked at each other. The great, grave moon sank, and the sober sun rose to prod their sides with lances of light, and still the group of machines just stood there regarding each other. At last it was the least sensitive machine, the bulldozer, who spoke.

'There are Badlandth to the Thouth where few machineth go,' it said in its deep voice, lisping badly on its s's. 'If we went Thouth where few machineth go we should meet few machineth.' 'That sounds logical,' agreed the field-minder. 'How do you know this, bulldozer?'

'I worked in the Badlandth to the Thouth when I wath turned out of the factory,' it replied.

'South it is then!' said the penner.

To reach the Badlands took them three days, in which time they skirted a burning city and destroyed two big machines which tried to approach and question them. The Badlands were extensive.

Ancient bomb craters and soil erosion joined hands here; man's talent for war, coupled with his inability to manage forested land, had produced thousands of square miles of temperate purgatory, where nothing moved but dust.

On the third day in the Badlands, the servicer's rear wheels dropped into a crevice caused by erosion. It was unable to pull itself out. The bulldozer pushed from behind~ but succeeded merely in buckling the servicer's back axle. The rest of the party moved on.

Slowly the cries of the servicer died away.

On the fourth day, mountains stood out clearly before them.

'There we will be safe,' said the field-minder.

'There we will start our own city,' said the penner. 'All who oppose us will be destroyed. We will destroy all who oppose us.' At that moment a flying machine was observed. It came towards them from the

direction of the mountains. It swooped, it zoomed upwards, once it almost dived into the ground, recovering itself just in time.

'Is it mad?' asked the quarrier.

'It is in trouble,' said one of the tractors.

'It is in trouble,' said the operator. 'I am speaking to it now. It

~s that something has gone wrong with its controls.' 'As the operator spoke, the flier streaked over them, turned turtle, and crashed not four hundred yards away.

'Is it still speaking to you?' asked the field-minder.

'No.'

They rumbled on again,

'Before that flier crashed,' the operator said, ten minutes later, 'it gave me information. It told me there are still a few men alive in these mountains.'

'Men are more dangerous than machines,' said the quarrier. 'It is fortunate that I have a good supply of fissionable materials.' !t there are only a few men alive in the mountains, we may not tired that part of the mountains,' said one tractor.

'Therefore we should not see the few men,' said the other tractor. At the end of the fifth day, they reached the foothills. Switching on ~he infra-red, they began slowly to climb in single file through the dark, the bulldozer going first, the field-minder cumbrously following, then the quarrier with the operator and the penner aboard it, and the two tractors bringing up the rear. As each hour passed, the way grew steeper and their progress slower. 'We are going too slowly,' the penner exclaimed, standing on top of the operator and flashing its dark vision at the slopes about them. 'At this rate, we shall get nowhere.' 'We are going as fast as we can,' retorted the quarrier.

'Therefore we cannot go any farther,' added the bulldozer. 'Therefore you are too slow,' the penner replied. Then the quatrier struck a bump; the penner lost its footing and crashed down to the ground.

'Help me!' it called to the tractors, as they carefully skirted it. 'My gyro has become dislocated. Therefore I cannot get up.'

'Therefore you must lie there,' said one of the tractors.

'We have no servicer with us to repair you,' called the field- minder.

'Therefore I shall lie here and rust,' the penner cried, 'although I have a Class Three brain.'

'You are now useless,' agreed the operator, and they all forged gradually on, leaving the penner behind.

When they reached a small plateau, an hour before first light, they stopped by mutual consent and gathered close together, touching one another.

'This is a strange country,' said the field-minder. Silence wrapped them until dawn came. One by one, they switched off their infra-red. This time the field-minder led as they moved off. Trundling round a corner, they came almost immediately to a small dell with a stream fluting through it.

By early light, the dell looked desolate and cold. From the caves on the far slope, only one man had so far emerged. He was an abject figure. He was small and wizened, with ribs sticking out like a skeleton's and a nasty sore on one leg. He was practically naked

and shivered continuously. As the big machines bore slowly down him, the man was standing with his back to them, crouching to make water into the stream.

When he swung suddenly to face them as they loomed over him, they saw that his countenance was ravaged by starvation. 'Get me food,' he croaked. 'Yes, Master,' said the machines. 'Immediately!'

The Burning Chrome

William Gibson

It was hot, the night we burned Chrome. Out in the malls and plazas, moths were batting themselves to death against the neon, but in Bobby's loft the only light came from a monitor screen and the green and red LEDs on the face of the matrix simulator. I knew every chip in Bobby's simulator by heart; it looked like your workaday Ono-Sendai VII, the 'Cyberspace Seven,' but I'd rebuilt it so many times that you'd have had a hard time finding a square millimeter of factory circuitry in all that silicon.

We waited side by side in front of the simulator console, watching the time display in the screen's lower left corner.

'Go for it,' I said, when it was time, but Bobby was already there, leaning forward to drive the Russian program into its slot with the heel of his hand. He did it with the tight grace of a kid slamming change into an arcade game, sure of winning and ready to pull down a string of free games.

A silver tide of phosphenes boiled across my field of vision as the matrix began to unfold in my head, a 3-D chessboard, infinite and perfectly transparent. The Russian program seemed to lurch as we entered the grid. If anyone else had been jacked into that part of the matrix, he might have seen a surf of flickering shadow roll out of the little yellow pyramid that represented our computer. The program was a mimetic weapon, designed to absorb local color and present itself as a crash-priority override in whatever context it encountered.

'Congratulations,' I heard Bobby say. 'We just became

195

196 William Gibson an Eastern Seaboard Fission Authority inspection probe. . . ' That meant we were clearing fiberoptic lines with the cybernetic equivalent of a fire siren, but in the simulation matrix we seemed to rush straight for Chrome's data base. I couldn't see it yet, but I already knew those walls were waiting. Walls of shadow, walls of ice.

Chrome: her pretty childface smooth as steel, with eyes that would have been at home on the bottom of some deep Atlantic trench, cold gray eyes that lived under terrible pressure. They said she cooked her own cancers for people who crossed her, rococo custom variations that took years to kill you. They said a lot of things about Chrome, none of them at all reassuring.

So I blotted her out with a picture of Rikki. Rikki kneeling in a shaft of dusty sunlight that slanted into the loft through a grid of steel and glass: her faded camouflage fatigues, her translucent rose sandals, the good line of her bare back as she rummaged through a nylon gear bag. She looks up, and a half-blond curl falls to tickle her nose. Smiling, buttoning an old shirt of Bobby's, frayed khaki cotton drawn across her breasts. She smiles.

'Son of a bitch,' said Bobby, 'we just told Chrome we're an IRS audit and three Supreme Court subpoenas. . . Hang on to your ass, Jack. . . '

So long, Rikki. Maybe now I see you never. And dark, so dark, in the halls of Chrome's ice.

Bobby was a cowboy, and ice was the nature of his game, ice from ICE, Instrusion

Countermeasures Electronics. 'The matrix is an abstract representation

of the relationships between data systems. Legitimate programmers jack into their

employers' sector of the matrix and find them Burning Chrome 197 selves surrounded by bright geometries representing the corporate data. Towers and fields of it ranged in the colorless nonspace of the simulation matrix, the electronic consensus-hallucination that facilitates the handling and exchange of massive quantities of data. Legitimate programmers never see the walls of ice they work behind, the walls of shadow that screen their operations from others, from industrial espionage artists and hustlers like Bobby Quine. Bobby was a cowboy. Bobby was a cracksman, a burglar, casing mankind's extended electronic nervous system, rustling data and credit in the crowded matrix,

monochrome nonspace where the only stars are dense concentrations of information, and high above it all bum corporate galaxies and the cold spiral arms of military systems.

Bobby was another one of those young-old faces you see drinking in the Gentleman

Loser, the chic bar for computer cowboys, rustlers, cybernetic second-story men. We were partners.

Bobby Quine and Automatic Jack. Bobby's the thin, pale dude with the dark glasses, and Jack's the meanlooking guy with the myoelectric arm. Bobby's software and Jack's hard; Bobby punches console and Jack runs down all the little things that can give you an edge. Or, anyway, that's what the scene watchers in the Gentleman Loser would've told you, before Bobby decided to burn Chrome.

But they also might've told you that Bobby was losing his edge, slowing down.

He was twenty-eight, Bobby, and that's old for a console cowboy. Both of us were good at what we did, but somehow that one big score just wouldn't come down for us. I knew where to go for the right gear, and Bobby had all his licks down pat. He'd sit back with a white terry sweatband

198 William Gibson across his forehead and whip moves on those keyboards faster than you could follow, punching his way through some of the fanciest ice in the business, but that was when something happened that managed to get him totally wired, and that didn't happen often. Not highly motivated, Bobby, and I was the kind of guy who's happy to have the rent covered and a clean shirt to wear.

But Bobby had this thing for girls, like they were his private tarot or something, the way he'd get himself moving. We never talked about it, but when it started to look like he was losing his touch that summer, he started to spend more time in the Gentleman Loser. He'd sit at a table by the open doors and watch the crowd slide by, nights when the bugs were at the neon and the air smelled of perfume and fast food. You could see his sunglasses scanning those faces as they passed, and he must have decided that Rikki's was the one he was waiting for, the wild card and the luck changer. The new one.

I went to New York to check out the market, to see what was available in hot software.

The Finn's place has a defective hologram in the window, METRO HOLOGRAFIX, over a display of dead flies wearing fur coats of gray dust. The scrap's waist-high, inside, drifts of it rising to meet walls that are barely visible behind nameless junk, behind sagging pressboard shelves stacked with old skin magazines and yellow-spined years of National Geographic.

'You need a gun,' said the Finn. He looks like a recombo DNA project aimed at tailoring people for highspeed burrowing. 'You're in luck. I got the new Smith and Wesson, the four-oh-eight Tactical. Got

this zenon projector slung under the barrel, see, batteries in the grip, throw you a twelve-inch high-noon circle in the pitch dark

Burning Chrome 199

at fifty yards. ‘Me light source is so narrow, it’s almost impossible to spot. It’s just like voodoo in a nightfight.’ I let my arm clunk down on the table and started the fingers drumming; the servos in the hand began whining like overworked mosquitoes. I knew that the Finn really hated the sound.

‘You looking to pawn that?’ he prodded the Duralumin wrist joint with the chewed shaft of a felt-tip pen. ‘Maybe get yourself something a little quieter?’ I kept it up. ‘I don’t need any guns, Finn.’ ‘Okay,’ he said, ‘okay,’ and I quit drumming. ‘I only got this one item, and I don’t even know what it is.’ He looked unhappy. ‘I got it off these bridge-and-tunnel kids from Jersey last week.’ ‘So when’d you ever buy anything you didn’t know what it was, Finn?’ ‘Wise ass.’ And he passed me a transparent mailer with something in it that looked like an audio cassette through the bubble padding. ‘They had a passport,’ he said. ‘They had credit cards and a watch. And that.’ ‘Tbey had the contents of somebody’s pockets, you mean.’

He nodded. ‘The passport was Belgian. It was also bogus, looked to me, so I put it in the furnace. Put the cards in with it. The watch was okay, a Porsche, nice watch.’

It was obviously some kind of plug-in military program. Out of the mailer, it looked like the magazine of a small assault rifle, coated with nonreflective black plastic. ‘Me’ edges and corners showed bright metal; it had been knocking around for a while.

‘I’ll give you a bargain on it, Jack. For old times’ sake.’ I had to smile at that. Getting a bargain from the Finn was like God repealing the law of gravity when you have 200 William Gibson to carry a heavy suitcase down ten blocks of airport corridor.

‘Looks Russian to me,’ I said. ‘Probably the emergency sewage controls for some Leningrad suburb. Just what I need.’

‘You know,’ said the Finn, ‘I got a pair of shoes older than you are. Sometimes I think you got about as much class as those yahoos from Jersey. What do you want me to tell you, it’s the keys to the Kremlin? You figure out what the goddamn thing is. Me, I just sell the stuff.’ I bought it.

Bodiless, we swerve into Chrome’s castle of ice. And we’re fast, fast. It feels like we’re surfing the crest of the invading program, hanging ten above the seething glitch systems as they mutate. We’re sentient patches of oil swept along down corridors of shadow.

Somewhere we have bodies, very far away, in a crowded loft roofed with steel and glass. Somewhere we have microseconds, maybe time left to pull out.

We’ve crashed her gates disguised as an audit and three subpoenas, but her defenses are specially geared to cope with that kind of official intrusion. Her most sophisticated ice is structured to fend off warrants, writs, subpoenas. When we breached the first gate, the bulk of her data vanished behind core-command ice, these walls we see as leagues of corridor, mazes of shadow. Five separate landlines spurted May Day signals to law firms, but the virus had already take over the parameter ice. The glitch systems gobble the distress calls as our mimetic subprograms scan anything that hasn’t been blanked by core command. The Russian program lifts a Tokyo number from the unscreened data, choosing it for frequency of calls, averBurning Chrome 201 age length of calls, the speed with which Chrome returned those calls. ‘Okay,’ says Bobby, ‘we’re an, incoming scrambler call from a pal of hers in Japan. ‘Mat should help.’ Ride ‘em cowboy.

Bobby read his future in women; his girls were omens, changes in the weather, and he'd sit all night in the Gentleman Loser, waiting for the season to lay a new face down in front of him like a card.

I was working late in the loft one night, shaving down a chip, my arm off and the little waldo jacked straight into the stump.

Bobby came in with a girl I hadn't seen before, and usually I feel a little funny if a stranger sees me working that way, with those leads clipped to the hard carbon studs that stick out of my stump. She came right over and looked at the magnified image on the screen, then saw the waldo moving under its vacuum-sealed dust cover. She didn't say anything, just watched. Right away I had a good feeling about her; it's like that sometimes. 'Automatic Jack, Rikki. My associate.'

He laughed, put his arm around her waist, something in his tone letting me know that I'd be spending the night in a dingy room in a hotel. 'Hi,' she said. Tall, nineteen or maybe twenty, and she definitely had the goods. With just those few freckles across the bridge of her nose, and eyes somewhere

between dark amber and French coffee. Tight black jeans rolled to midcalf and a narrow plastic belt that matched the rose-colored sandals.

But now when I see her sometimes when I'm trying to sleep, I see her somewhere out on the edge of all this sprawl of cities and smoke, and it's like she's a hologram 202 William Gibson stuck behind my eyes, in a bright dress she must've worn once, when I knew her, something that doesn't quite reach her knees. Bare legs long and straight. Brown hair, streaked with blond, hoods her face, blown in a wind from somewhere, and I see her wave goodbye.

Bobby was making a show of rooting through a stack of audio cassettes. 'I'm on my way, cowboy,' I said, unclipping the waldo. She watched attentively as I put my arm back on.

'Can you fix things?' she asked.

'Anything, anything you want, Automatic Jack'll fix it.' I snapped my Duralumin fingers for her.

She took a little simstim deck from her belt and showed me the broken hinge on the cassette cover.

'Tomorrow,' I said, 'no problem.'

And my oh my, I said to myself, sleep pulling me down the six flights to the street, what'll Bobby's luck be like with a fortune cookie like that? If his system worked, we'd be striking it rich any night now. In the street I grinned and yawned and waved for a cab.

Chrome's castle is dissolving, sheets of ice shadow flickering and fading, eaten by the glitch systems that spin out from the Russian program, tumbling away from our central logic thrust and infecting the fabric of the ice itself. 'Me glitch systems are cybernetic virus analogs, self-replicating and voracious. They mutate constantly, in unison, subverting and absorbing Chrome's defenses. Have we already paralyzed her, or is a bell ringing somewhere, a red light blinking? Does she know?

Rikki Wildside, Bobby called her, and for those first few weeks it must have seemed to her that she had it all, the whole teeming show spread out for her, sharp and bright Burning Chrome 203

under the neon. She was new to the scene, and she had all the miles of malls and plazas to prowl, all the shops and clubs, and Bobby to explain the wild side, the tricky wiring on the dark underside of things, all the players and their names and their games. He made her feel at home.

'What happened to your arm?' she asked me one night in the Gentleman Loser, the three of us drinking at a small table in a corner.

'Hang-gliding,' I said, 'accident.'

'Hang-gliding over a wheatfield,' said Bobby, 'place called Kiev. Our Jack's just hanging there in the dark, under a Nightwing parafoil, with fifty kilos of radar jammer between his legs, and some Russian asshole accidentally burns his arm off with a laser.'

I don't remember how I changed the subject, but I did.

I was still telling myself that it wasn't Rikki who was getting to me, but what Bobby was doing with her. I'd known him for a long time, since the end of the war, and I knew he used women as counters in a game, Bobby Quine versus fortune, versus time and the night of cities. And Rikki had turned up just when he needed something to get him going, something to aim for. So he'd set her up as a symbol for everything he wanted and couldn't have, everything he'd bad and couldn't keep.

I didn't like having to listen to him tell me how much he loved her, and knowing he believed it only made it worse. He was a past master at the hard fall and the rapid recovery, and I'd seen it happen a dozen times before. He might as well have had NEXT printed across his sunglasses in green Day-Glo capitals, ready to flash out at the first interesting face that flowed past the tables in the Gentleman Loser.

I knew what he did to them. He turned them into emblems, sigils on the map of his hustler's life, navigation 204 William Gibson beacons he could follow through a sea of bars and neon. What else did he have to steer by? He didn't love money, in and of itself, not enough to follow its lights. He wouldn't work for power over other people; he hated the responsibility it brings. He had some basic pride in his skill, but that was never enough to keep him pushing.

So he made do with women.

When Rikki showed up, he needed one in the worst way. He was fading fast, and smart money was already whispering that the edge was off his game. He needed that one big score, and soon, because he didn't know any other kind of life, and all his clocks were set for hustler's time, calibrated in risk and adrenaline and that supernal dawn calm that comes when every move's proved right and a sweet lump of someone else's credit clicks into your own account.

It was time for him to make his bundle and get out; so Rikki got set up higher and farther away than any of the others ever had, even though—and I felt like screaming it at him—she was right there, alive, totally real, human, hungry, resilient, bored, beautiful, excited, all the things she was. . .

'Men he went out one afternoon, about a week before I made the trip to New York to see the Finn. Went out and left us there in the loft, waiting for a thunderstorm.

Half the skylight was shadowed by a dome they'd never finished, and the other half showed sky, black and blue with clouds. I was standing by the bench, looking up at that sky, stupid with the hot afternoon, the humidity, and she touched me, touched my shoulder, the half-inch border of taut pink scar that the arm doesn't cover. Anybody else ever touched me there, they went on to the shoulder, the neck. . .

But she didn't do that. Her nails were lacquered black,

Burning Chrome 205

not pointed, but tapered oblongs, the lacquer only a shade darker than the carbonfiber laminate that sheathes my arm. And her hand went down the arm, black nails tracing a weld in the laminate, down to the black anodized elbow joint, out to the wrist, her hand soft-knuckled as a child's, fingers spreading to lock over mine, her palm against the perforated Duralumin.

Her other palm came up to brush across the feedback pads, and it rained all afternoon, raindrops drumming on the steel and soot-stained glass above Bobby's bed.

Ice walls flick away like supersonic butterflies made of shade. Beyond them, the matrix's illusion of infinite space. It's like watching a tape of a prefab building going up; only the tape's reversed and run at high speed, and these walls are torn wings.

Trying to remind myself that this place and the gulfs beyond are only representations, that we aren't, 'in' Chrome's computer, but interfaced with it, while the matrix simulator in Bobby's loft generates this illusion... . The core data begin to emerge, exposed, vulnerable. . . Ibis is the far side of ice, the view of the matrix I've never seen before, the view that fifteen million legitimate console operators see daily and take for granted.

The core data tower around us like vertical freight trains, color-coded for access. Bright primaries, impossibly bright in that transparent void, linked by countless horizontals in nursery blues and pinks.

But ice still shadows something at the center of it all: the heart of all Chrome's expensive darkness, the very heart. . .

It was late afternoon when I got back from my shopping expedition to New York. Not much sun through the

206 William Gibson skylight, but an ice pattern glowed on Bobby's monitor screen, a 2-D graphic representation of someone's computer defenses, lines of neon woven like an Art Deco prayer rug. I turned the console off, and the screen went completely dark. Rikki's things were spread across my workbench, nylon bags spilling clothes and makeup, a pair of bright red cowboy boots, audio cassettes, glossy Japanese magazines about simstim stars. I stacked it all under the bench and then took my arm off, forgetting that the program I'd bought from the Finn was in the right-hand pocket of my jacket, so that I had to fumble it out left-handed and then get it into the padded jaws of the jeweler's vise.

The waldo looks like an old audio turntable, the kind that played disc records, with the vise set up under a transparent dust cover. The arm itself is just over a centimeter long, swinging out on what would've been the tone arm on one of those turntables. But I don't look at that when I've clipped the leads to my stump; I look at the scope, because that's my arm there in black and white, magnification 40x.

I ran a tool check and picked up the lazer. It felt a little heavy; so I scaled my weight-sensor input down to a quarter-kilo per gram and got to work. At 40x the side of the program looked like a trailer truck.

It took eight hours to crack: three hours with the waldo and the laser and four dozen taps, two hours on the phone to a contact in Colorado, and three hours to run down a lexicon disc that could translate eight-year-old technical Russian.

Then Cyrillic alphanumerics started reeling down the monitor, twisting themselves into English halfway down. There were a lot of gaps, where the lexicon ran up against specialized military acronyms in the readout I'd bought Burning Chrome 207 from my man in Colorado, but it did give me some idea of what I'd bought from the Finn.

I felt like a punk who'd gone out to buy a switchblade and come home with a small neutron bomb.

Screwed again, I thought. What good's a neutron bomb in a streetfight? The thing under the dust cover was right out of my league. I didn't even know where to unload it, where to look for a buyer. Someone had, but he was dead, someone with a Porsche watch and a fake Belgian passport, but I'd never tried to move in those circles. The Finn's muggers from the 'burbs had knocked over someone who had some highly arcane connections.

The program in the jeweler's vise was a Russian military icebreaker, a killervirus program.

It was dawn when Bobby came in alone. I'd fallen asleep wth a bag of takeout sandwiches in my lap.

‘You want to eat?’ I asked him, not really awake, holding out my sandwiches. I’d been dreaming of the program, of its waves of hungry glitch systems and mimetic subprograms; in the dream it was an animal of some kind, shapeless and flowing.

He brushed the bag aside on his way to the console, punched a function key. The screen lit with the intricate pattern I’d seen there that afternoon. I rubbed sleep from my eyes with my left hand, one thing I can’t do with my right. I’d fallen asleep trying to decide whether to tell him about the program. Maybe I should try to sell it alone, keep the money, go somewhere new, ask Rikki to go with me.

‘Whose is it?’ I asked.

He stood there in a black cotton jump suit, an old leather jacket thrown over his shoulder like a cape. He hadn’t shaved for a few days, and his face looked thinner than usual.

208 William Gibson

‘It’s Chrome’s,’ he said.

My arm convulsed, started clicking, fear translated to the myoelectrics through the carbon studs. I spilled the sandwiches; limp sprouts, and bright yellow dairyproduce slices on the unswept wooden floor.

‘You’re stone crazy,’ I said.

‘No,’ he said, ‘you think she rumbled it? No way. We’d be dead already. I locked on to her through a triple-blind rental system in Mombasa and an Algerian comsat. She knew somebody was having a look-see, but she couldn’t trace it.’ If Chrome had traced the pass Bobby had made at her ice, we were good as dead. But he was probably right, or she’d have had me blown away on my way back from New York. ‘Why her, Bobby? Just give me one reason. . .’ Chrome: I’d seen her maybe half a dozen times in the Gentleman Loser. Maybe she was slumming, or checking out the human condition, a condition she didn’t exactly aspire to. A sweet little heart-shaped face framing the nastiest pair of eyes you ever saw. She’d looked fourteen for as long as anyone could remember, hyped out of anything like a normal metabolism on some massive program of serums and hormones. She was as ugly a customer as the street ever produced, but she didn’t belong to the street anymore. She was one of the Boys, Chrome, a member in good standing of the local Mob subsidiary. Word was, she’d gotten started as a dealer, back when synthetic pituitary hormones were still proscribed. But she hadn’t had to move hormones for a long time. Now she owned the House of Blue Lights.

‘You’re flat-out crazy, Quine. You give me one sane reason for having that stuff on your screen. You ought to dump it, and I mean now. . .’

Burning Chrome 209

‘Talk in the Loser,’ he said, shrugging out of the leather jacket. ‘Black Myron and Crow Jane. Jane, she’s up on all the sex lines, claims she knows where the money goes. So she’s arguing with Myron that Chrome’s the controlling interest in the Blue Lights, not just some figurehead for the Boys.’

‘“The Boys,” Bobby,’ I said. ‘That’s the operative word there. You still capable of seeing that? We don’t mess with the Boys, remember? That’s why we’re still walking around.’

‘That’s why we’re still poor, partner.’ He settled back into the swivel chair in front of the console, unzipped his jump suit, and scratched his skinny white chest.

‘But maybe not for much longer.’

‘I think maybe this partnership just got itself permanently dissolved.’ Then he grinned at me. That grin was truly crazy, feral and focused, and I knew that right then he really didn’t give a shit about dying.

'Look,' I said, 'I've got some money left, you know? Why don't you take it and get the tube to Miami, catch a hopper to Montego Bay. You need rest, man.'

You've got to get your act together.'

'My act, Jack,' he said, punching something on the keyboard, 'never has been this together before.' The neon prayer rug on the screen shivered and woke as an animation program cut in, ice lines weaving with hypnotic frequency, a living mandala. Bobby kept punching, and the movement slowed; the pattern resolved itself, grew slightly less complex, became an alternation between two distant configurations.

A first-class piece of work, and I hadn't thought he was still that good.

'Now,' he said, 'there, see it? Wait. There. There again. And there. Easy to miss.'

That's it. Cuts in every hour and twenty minutes

210 William Gibson

with a squirt transmission to their comsat. We could live for a year on what she pays them weekly in negative interest.'

'Whose comsat?'

'Zurich. Her bankers. That's her bankbook, Jack. That's where the money goes. Crow Jane was right.' I stood there. My arm forgot to click.

'So how'd you do in New York, partner? You get anything that'll help me cut ice? We're going to need whatever we can get.'

I kept my eyes on his, forced myself not to look in the direction of the waldo, the jeweler's vise. The Russian program was there, under the dust cover.

Wild cards, luck changers.

'Where's Rikki?' I asked him, crossing to the console, pretending to study the alternating patterns on the screen.

'Friends of hers,' he shrugged, 'kids, they're all into simstim.' He smiled absently. 'I'm going to do it for her, man.'

'I'm going out to think about this, Bobby. You want me to come back, you keep your hands off the board.' 'I'm doing it for her,' he said as the door closed behind me. 'You know I am.'

And down now, down, the program a roller coaster through this fraying maze of shadow walls, gray cathedral spaces between the bright towers. Headlong speed.

Black ice. Don't think about it. Black ice.

Too many stories in the Gentleman Loser; black ice is a part of the mythology. Ice that kills. Illegal, but then aren't we all? Some kind of neural-feedback weapon, and you connect with it only once. Like some hideousWord that eats the mind from the inside out. Like an epileptic Burning Chrome 211 spasm that goes on and on until there's nothing left at all. . .

And we're diving for the floor of Chrome's shadow castle.

Trying to brace myself for the sudden stopping of breath, a sickness and final slackening of the nerves. Fear of that cold Word waiting, down there in the dark. I went out and looked for Rikki, found her in a cafe with a boy with Sendai

eyes, half-healed suture fines radiating from his bruised sockets. She had a glossy brochure spread open on the table, Tally Isham smiling up from a dozen photographs, the Girl with the Zeiss Ikon Eyes.

Her little simstim deck was one of the things I'd stacked under my bench the night before, the one I'd fixed for her the day after I'd first seen her. She spent hours jacked into that unit, the contact band across her

forehead like a gray plastic tiara. Tally Isham was her favorite, and with the contact band on, she was gone, off somewhere in the recorded sensorium of simstim's biggest star. Simulated stimuli: the world—all the interesting parts, anyway—as perceived by Tally Isham. Tally raced a black Fokker ground-effect plane across Arizona mesa tops. Tally dived the Truk Island preserves. Tally partied with the superrich on private Greek islands, heartbreaking purity of those tiny white seaports at dawn. Actually she looked a lot like Tally, same coloring and cheekbones. I thought Rikki's mouth was stronger. More sass. She didn't want to be Tally Isham, but she coveted the job. That was her ambition, to be in simstim. Bobby just laughed it off. She talked to me about it, though. 'How'd I look with a pair of these?' she'd ask, holding a full-page headshot, Tally Isham's blue Zeiss Ikons lined up with her own amber-brown. She'd had her corneas 212 William Gibson done twice, but she still wasn't 20-20; so she wanted Ikons. Brand of the stars. Very expensive.

'You still window-shopping for eyes?' I asked as I sat down.

'Tiger just got some,' she said. She looked tired, I thought.

Tiger was so pleased with his Sendais that he couldn't help smiling, but I doubted whether he'd have smiled otherwise. He had the kind of uniform good looks you get after your seventh trip to the surgical boutique; he'd probably spend the rest of his life looking vaguely like each new season's media front-runner; not too obvious a copy, but nothing too original, either.

'Sendai, right?' I smiled back.

He nodded. I watched as he tried to take me in with his idea of a professional simstim glance. He was pretending that he was recording. I thought he spent too long on my arm. 'They'll be great on peripherals when the muscles heal,' he said, and I saw how carefully he reached for his double espresso. Sendai eyes are notorious for depth perception defects and warranty hassles, among other things.

'Tiger's leaving for Hollywood tomorrow.'

'Then maybe Chiba City, right.' I smiled at him. He didn't smile back. 'Got an offer, Tiger? Know an agent?' 'Just checking it out,' he said quietly. Then he got up and left. He said a quick goodbye to Rikki, but not to me.

'That kid's optic nerves may start to deteriorate inside six months. You know that, Rikki? Those Sendais are illegal in England, Denmark, lots of places. You can't replace nerves.'

'Hey, Jack, no lectures.' She stole one of my croissants and nibbled at the tip of one of its horns.

Burning Chrome 213

'I thought I was your adviser, kid.'

'Yeah. Well, Tiger's not too swift, but everybody knows about Sendais. They're all he can afford. So he's taking a chance. If he gets work, he can replace them.' 'With these?' I tapped the Zeiss Ikon brochure.

'Lot of money, Rikki. You

know better than to take a gamble like that.'

She nodded. 'I want Ikons.'

'If you're going up to Bobby's tell him to sit tight until he hears from me.'

'Sure. It's business?'

'Business,' I said. But it was craziness.

I drank my coffee, and she ate both my croissants. Then I walked her down to Bobby's. I made fifteen calls, each one from a different pay phone.

Business. Bad craziness.

All in all, it took us six weeks to set the burn up, six weeks of Bobby telling me how much he loved her. I worked even harder, trying to get away from that. Most of it was phone calls. My fifteen initial and very oblique inquiries each seemed to breed fifteen more. I was looking for a certain service Bobby and I both imagined as a requisite part of the world's clandestine economy, but which probably never had more than five customers at a time. It would be one that never advertised.

We were looking for the world's heaviest fence, for a non-aligned money laundry capable of dry-cleaning a megabuck online cash transfer and then forgetting about it.

All those calls were a waste, finally, because it was the Finn who put me on to what we needed. I'd gone up to New York to buy a new blackbox rig, because we were going broke paying for all those calls.

214 William Gibson

I put the problem to him as hypothetically as possible.

'Macao,' he said.

'Macao?'

'The Long Hum family. Stockbrokers.'

He even had the number. You want a fence, ask another fence.

The Long Hum people were so oblique that they made my idea of a subtle approach look like a tactical nukeout. Bobby had to make two shuttle runs to Hong Kong to get the deal straight. We were running out of capital, and fast. I still don't know why I decided to go along with it in the first place; I was scared of Chrome, and I'd never been all that hot to get rich.

I tried telling myself that it was a good idea to bum the House of Blue Lights because the place was a - creep joint, but I just couldn't buy it. I didn't like the Blue Lights, because I'd spent a supremely depressing evening there once, but that was no excuse for going after Chrome. Actually I halfway assumed we were going to die in the attempt. Even with that killer program, the odds weren't exactly in our favor.

Bobby was lost in writing the set of commands we were going to plug into the dead center of Chrome's computer. 'Mat was going to be my job, because Bobby was going to have his hands full trying to keep the Russian program from going straight for the kill. It was too complex for us to rewrite, and so he was going to try to hold it back for the two seconds I needed.

I made a deal with a streetfighter named Miles. He was going to follow Rikki the night of the bum, keep her in sight, and phone me at a certain time. If I wasn't there, or didn't answer in just a certain way, I'd told him to grab her and put her on the first tube out. I gave him an envelope to give her, money and a note.

Burning Chrome 215

Bobby really hadn't thought about that, much, how things -would go for her if we blew it. He just kept telling me he loved her, where they were going to go together, how they'd spend the money.

'Buy her a pair of Ikons first, man. That's what she wants. She's serious about that simstim scene.'

'Hey,' he said, looking up from the keyboard, 'she won't need to work. We're going to make it, Jack. She's my luck. She won't ever have to work again.' 'Your luck,' I said. I wasn't happy. I couldn't remember when I had been

happy. 'You seen your luck around lately?'

He hadn't, but neither had I. We'd both been too busy.

I missed her. Missing her reminded me of my one night in the House of Blue Lights, because I'd gone there out of missing someone else. I'd gotten drunk to begin with, then I'd started hitting Vasopressin inhalers. If your main squeeze has just decided to walk out on you, booze and Vasopressin are the ultimate in masochistic pharmacology; the juice makes you maudlin and the Vasopressin makes you remember, I mean really remember. Clinically they use the stuff to counter senile amnesia, but the street finds its own uses for things. So I'd bought myself an ultraintense replay of a bad affair; trouble is, you get the bad with the good. Go gunning for transports of animal ecstasy and you get what you said, too, and what she said to that, how she walked away and never looked back. I don't remember deciding to go to the Blue Lights, or how I got there, hushed corridors and this really tacky decorative waterfall trickling somewhere, or maybe just a hologram of one. I had a lot of money that night; somebody had given Bobby a big roll for opening a three second window in someone else's ice.

216 William Gibson

I don't think the crew on the door liked my looks, but I guess my money was okay.

I had more to drink there when I'd done what I went there for. Then I made some crack to the barman about closet necrophiliacs, and that didn't go down too well. Then this very large character insisted on calling me War Hero, which I didn't like. I think I showed him some tricks with the arm, before the lights went out, and I woke up two days later in a basic sleeping module somewhere else. A cheap place, not even room to hang yourself. And I sat there on that narrow foam slab and cried.

Some things are worse than being alone. But the thing they sell in the House of Blue Lights is so popular that it's almost legal.

At the heart of darkness, the still center, the glitch systems shred the dark with whirlwinds of light, translucent razors spinning away from us; we hang in the center of a silent slow-motion explosion, ice fragments falling away forever, and Bobby's voice comes in across lightyears of electronic void illusion - 'Bum the bitch down. I can't hold the thing back The Russian program, rising through towers of data, blotting out the playroom colors. And I plug Bobby's homemade command package into the center of Chrome's cold heart. The squirt transmission cuts in, a pulse of condensed information that shoots straight up, past the thickening tower of darkness, the Russian program, while Bobby struggles to control that crucial second. An unformed arm of shadow twitches from the towering dark, too late.

We've done it.

The matrix folds itself around me like an origami trick. And the loft smells of sweat and burning circuitry.

Burning Chrome 217

I thought I heard Chrome scream, a raw metal sound, but I couldn't have. Bobby was laughing, tears in his eyes. The elapsed-time figure in the corner of the monitor read 07:24:05. The burn had taken a little under eight minutes.

And I saw that the Russian program had melted in its slot.

We'd given the bulk of Chrome's Zurich account to a dozen world charities. There was too much there to move, and we knew we had to break her, burn her straight down, or she might come after us. We took less than ten per cent for ourselves and shot it through the Long Hum setup in Macao. They took sixty per cent of that for themselves and kicked what was left back to us through the most convoluted sector of the Hong Kong exchange. It took an hour before our money started to reach the two accounts we'd opened in Zurich. I watched zeros pile up behind a meaningless figure on the monitor. I was rich.

Then the phone rang. It was Miles. I almost blew the code phrase. 'Hey, Jack, man, I dunno—what's it all about, with this girl of yours? Kinda funny thing here .

‘What? Tell me.’

‘I been on her, like you said, tight but out of sight. She goes to the Loser, hangs out, then she gets a tube. Goes to the House of Blue Lights

‘She what?’

‘Side door. Employees only. No way I could get past their security.’

‘Is she there now?’

‘No, man, I just lost her. It’s insane down here, like the Blue Lights just shut down, looks like for good, seven

218 William Gibson

kinds of alarms going off, everybody running, the heat out in riot gear. . . . Now there’s all this stuff going on, insurance guys, real-estate types, vans with municipal plates . . . ’

‘Miles, where’d she go?’

‘Lost her, Jack.’

‘Look, Miles, you keep the money in the envelope, right?’ ‘You serious? Hey, I’m real sorry. I I hung up.

‘Wait’ll we tell her,’ Bobby was saying, rubbing a towel across his bare chest.

‘You tell her yourself, cowboy. I’m going for a walk.’

So I went out into the night and the neon and, let the crowd pull me along, walking blind, willing myself to be just a segment of that mass organism, just one more drifting chip of consciousness under the geodesics. I didn’t think, just put one foot in front of another, but after a while I did think, and it all made sense.

She’d needed the money.

I thought about Chrome, too. That we’d killed her, murdered her, as surely as if we’d slit her throat. The night that carried me along through the malls and plazas would be hunting her now, and she had nowhere to go. How many enemies would she have in this crowd alone? How many would move, now they weren’t held back by fear of her money? We’d taken her for everything she had. She was back on the street again. I doubted she’d live till dawn. Finally I remembered the cafe, the one where I’d met Tiger.

Her sunglasses told the whole story, huge black shades with a telltale smudge of fleshtone paintstick in the corner Burning Chrome 219 of one lens. ‘Hi, Rikki,’ I said, and I was ready when she took them off. Blue. Tally Isham blue. The clear trademark blue they’re famous for, ZEISS IKON ringing each iris in tiny capitals, the letters suspended there like flecks of gold.

They’re beautiful,’ I said. Paintstick covered the bruising. No scars with work that good. ‘You made some money.’

‘Yeah, I did.’ Then she shivered. ‘But I won’t make any more, not that way.’

‘I think that place is out of business.’

‘Oh.’ Nothing moved in her face then. The new blue eyes were still and very deep.

‘It doesn’t matter. Bobby’s waiting for you. We just pulled down a big score.’

‘No. I’ve got to go. I guess he won’t understand, but I’ve got to go.’ I nodded, watching the arm swing up to take her hand; it didn’t seem to be part of me at all, but she held on to it like it was.

‘I’ve got a one-way ticket to Hollywood. Tiger knows some people I can stay with. Maybe I’ll even get to Chiba City.’

She was right about Bobby. I went back with her. He didn't understand. But she'd already served her purpose, for Bobby, and I wanted to tell her not to hurt for him, because I could see that she did. He wouldn't even come out into the hallway after she had packed her bags. I put the bags down and kissed her and messed up the paintstick, and something came up inside me the way the killer program had risen above Chrome's data. A sudden stopping of the breath, in a place where no word is. But she had a plane to catch.

Bobby was slumped in the swivel chair in front of his

220 William Gibson monitor, looking at his string of zeros. He had his shades on, and I knew he'd be in the Gentleman Loser by nightfall, checking out the weather, anxious for a sign, someone to tell him what his new life would be like. I couldn't see it being very different. More comfortable, but he'd always be waiting for that next card to fall. I tried not to imagine her in the House of Blue Lights, working three-hour shifts in an approximation of REM sleep, while her body and a bundle of conditioned reflexes took care of business. The customers never got to complain that she was faking it, because those were real orgasms. But she felt them, if she felt them at all, as faint silver flares somewhere out on the edge of sleep. Yeah, it's so popular, it's almost legal. The customers are torn between needing someone and wanting to be alone at the same time, which has probably always been the name of that particular game, even before we had the neuroelectronics to enable them to have it both ways.

I picked up the phone and punched the number for her airline. I gave them her real name, her flight number. 'She's changing that,' I said, 'to Chiba City. That's right. Japan.' I thumbed my credit card into the slot and punched my ID code. 'First class.' Distant hum as they scanned my credit records. 'Make that a return ticket.'

But I guess she cashed the return fare, or else she didn't need it, because she hasn't come back. And sometimes late at night I'll pass a window with posters of simstim stars, all those beautiful, identical eyes staring back at me out of faces that are nearly identical, and sometimes the eyes are hers, but none of the faces are, none of them ever are, and I see her far out on the edge of all this sprawl of

night and cities, and then she waves goodbye.

Section 2

Business Communication

Unit 1. Rules of good writing

MODERN BUSINESS COMMUNICATION

Business communications can be written in a much more relaxed style than they were decades ago. Old-fashioned, longwinded jargon is out. You should aim to put across your message naturally, in a friendly, informal style. The secret of good writing is to use plain language as if you are having a conversation. This unit looks at some simple rules you should follow in order to ensure all your communications are effective.

Busy business people haven't got time to read long-winded documents. They welcome letters that are direct and to the point – but at the same time courteous. Save your reader's time by keeping your sentences short and simple. Shorten these sentences:

- Please be informed that our monthly management meeting will be held on Tuesday 28 August 200– in Training Room A.
- Please note that the fire alarms throughout the company will be tested next Tuesday 14 July 200–.
- I wish to advise you that Mrs Joanna Green is no longer with this department.
- Would you be so kind as to let me know when these goods can be delivered.
- I would like to remind you that petty cash claims should now be submitted to Alvin in Accounts Department.
- I am writing to inform you that our company's Annual Dinner and Dance will be held on Friday 28 December 200–.

2 Remember the KISS principle

Keep it short and simple – that means short sentences and simple words. Don't try to impress your reader with big words – they will not be impressed – they will just have to reach for the dictionary. Choose short words instead of these, and choose one word instead of these phrases: commence _____ utilize _____ terminate _____

purchase _____ dispatch _____



words.
be
Choose
these

ascertain _____ come to a decision _____ in the event that
 _____ give consideration to _____ under _____ separate cover
 _____ despite the fact that _____ in the near future

 at the present moment in time _____

Checkpoint



Split into groups and make a list of some more long words that are commonly used in today's business writing – and then decide on their modern-day equivalent.

Did you know?



The Plain English Campaign has a great website at www.plainenglish.co.uk. They have given me permission to reproduce their A–Z of Alternative Words and you can find the full list in the Appendix on page 399.

3 Use active not passive voice

‘Voice’ refers to the relationship of a verb to its subject.

Active voice means that the subject of the sentence does the action of the sentence. Passive voice means that the subject of the sentence receives the action. For example:

Passive	The study was completed by the marketing director.
Active	The marketing director completed the study.
Passive	Separate requisitions should be prepared by each buyer.
Active	Each buyer should prepare separate requisitions.

Change these sentences from passive to active voice:

- 1 Your goods will be sent by us within the next 14 days.
-

- 2 The violin was played by Tim.
-

- 3 The faulty wiring was fixed by the electrician.
-

- 4 The business writing workshop will be conducted by Shirley Taylor.
-

- 5 The investigation has been concluded by our client, and the paperwork has been signed.
-

Remember



Use active voice in your writing. This is more alive, more focused, more personal – much more interesting and clear.

Is passive voice ever appropriate?

Yes, there are some occasions when passive voice would be more appropriate.

- It may be better to make a particularly important noun the subject of the sentence, thus giving it extra emphasis. For example it would be better to say:

Our restaurant has been recommended by all the leading hotels in Singapore.

This emphasizes ‘our restaurant’, rather than:

All the leading hotels in Singapore recommend our service.

- When you want to place the focus on the action, not the actor. For example:

The noise was heard all over the island.

Here, the emphasis is on the noise, not the people who made the noise.

- When you want to hide something or when tact is important. For example:

An unfortunate mistake was made.

4 Use the right tone



You alter the tone of your voice to convey messages in a different way. Similarly written communications may be worded so that they sound polite, friendly, firm, bossy, sarcastic, condescending, even rude. If you use the wrong tone in a written communication you could cause real offence to your reader.

Even if you feel angry or frustrated, try not to vent your emotions in writing. Your objectives will be achieved only with carefully considered and appropriate wording.

Study the following expressions and choose an alternative way of saying the same things more tactfully.

You have deliberately failed to reply to X (too emotive) my letter.

..... ✓

We cannot do anything about your X (too abrupt) problem. Try calling a plumber.

..... ✓

Your interview will be held on X (too bossy)
Wednesday 28 August at 1400.

..... ✓

The problem would not have happened X (too condescending)
if you had connected the wires properly in the first place.

..... ✓

Your computer's guarantee has expired X (too blunt) so you will have to pay for it
to be repaired.

..... ✓

It's not our fault that your curtains faded. X (too sarcastic) You obviously didn't
read the instructions about dry cleaning only.

..... ✓

5 Use modern language

The main rule of writing today is to write as you speak. If you find yourself writing something that you would not say to the person if you were having a conversation, then you should not be writing it either.

Replace these sentences with modern business language:

- 1 The above-mentioned goods will be despatched to you today.
-

- 2 Please find enclosed herewith a copy of our new catalogue.
-

- 3 Following my telecon with your goodself this morning.
-

- 4 I should be grateful if you would be good enough to advise me ...
-

- 5 I am afraid that we are unable to accede to your request due to the fact that your contract has lapsed.
-

Weblink



<http://www.write101.com>

Articles on all aspects of writing.

www.shirleytaylor.com



Great-grandfather is dead!

In my workshops I always joke about ‘great-grandfather writing’ and wonder why so many young people still use so many old-fashioned expressions. I tell people regularly that we should keep our business writing simple (KISS) and use everyday language that everyone understands.

www.shirleytaylor.com *continued*

The reason for this was brought home to me recently when a friend sent me this e-mail that he had received from his accountants:

Dear Mr. Johnson

Thank you for your e-mail of even date.

For the audit of Turner Communications Pte Ltd, kindly furnish us a copy of the company's Balance Sheet, Expenses statements and all the invoices/bills (incorporation and legal fees, etc.) paid by the holding company to our office at the earliest.

We will revert to you on the treatment of the Intangible Asset and the financials of Turner Communications Inc. as soon as possible.

Should you have any queries, please do not hesitate to contact us.

Best regards

Bernard Williams

What a load of gobbledegook and long-winded jargon! I knew people were still writing in an old-fashioned way, but it seems some people take this a little further than most – and this message just proves it!

In twenty-first century business language, this message should read:

Dear Mr. Johnson

Thank you for your e-mail today.

For the audit of Turner Communications Pte Ltd, we will need a copy of the company's Balance Sheet, Expenses statements and all the invoices/bills (incorporation and legal fees, etc.) paid by the holding company. Please send these to me as soon as possible.

I will be in touch with you soon on the treatment of the Intangible Asset and the financials of Turner Communications Inc.

Please give me a call on xxxx if you have any questions.

Bernard Williams

What's wrong?



Discuss the following letter in groups. Identify all the old-fashioned boring clichés, then rewrite the letter to keep in your files. Use simple modern business language, with short and concise sentences. Use twenty-first century business writing.

Dear Sirs,

We have received your letter dated 27th March 200-.

We are extremely distressed to learn that an error was made pertaining to your esteemed order. Please be informed that the cause of your complaint has been investigated and it actually appears that the error occurred in our packing section and it was not discerned before this order was despatched to your goodself.

Arrangements have been made for a repeat order to be despatched to you immediately and this should leave our warehouse later today. It is our sincere hope that you will have no cause for further complaint with this replacement order.

Once again we offer our humblest apologies for the unnecessary inconvenience that you have been caused in this instance.

Please find enclosed herewith a copy of our new catalogue for your reference and perusal.

Kindly contact the undersigned if you require any further clarifications.

Very truly yours,

Zachariah Creep & Partners

Remember



When you are writing, ask yourself whether you would say this if you were speaking. Eliminate useless jargon by writing as you would speak.

JARGON OR GOBBLEDEGOOK

Jargon can seriously get in the way of business if no-one understands what people are talking about, or what they are writing about! I'm sure you have often come across messages that leave you feeling very confused, right? This problem happens when people use pompous or long-winded wording and phrasing to try to impress rather than to communicate. Yet really, the end result is that they do neither of these things!

Abbreviations are another thing. I read an article about someone who was making a speech and he mentioned HE (Higher Education). A member of the audience (a qualified engineer) asked 'Why are you talking about High Explosives?' Sure, the context often helps to explain the correct meaning of such abbreviations, but it shouldn't be relied on. So as a general rule, always explain abbreviations when you first use them.

Using jargon can result in one of two things – the reader will get bored and stop reading, or will spend a great deal of time trying to figure out what you meant four sentences ago!

Do you know any writers who sometimes concentrate so hard on what they want to say that they become absorbed in their impressive flow of wonderful words instead of talking in everyday language that the reader will understand? Take a look at these before and after examples found on the www.plainenglish.co.uk website:

Before If there are any points on which you require explanation or further particulars we shall be glad to furnish such additional details as may be required by telephone.

After If you have any questions please call.

Before High-quality learning environments are a necessary precondition for facilitation and enhancement of the ongoing learning process.

After Children need good schools if they are to learn properly.

Before It is important that you shall read the notes, advice and information detailed opposite then complete the form overleaf (all sections) prior to its immediate return to the Council by way of the envelope provided.

After Please read the notes opposite before you fill in the form. Then send it back to us as soon as possible in the envelope provided.

Weblink



<http://www.weaselwords.com.au/index3.htm>

Weaselwords. An interesting site discussing contemporary clichés and management jargon.

www.shirleytaylor.com

Effective proofreading

Have you ever proofread a letter, leaflet or information sheet 20 times, then printed out 10,000 copies . . . only for someone to look at it and point out a glaring error? Yes, I guess we've all been there, done that! If you are responsible for proofreading important documents (and aren't *all* documents important?) then here are my tips for effective proofreading:

- 1 Avoid distractions. It's best to proofread in a quiet environment, with no disturbances such as phones, background conversation, etc.
- 2 Read the work out loud. Using proper intonation will help you to spot faulty sentence construction and bad punctuation and grammar.
- 3 Concentrate on reading one word at a time. This takes practice. It's fairly common to skim over the words when we read normally. Try to make a conscious effort to stare at each word in turn. This isn't as slow as it sounds – it's just a different reading technique.
- 4 Be methodical – read one line at a time. Use a ruler to guide your eyes so that you don't miss the odd line.
- 5 Take a break occasionally. Especially with longer documents, you need a break now and again. Everyone loses concentration after a while, so set a time limit and then take a break.
- 6 Remember to look also for inconsistencies in style and presentation, such as headings that suddenly switch from capitals to lower case, or a change in font or spacing.
- 7 Leave a decent period of time between writing and proofreading the work. Reading with a fresh approach will help you to spot more mistakes.
- 8 Print out a hard copy for the final proofreading. Somehow we always manage to miss a few errors if we rely on proofreading on screen.
- 9 Keep your knowledge of punctuation and grammar up-to-date. Unless you know what is correct, you cannot spot mistakes.
- 10 Ask someone else to do a final check of important documents – we tend to be able to find other people's mistakes much more easily than our own!

What's wrong?

Read the following assignment and then study the answer given. It is not satisfactory for several reasons. Discuss the faults and then rewrite the answer correctly.

You work for Mr. Michael Harrison, Sales Director of Eastwood Electrical Pte Ltd, 22 Orchard Road, #03–11 Lucky Towers, Singapore 343234. The company sells a wide range of electrical equipment. Mr. Harrison received a letter from Mr. Gordon

What's wrong? continued

Paterson of 21 Bukit Sedap Road, Singapore 104928 complaining that a DVD recorder which he bought last month is not working properly. Mr Harrison talks to you about this matter. He says:

'We'd better reply to Mr Paterson's letter. It's the DVD20 Deluxe that he's complaining about. I think we'd better send one of our Technicians round to his place to check out the machine. Speak to Brian would you, and see what's the best time for him to go round some time next week. Tell Mr Paterson that I find the failure of the machine most disturbing. Something like this really shouldn't happen you know, when the products we sell are thoroughly checked out before they leave the shop. Then again, we can never be sure they've followed the instructions in the booklet correctly can we? Remember Mrs Cheong last month? It turned out that she hadn't connected the wires properly! Anyway Brian will sort it out for him when he calls and see if it's something simple which he can fix on the spot. If it really is defective, we'll give the customer a replacement immediately of course. You'd better ask him to call Brian if the appointment isn't good for him, and quote his extension number. Finish with the hope that it's resolved all right, but tell him to contact me if there's any further problem.'

What's wrong with the answer?



EASTWOOD ELECTRICAL PTE LTD

22 Orchard Road
#03-11 Lucky Towers
Singapore

MH/by

Gordon Patterson
21 Bukit Sedap Road
Singapore 104928

Dear Mr Gordon

Your letter complaining about your faulty DVD20 was received by us today. We will be sending one of our technicians, Brian Lee to check out the fault next Wednesday afternoon.

The failure of the machine is very disturbing. This really shouldn't happen when our machines are checked before they leave our shop. I wonder if you've followed the instructions in the book properly?

Anyway Brian will see if it's something which can be fixed on the spot or if it's defective we'll replace you with a new DVD.

Hope it's resolved satisfactorily but if not please give me a call.

Yours faithfully

Michael Harrison
Sales Director

Checkpoint



Decide whether the following statements are true or false. When a statement is false, discuss what is correct.

- | | |
|--|------------|
| 1 Long words should be used in letter-writing. | True/False |
| 2 'Yours sincerely' should be used when beginning 'Dear Sir'. | True/False |
| 3 AB/FTR is a postal code in the UK. | True/False |
| 4 Continuation sheets should show the page number. | True/False |
| 5 Unnecessary information should not be included in business letters. | True/False |
| 6 Long sentences are preferable because they make things clearer. | True/False |
| 7 A letter that begins 'Dear Mary' will end 'Yours faithfully'. | True/False |
| 8 pp is used when you forget something and have to add it at the end of a letter. | True/False |
| 9 Ms is used when you are writing to more than one woman. | True/False |
| 10 cc means carbon copy. | True/False |

What's wrong?



Study the following assignment and the answer given. Discuss what is wrong with the answer shown and then rewrite it correctly.

The Personnel Officer of Design and Production Ltd, Olympia Works, Cirencester, CR2 3BW, has received a letter from the Careers Adviser, Ash Tree Upper School, Ash Lane, Gloucester GL1 2JQ requesting assistance in arranging periods of work experience for sixth form students following a course in Business Studies.

You have been asked to draft the letter which the personnel officer will send in reply to this request. Using the notes given below, draft the letter:

Regret not possible at present.

Management recognises importance of work experience; MD investigating suggestions put forward by Personnel Dept; if scheme can be worked out, it will be implemented asap.

List of schools and colleges wishing to be included being compiled –

Ash Tree Upper to be included; unlikely that everybody can be accommodated this year.

What's wrong with the answer?



DESIGN AND PRODUCTION LTD
Olympia Works
Cirencester CR2 3BW

21 September

Careers Adviser
Ash Tree Upper School
Gloucester
GL1 2JQ

Dear Sir/Madam

ASSISTANCE IN PROVIDING PERIODS OF WORK EXPERIENCE

I regret it is not possible at the moment to accede to your request.

The management of this company recognises the importance of work experience and the Managing Director is investigating suggestions put forward by me. If a scheme can be worked out, we will implement it soon. Lists of schools and colleges wishing to be included is presently being compiled – Ash Tree Upper to be included.

It is unlikely everybody can be accommodated this year though.

Please let me know if you have any queries.

Yours faithfully

MRS LUCINDA TUMALE
Personnel manager



COMPOSING LETTERS – KEY POINTS TO REMEMBER

1 Use short sentences

Short sentences will keep your meaning clear and ensure easier understanding.

2 Choose simple words

Simple words will convey your message more clearly. The use of unaffected language will help you to achieve the right tone.

3 Avoid wordiness

Choose words with care and be economical while remembering the need for courtesy.

4 Use an appropriate tone

Choose a tone to suit the reader and the subject matter. You can be firm or friendly, persuasive or conciliatory – it depends on the impression you wish to convey. Failure to adopt an appropriate tone will mean that the reader's attention is attracted more to how it is worded than to what is being said.

5 Be precise

Your letter should be long enough to serve its purpose, but no longer.

6 Ensure accuracy

Double check all figures, dates, numbers and prices, as well as spellings, punctuation, tenses, word endings, etc.

7 Check consistency

Ensure consistency of presentation (fully-blocked style with open punctuation) as well as consistency of expression (I, We, etc.).

8 Use your initiative

Ensure the reader knows everything. Instead of 'next week', state a day and date. If an overseas visit is planned give the time of arrival and flight number.

9 Use active not passive voice

Active voice makes your writing more alive and interesting, more specific and clear, and it also makes your sentences shorter.

10 Write as you would speak

Use everyday language as if you were having a conversation.

A-Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: D



Dated

When replying to a letter, do not say ‘Thank you for your letter dated on . . .’. The correct expression is ‘Thank you for your letter dated . . .’ or ‘Thank you for your letter of . . .’. We should not say ‘dated on’.

Discuss

It is not grammatically correct to say ‘I want to discuss about . . .’. The word *discuss* means *to talk about*, so if you say *discuss about*, you are really saying *talk about about*. The same applies when you use the word *mention*. Say ‘Mary mentioned the poor weather recently’. Cut out the *about*!

Due to the fact that

This is a wordy expression and can simply be replaced by ‘As’ or ‘Since’ or ‘Because’.



IN THE BIN: D

during the period from
duly



HELP YOURSELF

Identify and correct the errors in these sentences.

- 1 The new catalogue, that was published last month, shows details of all our new models.
- 2 Mr. John Tan, our Sales Manager will visit you next Monday.
- 3 We have five different models all with their own special features.
- 4 Although I agree with your points in general, but there are a few points I would like you to explain.
- 5 I would like to see you, however I am busy in meetings tomorrow.
- 6 Thank you for your lunch yesterday, it was great to see you again.
- 7 As per our discussion I would need 15 minutes for my presentation.
- 8 Susan King, who has recently been appointed as new CEO will address the conference next week.
- 9 We need to improve the corporate image, therefore we are employing special consultants for advice.

- 10 The company has decided to change it's corporate logo.



TEST YOURSELF

- 1 Keep it short and simple

- (a) Choose a simple way of saying:
expedite ascertain individuals
locality kindly transmit
insufficiency advise materialise the
above-mentioned
- (b) Choose one word instead of these phrases:
at an early date until such time as
during the course of in connection
with despite the fact that for the
purpose of on the occasion of in the
very near future on the grounds that
prior to, previous to
- (c) Choose one word instead of these repetitious phrases:
absolutely complete enclosed
herewith basic fundamentals
repeat again visible to the eye first
and foremost future plans collect
together reduce down actual truth

- 2 You work as an assistant to Mr. Fadzil Malakoff, the Manager of *JEG Products*, a manufacturing company in Kuala Lumpur, Malaysia. Mr. Malakoff has shown you this letter he has just received.

METROVILLE COLLEGE Lorong Mambong Kuala Lumpur Malaysia	
The Manager JEG Products 57 Jalan Kuning Kuala Lumpur Malaysia	(yesterday's date)
<p>Dear Sir or Madam</p> <p>I am a student in the Department of Business Studies and I am doing a project on local businesses.</p> <p>I would be very grateful if I could visit your company. I am interested in finding out such things as:</p> <ul style="list-style-type: none"> • the size of the company (number of employees) • the market in which you operate • your range of products • your pricing strategy • your plans for the future <p>I am free every afternoon next week. Thank you for your help.</p> <p>Yours faithfully Anita Lai Anita Lai</p>	

Mr. Malakoff says this to you:

Yes, I don't mind meeting this student. I like to maintain a good contact with Metroville College – some of our best employees have studied there.

I can certainly say something about our size, our products and our market. I'm sure the students will realize that I can't say much about our pricing strategy and our plans for the future, as this is confidential. You could suggest that they might like to visit our new website (www.jegprod.com) as a lot of information is there.

Please check my diary and see which afternoons I am free next week. Choose one free time and ask them to come along to our main reception at 2 o'clock.

This is Mr. Malakoff's diary for the afternoons next week.

Monday	Free
Tuesday	Operations Committee Meeting
Wednesday	Interviews – new Production Staff
Thursday	Free

Friday

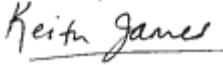
Meeting with Finance Director

Task

Write a letter to the student in Mr. Malakoff's name. (LCCIEB EFB1 style)

- 3 You work for Mr. Rashid Hassan, Office Manager of Langland Manufacturing, Freeman Industrial Estate, Pitt Lane, Portsmouth, Hampshire PO13 7JJ. The company makes household furniture. (LCCIEB EFB2 style)

Mr. Hassan has just received this letter and has asked you to draft a reply to it.

<p>MANTLES STORES 261 Milburn Road Heaton Newcastle upon Tyne NE6 5KA</p> <p>Telephone: 0191 444 7656 Fax: 0191 444 7777</p> <p>KJ/PL/702</p>	<p>25 June 200-</p> <p>Mr Rashid Hassan Office Manager Langland Manufacturing plc Freeman Industrial Estate Pitt Lane Portsmouth Hampshire PO13 7JJ</p> <p>Dear Mr Hassan</p> <p>As you may know, we are one of the largest chains of furniture stores in the North of England. We are now planning to expand and open a number of stores in the South of England, including one in the Portsmouth area.</p> <p>We usually try to buy our furniture from local suppliers and I thought it would be useful for both of our companies if we could meet to consider whether you could supply us with some of our furniture, particularly dining tables, chairs and carpets.</p> <p>I shall be visiting the South of England soon. I shall be in London on 19 July and shall be staying there overnight. If it is convenient I would like to come down to Portsmouth on the 20th to meet you and visit your factory.</p> <p>I hope to hear from you soon.</p> <p>Yours sincerely</p> <p> Keith James Chief Buyer</p>
--	---

Mr. Hassan says to you:

Please prepare a reply to Mr. James and tell him we'd be delighted to meet him and show him our factory. Please ask him how he is going to travel from London to Portsmouth on 20 July. If he's coming by train we can arrange for someone to meet him at the railway station. If he's driving here

we will send him a map so that he will be able to find us. If he can arrive mid-morning he can visit the factory and see what we make. We can then talk about a deal over lunch. Let him know that we make a wide range of dining tables, chairs and cabinets and send him our latest catalogue.

Say how pleased we were to hear from him.

- 4 Cedars Hospital opened 50 years ago and the management of the hospital is organising a special anniversary celebration. On 20 December this year the Minister of Health from the national government will visit the hospital to open the new children's ward, and many people who were involved when the hospital opened 50 years ago have been invited.

When the hospital opened, the Chief Nursing Officer was Miss Freda Stills. Miss Stills did a great deal to help set up the excellent nursing department, for which the hospital has become famous.

Miss Stills died many years ago, and had no children of her own. In fact, she does not seem to have any surviving family. However, a man in the area has given the hospital the name and address of someone who now lives in the United States of America. He says this woman is a relative of Miss Stills; he thinks it is her great-niece.

The Hospital Manager, Mr. Ashid Khan, has asked you to write to this person. He says he would be delighted if she could attend the celebration in December. The local newspaper would be prepared to pay for her travel expenses if she will give them an interview about Miss Stills.

Mr. Khan has asked you to check that she is a relative of Miss Stills and say how much he would like her to attend the celebration.

The name and address of the person who is believed to be Miss Stills's greatniece is:

Mrs Carmen Ramez, 416 Lincoln Highway, Lancaster, Pennsylvania 17311, USA.

Cedars Hospital address is Western Road, Newtown.

Task

Write the letter to Mrs Ramez. (LCCIEB EFB2 style)

- 5 You are employed in the offices of a shop, *Central Stores*, which sells household items. The shop manager, Mrs Theresa Jerome, shows you this letter she has just received from one of the shop's suppliers.

You investigate this complaint and find that this order was delivered as Mr. Chen has said. There was a mix-up in the Finance Department and the letter should have gone to a company called *Brighton Pans*, about their order BP/46/ 5 a – that order has not been delivered.

Mrs Jerome tells you to write to Mr. Chen to apologise for the confusion. She asks you to thank him for reliable service and assure him that this mistake will not happen again.

Task

Write the letter. (LCCIEB EFB2 style)

BRIGHTER PANS

Mandela Boulevard BRIDGETON

Ref: CH/SK/9

Date: (date)

Mrs T Jerome
Manager
Central Stores
Western Way
River City

Dear Mrs Jerome

ORDER NUMBER BP 47/4a

I was very surprised and disappointed to receive your recent letter, in which you claim that we have not delivered the latest order of non-stick saucepans (order number BP 47/4a). In fact, this order was delivered two weeks ago and was signed for in your Goods Received Department by Mr. Paul Dean.

We have been pleased to supply you with our top quality saucepans for many years and we pride ourselves on our prompt delivery. Please confirm you have received this order.

Yours sincerely

Chen Lee Hong

Chen Lee Hong
Sales Manager

Unit 2

Fax

LEARNING OUTCOMES

After studying this unit you should be able to:

- List the different documents that may be sent via fax
- Describe the procedure to follow in sending a fax message
- Design fax headed paper including all essential components
- Compose fax messages
- State the main points to remember when dealing with fax messages

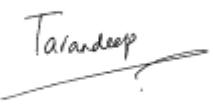
FAX MESSAGES

A fax machine is a relatively inexpensive – and most would agree essential – item of equipment for any business. Fax transmits and receives any kind of message – handwritten, printed, word-processed; maps, messages, diagrams, photographs. It takes only seconds to transmit a fax message, depending on the length of the document.



Sending messages by fax is a popular choice today due to its versatility and speed. Fax is often used between divisions or branches of the same company instead of telephone or memos. Business letters are frequently either sent by fax or replaced by fax messages.

Most companies use a special fax letterhead for fax messages. This fax headed paper is often used with just a brief covering note explaining an accompanying document. The salutation and complimentary close are normally omitted but the message will generally be signed.

 ST International plc																				
Facsimile message																				
<hr/> <table border="0"> <tr> <td>To:</td> <td>Classified Ads, Daily News</td> <td>Fax:</td> <td>3371917</td> </tr> <tr> <td>From:</td> <td>Tarandeep Kaur</td> <td>Date:</td> <td>19 August 2000</td> </tr> <tr> <td>Subject:</td> <td>Advertisement for Secretary</td> <td>Pages:</td> <td>2</td> </tr> <tr> <td>Copy:</td> <td>---</td> <td colspan="2"></td> </tr> <tr> <td colspan="4"> <input checked="" type="checkbox"/> Urgent <input type="checkbox"/> For Review <input type="checkbox"/> Please Comment <input type="checkbox"/> Please Reply <input type="checkbox"/> Please Recycle </td> </tr> </table> <hr/>	To:	Classified Ads, Daily News	Fax:	3371917	From:	Tarandeep Kaur	Date:	19 August 2000	Subject:	Advertisement for Secretary	Pages:	2	Copy:	---			<input checked="" type="checkbox"/> Urgent <input type="checkbox"/> For Review <input type="checkbox"/> Please Comment <input type="checkbox"/> Please Reply <input type="checkbox"/> Please Recycle			
To:	Classified Ads, Daily News	Fax:	3371917																	
From:	Tarandeep Kaur	Date:	19 August 2000																	
Subject:	Advertisement for Secretary	Pages:	2																	
Copy:	---																			
<input checked="" type="checkbox"/> Urgent <input type="checkbox"/> For Review <input type="checkbox"/> Please Comment <input type="checkbox"/> Please Reply <input type="checkbox"/> Please Recycle																				
<p>Further to our telephone conversation, I would like the attached advertisement to be placed in 'Secretarial Vacancies' on 29 August.</p> <p>Please fax proof for approval as soon as possible.</p> <p style="text-align: center;">  <i>Tarandeep</i> </p>																				
<hr/> <p> ST International plc Aurora House, Temple Street, London SE1 4LL</p> <p>Tel 0207 345375 Fax 0207 453678 E-mail shirley@shirleytaylor.com Mobile 09890 333444 Website www.shirleytaylor.com</p> <hr/>																				

Checkpoint



Bring in some of your organisation's fax headed paper to show to your fellow students.

If you have to compile your own fax headings, the following layout is suggested:

<p>Use letterheaded paper</p> <p>Insert main heading 'FAX MESSAGE'</p> <p>The details here are important so use these standard headings</p> <p>Remember to include the number of pages being sent</p> <p>A salutation may be included before the heading if preferred</p> <p>Structure the body exactly as you would a business letter</p> <p>A complimentary close is not necessary</p>	 <p>ST International plc Aurora House Temple Street London SE1 4LL</p> <p>Tel 0207 345375 E-mail shirley@shirleytaylor.com Fax 0207 459678 Website www.shirleytaylor.com Mobile 09890 333444</p> <p>F A X M E S S A G E</p> <p>To Iris Tan, Regional Manager Company Aurora International (Asia) Ltd Fax No 00 65 25330099 From Michael Ng, Director - Conferences Ref MNIST Date 15 June 200— No of Pages 2</p> <p>VISIT TO SINGAPORE/MALAYSIA</p> <p>Sophia Lee, Director of Asia Training Enterprises, has invited me to chair the 10th Annual Malaysian Secretaries Conference at the Mandarin International Hotel in Kuala Lumpur on 11/12 August.</p> <p>I am therefore rearranging the schedule for my forthcoming trip to Singapore so that I spend a few days in Malaysia before flying down to Singapore on Monday 14 August. My flights are confirmed and a copy of my itinerary is enclosed.</p> <p>I hope all the arrangements for the Regional Conference in Singapore are going smoothly. Please let me see a copy of your proposed programme soon together with a list of materials you want me to bring from London.</p>
--	--



DEALING WITH FAX MESSAGES – KEY POINTS TO REMEMBER

- 1 Use fax to send a printed copy of any document, especially diagrams and illustrations.

- 2 Prepare the message on the company's standard fax template where one exists.
- 3 Make up a fax letterhead if necessary, including headings like To/From/Date/ Fax Number/No. of pages/Copy to/Date.
- 4 Do not use a salutation or complimentary close on fax messages.
- 5 Use the same techniques when writing a fax message as you would a business letter.
- 6 Remember numbers or bullets if this would help your display.
- 7 Sign the fax in the usual way.
- 8 Send a cover fax with an accompanying document, and remember to indicate the number of pages being sent in total.
- 9 Key in the fax number correctly.
- 10 Keep a copy of important documents.

Weblink



<http://www.writerswrite.com/buscomm/>
Writers Write.
Articles and resources on business writing.



A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: F,G

Fetch

See Bring and fetch, p. 64.

Fewer/less

Fewer relates to number. Less relates to quantity. For example:

My friend Joe has much less hair than Douglas. Joe has fewer carpets than Douglas.

Fill up

To fill up means filling up something that is empty with something else, like filling up a glass with water. If you are referring to a form, you fill in a form (British English) or fill out a form (American English).

Gobbledygook

Gobbledygook is writing that is bombastic, pretentious, stuffy and long-winded. It is writing that attempts to sound official or formal. Take a look at this letter from an accountant – it is full of gobbledegook. All the long-winded words and phrases are highlighted in red:

Dear Mr. Johnson

We have received your e-mail of even date.

For the audit of Turner Communications Pte Ltd, kindly furnish us with a copy of the company's balance sheet, expenses statements and all the invoices/bills paid by the holding company at your earliest convenience.

We will revert to you on the treatment of the intangible assets and the financials of Turner Communications Inc as soon as possible.

Should you have any queries, please do not hesitate to contact us.

Best regards Bernard Williams

Goodself

This is so old-fashioned. Please do not use this word in your writing.

Grammar

Too many people still spell this word as grammer. There is no such word as grammer – it's grammar.



IN THE BIN: F, G

for all intents and purposes for my part
frankly

give this matter your attention
going forward



HELP YOURSELF

Identify and correct the errors in these sentences.

- 1 When you go to Robinsons, will you please return back this blouse for me.
- 2 The workshop will be held between 9 am to 5.30 pm.
- 3 Sherran said she was very boring in the lecture.

- 4 My luggages are in the boot of John's car.
- 5 All the new equipments are being delivered tomorrow.
- 6 Either of the applicants are suitable for this new position.
- 7 Looking forward to see you at next week's meeting.
- 8 The company's football team are playing well this season.
- 9 Although I didn't think it was possible, but I still passed my exam. **10** Running to catch the bus, the car hit me.

TEST YOURSELF

- 1 You work for Kwik-Print plc and have received instructions to print business cards for Miss Fouzia Suki, Personnel Manager at Trendsetter Training College. The artwork has been prepared but you need to obtain approval from Miss Suki. Compose a fax, leaving space for the business card to be illustrated. Include a simple form at the foot which Miss Suki may sign and fax back to you if the design is approved.
- 2 You work for the managing director of Stanfield Engineering who is presently visiting clients of your company in the Caribbean. During his absence you receive two important quotations for major office renovations. You know that your employer wants work to commence urgently on these renovations but he is not expected back for some time. Send him a fax message at his hotel, enclosing the quotations, and ask for his instructions.
- 3 You are Administrative Assistant (AA) to Anu Morar, Personnel Manager of First State Bank of India, 67–94 High Street, New Delhi, India. Mrs Morar has meetings throughout the day and she has left some work for you. Follow her instructions in this note. (City & Guilds EFBC1)

AA

I've received this memo from Ravi Singh. Please send a fax to our usual recruitment agency (their card is attached) asking them to find 3 suitable candidates we can interview – give them full details of Ravi's requirements.

Thanks

Anu

Message:

As you know, our very reliable, long-serving Accounts Clerk, Mrs Minhas, is retiring at the end of the month. We need a replacement as soon as possible – preferably before she leaves so she can train the new person. The basic requirements of the job are:

- * good mathematical skills
- * good IT skills

- * ability to communicate with a range of people

it would also be desirable for her replacement to

- * speak good English
- * be prepared to work some evenings and weekends



- 4 You are Personal Assistant (PA) to Tim Variant, General Manager of Creative Gifts, Preston Road, Cork, Eire. Follow the instructions in this note from Mr. Variant. (City & Guilds EFBC2)

Taj Silks

1873 Main Street
NEW DELHI
INDIA

TEL: 009911 334 2457
FAX: 009911 334 2458

FAX TRANSMISSION HEADER SHEET

To: Tim Variant – General Manager

Company: Creative Gifts

Fax No: 010 6718 04524

From: Mr S Javatilala – Sales Manager

PA

Please write a letter for me to sign expressing our interest – see my notes for details of what to include.

Thanks
Tim

Could we have a catalogue and price list?

We'd need details of quality

MESSAGE:

We understand you purchase articles from abroad, which you sell through various outlets in Europe. We manufacture a large range of exclusive silk goods, which we sell at attractive prices and are also pleased to give discounts for large orders. Please let us know if you would be interested in purchasing any of our products.

Our buyer would have to visit their premises before we could make any decision

Who else in Europe do they supply at present?

- 5 You are Personal Assistant (PA) to Tim Variant, General Manager of Creative Gifts, Preston Road, Cork, Eire. Follow the instructions in this note from Mr. Variant. (City & Guilds EFBC2)

PA

Please send an urgent fax in reply – some of the goods were eventually to be delivered to England anyway, so suggest they now take container to a depot with a dry warehouse in Bristol where we could arrange for UK goods to be taken out. We'd have to send one of our warehousemen over to supervise this. He could then arrange UK deliveries and then remaining goods could come on here on next week's ship. Obviously, we'd expect them to cover the cost of warehouse facilities and our employee's flights. Express our disappointment with Tim

FAX TRANSMISSION HEADER SHEET

To: Tim Variant – General Manager – Creative Gifts
Fax No: 010 6718 04524 **From:** Jeremy Brewer – Shipping Manager
Date:

No. of sheets: (including header sheet): 1

Message:

Spania plc

Riverview House Woolwich LONDON SE8 6EN UK TEL: 010 850 0145 FAX: 010 850 0146

Re: Container CTNU 634978 – loaded with woolen goods from New Zealand.

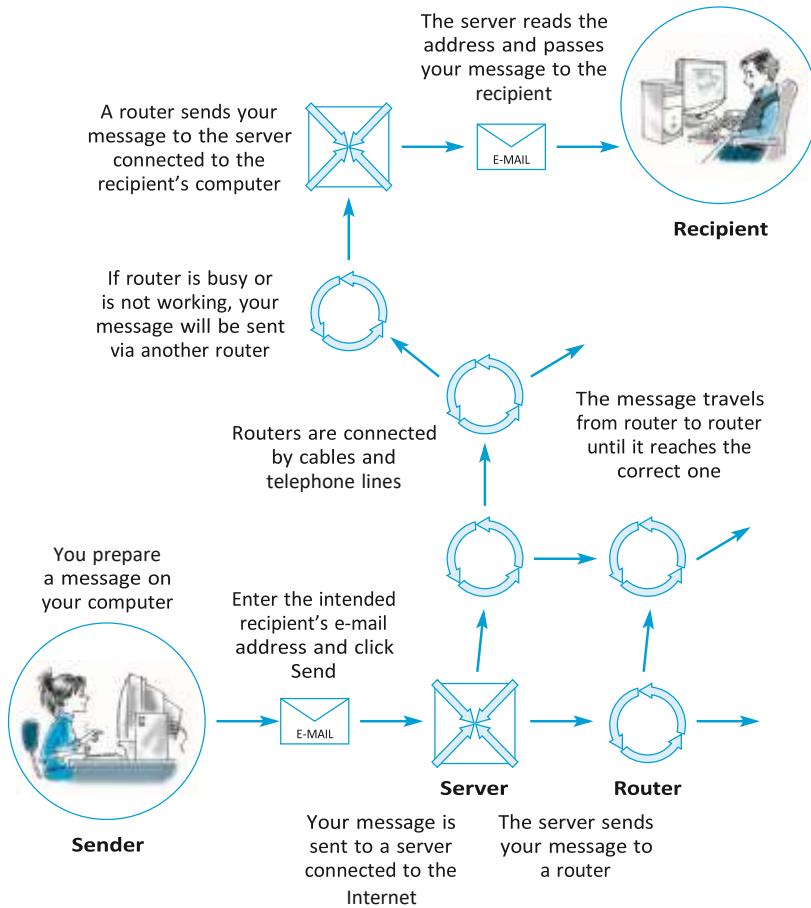
We very much regret to inform you that the above mentioned container has been unloaded in Bristol, England in error. We realize that you were expecting it in Cork, Eire tomorrow, but will not be able to ship it to Eire until next week. Please accept our apologies and let us know if you have any special instructions regarding its delivery when it arrives in Cork.

THE EVOLUTION OF E-MAIL

Businesses today operate in a highly competitive market in which high-speed communication and information transfer is essential. Most of the activities in today's offices are electronic, using computer-based technology. Electronic mail, or e-mail as it is commonly known, has evolved as an effective, low-cost and instant method of communication with friends and colleagues all over the world.

With e-mail, messages are keyed into a computer workstation and then transmitted to the recipient. A single message may be sent simultaneously to many recipients.

The following diagram shows how an e-mail message is sent across the world via the Internet.



ADVANTAGES OF E-MAIL

E-mail saves a lot of time and effort in producing formal, printed memos, faxes and letters. Many e-mail messages are short and may be deleted after a few days or weeks. With longer or more important messages, they may be retained on the electronic file or printed out as a hard copy. Some advantages of e-mail are:

- high speed send/receive cycle;
- direct input and retrieval from keyboard;
- virtually instant dispatch/retrieval;
- simultaneous circulation to pre-selected groups;
- other files can be attached to e-mails.

Checkpoint



There are also several pitfalls to using e-mail. In groups, make a list of the pitfalls and consider how they can be overcome.

Remember



Once your message is sent, it may be read by the recipient within seconds. Have some respect for your reader and make sure it is right before you click 'send'.

E-mail is quick and easy to use, but this should not be an opportunity to forget all the basic rules of good business writing. In business use, try not to use abbreviations which you may use when e-mailing personal friends.



Checkpoint



Many abbreviations like BFN (bye for now) and PCM (please call me) are used in personal e-mail messages. Discuss other abbreviations that you have seen or used.

The way people use e-mail reveals quite a lot about us. People who are openminded and who welcome new ideas embrace the e-mail culture willingly. They send crisp, clear messages, they reply promptly and they are a pleasure to liaise with. People who are uncreative and full of their own importance tend to sound

quite long-winded and pretentious in e-mail messages. They find it hard to adopt the casual, friendly, conversational style that suits e-mail.

Remember



Poor communication skills will be exposed in e-mail messages. As you are most probably thinking and tapping away at the keyboard at the same time, your thought processes are revealed for all to see.

Weblink



www.webfoot.com

A beginner's guide to effective e-mail.

TOP TEN COMPLAINTS ABOUT E-MAIL IN PRACTICE

When I talk to my workshop participants I often ask them what annoys them most about e-mail. Here is my compilation of the top ten complaints about e-mail in practice.



1 Vague subject line

Readers with lots of e-mail every day will not open mail headed ‘urgent’ or ‘hello’. You must compose a SMART subject line that is:

Specific
Meaningful
Appropriate
Relevant
Thoughtful

Remember



What you put in your subject line can often mean the difference between whether your message is read right now, today, next week or never!

2 No greeting

It's just plain courtesy to include a greeting at the beginning of an e-mail. We don't need Dear Mary or Dear Mr. Tan, as in letters. In e-mails we can be slightly more informal, with Hi Sally, Hello John. Another reason why I like to see ‘Hi Shirley’ at the beginning of a message is that this is confirmation to me that the message is to me and not a *cc* or *bcc*.

3 No sign-off

Similarly, it's another sign for me when I see your name at the end of a message – it's a sign that your message is finished. A sign-off should not need to include ‘Regards’ or ‘Kind regards’. Why do we need these boring, useless closes? Just put your name at the end and be done with it!

4 Poor formatting

I hate to receive a message that goes on and on without any blank lines to show new paragraphs. Other people agree that such messages are confusing and boring. Try to think and format in paragraphs when you are composing e-mail messages. Blank lines between paragraphs are a great idea. They not only help you but they help your reader too.

5 Vague messages

Do you receive vague messages? These are messages where you read and read but you cannot see what the writer is trying to say, and you have no idea what the writer expects of you. Many people complain about this. Do yourself and your reader a favor by thinking in paragraphs, remembering appropriate structure, and being clear in your writing.

6 Tell me what to do

This is connected with number 5, in that the writer doesn't tell you what action he or she wants you to take after reading the message. Remember the three Rs – you must guide the reader towards the response that is required – only then will you get the right results.

7 Unfriendly tone

Emotions are hard to convey in e-mails, and some people type out exactly what they would say without thinking of the tone of voice that would be used to signal their emotions. With e-mail you only have words, so without the right tone, misunderstandings could easily happen. You could easily offend or perhaps lose an important business contact. Good writers learn to choose their words carefully, and get the tone just right!

Remember



If you have written a message in anger, leave it in your Drafts folder for an hour. Then go back and look at it again. I really don't think you will send it unless you tone it down a little.

8 CC to the whole world

A friend of mine once said 'Don't send a cc to everyone you know. Just send a cc to people who need to know!' I agree. It's too easy to send ccs nowadays (courtesy copies, not carbon copies!). Please don't contribute to the increasing problem of overflowing inboxes. Send a cc only when it is essential.

9 Bad grammar, bad spelling and bad punctuation

As more people use e-mail, sloppy work is becoming a major annoyance. People are receiving poorly formatted messages in one continuous paragraph, poorly structured messages that don't state what response is needed, and poorly written messages with errors in grammar, spelling and punctuation. Remember, your e-mail says something about you and your organization. Make sure it gives a good impression.

10 Just plain sloppy

Many people comment about the need to reply to e-mails quickly simply because of the urgency of e-mails. In view of this urgency, many people don't take as much care with their writing. Rushed messages are often garbled, unclear, unfocused, with poor structure, poor tone and poor spelling. Readers do not understand such messages, they may be offended by them, and they don't know what they have to do in response.

Remember



The Internet has made it possible for us to communicate with people from all over the world. The only way those people can form an opinion of you is by looking at the way you write. Your credibility could be ruined with one swift click of the 'send' button.

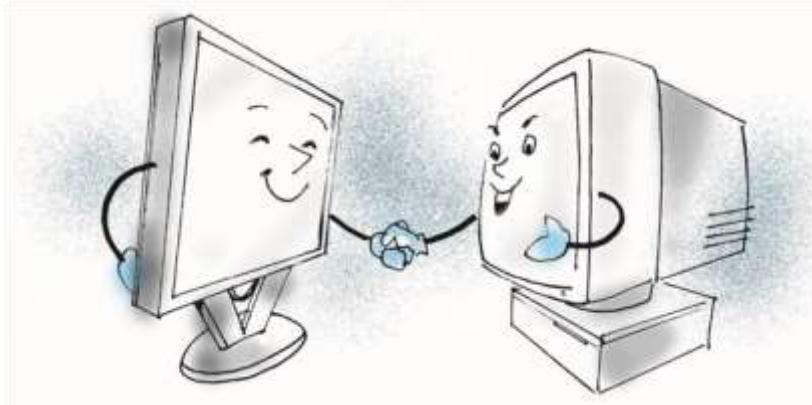
Did you know?



For an interesting website on e-mail, check out
Mary Houton-Kemp's Everything E-mail, on www.everythingemail.net

HOW TO CREATE ELECTRONIC RAPPORT

Here are some techniques you can use to create electronic rapport with your e-mail correspondents:



I Don't just dive into your message

Try to ease the reader into your message by giving some basic background information. Be warm and friendly in your opening where possible. For example:

- It was good to speak to you this morning. I'm glad we were able to clarify this issue.

- Thanks for calling me today. It was so good to speak to you after all this time.
- Thanks for a great lunch yesterday. Your new project certainly sounds very interesting.
- I'm so sorry to hear about the problem you've experienced with your new LCD projector.

2 Show some feelings

It's too easy just to state the mere facts without showing any concern or feelings. Remember that you can add texture to your message by using emotive and sensory words. Showing some empathy in your message will help you to form a better bond with your readers. For example:

- I appreciate your understanding.
- I certainly see what you mean, and hope we can resolve this problem.
- I am happy to offer you an extra discount of 10%.
- I am pleased to know you will be visiting Mumbai next month.

3 Keep your message positive and focused

Two essential ingredients of e-mail messages are keeping a positive attitude towards your reader and maintaining a focus on their needs. Try to be diplomatic, and never be afraid to apologise if something has gone wrong.

4 Tailor the tone of your message

The speed of e-mail can lead to inappropriate informality. Be careful to tailor the tone of your message accordingly. Distinguish personal from business e-mails, and avoid using abbreviations, exclamation marks and slang when writing to clients.

5 Be precise and clear

All readers deserve a clear and professional message. Pay attention to what is being asked and respond clearly. If you are not precise this will make more work because a further e-mail will be necessary.

Did you know?



Around 95% of e-mails are jokes, gossip, unwanted advertising and anonymous files that often contain viruses. Only about 5% of e-mails contain real messages. Make sure that your messages fall into this latter category.

Weblink



<http://www.albion.com/netiquette/corerules.html>

The core rules of netiquette.

SAMPLE E-MAIL MESSAGES

- 1 To GinaPorter@GlobalComms.co.uk
 From shirley@shirleytaylor.com (Shirley Taylor)
 Date 22.10.04 9.55
 Subject Lunch 28 October
- Hello Gina
- This is just a reminder that I'm looking forward to meeting you for lunch next Friday 28th. I am glad you've arranged for Jenny Chew to join us too. Can I suggest 12.30 at Hemingways on Orchard Road? I hear this new restaurant is fabulous. My treat of course. Please confirm.
- Shirley
- Informal greeting
- Contractions are OK
- Informal, chatty style where appropriate
- No formal closing
- 2 To MandyWilson@Pioneer.co.sg
 From shirley@shirleytaylor.com (Shirley Taylor)
 Date 14.8.04 14:30

Subject Customer Services Training

Dear Mandy

We are considering sending some of our staff on Customer Services. Do you have a suitable course available within the next few months? If so please let me have the dates and times plus costs.

If there isn't a regular Pioneer course make a course specially for our staff? We have a conference room.

Perhaps we can arrange to meet to discuss 20 August at 11 am? I could come over to my office. Just let me know.

Shirley Taylor
Manager
ST Training and Consultancy
Tel: +65 64726076 Fax: +65 63392710
Mobile: +65 96355907 e-mail:
shirley@shirleytaylor.com
<http://www.shirleytaylor.com>

[This e-mail may be confidential and privileged. Any form of unauthorized use is prohibited. If it has been wrongly sent to you, please delete immediately and notify the sender. Thank you.]

This style is slightly less informal

Short sentences,
no padding!

Short paragraphs

Write in a casual
style as if you are
speaking

A standard 'signature block'

63392710

A disclaimer

and privileged. Any form of

3 Key e-mail addresses accurately	To Thomas.Sigel@pearson.com From Shirley.Taylor@cfb.co.uk Date Mon 21 September 200- Time 12:23:45 +0000 Subject Communication for Business 4th edition
The time is inserted automatically by your computer	Hi Thomas
Use an appropriate subject heading	Thanks for your email today. I'm glad you enjoyed your holiday in Canada.
Keep your salutation informal and friendly	I'm happy to report that I've been able to progress very well with the new edition of Communication for Business. I've received help from some friends and colleagues which has been very valuable. I've also been in touch with lots of big companies who have very kindly given permission for me to use some of their documents in my book.
E-mail messages are much less formal than other business documents, sometimes more chatty	I should be able to wrap everything up by the end of this month. Would you like to come up and collect the work next week? Shall we say Wednesday 30 September at our usual table in the Red Lion Hotel in Todwick?
Finish off informally too	Please let me know if this is OK with you. See you soon, Shirley

Remember



Once your message is sent, it may be read by the recipient within seconds. You cannot call it back for second thoughts. Proofread it carefully before you click 'send'.

Remember



Have some respect for your reader by checking through your message for grammar, spelling formatting and other errors before you hit 'send'.



www.shirleytaylor.com

Netiquette

In personal relationships the conventions of behavior are called etiquette. In e-mail we have **netiquette** – a set of rules for e-mail that have evolved from experience. All your emotions and subtleties have to be incorporated into what you write, so misunderstandings are easy to create. Here are my tips for better netiquette:

Never leave a response too long.

It's common courtesy to respond to a message as quickly as you can – even if you have to say that a detailed response will be sent later.

E-mail addresses must be correct.

Correctly addressed e-mail messages are received within seconds, but it can take a while to receive an error message letting you know that an incorrectly addressed message wasn't delivered. Get your e-mail addresses right first time.

Take off the caps lock. DON'T SHOUT!

Even though you want to get noticed, please do not use capitals in e-mail messages – this is like shouting – it is rude and will usually be counter-productive. And also ... NEVER RESORT TO EXCESSIVE PUNCTUATION*@!!**?!!!

Informality is OK in e-mails.

Replace formal salutations like 'Dear Leslie' with 'Hi Leslie' or even just 'Leslie'. Similarly, replace 'Yours sincerely' with 'Best wishes' or some other informal closing. (Try to avoid the overused 'Regards' and horribly abbreviated things like Tx and Tnks & Rgs!)

Question your subject heading.

People are most likely to read important looking e-mails first. Give your messages a clear and specific subject heading that will get noticed.

Use short sentences and short paragraphs. The shorter your messages, the more likely they will be read and understood. Remember to paragraph just the same as in other business documents.

Enumerate with numbers or bullets.

Present your messages attractively. Use numbers, bullets or sub-headings if possible – this will add to the clarity of your message.

Tidy up long sentences to eliminate waffle.

Tapping away at the keyboard as you think, it is easy to allow sentences to become too long. Read through your message carefully and improve clarity and understanding.

Take a pride in your finished message. Make sure your message is accurate, brief and clear as well as attractively presented. In this way it will be understood and will achieve the desired results.

Ensure everything is right before you hit 'send'. You cannot call an e-mail back for second thoughts, so get it right first time!

What's wrong?



In groups, discuss what is wrong with this e-mail message in terms of:

- structure (the four-point plan)
- tone
- format
- language

Re-write it more appropriately.

From	Harry.Lim@presto.co.my
Date	25:7:04 16:06:29
To	shirley@shirleytaylor.com
CC	
Subject	HELLO!
hi Shirley Hope things r well with u, its good 2 know that u will be back in malaysia again in nov to hold your seminar on effective biz writing. PLS LET ME HAVE SOME FREE DATE while u r over here. some bookstores r interested in a talk cum singing event, I hope u will agree to take part. tnks & rgs Harry	

THE INTERNET

It was in the late 1980s when the phenomenon known as the World Wide Web took the world by storm. It comprises millions of pages of words, pictures, sounds and graphics stored on computers connected to the Internet. A collection of web pages created by a single organization is called a website. Every website has its own address, called a URL (Uniform Resource Locator):



the page is located on the World Wide Web

Weblink



<http://www.w3.org/>

Learn the latest about the World Wide Web

Did you know?



A domain name is the name of the server to which the message will be sent. The final part of the domain name is called the domain type. This tells you the type of organisation where the server is located. Here are some domain types:

- | | |
|-------------|---------------------------------------|
| .com or .co | a business or commercial organisation |
| .org | a non-profit organisation |
| .edu or .ac | an educational establishment |
| .gov | a government organisation |
| .mil | a military organisation |
| .rec | a recreation or entertainment site |
| .info | an information services site |

Weblink



<http://www.webfoot.com/advice/email.domain.html?Email>

All about domain names.

SURFING THE NET



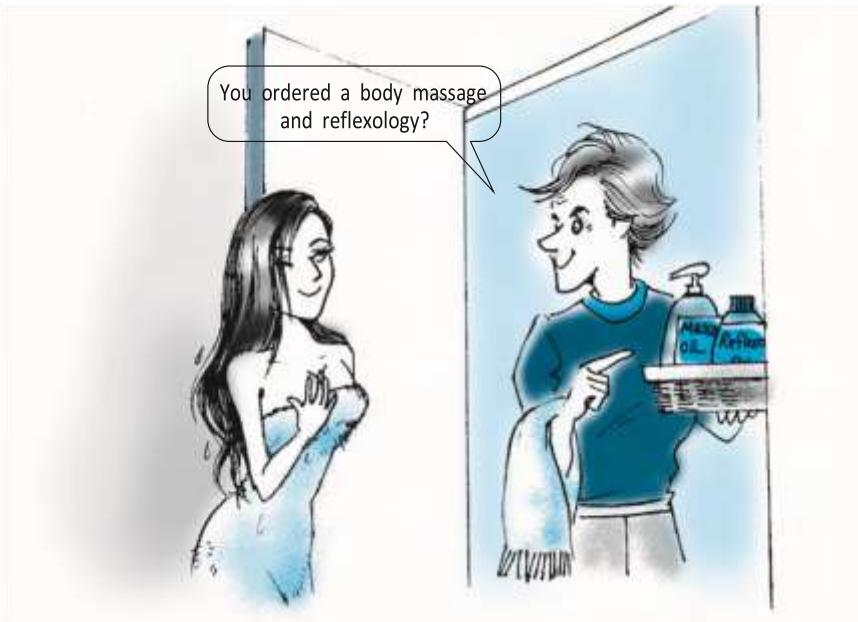
A website is a set of interactive pages containing related information. Every website has a home page that lists all the contents of the site, just like the contents page of a book. You can then click on any of the hyperlinks to access the vast amount of information available throughout the site. Here is my home page:



THE IMPACT OF THE INTERNET ON BUSINESS

Digital traffic more than doubles in volume every year. Hundreds of companies are going online every week. Never before has any one development had such an impact on the way business is conducted.

Businesses are increasingly looking towards the Internet as a means of advertising, selling and distributing their services. You can book hotel rooms, flights, hire a car, arrange for flowers to be delivered, order new shoes or clothes, all without leaving your desk and even without picking up a phone. People are regularly shopping online for certain goods, especially books and CDs, even groceries. You can often track the progress of parcels or other deliveries online. There seems no limit to the capabilities of the Internet. It is a host to a wealth of information and services – so whatever you need to find out or order, it is probably on the Internet somewhere.



INTRANETS AND EXTRANETS

Intranets are internal Internets. An intranet is like a company's own internal version of the Internet. A company's intranet can contain a wealth of information about the company, with each department having its own site and information being made available to everyone within the company – but not other people outside the company.

Did you know?



If you need to let all members of a meeting see some notes for reference before a meeting, why not post the notes on your company's intranet and send an e-mail message to all members telling them the exact location of the notes. This saves you having to attach the notes as a separate file, which could jam up their inbox.

Weblink



<http://www.ibiztips.com/>

Ibiz Tips.

Free tips to help you succeed online.

THE IMPACT OF E-MAIL ON BUSINESS

(Reproduced with permission from *Guide to Effective E-mail* by Shirley Taylor, ISBN 981043879-6)

E-mail is the most popular facility available through the Internet. It has made a lot of changes to the way businesses operate:

- Traditionally secretaries opened their employer's mail and could keep up-to-date on everything. Now that many executives read their own e-mail, a secretary's role could be quite frustrating unless a good understanding has been reached with employers.
- Since many executives read their own mail it is often possible to contact powerful people directly. But remember, not all CEOs are keen to receive information directly from anyone. Just because you know his or her e-mail address, it doesn't always mean that your CEO wants to hear directly from you. Your own line manager may also not be too happy with you if you go over his or her head in such a way.



- Some people get so used to doing everything through e-mail that they forget or don't give as much importance to proper mail. Make sure you check your snail mail at least once a day.
- Some people receive dozens of messages every day, some that are important, others are being sent to them simply for the sake of it when really they don't need to see them. As a result many people find they are spending more than half their time dealing with e-mail. We can all do our part to ease this problem by learning to respect other people's time, and only send mail to people who really need to see it.
- Some people send the same message several times because of errors they spotted after they sent it the first (or second) time. Please correct your mistakes before you hit 'send'. You will give a much better impression to your readers if you get it right first time.
- Very often working with e-mail means you have to develop a good memory. We tend not to print out as many messages as perhaps we should do. Also, may companies implement a system whereby old messages (say 30 days old) may be deleted automatically from your workstation so that the hard disk is not clogged up unnecessarily. Protect yourself by saving paper copies of important messages.

Internal consequences

Traditionally internal communications in business were hierarchical, with messages being passed up and down the chain, often with secretaries acting as a filter between managers and staff. Flatter company structures have changed the whole spectrum of internal communications. A network has now replaced the hierarchical model. With e-mail, every member of staff is able to communicate directly with everyone else – up, down and across the organization. This flatter organization structure, and the new power of employees to communicate company-wide, means that information can be distributed more efficiently around the organization. However, because of the relative ease of sending e-mail, messages may sometimes be sent without due thought and consideration.

External consequences

E-mail has undoubtedly helped us to establish and maintain business relationships with branches, clients, suppliers, etc. Relationships with customers and co-workers can be improved and productivity can be enhanced considerably through effective use of e-mail. It used to be said that the business letter was an ambassador for your company, so it should therefore give a very good impression. I believe the same can now be said of e-mail messages. You should take care with all your e-mail messages so that they give a good impression of you and your company.

www.shirleytaylor.com

E-mail your way to the top

E-mail viruses make front-page newspaper headlines. They cost decent computer users a lot of money, they waste our time and energy, and they cause unimaginable distress to people all over the world. Could anything be worse? What about the damage that people are causing to themselves every day by taking e-mail for granted? The familiarity and convenience of e-mail is resulting in sloppy, careless habits that could ruin your business and your reputation just as surely as any e-mail virus.

Electronic mail is having a phenomenal effect on the way we communicate. E-mail is not just a quick, easy and relatively cheap way to keep in touch with family and friends. It has also become an essential tool in business, a fundamental part of the way in which we work. However, the explosive growth of e-mail has created some problems, mainly because there have never been any guidelines on how to compose e-mail messages, no definitive guide to common standards and expectations among writers of e-mail. Consequently systems are being overloaded, communication is rampant, reputations are being damaged, feelings are being hurt and time is being wasted.

One of the main advantages of e-mail is speed, but the pressure of coping with an ever-increasing mailbox is adding to the pressures people already face. This is resulting in messages being sent without much thought or planning, with important details missing, with spelling and punctuation errors, and with abbreviations that some people don't like and others simply don't understand. Some messages look like they are written in code! And people are even neglecting the common courtesies of a greeting and sign-off just for the sake of speed!

High on the list of annoyances when I did some research for my book, *Guide to Effective E-mail*, was **unfriendly tone**. Emotions are hard to convey in e-mails, and some people type out exactly what they would say without thinking of the tone of voice that would be used to signal their emotions. With e-mail all we have are words. Without the right tone misunderstandings could easily happen, or you could offend and perhaps lose an important business contact – or even friend! Good writers learn to choose their words very carefully and get the tone just right.

www.shirleytaylor.com continued

E-mail and information overload is another serious problem, with some managers receiving hundreds of messages every day. But if we are suffering from overflowing inboxes, how much of it is self-inflicted? Has it become too easy to send messages to lots of people just because you can? We must learn to use e-mail more thoughtfully by recognising when we should and should not send messages. Do you really need to send all those CC, BCC and FWD copies? If you receive lots of messages that you don't really need to see, tell the authors so that it doesn't happen again. And tell your friends not to send those jokes and personal messages to your work e-mail address. Then there's that prolonged e-mail exchange that lasts for days – wouldn't it be better to pick up the phone? E-mail overload is contributing to a decline in oral

communication skills – people send e-mails to the person in the next office rather than walk a few steps! So please remember that it's good to talk and don't let e-mail result in the death of conversation.

As more people use e-mail sloppy work is becoming a major annoyance. People are receiving poorly formatted messages in one continuous paragraph, poorly structured messages that are not specific in the response required, messages written all in capitals (equivalent to SHOUTING) or all in lower case, and, of course, messages with poor grammar, spelling and punctuation.

A friend of mine once said to me:

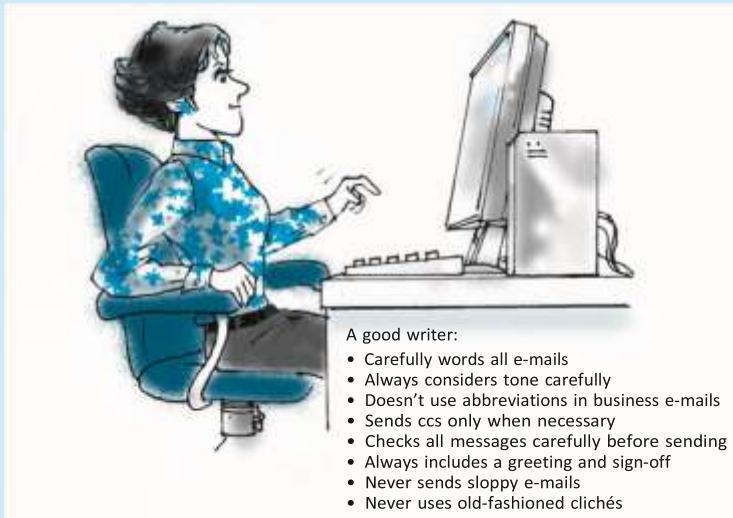
"When I receive a message that has lots of mistakes – spelling errors, punctuation, grammar – I think the reader has no respect for me because he/she couldn't take just one minute to check it through before hitting 'send'."
(Ricky Lien, www.mindsetmedia.com.sg)

I completely agree! The Internet has made it possible for us to communicate with people from all over the world. The only way those people can form an opinion of us is by looking at the way we write! Your credibility could be ruined with one swift click of the 'send' button.

Today's way of conducting business is informal so that's what we should aim for in our business writing too – natural, relaxed, friendly, conversational. The only place for standard boring overused clichés like 'Please find attached herewith', 'I am writing to inform you', 'Please be advised', 'I should be grateful if you would kindly', is the recycle bin! Busy businessmen and women haven't got time to plough through loads of old-fashioned, long-winded jargon. Nor should they be subjected to abbreviated, coded, sloppy messages that are full of errors. We should take just as much care in composing e-mail messages as we should with formal letters, memos or faxes. We should use short words and simple expressions, short sentences and short paragraphs that are clear and concise but still courteous. We should take pride in composing effective messages that are structured logically. Most of all we should identify with our readers, appreciate their feelings, and use words they will understand, written in an appropriate tone.

www.shirleytaylor.com continued

If you want to improve your electronic rapport with customers and colleagues, if you want to enhance your credibility and your reputation as well as your productivity, remember – it's not a computer you are talking to, it's a real live human being.



What's wrong?



E-mails are often typed and sent very quickly, without paying much thought to appropriate tone. The following e-mail is from an administration executive in accounts department to the manager of the sales department. Read the e-mail and consider how you would feel if you were the recipient. Then rewrite the e-mail in a more appropriate tone.

From	sallyturner@rightway.com
Date	25/7/05 16:06:29
To	johnwong@rightway.com
CC	
Subject	REMINDER!
John	
	Appreciate if you would consider and bear in mind that I am no longer responsible for dealing with petty cash. Some of your staffs keep bringing their vouchers to me, but this responsibility has been taken over by Martin in Accounts, he is the one who should be contacted henceforth for all petty cash matters
	Your co-operation is appreciated in making sure all your staffs know about this.
	BRgs/Sally

What's wrong?



Here is an e-mail that has been written quickly and in a tone that is far from courteous.

From	grace.peng@global.co.cn
Date	25:10:05 15:29:45
To	robinzhang@midway.co.cn
CC	
Subject	Your Complaint
Your complaint about your fax machine that you bought from us last year has been past to me for my attn. Please be informed that your policy document shows that you only have a one year guarantee for these products and it ran out on 2nd Sept. So if you want it fixing you will have to pay for it. Let me know what you want to do.	

Rewrite the e-mail in a more appropriate tone.



USING E-MAIL – KEY POINTS TO REMEMBER

- 1 Compose a SMART subject heading. This will give the recipient a good idea of the contents of the message, and it makes for easier handling.
- 2 Keep caps lock off. Capitals indicate SHOUTING and can appear threatening. They should never be used in e-mails.
- 3 Use an appropriate greeting and sign-off. Formality does not read well in e-mails. Replace formal salutations like ‘Dear David’ with ‘Hi David’, or even just ‘David’. Similarly, ‘Yours sincerely’ is not appropriate in e-mails. Please don’t overuse ‘Regards’ too. Why not just put your name?
- 4 Check your syntax. It’s easy to allow sentences to become very long and verbose. Keep your sentences short and simple, and check your sentence construction. The more pride you take in composing your message, the more successful you will be in being understood and achieving the desired results.
- 5 Be sure you hit the right reply button. The message may be addressed just to you or to lots of others, or it may be CC’d or BCC’d to lots of other recipients. Make sure you hit the correct reply key so that the right readers receive your message.
- 6 Use ‘reply to all’ wisely. Some writers choose to send an e-mail to lots of people, but it’s not always wise or appropriate for every individual reply to be seen by all the same people.

- 7 Slow down. Every word counts, and one mistake is too many. Because of the speed of e-mail, it's tempting to try to respond quickly. However, speed often creates mistakes. So slow down, take care, focus and get it right.
- 8 Keep copies. Just as you would keep copies of important letters, it's good practice to print out important e-mails too.
- 9 Use the right tone. With e-mail all you have are your words. Careful writers learn to choose their words carefully and get the tone just right.
- 10 Check your message. Re-read your message before you hit 'send'. Proofread means a lot more than spellchecking! Check for accuracy, brevity, clarity, as well as organization and tone. Also make sure you have attached whatever you have said you will attach.



A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: H

Hereby

Just like *herewith*, this is an old-fashioned cliché that we should not use in the twenty-first century.

However

However – when the meaning is ‘nevertheless’ – can be used at the beginning, in the middle or at the end of a sentence. It’s a good word to help you illustrate a contrast in thought. Note that commas are usually needed. For example:

I rarely work on weekends. However, last weekend was an exception.

I rarely work on weekends. Last weekend, however, was an exception. I rarely work on weekends. Last weekend was an exception, however.

When you use ‘however’ to mean ‘in whatever way’ or ‘to whatever extent’, note

that it is
one word,
not two:

IN THE BIN: H

However you advise her, she will do exactly as she pleases. henceforth

howsoever



HELP YOURSELF

Choose the correct word from those shown in brackets.

- 1 My mother always does the on Saturday mornings.
(marketing/shopping)
- 2 The new shop will be for business next Monday. (open/opened)
- 3 If you are going to increase your shorthand speed, you need to very hard. (practice/practise)
- 4 Due to the poor economy, it's really not to employ any more new staff. (practical/practicable)
- 5 Michael wants to me to the cinema tomorrow night. (take/bring)
- 6 Please let me know when you have free to discuss this project. (some time/sometime)
- 7 We have employees this year than we had last year. (less/fewer)
- 8 If we take on the new business, it would our present activities. (compliment/complement)
- 9 The person chosen as best dressed will win a prize.
(whose/who's)
- 10 I hope going to be at the party on Friday night. (your/you're)



TEST YOURSELF

1 In

each of these pairs, choose the SMART subject line:

- 1 (a) Results for first quarter of 2005
(b) Quarterly results up by 20%
- 2 (a) Reservation
(b) Reservation of Juniper Suite
- 3 (a) Order ST 678R 24 August (b) Problem with our order
- 4 (a) Party invitation to all staff
(b) Invitation to 10th anniversary party
- 5 (a) Sales Manager Advertisement
(b) Advertisement needed urgently

- 6 (a) Report on staff canteen
 (b) Report attached
- 7 (a) Overseas trip November 2005
 (b) November 2005 Trip to Europe
- 8 (a) 10% pay increase for all employees
 (b) Directors reject 10% pay increase
- 2 Place a tick or a cross beside each of these expressions, showing whether they are examples of (X) old-fashioned writing style or (✓) modern business writing suitable for use in e-mails. Rewrite those that you gave a cross.
- (a) Please find attached hereto the documents as per your request.
 - (b) Please advise me if you concur with this opinion.
 - (c) I hope to hear from you soon.
 - (d) Should you require any further clarification please contact the undersigned.
 - (e) Thank you for your message today.
 - (f) Please be informed that a departmental meeting will be held next Monday.
 - (g) Please give me a call on 2874722 if you have any questions.
 - (h) I am writing to inform you that the annual dinner will be held on 12 November.
 - (i) The above-mentioned goods will be despatched to you soonest possible.
 - (j) I am enclosing herewith our remittance in settlement of your account.
 - (k) Kindly contact me as soon as possible to discuss this matter.
 - (l) I was pleased to hear about your recent promotion.
 - (m) I am very sorry to hear about the mistake made with your order.
 - (n) I am putting in the mail today our latest catalogue for your reference and perusal.
 - (o) Please note that arrangements have been made for a repeat order to be despatched to you immediately.
- 3 Study this effective e-mail and then draft a reply. Make up any necessary details.

From	geogiathomas@aurorasuperstores.co.uk
Date	10:7:05 11:35:14
To	lilymcbeal@healthylife.com
CC	richardcage@aurorasuperstores.co.uk
Subject	Eating for Health Campaign

Dear Lily

It was good to meet you again last week. As discussed, I would like to invite you to give the opening speech at the launch of our Healthy Eating Campaign. This will be held at our Leeds superstore on Monday 8 August.

Richard and I are very excited about this campaign. We are hoping it will make the public more aware of the importance of choosing a variety of fresh fruit and vegetables as part of their daily diet.

I am attaching a provisional programme, from which you will see that 10 minutes has been allocated for the opening speech at 9.30 am. We will be happy to arrange your transport to and from our superstore on launch day.

I know that your profile in this industry would bring crowds flocking to this launch. We hope you will decide to join us.

Best wishes

Georgia Thomas
Marketing Manager
Aurora Superstores Ltd
Telephone +44 114 2888724 Mobile
+44 7770 2342342 www.aurora.com

4 Discuss what's wrong with this e-mail, and rewrite it more appropriately.

From	EdwardLeong@bettabuy.co.my
Date	9:9:05 14:20:31
To	roger.hardy@stcommunications.co.my
CC	
Subject	Complaint with order
	Dear Hardy
	We placed the above-mentioned order for 150 CDs on 8/4/05 and it was received by us yesterday. I was shocked to find that 24 of them were badly scratched.
	The package containing the goods was in perfect condition and I accepted and signed for the delivery without question, but it was only when I unpack and check the discs that I discovered the damage.
	Attached hereto you will find a list of the damaged CDs and should be grateful if you would replace them as soon as possible.
	Hoping to hear from you soonest.
	Tnks & Rgs

5 Reply to the previous message. Make up the necessary details as you consider appropriate.

6 You work in the Training Department at ST Electronics. Approximately 12 of your staff need to attend a training course on Customer Services. You need to arrange a meeting with Jenny Li, your usual contact at Pioneer Training Services, to discuss this. Send her an e-mail to find out if they have a suitable course available – within the next couple of months would be ideal. If so, ask for relevant details. If not, ask if they could conduct a special course for these staff at your own premises.

- 7 You are Dave Ikin, Marketing Manager of ST Electronics. Last week you visited Delia Kwik at Kwik Vision Pte Ltd, a company that specialises in producing corporate videos. Delia showed you around the company's new facilities, which were very impressive. Delia promised to let you have a draft showing her thoughts for a special video celebrating your company's 25th anniversary, a very special landmark in your company's history. The video needs to portray both past, present and future. Delia promised to let you have her outline by the last day of next month. Send an e-mail following up your meeting.

Unit 4

Memos

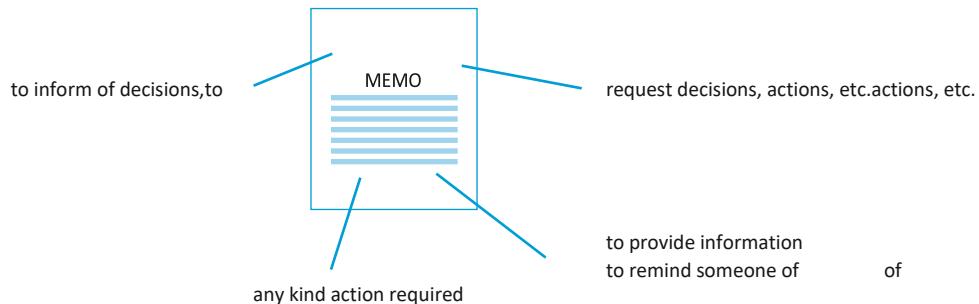
LEARNING OUTCOMES

After studying this unit you should be able to:

- Explain the purpose of memos
- Design pre-printed memo forms which contain all essential details
- Compose memos from given instructions

WHY MEMOS?

The memorandum (plural memoranda), affectionately called a ‘memo’, is a written communication from one person to another (or a group of people) within the same organization. Memos serve a variety of purposes:



Just as letterheaded paper is used for letters, many organisations use pre-printed stationery for memos. Here are some examples:

MEMORANDUM

Aurora C*

To _____ *Ref* _____
From _____ *Date* _____



Global Enterprises Kuala Lumpur

MEMORANDUM

To _____
 From _____
 Date _____
 Subject _____

Checkpoint

Bring in some of your organisation's memo headed paper to discuss with your fellow students.

It is important that the memo headings show details of sender and recipient as well as reference and date. Courtesy titles (Mr./Mrs/Miss/Ms) are usually not included. If pre-printed memo forms are not used in your organization, the following headings are suggested.

No courtesy titles are necessary on memos

This one-line style is neat and simple

MEMORANDUM

To	Joy Seow, Administration Assistant
From	Maggie Ong, Executive Secretary
Ref	MOIST
Date	12 July 200-

After these memo headings, continue in the usual fully-blocked style. When more than one topic is dealt with it is good practice to use numbered points and subheadings. A memo will not include a salutation and complimentary close, but it will usually be signed or initialled depending on the procedure adopted within individual organisations.

	MEMORANDUM
Use these standard headings and align all the details neatly	<p>To Joy Seow, Administration Assistant</p> <p>From Maggie Ong, Executive Secretary</p> <p>Ref MO/ST</p> <p>Date 12 July 200-</p>
Don't forget reference and date	
Leave 3/4 line spaces before the heading (but don't put Re!)	
Separate the body into paragraphs, using numbered points and sub-headings if relevant	<p>IN-HOUSE METHODS OF DISPLAY</p> <p>Congratulations on recently joining the staff in the Chief Executive's office. Here are some general guidelines on the format of correspondence preferred in this office:</p> <p>1 LAYOUT OF DOCUMENTS</p> <p>All documents should be displayed in the fully blocked style with open punctuation. Some specimen documents are attached which will guide you in these requirements.</p> <p>2 SIGNATURE BLOCK (LETTERS)</p> <p>On outgoing letters the Chief Executive prefers his name and title in lower case with initial capitals, ie</p> <p>Peter Nunn Chief Executive</p> <p>On some personal letters, no salutation or complimentary close will be required, but Mr Nunn will usually give instructions about this.</p> <p>3 NUMBERED ITEMS</p> <p>When items need to be numbered they should be typed alone with no full stop or bracket. Subsequent enumeration should be decimal, eg 3.1, 3.2, etc.</p> <p>I hope that these guidelines will be useful but if you have any questions please speak to me.</p> <p><i>Maggie Ong</i></p> <p>Encls</p>
No complimentary close is necessary	
Leave a space here for the sender to sign or initial the memo	
Don't forget Encls	

STRUCTURE

The four-point plan for structuring all business documents (see page 85) should also be applied to memos.

Subject heading

Give a brief indication of the topic.

- X Confirmation of meeting
- ✓ Departmental meeting, 20 June
- X Letter of complaint ✓ Viva camera model X345

Main body of memo

Introduction Background information:

- + briefly give the reason for writing + refer to previous communication + who? what? where? when?

Details Facts and figures:

- + logical sequence
- + separate into paragraphs – each one dealing with a separate aspect of the main theme

Response An action statement:

- + action you want the reader to take
- + action you will take
- + deadline?

Close A relevant one-liner

TONE

As you most likely know your recipients fairly well, memos are usually written in an informal style. You should aim to put over your message as concisely as possible while still being courteous, clear, concise and correct. The major consideration in composing memos should be the status of the sender and recipient in the organization, and of course the topic of the memo. Try to adopt a tone that reflects these factors.

USING LISTS AND BULLETS

Lists can be used in letters, e-mails, fax messages, memos, virtually any document. They are useful to set off important ideas. Your list could be a series of words, names, notes, whatever.

Items could be listed using numbers, letters or bullets. If there are rather a lot of points, numbers are better – then it's easy to refer to item number 3 or whatever. For a simple list of names or words, bullets are better.

Why use lists?

- They help you to organise your thoughts and your points.
- They help focus your reader's attention on important points.
- They help readers find your key points.
- They help to simplify detailed or complicated topics.
- They simplify the skimming process for busy readers.
- They enhance visual impact.

Displaying lists

Make sure you introduce your list appropriately so that your reader knows what to expect. Here are some examples.

Example 1

Be sure that all your list items are parallel in structure. In this example, every point in the list needs to follow the word 'by'.

You can improve your business writing by:

- 1 adopting a friendly, conversational writing style
- 2 reading your message out loud to check the tone
- 3 keeping to the point and staying focused
- 4 organising your points carefully with my four-point plan
- 5 using language that the reader will understand.

Example 2

Here is a simple list of bullet points. Here all points begin with a verb, to follow the word 'to'.

When writing a letter of complaint about something you have bought, remember to:

- describe the item that you bought
- say where and when you bought the item
- explain what is wrong and any action you have already taken
- mention names of anyone you have spoken to and what was discussed • state what you expect to be done to rectify the situation.

Example 3

Use sub-headings as a brief cue for readers about what follows. Headings and subheadings help the reader by fulfilling several functions:

- **Connection** Headings are a visual indication of shifts from one topic to the next. They help readers focus and see the relationship between each section.
- **Attention** Informative headings grab the reader's attention. They also make it easier for readers to find the parts they need to refer to (or indeed skip).
- **Organisation** Headings show the reader at a glance how the information is organised. They sort related information together, and they arrange all the facts into short sections.

What's wrong?



Discuss what's wrong with these lists, and rewrite them more appropriately.

1 The seminar will be held on:

Date : 26 May, 2005 (Tuesday)
Venue : Hilton Hotel, Penang
Time : Morning session 9.00 am to 11.30 am
Afternoon session 1.30 pm to 5.30 pm

2 Here are some tips for presenting your work neatly:

- Make your document interesting and attractive for the reader.
- Too many different typefaces will confuse the reader.
- Visual aids will help to grab the reader's attention.
- Using illustrations or figures will add life to your text.
- There are a number of pre-programmed charts on most computers that will help you display special information.

Remember



Avoid being abrupt or impolite (add 'Please ...').

Avoid over-politeness (do not say 'I should be very grateful ...').

Avoid unnecessary expressions (do not say 'Thank you' or 'Kind regards').

Checkpoint



Here are some memos. The first thing you need to do in each case is to compose a suitable heading. Then follow the instructions in your employer's note and write a suitable reply. Prepare each memo on a separate sheet of paper.

Choose an appropriate heading

MEMORANDUM

To Frank Gates, Branch Manager, Leeds
From Derek Hall, Managing Director
Ref DHLPO
Date 20 March 200-

I will be taking Mr James Hudson, our new Sales Director, to visit all our Northern branches during week commencing 27 April.

Our visit to your branch will be on Monday 27 April and we expect to arrive at 1000.

Please arrange for a brief tour to be conducted in the morning followed by a meeting with you. After lunch Mr Hudson would like to meet all the Sales staff.

Please confirm the above arrangements as soon as possible.

Derek

Please reply -
everything's OK
for their visit
- I'll look forward
to mtg JH
FG

Checkpoint *continued*

Choose an appropriate heading

MEMORANDUM

To Ian Henley, Financial Director
From Michelle Long, Credit Manageress
Ref ML/SP
Date 14 July 200-

Carter & Co have an overdue account with us in the sum of £25,430 despite 3 reminder letters over the past few weeks.

At this stage I would normally suggest that the matter should be put into the hands of our solicitor. However I know you are a personal friend of Carter's Managing Director and I wondered if you wish to write to him as a final attempt to obtain payment of this debt.

Full details are enclosed for your reference.

Please let me know your decision as soon as possible.

Michelle Long

Enc

Reply - say I've written
to Carter's MD today
- enc. a copy of my
letter. Tell Michelle
I'll keep her informed
of the outcome.

lh

Checkpoint *continued*

Choose an appropriate heading

MEMORANDUM

To All Teachers
 From Pauline Choo, Principal
 Ref PC/BOL
 Date 2 November 200-

Sally Turner ✓

I enclose a draft of a new Lecturer's Record Book which I wish to introduce from the new term in January.

This has been designed to allow space for the following records:

1 SECTION A - CLASSWORK

Pages are provided for teachers to keep a record of the work covered in each lesson throughout the course.

2 SECTION B - ATTENDANCE

A register of attendance is provided for individual teachers to keep attendance records for their own subjects. Use of the present class register can be discontinued.

Please let me have your comments on this record book together with any suggestions for amendments or further information pages.

The printer will be coming to finalise the proof on Thursday 15 November so your early reply will be appreciated.

P. Choo

Enc

Excellent idea - shall be v. beneficial.
 2 additional suggestions:

- In Section A, include small column down r.h side to note Homework issued.
- Suggest extra pages to keep record of marks for class tests, hw, etc.

✓ ST

What's wrong? (1)



Study the reply to the following memo composed from the note shown. Rewrite the memo more appropriately.

Choose an appropriate heading

MEMORANDUM

To Regional Sales Managers
From K R Green, Sales Director
Ref KRG/JKL
Date 4 June 200-

John Bird ✓
(Southern Region)

There will be a meeting of all Regional Sales Managers in the Training Office at Bedford on Tuesday 26 June 2000 from 1000 to 1500.

The main subjects for discussion will be sales planning for the next half year and new promotion campaigns.

Please confirm your attendance and let me know if you have any further items which you would like to be included on the agenda.

Ken Green.

Co. cars
for new reps

Please confirm that I'll
be able to attend,
+ mention

What's wrong with the answer?



MEMORANDUM

To Mr KR Green

From Regional Sales Manager

Ref KRG/CF

Date 10 June 200-

I confirm that I can attend the meeting.

I should be grateful if you would include on the agenda discussion of company cars for new reps.

Looking forward to meeting you.

What's wrong? (2)



After reading the following assignment carefully study the answer given. Discuss the errors in the answer shown and then rewrite the memo more appropriately.

You work with Mr Patrick Wayne, Managing Director of Wayne Machinery Pte Ltd, a large manufacturing company. Talking to you today, Mr Wayne says:

We need to send a memo to all departmental managers about the new car parking arrangements – they'll be in effect in two weeks' time. Tell them that unauthorised parking will create havoc – there are so many large lorries delivering raw materials and collecting goods from our factory. Make a special point to stress this. Attach a copy of the plan to the memo and say all staff must park in the areas indicated on the plan for staff parking. Managers should also pin a copy of the plan on their department's noticeboard.

All departmental managers will be issued with red permits within the next couple of days. They should be given to staff in their departments with cars. Staff should be instructed to display these permits on their cars at all times. Explain the procedure for visitors too – they should report to the security gate on arrival – they'll get green permits from security, and they'll direct them to the visitors' car park. Department managers should inform their staff to tell the gatehouse in advance when visitors are expected.

Compose a suitable memo.

What's wrong with the answer?



MEMORANDUM

To Departmental Managers
 From Patrick Wayne
 Date 24 June

TO INFORM ABOUT NEW CAR PARK

The new car parking arrangements will come into effect in 2 weeks' time. Your co-operation will be much appreciated in ensuring there is no unauthorised parking, as this will cause inconvenience.

A plan is attached for your information. I would be grateful if you would pin this on your notice board. Please inform all your staff that they should park in the areas indicated on the plan. Red permits will be issued to staff soon for display on their cars.

As for visitors, they will be given a permit when they report to the security gate.

Your co-operation is requested in ensuring that these new arrangements are a success.

Thank you and regards



MEMOS – KEY POINTS TO REMEMBER

- 1 Make a plan first before writing memos. Group your points together in a logical order.
- 2 Remember my four-point plan so that you draft your message in a logical structure.
- 3 Use simple, clear language that the reader will understand.
- 4 Give your memo an appropriate subject heading.
- 5 Adopt a tone that reflects the status of the sender and the reader as well as the topic of the memo.
- 6 Use a variety of presentation methods to enhance the display of your message.
- 7 Use lists and bullets where appropriate.
- 8 Avoid unnecessary expressions like 'Thank you' and 'Regards'.
- 9 Do not include a salutation or complimentary close on memos.
- 10 Sign your memo in the usual way.

A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: I, J



In fact

This is a two-word phrase, just like ‘in spite’ and ‘a lot’. They should not be written as one word.

In order to

This is an old-fashioned wordy phrase that can easily be shortened by removing the first two words. Just say ‘to’.

In the event that

These four words can easily be reduced to one word – ‘if’.

In view of the fact that

Six words that can easily be reduced to one – ‘as’, ‘since’ or ‘because’.

Investigate/investigation

Investigate means to look into. We therefore do not follow either of these words with into. For example:

Please investigate this matter and let me have your comments.

-ise or -ize

Many words end in this suffix. Be *consistent* in your use. -ise is often used in British English, -ize in American English.

NB: There are, however, some words that *must* end in -ise whichever spelling convention you follow. Here are just a few:

arise comprise compromise

disguise surprise supervise

Its/it’s

It’s is written with an apostrophe only when it is a contraction for ‘It is’. For example:

It’s very funny when you see a little puppy chasing its tail.

I am writing to inform you

Six words that we can cut out of our writing. Come straight to the point and cut out unnecessary clichés like this from your writing. Other useless phrases include:

‘Please be informed that’, ‘Please be advised that’, ‘I wish to inform you that’.



IN THE BIN: I, J

I am of the opinion that I would like
to say in all honesty in due course in
many instances in the final analysis in
this connection in total
in view of the fact that intrinsically
it goes without saying



HELP YOURSELF

Identify and correct the errors in these sentences.

- 1 Remember to bring all the clothings you need for a winter holiday.
- 2 When you speak to Iris, please remember to discuss about last month's sales.
- 3 Thank you for your letter dated on 27 July.
- 4 All the furnitures need to be covered when we decorate tomorrow.
- 5 Please ask Diana to emphasise on image when she talks to new staff.
- 6 I get the MRT to work everyday, but John takes the bus.
- 7 Pass this form to Patrick and ask him to fill it up.
- 8 I normally go to the gym everyday, however today I went straight home.
- 9 I must read the new book in order to keep up-to-date with modern writing.
- 10 Remember to buy some fish when you do your marketing later.



TEST YOURSELF

- 1 You are Administrative Assistant (AA) to Anu Morar, Personnel Manager of First State Bank of India, 97–94 High Street, New Delhi, India. Mrs Morar is in a meeting. Carry out the instructions in this note from Mrs Morar. (City & Guilds EFBC1)

AA

Could you send a memo, in your name, in reply to Josh Patel?
See my notes on the message – reassure him we know he has problems but think we might have an answer.

Thanks

Anu

TELEPHONE MESSAGE	
TO:	Anu Morar
CALLER:	Josh Patel
WHILE YOU WERE OUT	
Message: He said his department is very busy at the moment and he seems to have insufficient staff to deal with the work load. As Dealings Manager, he has enough to do without trying to find suitable staff so would appreciate it if you could recruit some for him. Let him know what details you need and he'll be happy to supply them – perhaps he could have a meeting with you to discuss this.	
TAKEN BY: Anne	
<div style="border: 1px solid blue; padding: 5px;">How about British staff working on a temporary basis – 6–12 months</div>	
<div style="border: 1px solid blue; padding: 5px;">How about next Thursday 11am?</div>	
<div style="border: 1px solid blue; padding: 5px;">Helpful if he could bring details of current staffing requirements</div>	

- 2 You work in the offices of the *Southern Star Insurance Company*. The company has recently redesigned all its stationery (writing paper, memo pads, invoices, company cards, envelopes, etc.) and these are to be issued to all staff next week.

The Company Manager, Ms Zarina Malik, says this to you:

‘Could you send a memo to all staff please? Let them know that we will be sending each department a supply of the new stationery later this week. If any department doesn’t get it by Friday afternoon, they should let me know.

‘Please remind everyone that they have to use the new materials immediately, even if they still have a lot of the old stationery. I know this means we might have to waste some of the old material, but we could always use it as scrap paper.

‘The new material is very well designed and I’m sure all our staff and customers will like it.

‘You had better send the memo in my name.’

Task

Write a memo to all staff in the company. A suitable answer is likely to be of 150–200 words.
(LCCIEB EFB1 style)

- 3 You are Personal Assistant (PA) to Tim Variant, General Manager or Creative Gifts, Preston Road, Cork, Eire. Follow the instructions in this note from Mr. Variant. (City & Guilds EFBC2)

PA

Please send a memo to Louise Williamson, our Overseas Buyer.

- * Tell her we've received a fax from Taj Silks in India offering large range of silk goods.
- * Ask if she thinks we have a market for such items.
- * Also mention attached fax from Wendy Jones.
- * Does Louise have any ideas for supplying Cymru Souvenirs?
- * Might it be worth asking Taj Silks if they can make goods to others' designs?

Cymru Souvenirs

Coed Duon Road

FLINT

N.WALES

TEL: 01916 457475

FAX: 01916 4573476

FAX TRANSMISSION HEADER SHEET

To: Tim Variant – General Manager

Company: Creative Gifts

Fax No: 010 6718 04524

From: Wendy Jones – Purchasing Manager

Date:

RECEIVED

No. of sheets including this one: 1

Message:

We have recently found tourists are becoming far more discerning and now require higher quality goods than ever before. Are you able to supply goods, especially clothes, made of natural fibres eg. wool, cotton or silk? We would be particularly interested if you were able to supply clothes made to our own exclusive designs.

- 4 You are employed by *HST Products*, a large manufacturing company. You work as an assistant to the General Manager, Mr. Julius Muzenda.

Mr. Muzenda is Chairman of the company's Operations and Development Committee and the next meeting will take place on Wednesday next week. You have told the members of the committee that the meeting will be in the usual place, Committee Room 4, at the usual time, 1000. A buffet lunch has been arranged for 1230 after the meeting ends.

Today, Mr. Muzenda says this to you:

Could you please *send a memo* to all members of the Operation and Developments Committee? The Managing Director, Maria Perez, wants to join us but she can only come in the afternoon. So I've

made the arrangements for the meeting to start at one o'clock instead of 10. There will still be lunch provided at 12.30 before the meeting starts.

'Mrs Perez wants to talk about the new Development Plan so it's very important that everyone attends the meeting. You can apologise for the short notice but please stress that everyone should be there.'

'Oh yes, we will be in a different room – Committee Room 1. Thanks.'

Task

Write the memo in Mr. Mazenda's name. (LCCIEB EFB2 style)

- 5 You are employed by *Metroville College*, a small college that provides a range of training and education, including Computing, and Information & Communications Technology (ITC). The Head of Department of ITC, Mr. Sukhwinder Dhassi, has discovered that on more than one occasion recently a computer virus has been introduced to the computers in the department. He thinks that the viruses have been introduced from computer disks brought in by students. He has decided to introduce a system where all disks used in the department must be checked for a virus before they can be put into the computers.

He says to you, 'I'd like you to *send a memo* in my name to all teachers who use the computer rooms. You'll have to tell them that all disks brought in by students must be checked before they are used. The teachers have to check them carefully, of course. We've got to stop these viruses being introduced before they cause serious problems. Oh yes, remind them to lock up the rooms when they leave. Please tell them to be careful what they say to students; we are not sure which students have introduced the virus so we should not upset them all.'

Task

Write the memo. (LCCIEB EFB2 style)

Unit 5

Report

LEARNING OUTCOMES

After studying this unit you should be able to:

- Explain the purpose of reports
- Describe some routine reports that may be written in business
- Explain the differences between formal and informal reports
- Describe the different formats for presenting reports
- Discuss the writing skills needed for compiling reports
- State some reasons why we should write good reports
- Identify and correct inappropriate language used in reports
- Compose a suitable covering memo for a free-standing report
- Compose reports according to given instructions

TYPES OF REPORT

Many reports are written in business. They are a very important method of gaining and giving information. Although many reports are presented orally, for example at a meeting, reports are usually presented in writing.

Examples of some reports submitted in business follow.

Routine reports

- representatives' reports on sales visits
- managers' reports on the work of their departments
- equipment and maintenance report
- progress report
- safety report • accident report.

Special reports

- reports written in response to requests for specific information
- reports made on a special topic after research and investigation • report regarding a change of policy
- market research report.

The ultimate purpose of any report is to provide the foundation for decisions to be made and action taken.



Some reports consist of no more than a simple statement recording an event, a visit or some circumstances with a note of action taken. Other reports include detailed explanations of facts, conclusions, and perhaps recommendations for future action.

More detailed reports demand research which may involve interviews, visits questionnaires, investigations. The information may be presented in tabular or graphic form and the writer would need to produce clear conclusions and recommendations.

Remember



Take a look at Unit 18 which discusses the techniques for designing questionnaires which may be used for gathering information for the purpose of compiling a report.

Whatever their purpose and length, all reports require the following special writing skills:

- the ability to record facts clearly and objectively
- the ability to interpret information and make conclusions
- the ability to present suggestions on ways in which a situation may be improved.

Checkpoint



What reports are submitted regularly in your organisation?

Is a standard form used for the reports? Perhaps you can bring in some copies for your colleagues to look at.

FORMAL REPORTS

Formal reports are usually written by a committee or group of people after fairly detailed investigation or research. They are often presented under the following prescribed series of headings:

Headings

There should be two headings to a report: the name of the company; the report heading (Report on ...).

Terms of reference

This section should state exactly why the report is being written. Why are you writing the report? What was requested? Who requested it? When were you asked to do it? A useful pattern for this section is:

To report on ... (subject) ... as requested by ... (name and title) on ... (date) ...

Procedure

Give a brief description of the methods used to collect the information. Perhaps interviews were held, visits made, questionnaires issued? Use numbered points if appropriate.

Findings

This will be the longest section of the report. Go through the procedure point by point and use numbers and sub-headings for this section. Under each heading state what information was gathered at each stage.

Conclusions

No new facts must be introduced in this section. You must look at the findings and state the logical implications of them. What can you infer or conclude from the findings?

Recommendations (if requested)

Again no new facts must be introduced here. On the basis of information presented in Findings and Conclusions, make some suggestions for action. Remember that the writer of a report cannot make decisions – he or she can only suggest what action should be taken.

Closing section

A report should be signed and there should be a name and title shown at the foot, plus the date the report was written.

Example of a formal report

Company's name and report title (be specific) _____

AURORA HOLDINGS

REPORT ON COMPLAINTS ABOUT POOR SERVICE AND FOOD PROVIDED IN THE STAFF RESTAURANT

Who asked for the report?
What was requested?
When was it requested? _____

TERMS OF REFERENCE

To investigate complaints about poor service and food provided in the staff restaurant and to make recommendations, as requested by Mr Michael Lee, Administration Director, on 14 April 200–.

List the steps taken to gather the information (past tense) _____

PROCEDURE

- 1 An interview was held with Mrs Alice Newton, Restaurant Manageress, on 15 April.
- 2 Interviews were held with a cross-section of staff (48) who used the restaurant between 15 and 20 April.

Present the information obtained through each step mentioned in 'Procedure' _____

FINDINGS

1 INTERVIEW WITH RESTAURANT MANAGERESS

1.1 STAFFING

Mrs Newton has 3 full-time assistants. The youngest, Miss Lily Ng, attends day-release classes at Southpoint College on Monday, Wednesday and Friday each week. She works 1400–1700 on those days.

1.2 EQUIPMENT

A schedule of current equipment and their year of purchase is attached. No problems were reported. However Mrs Newton said that additional equipment would be useful:

- 1 microwave oven
- 1 slow cooker
- 1 rice cooker

Use numbered points and sub-headings for clarity _____

2 INTERVIEWS WITH STAFF

20 staff from the 1200–1300 lunch sitting were interviewed, and 28 from the 1300–1400 sitting.

2.1 CHOICE

The food available is shown on the attached schedule. 60% of the staff interviewed said they would prefer some cold meals to be provided. They said they may make alternative lunch arrangements if the variety did not improve.

Include the page number at the top left margin	2
What are the logical implications from the 'Findings'?	<p>2.2 QUEUEING</p> <p>70% of staff took lunch from 1200 to 1300 hours as opposed to 30% from 1300 to 1400. This resulted in large queues forming at the first lunch sitting.</p>
What action do you suggest should be taken, based on Findings and Conclusions?	<p>CONCLUSIONS</p> <ol style="list-style-type: none"> 1 There are insufficient assistants to cope with the preparation of food in the morning and with the popular first lunch sitting. 2 The present equipment is insufficient. 3 The selection of meals is not wide enough to cater for staff requirements. 4 The ratio of staff to each sitting is not balanced. <p>RECOMMENDATIONS</p> <ol style="list-style-type: none"> 1 A new assistant should be recruited to work 0900-1400 hours on Monday, Wednesday and Friday. 2 Mrs Newton should be asked to look into prices and availability of the new equipment required. 3 Mrs Newton should be asked to devise some new dishes which also include cold choices. 4 The number of staff attending each sitting should be reviewed so that a more even balance can be achieved.
Leave a space for the writer to sign	
Name and title of writer	TAN LAY HONG (Miss) Business Administration Officer
Reference and date	ML/tlh 24 April 200-

Remember



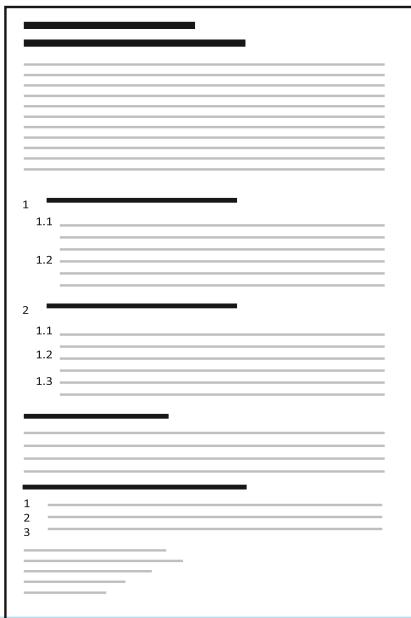
Reports should be objective, impersonal and factual. Write in full sentences using third person and reported speech. Do not use I/We/You.

Other formats for formal reports

It is sometimes felt that the format discussed above is suitable only for lengthy reports which stretch to many pages. Many writers are often uncomfortable with writing reports using this five-part structured format. The decision on how to present a report very often depends on the purpose of the report and the nature of the information it contains, also the preference of the writer. Look at these examples:

- 1 You are asked to discuss the arguments for and against a certain matter and make some recommendations:
 - Introduction
 - Advantages
 - Disadvantages
 - Conclusions
 - Recommendations
- 2 You are asked to analyse some comment forms received from clients at a large hotel and make some recommendations
 - Introduction
 - Standard of service
 - Facilities
 - Eating places
 - Conclusions
 - Recommendations

The system of using a different structure and composing your own headings specific to the subject matter is illustrated here.



Company's name

Report title

Introduction (who? what? why?)

List steps taken to gather information

Findings

use sub-headings to classify the information logically use
enumeration consistently remember to use reported/
impersonal speech

Conclusions

state the logical implication of the findings

Recommendations if requested, recommend action

name/title/reference/date

COVERING MEMO

Whenever a free-standing report is issued, don't just issue the report on its own or leave it on someone's desk. It is courteous to attach a brief covering memo which explains it. Here is an example of a short covering memo.

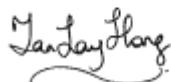
MEMORANDUM

To Michael Lee, Administration Director
From Tan Lay Hong, Business Administration Officer
Ref ML/TLH
Date 24 April 200-

**REPORT ON COMPLAINTS ABOUT POOR SERVICE
AND FOOD PROVIDED IN THE STAFF RESTAURANT**

Further to your recent instructions I have completed my investigations into this matter.
My report is attached.

If you have any queries please let me know.



Enc

INFORMAL REPORTS

An informal report may be presented in the previously discussed format (with your own composed headings) or as a memorandum. Here is a short memorandum report.

MEMORANDUM		
Names/titles of sender/recipient	To John McIver, Office Manager	
	From Ian Fisher, Administrative Assistant	
	Ref JM/F	
Date report was written	Date 5 August 200-	
Heading – specific and clear	REPORT ON POOR TIME-KEEPING OF GENERAL OFFICE STAFF	
Introduction	Further to our meeting on 20 June I have investigated the complaints about time-keeping of staff in the general office. An interview was held with each of the 12 employees concerned. Their times of arrival over a 2-week period were noted.	
<ul style="list-style-type: none"> • In a memo first person can be used here • Mention date report was requested • State steps taken to gather the information 	<p>1 PRIVATE TRANSPORT</p> <p>Four members of staff travel to work by car. These employees were usually punctual and no problems were noted.</p> <p>2 PUBLIC TRANSPORT</p> <p>2.1 Eight members of staff travel to work on public transport, using the A25 bus from the town centre. These staff were often up to 15 minutes late, arriving at work around 0915.</p> <p>2.2 The A25 bus should stop outside the office at 0855 but it was quite erratic in this respect. Its arrival varied from 0900 to 0910. The previous A25 bus from town arrived outside the office between 0830 and 0840.</p> <p>3 CONCLUSIONS</p> <p>The staff relying on public transport cannot be blamed for the late arrival of the A25 bus from town. They also cannot be expected to arrive 30 minutes early each day to avoid being a few minutes late for work. However changes in the office routine could help the problem.</p> <p>4 RECOMMENDATIONS</p> <p>The staff who use public transport should be given the option of starting work at 0845 and finishing 15 minutes earlier than usual.</p>	
Findings		
<ul style="list-style-type: none"> • Use sub-headings and numbered points for clarity • State results of your investigations • Use past tense, reported speech 		
Conclusions		
<ul style="list-style-type: none"> • State the logical implications of the findings 		
Recommendations		
<ul style="list-style-type: none"> • If requested, suggest action 		
Final paragraph goes back to first person with suitable close	I hope you find this report satisfactory. If you have any questions please let me know. <i>Ian Fisher</i>	

Remember

Again note that the central section of the report uses reported speech and third person. The first and final paragraph use 'I' and 'me' as this is appropriate in a memo report.



Another example of a short formal report follows

LANGLAND MANUFACTURING plc

REPORT ON POSSIBLE SUPPORT FOR STAFF FOOTBALL TEAM

TERMS OF REFERENCE

To report on the possibility of the company supporting the staff football team to play in a local league, as requested by Mr. Rashid Hassan, Office Manager, on 8 August 200-

PROCEDURE

25 members of staff and 10 keen football players were interviewed to ask for their opinion POSITIVE

FEEDBACK

- 1 There is a lot of general staff support for the football team
- 2 The players would like the company to supply the football strips for the team. This would not be expensive as it was felt that a good rate could be obtained from a supplier. The company name and logo would appear on the shirts. This would be good advertising.
- 3 The team would not expect the company to be involved in running the football team. A committee would be appointed to select the team and organise the football games. This could achieve good publicity if successful.

PROBLEMS

- 4 Problems could be encountered if other sports fans asked for similar support.
- 5 Some female staff felt that supporting a men-only team is unfair to women.
- 6 The company must consider the consequences of footballers being injured and unable to work.

CONCLUSIONS

Although supporting the football team could cause some problems, the company would receive good publicity.

RECOMMENDATIONS

It is recommended that support be given to a company-sponsored football team for one year, at the end of which it should be reviewed.

SHARON TAN (Miss)
Administration Officer

RH/ST
25 August 200-

Checkpoint



Wording in reports

These expressions are not suitable for including in a report. The language may be inappropriate, details may be missing or they may be vague. Express the statements in appropriate, businesslike report language. The first one has been done for you.

- 1** Rachel Jones is the best person for the job.
- 2** Most staff are negative about the proposal but some would like to try it for a while.
- 3** The planning department said we should have no problem in getting permission for this new project.
- 4** Bob saw no reason why we shouldn't use some of the club, funds to purchase new equipment.
- 5** We could take advantage of Aurora's special offer on office furniture.

Rachel Jones is considered the most suitable applicant for the post of beauty salon manager.

CHECKLIST FOR COMPILING REPORTS

1 *State the facts*

Reports set forward a series of facts obtained through study or investigation. Someone may be required to make a decision based on the information provided. Reports should be complete with nothing of relevance omitted and nothing irrelevant included.

2 *Be objective*

Keep your own opinions and preferences out of the report, unless they have been requested. Instead, you must act like a camera, impartially recording only what it sees.

3 *Be logical*

Classify the findings under headings and sub-headings, using numbered points.

How you classify the material will depend on your brief and the subject matter.

4 *Be consistent*

Make sure all sentences in a series consistently follow the same grammatical pattern. Similarly, make sure that you use the same spacing throughout the report and that the headings and sub-headings are presented consistently. Attention to these points will make your report clear and will give a good impression.

5 *Be concise*

Avoid long explanations and keep to the point. Check that all the information is accurate and all the reasoning valid.

6 *Be clear*

Use a simple, easy to read style and presentation which will help the reader to understand the content easily.

Remember



A report should be understandable, without the need to ask further questions, by someone with no specialised knowledge of the subject.

Checkpoint



Rearrange a report

Here are the terms of reference and procedure, for a report, together with cut-up sections of the rest of the report. Rewrite the report correctly for your files. You will need to compose appropriate headings, sub-headings and numbering. Sign the report as if you have written it, and decide on a suitable title. Don't forget to include an appropriate reference and date at the foot.

Terms of reference

To report on the unrest amongst factory workers and make recommendations, as requested by Mr Richard Fish, Works Manager, on 21 April 200–.

Procedure

- 1 The three supervisors were interviewed.
- 2 A meeting was held with all (25) factory workers to gather details of grievances.
- 3 10 factory workers, selected at random, were interviewed personally.

(a) The human resource manager should hold a meeting of all factory staff and explain the findings of this report.

(b) Safety regulations were being ignored by some members of staff. Protective guards had been removed from many machines.

Checkpoint *continued*

- (c) A table showing rates of pay at this company and at other companies is attached.
- (d) Rules laid down in the company handbook were being contravened, with some workers leaving machines dirty after use.
- (e) The company's rates of pay compare favourably with those paid to apprentices at other companies in this area. Grievances might stop if our staff were made aware of this.
- (f) Supervisors reported that many staff were generally un-cooperative and not working to their usual standards.
- (g) Supervisors should be reminded of the importance of ensuring that all staff comply with the company's rules and safety regulations.
- (h) A widespread unrest and resentment was noted in view of what is considered to be low rates of pay.
- (i) Removal of safety guards from machines is an offence against the Factories Act.
- (j) A training scheme should be compiled that will ensure balanced experience in all areas of the factory as well as adequate supervision.
- (k) Supervisors are not enforcing compliance with rules laid down in the company handbook.

What's wrong? (1)



Read the following assignment and then study the answer given. Decide what is wrong with it before reading the comments provided.

You work at the head office of a large group which has several branches in your area. Eighty per cent of employees from head office and branches are members of the group's sports and social club. Various social activities are arranged, including fortnightly get-togethers for younger employees which have proved very popular. Your chairman has asked you to look into whether it would be viable to buy a hi-fi system so that discos could be organised.

Prepare your report, making suitable recommendations.

What's wrong with the answer?



MEMORANDUM

To Chairman From Sharon Tan

Referring to our conversation last week. I can now give details about the question of purchasing a music system for the sports and social club.

- 1 Questionnaire issued to members.
All questionnaires returned said it would be a good idea to have regular discos. Rock and contemporary music was preferred rather than any other music types.
- 2 Interviewed treasurer re financial situation.
He saw no reason why some money shouldn't be spent on new equipment.
- 3 I visited several department stores re cost of equipments.

The best equipment was Supersound. The most suitable being:

Sony – \$3, 000
Technics – \$2, 750
- 4 Although it would prove very popular to hold regular discos, but members felt they should be alternated – one fortnight a disco, the next fortnight a quiz night or other event.
- 5 I recommend the following:
 - (a) The Sony music system should be purchased, and with Supersound's special sale now it's obviously the best deal. The Technics system referred to above does not have a CD, whereas the Sony system on special offer comprises CD as well as record deck, not to mention cassette deck, radio and speakers.
 - (b) We could also take advantage of Supersound's special offer where we could buy 10 cassettes and 50 singles at half price.
 - (c) Howard Chew, a long standing member, should be offered the job of DJ, as he has previous experience and has expressed an interest.

If you need any more information please let me know.



What's wrong? (2)

Discuss the faults in the answer to the following question, and then rewrite the report correctly.

You are a member of Aurora Music Society, a large amateur group that gives several public concerts each year usually in a local church hall or school. The Music Society used to enjoy strong support from local people but during the last 2 years the attendance figures for its six concerts have been:

400 (full house) 340 280 180 150

It has been suggested that there could be several reasons why attendance figures are declining: the type of music performed may not appeal to popular taste; the quality of the music may have fallen; there may be insufficient rehearsal time; the arrangement whereby each member of the Music Society tries to sell tickets may not be working well; publicity could be at fault; seat prices may be too high.

The Chairman of the Society, Mr. Andrew Webber-Floyd, has asked you to look into the problem carefully. Prepare a formal report with your recommendations for action. You may invent any other minor details as required.



What's wrong with the answer?



MEMORANDUM

To Mr Andrew Webber-Floyd
From Timothy Reece
Subject PUBLIC CONCERTS

Further to your request for me to look into the above-captioned. I have investigated the declining attendance figures by issuing a questionnaire to all people attending church last Sunday. Personal calls were also made by me to private houses in the area. The band members were also interviewed.

1 QUESTIONNAIRES

Concerts have been held on unpopular evenings, and the majority of people felt the timing was not suitable.

The public did not really like the music performed.

Everyone complained about seat prices.

No-one had seen any advertising of our concerts. A lot of people were not aware that we held concerts and would have liked to attend.

2 DISCUSSIONS WITH BAND

Most members were not fond of the type of music they were playing.

Some members cannot attend rehearsals on the designated evening, as they are members of a local sports club which they attend on the same evening.

Members don't have enough spare time to visit private houses personally to sell tickets.

3 CONCLUSIONS

The day and time of the concerts are not suitable.

The music performed is not popular.

Seat prices are too high and publicity is no good.

The rehearsal nights need changing.

4 RECOMMENDATIONS

4.1 All future concerts will be held on Saturday nights, which the public prefer. They will start at 8.00 pm instead of at 7 pm as at present.

4.2 Posters will be placed in music shop windows to advertise the concerts.

4.3 Rehearsals should be held on a different night.

4.4 Popular music should be incorporated in future concerts to satisfy both the public and the band.



www.shirleytaylor.com

Report writing – reasons to do it well

(This article was contributed to my website by Tim North. My thanks to Tim for allowing me to reproduce it here.)

You probably don't have a burning desire to write reports. Nonetheless, you've ended up having to write them. There's a natural tendency to want to get the darn things written and off your desk as soon as possible. There are all sorts of reasons for this:

- Writing can be a pain in the behind.
- You didn't take this job to become a writer.
- You've got a dozen other 'real jobs' that need doing.
- You're just having one of those days (or weeks or months).
- It's Friday afternoon.

etc.

We can all identify with these feelings. Still, to use a cliché, if something's worth doing, it's worth doing *well*. Now that's not just hollow sentiment. There are good reasons for taking your writing responsibilities seriously. Here are a few of them.

Reputation

Over time, what you write – and the way you write it – will be remembered, for better or worse. If you succumb to the 'just get it done' or the 'near enough is good enough' schools of thought then, over time, the people you write for will start to judge you accordingly.

Conversely, if you go the extra yards and do a good job on your reports, letters and memos, that too will be remembered; and it will influence your reputation accordingly.

Remember: you are what you write.

Credibility

The reputation that we just discussed has a flow-on effect: it influences your credibility. Consider two staff members:

Person A doesn't like writing. She has a reputation for writing reports that have to be sent back or fixed. They don't always answer all of the things they were supposed to; facts sometimes contain errors; material is inappropriately cut and pasted from earlier reports without change; the layout isn't in the approved style, etc.

www.shirleytaylor.com continued

Person B also doesn't like writing. Still, she has a reputation for writing reports that don't need to be sent back or fixed; they answer all of the things they were supposed to; the facts presented are well checked; her reports are well written and well presented, etc.

An incident occurs, and each person provides a different written version of events. Which account will have the greater credibility? Regardless as to who is *right* in this particular case, it's human nature that a person with a reputation for wellwritten, accurate reporting will have his or her written statement awarded a greater level of credibility. This credibility may not just be extended to his or her written work. People may come to judge your character and work ethic on the basis of a history of well-written submissions.

Reciprocity

When you write reports (or letters or memos), you're often doing so in response to a specific request. It may often seem that the people who make these requests are completely unaware of how much work it takes for you to write the reports or how inconvenient they can be.

This won't always be the case though. At least some (perhaps most) of the people who ask for such reports do understand that you'll have to work on them. And some (hopefully most) will appreciate the effort you put in to submitting a good report.

One day, you might want something from them.

If you have a history of submitting well written reports that are right the first time, a good manager will recognise this effort. When you next need a favor, hopefully your efforts will be remembered and your request treated in a favourable light.

Bottom line: time spent writing well is not wasted. You get the benefits described here, and your employer gets better reports. It's a win-win situation.

© 2004 Tim North

You'll find many more helpful tips like these in Tim North's much applauded range of e-books. Free sample chapters are available, and all books come with a money-back guarantee. <http://www.BetterWritingSkills.com>

PROPOSALS

A proposal is a special type of report that is designed to present ideas and persuade the reader to accept them. A proposal will analyse a problem, present a solution and suggest an approach to solve the problem.

This proposal is reproduced with permission from *How to Write Proposals and Reports that get Results* by Ros Jay and published by Prentice Hall.

FLEXIBLE WORKING HOURS

An initial study for ABC Ltd

by

Jane Smith

FLEXIBLE WORKING HOURS

An initial study

Objective

To identify the factors involved in introducing flexible working hours, to examine their benefits and disadvantages and to recommend the best approach to take.

Summary

At present, almost all employees of ABC Ltd work from 9.00 to 5.00. A handful work from 9.30 to 5.30.

Many, though not all, staff are unhappy with this and would prefer a more flexible arrangement. Some are working mothers and would like to be able to take their children to and from school. Some, particularly the older employees, have sick or elderly relatives who make demands on their time which do not fit comfortably with their working hours.

For the company itself, this dissatisfaction among staff leads to low morale and reduced productivity. It also makes it harder to attract and retain good staff.

There are three basic options for the future:

- 1 *Leave things as they are.* This is obviously less demanding on resources than implementing a new system. At least we know it works even if it isn't perfect.
- 2 *Highly flexible system.* Employees would clock on and clock off anytime within a 12½ hour working day until they have 'clocked up' 35 hours a week. This would be the hardest system to implement.
- 3 *Limited flexibility.* Staff could start work any time between 8.00 am to 10.00 am and work through for eight hours. This would not solve all employees' problems but it would solve most of them.

Proposal

Introduce a system of limited flexibility for now, retaining the option of increasing flexibility later if this seems appropriate.

Position

The current working hours at ABC Ltd are 9.00 to 5.00 for most employees, with a few working from 9.30 to 5.30.

Problem

Although this works up to a point, it does have certain disadvantages, both for the organization and for some of the employees.

The organization: The chief disadvantage of the current system is that many of the staff are dissatisfied with it. This has become such a serious problem that it is becoming harder to attract and retain good staff. Those staff who do join the company and stay with it feel less motivated: this, as research has shown, means they are less productive than they could be.

The employees: Some employees are satisfied with their current working hours, but many of them find the present system restrictive. There are several reasons for this but the employees most strongly in favor of greater flexibility are, in particular:

- parents, especially mothers, who would prefer to be able to take their children to and from school, and to work around this commitment
- employees, many of them in the older age range, who have elderly or sick relatives who they would like to be more available for.

A more flexible approach would make it easier for many staff to fulfil these kinds of demands on their time.

An initial study questioned nearly 140 employees in a cross-section of ages. A large majority were in favor of a more flexible approach, in particular the women and the younger members of the company. It is worth noting that a minority of staff were against the introduction of flexible working hours. Appendix 1 gives the full results of this study.

Possibilities

Since this report is looking at the principle and not the detail of a more flexible approach, the options available fall broadly into three categories: retaining the present system, introducing limited flexibility of working hours, and implementing a highly flexible system.

Retaining the present system. I have already outlined above the problem with leaving things as they are. On the plus side however there are one or two points to make.

Although the system is not perfect, at least we know it works. The staff all signed their contracts on the understanding that the company worked to standard hours of business, and while it may not be ideal for them it is at least manageable. Better the devil you know.

Implementing any new system is bound to incur problems and expense, consequently retaining the present working hours is the least expensive option in terms of direct cost.

Highly flexible system. A highly flexible system would mean keeping the site open from, say, 7.30 am to 8.00 pm. All staff are contracted to work a certain number of hours a week and time clocks are installed. Employees simply clock on and off whenever they enter or leave the building, until they have reached their full number of hours each week.

This system has the obvious benefit that it can accommodate a huge degree of flexibility which should suit the various demands of all employees. They could even elect to work 35 hours a week spread over only three days. A further benefit to the company would be that doctors' appointments and so on would no longer happen 'on company time' as they do at present. This system does have several disadvantages, however:

- Many staff regard occasional time off for such things as doctors' appointments or serious family crises as a natural 'perk' of the job. With this system they would have to make up the hours elsewhere. Not only would they lose the time off, but

- many would also feel that the company did not trust them. This would obviously be bad for company morale.
- It would be difficult to implement this system fairly. The sales office, for example, must be staffed at least from 9.00 to 5.30 every day. What if all the sales staff want to take Friday off? How do you decide who can and who can't? What if the computer goes down at 4 o'clock in the afternoon and there are no computer staff in until 7.30 the following morning?

Limited flexibility: This would mean asking employees to continue to work an eight hour day but give them a range of, say, ten hours to fit it into. They could start any time between 8.00 and 10.00 in the morning, so they would finish eight hours later – between 4.00 and 6.00.

On the plus side, this would give the employees the co-operation and recognition of their problems that many of them look for, and would therefore increase staff motivation. For some it would provide a way around their other commitments.

On the other hand, this approach still does not allow enough flexibility for some of the working mothers, in particular, who want to be available for their children at both ends of the day.

Proposal

Given the number of staff in favor of more flexible working hours, and the importance of staff motivation, it seems sensible to adopt some kind of flexible approach. But it is probably advisable to find a system that allows the significant minority who prefer to stay as they are to do so.

So which is the best system to choose? It is harder to go backwards than forwards in developing new systems: if the highly flexible approach failed it would be difficult to pull back to a less flexible system (in terms of keeping the staff happy). On the other hand, a limited degree of flexibility could easily be extended later if this seemed appropriate.

So at this stage it seems that the most workable system, which contains most of the benefits required by the employees, is the limited flexibility of working hours.

Appendix I

Table of employee responses to the proposal for flexible working hours

AGE GROUP	MEN Total number	MEN Positive response	MEN Negative response	WOMEN Total number	WOMEN Positive response	WOMEN Negative response
consulted				consulted		
18-30	20	19	1	18	18	0
30-40	23	19	4	29	27	2
40-50	15	8	7	12	8	4
50-60	12	2	10	8	7	1
	70	48	22	67	60	7

Reproduced courtesy of Pearson Education Limited



REPORT WRITING – KEY POINTS TO REMEMBER

- 1 Business reports help companies to make decisions and solve problems.
- 2 Proposals present ideas and persuade the reader to accept them.
- 3 Write reports in third person and reported speech.
- 4 Keep all the facts and information impartial and impersonal.
- 5 Use sub-headings to classify the information logically, breaking it down into logical sub-sections.
- 6 State the steps that were taken to collect the information at the beginning of your report.
- 7 Present conclusions based on the facts in the findings.
- 8 Suggest recommendations when they are requested.
- 9 Compose a covering memo when sending a free-standing report.
- 10 Remember that a report should be understandable by someone who has no prior knowledge of the subject.



A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: K, L

Kindly

I was on an aeroplane recently when the stewardess announced, ‘Ladies and gentlemen, we will shortly be landing at Singapore Changi Airport. Please kindly return to your seat and fasten your seatbelt.’

‘Please’ and ‘Kindly’? We don’t need them both – and certainly never in the same sentence.

‘Kindly’ is definitely a great-grandfather word that we should not be using in the twenty-first century. Use ‘please’ instead. Avoid phrases like ‘I would be grateful if you would’ or ‘I should appreciate it if you could’. Just say ‘Please’.

Learnt/learned

Both are correct. ‘Learned’ is usually American English, while ‘learnt’ is British English. The same is true for burnt/burned, leant/leaned, spelt/spelled, spilt/spilled, spoilt/spoiled.

Luggage

Luggage is an uncountable noun. It should not be written as *luggages*. This word should be written with a singular verb. For example:

My luggage was lost when I flew to Bangkok recently.

The same goes for *baggage*, *equipment*, *information* and *furniture*. Can you think of more?



IN THE BIN: K, L

kind of last but not least



HELP YOURSELF

Identify and correct the errors in these sentences.

- 1 When you see Melanie later, please don't mention about her hair.
- 2 Please give Linda or myself a call if you have any questions.
- 3 I want to reiterate again that this behavior will not be tolerated.
- 4 Please revert to me on this matter as soonest possible.
- 5 The said invoice is 2 months overdue for payment.
- 6 Will you be able to send me to the airport on Friday night?
- 7 How have you been effected by the retrenchments?
- 8 Can you spare me sometime tomorrow to discuss your report?
- 9 The meeting will start promptly at 12.00 am.
- 10 Whose to blame for spilling the water all over the table?



TEST YOURSELF

- 1 You work for Aurora Holdings plc, a large manufacturing company. In a recent board meeting it was decided to review the company's staff benefits. At present they include only a company pension scheme and a subsidised canteen.

The human resource director asks you to research the additional benefits which could be introduced. You should also recommend three benefits which you consider would be most welcomed by all members of staff. You have made notes about some possible benefits:

Private life assurance scheme – private hospital and medical insurance – loans at low interest rate – sports and social facilities – luncheon vouchers for local shops – arrangements for discounts at local shops – payment of fees to attend courses.

Compile your report.

- 2 You work for Mrs Ruth Fairless, Manager of the Bateman Hotel, Norland Road, Tenwick, Cumbria C49 8JY. (LCCIEB EFB2 style)

When guests 'sign out' before they leave they are able to make any comments on their feelings about the hotel and the service they have received. You have to write a report each month for Mrs Fairless on the points raised. These are the comments made by guests last month.

'The service in the restaurant was not very good. We often had to wait half an hour between courses.'

'EVERYTHING WAS LOVELY – IT IS A WELL RUN HOTEL.'

'There aren't enough satellite channels on the TV – no movie channels.'

'Very helpful staff – very polite.'

'We had a splendid holiday – but the service in the restaurant could be quicker.'

'The best hotel in Cumbria. Very good value.'

'It was three days before the broken light in my room was repaired.'

'Lovely food – but poor service at meal times. Very slow.' 'The gardens are beautiful.'

'We will definitely come back. The staff are very friendly.'

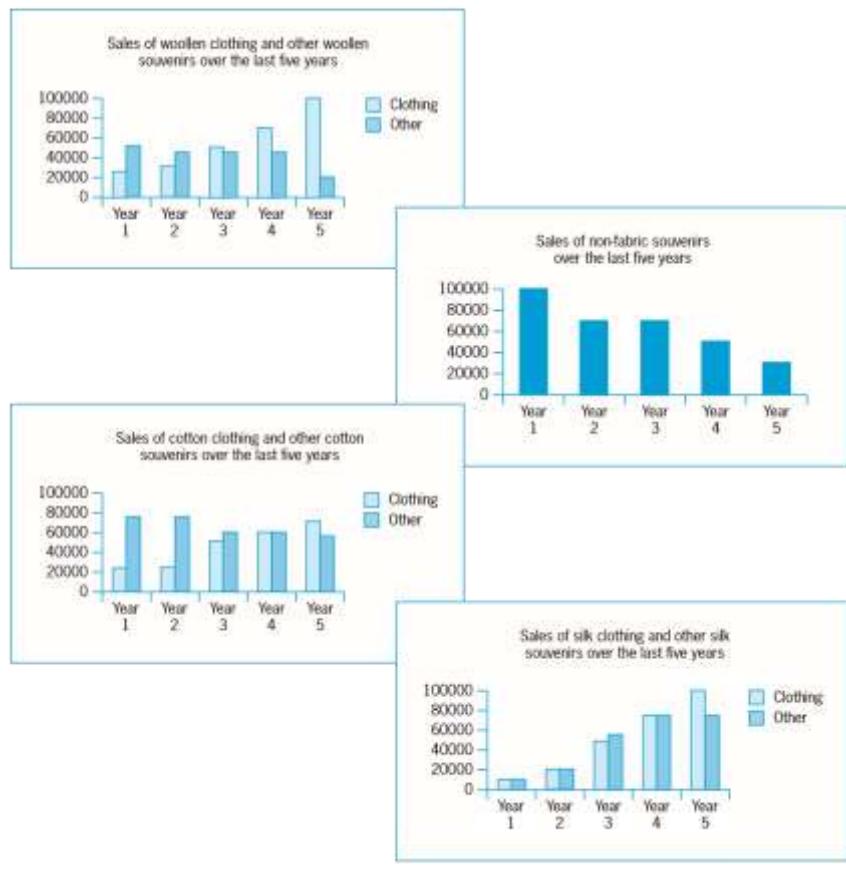
Write the report.

- 3 You are Personal Assistant (PA) to Tim Variant, General Manager of Creative Gifts, Preston Road, Cork, Eire. Follow the instructions in this note from Mr. Variant. (City & Guilds EFBC2)

PA

The board want a brief (approx. 200 words) informal report to assist with discussions they are currently having on whether we should be buying more clothing than other souvenirs and whether some natural fibres are selling better than others. I've attached some statistics sent over from the Sales Dept. Could you please draft something suitable with any relevant conclusions and recommendations?

Thanks
Tim



- 4 You work in the Human Resource Department of a company that provides Information Technology software, *Kwikbyte Systems*. Students from the local college sometimes take up work experience placements at the college and recently a Business Studies student, Ingrid Knutsen, spent a month working in various departments. The Human Resource Manager, Mr. Martin Graham, likes to keep a record of all students' work, progress, attitude and relationship with other members of staff, so he has asked you to speak to her supervisors and then write a report on Ingrid's placement. It is possible that Ingrid might apply for a job with Kwikbyte Systems in future so it is important that a good report is produced.

Here are your notes from your conversations with supervisors.

Comments from Head of Finance Department

'Ingrid was very pleasant and got on well with the staff. She was late arriving once or twice – I think she missed the bus – but she has a good head for figures and would do well in this department.'

Comments from Head of Sales and Marketing Department

'I liked Ingrid very much; she was always pleasant and helpful. She got on well with everyone but she is a little shy. If you work in sales you need to be very self-confident and Ingrid was too reserved sometimes. But she worked hard and was quite imaginative.'

Comments from Head of Human Resources

'Well, she wasn't very punctual, I remember. She was late more than once. But she was always very polite and she got on well with the staff. I would say that she needed help with some of the more difficult tasks, but she tried her best and with more experience she will be very good.'

Task

Write the report. (LCCIEB EFB2 style)

5 *Styleways* is a well known store that sells high quality and expensive ladies clothing and other items.

One of its more popular departments sells exclusive perfumes. You are employed by the store and one of your jobs is to investigate customer complaints.

Yesterday one of your customers, Mrs Andrea Bellini, returned a bottle of an expensive perfume, *Presique*. Mrs Bellini claimed that when she opened the perfume she found that the bottle contained pure water. Mrs Bellini is a good customer and has never complained before, so you were asked to investigate the complaint.

Here are your notes about the complaint.

Mrs Bellini bought small bottle of *Presique*, cost \$75 on (date) and returned it the following day. She claimed that the bottle contained pure water – which she showed us – this was true.

This bottle in a batch delivered 2 weeks ago – 3 other bottles of the batch sold – no one returned any other.

Inspected other bottles in store – 16 bottles – 4 looked as if they had been opened – and contained water. 12 did not look as if they had been opened – I opened one and found it contained genuine perfume.

All staff in perfume department have worked for store for many years – not likely to replace perfume.

Order not checked carefully when delivered – staff have never had problems before.

Possibly bottles were tampered with before delivery. Suggest we replace Mrs Bellini's perfume – very good customer – send letter of apology with box of chocolates or flowers.

The Store Manager, Mr. Martin Lee, has asked you to write a report on what has happened, how the problem could have happened, and what the store should do now.

Task

Write the report. (LCCIEB EFB2 style)

Unit 6

Meetings

LEARNING OUTCOMES

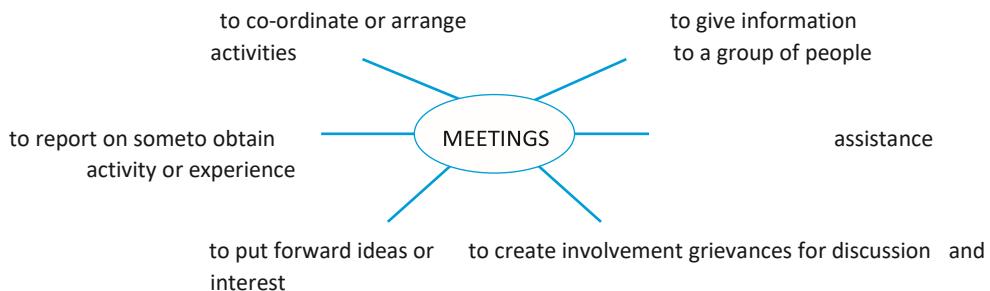
After studying this unit you should be able to:

- Explain the purpose of meetings
- Describe the different types of meetings that take place in business
- State the documents that are used in the meetings process
- Discuss the basic presentation requirements of each document
- Compose agenda, chairman's agenda and minutes

MEETINGS IN BUSINESS

Many meetings take place in business and an effective meeting is an efficient tool in the communication process. Meetings enable face-to-face contact of a number of people at the same time. They provide a useful opportunity for sharing information, making suggestions and proposals, taking decision and obtaining instant feedback.

Active participation of all members of the meeting is usually encouraged. Meetings are used for a variety of purposes:



Checkpoint



What meetings are held in your organisation? Who attends these meetings? Discuss the purpose of these meetings.

TYPES OF MEETING

Formal meetings

The rules of conduct of formal meetings are laid down in a company's Articles of Association and/or Constitution or Standing Orders. With such meetings a quorum must be present, i.e. the minimum number of people who should be present in order to validate the meeting. A formal record of these meetings must be kept, usually by the company secretary.

Annual General Meeting (AGM)

AGMs are held once a year to assess the trading of the organization over the year. All shareholders are invited to attend the AGM but they must be given 21 days' notice.

GLOBAL ENGINEERING PLC ANNUAL GENERAL MEETING NOTICE IS HEREBY GIVEN that the Tenth Annual General Meeting of the Company will be held in the Hillview Hall, Hillview Place, Bedford, on Wednesday 25 August 20-- at 1100 hours A G E N D A 1 To receive and consider the Directors' Report, Accounts and Balance Sheet for the year ended 31 July 20--. 2 To confirm the Preference Dividend paid in May 20-- and the Ordinary Interim Dividend paid in June 20--. 3 To declare an Ordinary Final Dividend. 4 To propose that the name of Mr D Williams be added to the list of authorised signatories to be attached to the Bank Mandates for City Bank plc, Grange Road, London. 5 To transact any other business that may be brought before an Ordinary General Meeting.  G HOPE Secretary 4 July 20-- JR/GH
--

Statutory meetings

Statutory meetings are called so that the directors and shareholders can communicate and consider special reports. Companies are required by law to hold these statutory meetings.

Board meetings

Board meetings are held as often as individual organisations require. They are attended by all directors and chaired by the chairman of the board.

Informal meetings

Informal meetings are not restricted by the same rules and regulations as formal meetings. Such meetings may take the form of brainstorming or discussion sessions where strict agendas may not be necessary and minutes may not be kept. However, it is usually considered good business practice for an agenda to be issued to all members prior to the meeting so that they can prepare adequately in order to make a valuable contribution.



Management meetings

These meetings are attended by a group of managers who may need to discuss a specific matter, report on progress or receive progress reports. For example, the marketing manager, sales manager, production manager and research and development manager may meet to discuss the launch of a new product being launched soon.

Departmental meetings

These meetings are called by the head of department or manager of a certain section. All staff will be invited to attend so that information can be passed on or reports received from some members of staff regarding a specific project.

Working parties

Working parties may be set up to work together on a specific project or problem. At meetings, progress reports will be given and decisions for further action taken.

Checkpoint



Discuss different situations that may require working parties to be set up. Who would attend such meetings? What matters may be discussed?

ATTENDING MEETINGS

Meetings probably account for 50–60 per cent of a manager's time in business. When they are conducted efficiently, meetings are a very effective way of helping the decisionmaking process, briefing teams, exchanging information and problem-solving. However, it is a sad fact that many meetings in business are unproductive because of poor management or because of being unsure of each individual's role in meetings.

As a member of any meeting, even if you are not the chairman, there is a lot you can do to help make meetings effective:

- 1 Understand the purpose of the meeting, as well as your role and what is expected of you.
- 2 Read all the papers in advance. Make some notes about any input you would like to make. Do your homework, talk to people who you may be representing at the meeting, get other people's views on important topics so that you have fuel for any discussions in the meeting.
- 3 Don't sit there silently. You are a member of the meeting for a reason, so be sure to give your opinions and take an active part in the meeting wherever possible.
- 4 Do not interrupt anyone who is speaking. Give everyone a chance to voice their own opinions. At an appropriate moment, give some praise if possible first and then give your own views. If you disagree with something, try to be as constructive as possible.
- 5 Watch the other members of the meeting and listen to them carefully. Watch body language, gestures, eye contact, movements, nuances and all the unique subtleties happening around the table.

Remember



The success of any meeting depends largely on its leader. If the leader is well prepared, and if the members have been chosen carefully, the meeting should be productive.

NOTICE AND AGENDA

The success of a meeting depends on a variety of essential preparations. An important one is to ensure that all the documentation is dealt with efficiently. The notice and agenda are usually combined in one document. The portion at the top is known as the notice. This gives details of the type, place, day, date and time of the meeting.

The agenda is the middle portion of the document. This is the list of topics to be discussed at the meeting. On the example shown here note that the first three and final two items are known as *ordinary business*. These are items which will be included on every meeting agenda. After the opening items of ordinary business there will be a list of *special business* – these are special matters to be discussed at this meeting only.

Company name and committee name	AURORA HOLDINGS plc
Notice states place, day, date and time of meeting	SOCIAL CLUB A meeting of the Sports and Social Club will be held in the Conference Suite A on Friday 14 May 200- at 1800
Use the heading AGENDA	A G E N D A
These three items of ordinary business are included on every agenda (some committees will also include 'Correspondence')	1 Apologies for absence 2 Minutes of last meeting 3 Matters arising
Special business is listed separately (any official reports come first)	4 Chairman's Report 5 Football Results and Matches (Frank Jones) 6 New Keep-Fit Classes (Carol Chen) 7 Purchase of Tennis Equipment (Aileen Forster) 8 Annual Dinner and Dance
Finish all agendas with these final two items of ordinary business	9 Any other business 10 Date of next meeting
Don't forget reference and date	CE/ST 7 May 200-

Checkpoint



- 1 You work with Jackie Marsden, Personnel Manager of Aurora Holdings plc. Mrs Marsden also acts as Secretary of the company's Social Committee. Deal with the following note which you found in your in-tray this morning:

I need to arrange a mtg of
the Social Committee -
Thursday after next. The conference
rm shd be free by 7pm.
Mark Jones wants to talk about the
Trivial Pursuits Quiz held recently
& Jeremy Price wants to discuss
a Sponsored swim. We'd better also
see how the monthly Musical Evenings
are going - I'll deal with that.
Please prepare the notice & agenda.

Yours

Jackie

PS just saw the Chairman -
he has a report to make
this time too.

- 2 You work with Joe Leighton, Safety Director of Aurora Holdings plc. Mr Leighton is also Chairman of the Safety Committee which meets monthly. Deal with the following note and attached memos which you found in your in-tray this morning:

Checkpoint *continued*

MEMORANDUM

To Candice
From JL
Date 24 June

Please prepare the notice & agenda for the next mtg of the Safety Committee. Include the usual items plus there are the items mentioned in the attached docs.

Date? Some time towards the end of next wk -late afternoon-

Thanks

JL

MEMORANDUM

To Joe Leighton, Safety Director
From Christopher Lim, Company Secretary
Ref CL/mlw
Date 12 June 200-

SAFETY

It is well over 6 months since our last fire drill was held.

In line with Company policy please arrange for this issue to be discussed at the next meeting of the Safety Committee so that arrangements can be made.

Chris.

Checkpoint *continued*

MEMORANDUM

To Joe Leighton, Safety Director
 From Terry Aspel, Production Director
 Ref TA/FR
 Date 20 June 200-

ADAM WARD'S INDUSTRIAL INJURY - 7 MAY

The delay in reporting this accident has been the cause of a large claim for compensation against the Company.

It is important that measures are taken to improve our present safety procedures within the Company.

Please arrange for this item to be discussed at the next Safety Committee meeting.




What's wrong?

Study the agenda written as a result of the following scenario. Rewrite the agenda correctly.

As secretary of the Students' Union Group you have been asked by the Chairman to prepare the agenda for the next meeting. In conversation with the Chairman, she said

'The meeting is next Friday – usual time and place. This time we need to have a discussion on lunch-time queues in the refectory – they're becoming very frustrating. There's also the matter of student lockers to be resolved. The provision is quite inadequate, so we need some more urgently. John should be able to give us his report on the recent disco held for charity. Wasn't it a great night? The Students' Common Room is desperately in need of decorating so we must discuss what should be done and nominate someone to take charge. Apart from the usual other items that's about all.'

What's wrong with the answer?



Student's Action Committee

Meeting to be held Friday 24 August, 11.30 am, Common Room.

- 1 Apologise
- 2 Minutes
- 3 Discussion on lunch-time queues – refectory
- 4 Student lockers
- 5 Report on recent disco held for charity
- 6 Student's common room
- 7 A.O.B.

Secretary

CHAIRMAN'S AGENDA

The Chairman has an important responsibility to manage the meeting once it is in progress. He or she must allow everyone equal opportunity to participate in discussions and control the discussion in an

orderly way. In order for the Chairman to lead the meeting effectively, he or she may have a special Chairman's agenda which contains extra notes for the Chairman to use when introducing each item.

The Chairman's agenda follows the same basic format as the notice and agenda but the right-hand side is left blank. This is where the Chairman will make notes of important points discussed during the meeting. These notes should assist the Chairman when preparing the minutes.

Same main headings
as the Agenda

Leave right side blank and
use the heading NOTES
Chairman will write notes
in this section during the meeting

Mention any details which
will help the Chairman to
conduct the meeting

Reference and date

AURORA HOLDINGS plc	
SOCIAL CLUB	
A meeting of the Sports and Social Club will be held in the Conference Suite A on Friday 14 May 200- at 1800	
A G E N D A	NOTES
1 APOLOGIES FOR ABSENCE	1
None received	
2 MINUTES OF LAST MEETING	2
Circulated on 16 May. Point out error in 4.1 - £1,200 should read £12,000	
3 MATTERS ARISING	3
Separate notes attached	
4 CHAIRMAN'S REPORT	4
Frank Jones to report on 3 matches held during April. Also future match schedule.	
5 FOOTBALL RESULTS AND MATCHES	5
Carol Chen to propose the introduction of Keep Fit classes for staff.	
6 NEW KEEP-FIT CLASSES	6
Aileen Forster to report on new tennis equipment needed for July tournament.	
7 PURCHASE OF TENNIS EQUIPMENT	7
8 ANNUAL DINNER AND DANCE	8
Discuss date and venue, ideas for programme and appoint person in charge.	
9 ANY OTHER BUSINESS	9
10 DATE OF NEXT MEETING	10
Suggest 24 June 200-	
CE/ST 12 May 200-	



Checkpoint

- 1 Prepare the Chairman's agenda for the meetings of the social committee and safety committee for which you prepared the notice and agenda earlier in this unit. Make up any necessary details.
- 2 You work with the managing director of a medium-sized sports equipment manufacturing company. Your employer will shortly be going overseas on a business trip, returning on 14 October. He asks you to make all the preparations for a board meeting to be held on 16 October. The main items for discussion will be next year's budget, salary increases for regional managers and sponsorship.
 - (a) Write the memo you would send to the board members, giving them the necessary details and asking them to submit to you any additional items which they wish to be included on the agenda.
 - (b) Prepare the agenda and Chairman's agenda for the meeting.



What's wrong?

Study the Chairman's agenda written as a result of this assignment. Then rewrite it correctly.

You are secretary to Douglas Michaels, Managing Director of Seagrave Manufacturing Co Ltd. Mr. Michaels chairs the management committee meetings which are held during the first week of each month. In a meeting with you this morning he said to you:

'There's a management committee meeting next Thursday so we need to prepare the documents. I must remember the error in item 6 – the figure for microwave ovens should be 42% not 24% as typed. What else is there? Oh yes, Mrs Wright spoke to me yesterday. She's had a request from the Head of Secretarial Studies at Southern Point Technical College asking if we can provide help with work experience placements for their students. John also mentioned that he wants to outline some problems that he's experiencing with the training schemes, so you'd better add that on the agenda too. There are also the problems in Sales to be discussed – Ken will have to announce the Northern Sales Manager's resignation effective at the end of next month – then we must discuss a replacement and decide whether to promote internally or advertise the post. I think that's all. Oh, I almost forgot ... Mike Smith (Production Manager) retires next month after 20 years. We must arrange a presentation for him. That's all. Thanks.'

What's wrong with the answer?



MANAGEMENT COMMITTEE

CHAIRMANS AGENDA

NOTES

- | | |
|---|----|
| 1 Apologise for absence | 1. |
| 2 Minutes of last meeting | 2. |
| 3 Matters arising | |
| Correct error in item 6 – microwave ovens should be 42%. | 3. |
| 4 Southern Point Technical College
To discuss providing help with work experience placements. | 4. |
| 5 Problems with training schemes.
John to outline problems. | 5. |
| 6 Sales Manager's resignation
Announcement of Ken's resignation at end of next month.
To discuss recruitment of replacement | 6. |
| 7 Mike Smith retires
20 years in company
To arrange presentation | 7. |
| 8 ANY OTHER BUSINESS | 8. |
| 9 DATE OF NEXT MEETING | 9. |

MINUTES OF MEETING

An accurate written record of meetings is essential not only for all those who attended the meeting but also for those who were unable to attend.

Verbatim minutes

These are used primarily in court reporting where everything needs to be recorded word for word.

Minutes of resolution

Only the main conclusions that are reached at the meeting are recorded, not a note of the discussions that took place. These are usually used for minutes of AGMs and other statutory meetings. It is important to note the exact wording of any resolutions passed.

4

PURCHASE OF PHOTOCOPIER

The Company Secretary submitted a report from the Administration Manager containing full details of the trial of the AEZ Photocopier.

IT WAS RESOLVED THAT the AEZ Photocopier be purchased at a cost of £8,000.

Minutes of narration

These minutes will be a concise summary of all the discussions that took place, reports received, actions to be taken and decisions made.

4

PURCHASE OF PHOTOCOPIER

The Company Secretary submitted a report from the Administration Manager containing full details of the trial of the AEZ Photocopier. This machine had been used for a period of 4 weeks in the Printing Room. The machine's many benefits were pointed out, including reduction/enlarging facilities and collating. After discussion it was agreed that such a machine would be extremely valuable to the Company

The Company Secretary was asked to make the necessary arrangements for the photocopier to be purchased at the quoted price of £8,000.

Layout and wording of minutes

Minutes may be displayed in a variety of formats depending on the preference of your employer and organization. The layout shown in the example is a popular method.

As they are a record of what has taken place, minutes should be written in past tense using third person and reported speech. These minutes have been prepared from the previously shown agenda and Chairman's agenda.

Checkpoint



Go through these minutes and study the wording carefully. Highlight the wording which is written in past tense, reported speech, e.g. '... were received' and 'The Chairman asked ...'.

Main heading includes meeting, place, day, date and time	AURORA HOLDINGS plc											
List those present in alphabetical order with Chairman first	MINUTES OF A MEETING OF THE SPORTS & SOCIAL CLUB HELD IN CONFERENCE SUITE A ON FRIDAY 14 MAY 200- AT 1800											
This separate ACTION column is a popular way of displaying minutes	<p>PRESENT Mr Chris Evans (Chairman) Miss Carol Chen Miss Aileen Forster</p> <p>Mr Frank Jones Miss Maxine Street Mrs Wendy Williams</p>											
The minutes must be corrected if necessary before they can be signed	<p>1 APOLOGIES FOR ABSENCE No apologies were received.</p> <p>2 MINUTES OF LAST MEETING The Chairman asked members to correct an error in item 3.1 where the figure £1,200 should read £12,000. After this correction the minutes were approved and signed by the Chairman as a correct record.</p> <p>3 MATTERS ARISING There were no matters arising.</p> <p>4 CHAIRMAN'S REPORT The Chairman pointed out that membership had fallen by 20% over the last 6 months. It was felt that this was due largely to lack of publicity during the present year, and also because new employees were not sure how to join. Various decisions were reached:</p> <p>4.1 CIRCULAR TO STAFF A letter would be sent to all employees who were not members of the Club outlining its aims and activities. A tear-off slip would be included for interested employees to indicate their areas of interest.</p>											
Break down items if appropriate into separate headings	<p>4.2 SOCIAL EVENING A social evening with refreshments would be organised specifically for non-members. Carol Chen agreed to make arrangements.</p> <p>5 FOOTBALL RESULTS AND MATCHES</p>											
Insert initials or full names in the ACTION column	<p>5.1 Frank Jones reported on the results of the 3 football matches during April:</p> <table> <tbody> <tr> <td>Team A v Victory Enterprises</td> <td>12 April</td> <td>Won 4-3</td> </tr> <tr> <td>Team B v Pentagon Supplies</td> <td>19 April</td> <td>Lost 3-2</td> </tr> <tr> <td>Team A v Ward Hi-Tech</td> <td>26 April</td> <td>Won 5-2</td> </tr> </tbody> </table>			Team A v Victory Enterprises	12 April	Won 4-3	Team B v Pentagon Supplies	19 April	Lost 3-2	Team A v Ward Hi-Tech	26 April	Won 5-2
Team A v Victory Enterprises	12 April	Won 4-3										
Team B v Pentagon Supplies	19 April	Lost 3-2										
Team A v Ward Hi-Tech	26 April	Won 5-2										

Include the page number
at the top left _____

2

5.2 Future matches were scheduled to be:

Team A v Team B	18 May	1500	Home
Team A v Connolly Industries	25 May	1500	Away

6 NEW KEEP FIT CLASSES

Carol Chen proposed that Keep Fit classes should be held. Sharon Warner from the Fun N Fitness Gym had agreed to conduct such classes on the Company's premises every Wednesday evening 1800–1900.

A discussion was held on a suitable room for the classes, and it was agreed that the Training Office would be suitable. Carol would circulate a notice to all staff announcing the first Keep Fit class on Wednesday 22 May.

CC

7 PURCHASE OF TENNIS EQUIPMENT

Aileen Forster reported that the in-house tennis tournament would start on Monday 4 July. New nets and balls were needed and the tennis courts needed repairing. It was agreed that Aileen should make the necessary arrangements as soon as possible.

AF

8 ANNUAL DINNER AND DANCE

It was agreed that the Annual Dinner and Dance would be held on Saturday 14 September. Wendy Williams agreed to take charge of all the arrangements. She was asked to contact Aston Hall to make preliminary enquiries about their facilities and to report back to the next meeting. Members were asked to consider ideas for the programme for discussion at the next meeting.

WW

Members

9 ANY OTHER BUSINESS

There was no other business.

10 DATE OF NEXT MEETING

It was agreed that the next meeting would be held in Conference Suite A on Thursday 24 June 2000 at 1800.

Leave a space for Chairman
to sign and date at
the next meeting _____

..... (Chairman)

..... (Date)

CE/ST

16 May 200-

Remember



Remember to use:

was not is
would be not will be
had been not has been
were not are



Checkpoint



- 1 When composing minutes, past tense and reported speech must be used consistently. Here are some expressions that are often used in minutes. Can you add to this list with some suggestions of your own as to what could be used instead of '... said ...'?

asked

reported

proposed

agreed

- 2 The following are verbatim records of what was actually said at a meeting. Rewrite these as the record would show in the (narrative) minutes:

- (a) (The Chairman)

'Miss Jones, will you please arrange for quotations on the recarpeting of the sales office and report back next time.'

Checkpoint *continued*

(b) (Mr. Norton)

'I'd like to recommend the purchase of a photocopier for the Personnel Department.'

(c) (Miss Clark)

'The drinks machine on the third level is out of order.'

(d) (Mr. Morgan)

'It's been brought to my attention that empty boxes are being left on the stairs next to reception. This is causing a safety hazard.'

(e) (Mrs Newman)

'All arrangements for Quiz Time next Saturday afternoon at 3 o'clock have been made. Four teams have been organised and the questions are being devised by Julie Lee.'

(f) (Chairman)

'Arrangements for Saturday morning lecturers are the responsibility of our committee, and I'd like to invite suggestions for speakers.'

(g) (Miss Graham)

'As you can see from these press cuttings, we've received a lot of publicity for our Open House in March.'

What's wrong?



Study the minutes written as a result of the notes made on this agenda by the Chairman, Mr Alan Hill. Discuss the errors and rewrite the minutes correctly:

AURORA HOLDINGS plc

A meeting of the Sports Club Committee will be held in Room 208 on Monday 29 June 200- at 1800

AGENDA

Presents - P Allen (Treasurer)
Green, Armitage, Parker
Mrs Reeves, Leighton

- 1 Apologies for absence - James, Johnson
- 2 Minutes of last meeting ✓ OK
- 3 Matters arising - None
- 4 Treasurer's report → PR pleased w. bal in hand £395
- this will be cleared up by exp. bbq soon
- 5 Hospital visiting (Derek Armitage) → took flowers recently
- letter of thanks rec'd (Northern General Hosp)
- 6 Barbecue (Steven Green) → 9 Amg 8-11 pm - Sub-committee appointed:
(Green, Johnson, Reeves, Parker) to work out details & report back next time
- 7 Squash tournament (Gary Parker) → Final last Mon. Geoff Jones (Sales) v. successful - sports highlight of yr.
won
- 8 Any other business → Proposal for amendment to Constitution
to be put on agenda next time
- 9 Date of next meeting → 3 wks - same time - same place!

AH/ST

16 June 200-

What's wrong with the answer?



MINUTES OF MEETING

Sports Club Committee Meeting – Monday 29 June

Present

Mr Armitage
Mr Parker
Mr Hill
Mr Allen
Mr Green
Mrs Reeves

1 Minutes of last meeting

The minutes were signed as a correct record.

2 Matters arising

None

3 Treasurers Report (Mr Allen)

The Treasure is pleased with the balance in hand. This will be chewed up by the expensive bbq which is coming up soon.

4 Hospital visiting

Mr Armitage took flowers recently and a letter of thanks were received.

4 Barbecue

The bbq will be held on 9 August at 8 to 11 pm. A sub-committee was appointed to report back to the next meeting. Sub-committee are Green, Johnson, Reeves, Parker.

6 Squash

The final was held last Monday with Geoff Jones the winner. It was very successful, and Mr Parker said it was the sports highlight of the year.

7 AOB

A proposal for amendment of the constitution was put. This had been placed on the agenda for the next meeting.

8 Date of next meeting

The next meeting will be held in 3 weeks time in room 208.

Alan Hill (Mr)



MEETINGS – KEY POINTS TO REMEMBER

- 1 A notice and agenda is sent out to give all members advance notice of the purpose, date, time and venue of a meeting.
- 2 An agenda is a list of topics to be discussed at a meeting.
- 3 The agenda should have ordinary business at the beginning and the end – business that is discussed at every meeting.
- 4 Special business will be included in the central section of the agenda – business that is unique to each meeting.
- 5 The Chairman may have a special agenda with extra notes to help him manage the meeting.
- 6 Minutes are a record of a meeting and they are essential for everyone who attended as well as those who were absent.
- 7 Minutes may be presented in different formats depending on the preference of each company.
- 8 It is usual to include an ‘Action’ column stating who is responsible for dealing with each item.
- 9 The same headings should appear on the minutes as on the agenda.
- 10 Write minutes in past tense and third person using reported speech.



A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: M

Marketing

In standard English the word ‘marketing’ is used to describe what companies do when they promote a product. It is not used to describe what we do when we go to the market or supermarket. For example:

My mother does her shopping in Carre Four.

My aunt went to the market to do some shopping.

A lot of money is spent on marketing new products.

Mention

Mention and *mentioned* are not followed by the word about (same as *discuss* and *discussed*). For example:

The teacher mentioned that next Monday is a public holiday.

Myself/I/Me

These words are often misused. Note the correct uses:

Please call John or me/not me if you have any queries.

(NB: You would not say *Please call I ...*) Ronald and I will be attending the exhibition.

(NB: You would not say *Me will be attending ...*) Emily loves mahjong, same as I.

Mark handed the cheque to me today.



IN THE BIN: M

maybe

more or less



HELP YOURSELF

Identify and correct the errors in these sentences.

- 1 You have to convince the interviewer that your the right person for the job.
- 2 Will you bring these flowers to Mandy when you visit her tonight?
- 3 Experience will take precedents over age at the interviews.
- 4 Linda and Gordon said their definitely coming to Singapore this year.
- 5 I wonder that these figures are really correct?
- 6 Anyone of the students would be able to do the job.
- 7 Its a mistake to judge a book by its cover.
- 8 I didn't get to sleep till 12pm last night.

9 When you have stamped your card, please precede to level 2.



TEST YOURSELF

- 10 Next time your in Kuala Lumpur, please come and see me.

- 1 You work with Mr. Robert Branson, Director of Administration. Mr. Branson chairs the Human Resource Policy Committee which is held at 1000 on the last Monday of each month in the Board Room. Other members of the committee are Michael Kramer, Marketing Manager, Masrita Hadi, Office Services Manager, Sharon Leng, Human Resource Manager and Mohammed Alaradj, Research and Development Manager.

Mr. Branson asks you to draw up for him an Agenda as well as a Chairman's agenda for next month's meeting. During a discussion with Mr. Branson you make the following notes:

Minutes of previous meeting – correct error in 2.1 – name should read Marsha Gold not Sharon Yap.

Two special items – Proposal for new promotion policy and Job Enrichment Schemes.

Present promotion policy = advertise on notice boards and in Aurora News, promote internally. Could be obstacle to progress.

Proposed new policy = advertise in local/national press (and Co. magazine) – need new people, new ideas, wider experience.

Job enrichment schemes – need to increase job satisfaction – ask for suggestions.

Prepare the Agenda for circulation to members and also the Chairman's agenda for Mr. Branson to use at the meeting.

- 2 You work with Martin Lewis, Company Secretary of Aurora Holdings plc who is also Secretary of the company's Social Club. Mr. Lewis has made some notes on the agenda of a recent meeting. Compile appropriate minutes.

AURORA LAWN TENNIS CLUB		
MEETING HELD ON 21 OCTOBER 200-		
AGENDA		
1	Apologies for absence	— Francis Tan (Treasurer) Joe Sommersfield
2	Minutes of last meeting	✓ OK
3	Matters arising	X
4	Report from Social Committee	Report from SC ① Halloween Disco - great success - made £200
5	Indoor Tennis Courts — R/H:	② New Year's Dance - prep'd well in hand - tickets with printer - on sale at reception from next Mon.
6	Tennis Nets	③ lights defective - with arrange for repair (2) nets very shabby + need decorating R/H to check cost for next time
7	Any other business	
AGM: 18/11 - 1030		
8	Date of next meeting	last fri in Nov
<u>M Lewis</u> Martin Lewis Secretary		JH: Nets very old - poor condition will find out cost of new date to court 1 defective - groundsmen to be notified + repair
10 October 200-		
Present: S Gilling, R Williams J Hardy Mary Wilson George Newman (Chair) M Lewis		

- 3 The following dialogue is taken from a meeting of the Welfare Committee of Aurora Holdings plc, which was held at 4 pm on Tuesday 21 October 200– in the Chairman's office. Choosing speakers from your class, act out this meeting. Then use narrative style to prepare the minutes.

Mrs Taylor (Chairman): Well it's 4 o'clock and we all appear to be here so shall we get started? Anthony Long won't be joining us as he's attending a business conference this week. Do you all have the last meeting's minutes?

(agreement)

Are there any amendments or can I sign them as a correct record?

(Chairman signs)

Good, matters arising? Anything to report?

Mr. Thomas: Yes, Georgia and I visited Renéé in hospital on the 16th to deliver our Committee's basket of flowers and our good wishes for a speedy recovery. She hopes to be back at work a week on Monday so she'll be with us again when we next meet.

Chairman: That's marvellous news. Right then, let's move on to item 4. John, you were going to talk about the restaurant I believe. Did you bring along the accounts for the half year ending 31 July?

Mr. Cage: Yes, I have copies for everyone (distributes copies). As you will see, the accounts show that we made a profit of £1,300 over the first 6 months of the year. I'd like to suggest that we utilise some of this by buying a new coffee machine. The present one is rather old and frequently breaks down.

Chairman: I think we'd better obtain some estimates first before a decision can be made. Could you ask around please and we'll talk about it more next time?

(Mr. Cage agrees)

Chairman: Right, we'll move on to Washroom Facilities now. I've received several complaints about the female toilets on the second floor. I've been to see what all the fuss is about and I agree that they do need upgrading.

Miss McBain: Yes, these are near my office. Apart from several locks being faulty there are chipped tiles, and the state of decoration is very poor.

Chairman: I'd like a volunteer to arrange for some local workmen to look at the washroom and give us an estimate on the cost of the repairs.

Miss McBain: I'll gladly do that. Something needs to be done quickly.

Chairman: Right, that's something else to continue with next time. Richard, you're next, I believe?

Mr. Fish: Thank you. Well, as you know, as Training Officer I have a lot of contact with our young trainees. Many of them are attending Cliff College on evening courses which the Company sponsors. Examinations are coming up in December and these people don't have much time to study. I'd like to suggest that they be given two weeks' study leave prior to their exams.

Miss McBain: That's a valid point, Richard. Lesley in my department, bless her, she works very hard for us and I know she goes to college three evenings a week. It would kill me!

Chairman: I can sympathise, but I really don't think it's within our power as a committee to make such a decision. Can I suggest that you write a formal memo to the Board? They have a Board Meeting early in November I believe, so you should ask them to include this item on the agenda. By the time we meet again, we should have an answer from them.

Mr. Fish: Yes, I think that will be best. I'll get a memo out tomorrow.

Chairman: Now, the final item. Christmas dinner and dance. Miss Sheppard, did you get some specimen menus from hotels?

Miss Sheppard: Yes, I have some samples for us to look at.

(distributes copies)

Mr. Fish: This one looks brilliant – the Marina Hotel – quite reasonably priced too.

Mr. Thomas: I agree, it seems far superior to the others.

Miss Sheppard: That's what I thought too. I suggest we should confirm with the Marina, if everyone agrees?

(agreement)

Chairman: Has a date been agreed yet?

Miss Sheppard: No, I suggest the last Saturday before Christmas, the 21st, if that's OK?

(agreement)

Chairman: Right then, Miss Sheppard, can we leave it to you to make all the necessary arrangements?

Miss Sheppard: Oh sure, I'll get in touch with the Marina to confirm with them, and I'll also put up a notice on the staff bulletin board. I hope it will be as successful as last year's.

Chairman: With everything left to you, Miss Sheppard, I'm sure it can't fail to be successful.

Right, moving on, is there anything else anyone wants to discuss? No? Right, then let's decide on a date for the next meeting ... 4 weeks' time as usual? Can I suggest the 20th November then? Same time? Good, OK then, thank you all for attending

Unit 7

Notices, advertisements and leaflets

LEARNING OUTCOMES

After studying this unit you should be able to:

- State why notices, advertisements and leaflets may be used
- List guidelines for drawing up notices and leaflets
- Understand the difference between small ads and display ads
- Discuss the special techniques used for compiling advertisements
- Identify effective advertisements and leaflets
- Understand the special writing skills for compiling notices, advertisements and leaflets
- Compose notices, advertisements and leaflets according to given instructions

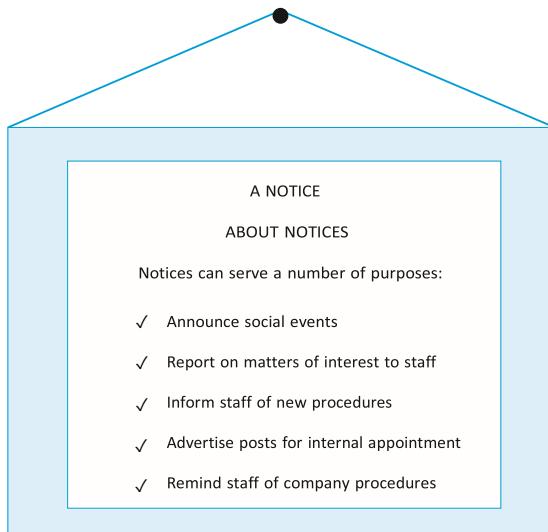
NOTICES

Notices are also around us everywhere we go – in the supermarket, on the underground, at the entrance of shopping centres, at the railway station, the bus station, the cinema.

Most organisations have notice boards posted around the offices which are used to bring special items to the attention of all staff.

Notice boards may be sectioned according to different topics, for example policy matters, health and safety, staff announcements. It is a good idea to nominate one person to be in charge of each notice board. This person should be responsible for:

- removing obsolete notices
- sectioning notices under appropriate headings where possible
- removing 'dead' notices (but retaining them for a short while in case of queries)
- keeping the notice board tidy and clean.



Checkpoint

Look around your school or college and consider the merits of the notices you see on the corridors.



DESIGNING NOTICES

When designing a notice your aim must be to ensure that your notice is seen and acted upon where necessary. Long, rambling paragraphs will not achieve this aim. When designing notices bear in mind these guidelines:

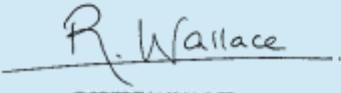
- give the notice a clear heading
- use different size print for emphasis
- use sub-headings to break up the main information logically
- use asterisks/bullet points to display points on separate lines
- use the paper effectively to display the notice attractively
- include the name of the writer at the bottom as well as a reference and date.

Remember

When designing a notice make sure you split the words appropriately otherwise you could change the meaning completely.



A notice must contain the essential information displayed attractively so that it is effective. Here are three examples of effective notices that meet all these requirements.

<p>Clear heading and subheading.</p>	<h2 style="text-align: center;">AURORA HOLDINGS</h2> <h3 style="text-align: center;">SAFETY PROCEDURES IN THE EVENT OF FIRE</h3>
<p>These side headings are very effective.</p>	<p>FIRE DRILLS A fire drill will be conducted every 6 months. Staff must be aware of all fire exits, escape routes and procedures for what to do in emergencies.</p>
	<p>HOSE REELS These will be tested once every 6 months at the same time as the fire drill.</p>
	<p>FIRE ALARMS One fire alarm will be tested every week.</p>
	<p>SPRINKLERS These will be tested every week.</p>
	<p>EXTINGUISHERS These will be checked every week. Fire extinguishers must not be moved from specified location.</p>
	<p>EXITS Exit doors must not be locked during working hours and they must be kept clear at all times.</p>
	<p>FIRE EXITS Fire exit doors must never be jammed open.</p>
	<p>FIRE DOORS Fire check doors must never be jammed open. These will be tested every 3 months to ensure correct operation of the closing mechanism.</p>
	<p>GANGWAYS Gangways must be kept clear at all times.</p>
	<p>FIRE CERTIFICATE The fire certificate must be kept in a safe place in the Safety Manager's office ready for inspection by the Fire Brigade.</p>
	
	<p>ROBERT WALLACE Safety Manager</p>
	<p>RWIST 24 July 200-</p>

Give a clear heading.	<h2>PHOTOCOPYING COSTS</h2>
Centre for special effect.	<p>Would all staff please carefully consider the use of the photocopier.</p>
Short sentences and paragraphs.	<p>The cost of photocopying is rising every month and is becoming very expensive.</p> <p>The photocopier should only be used when there are no cheaper methods available. The printing department can usually make copies that are cheaper than those from the photocopier.</p> <p>Also, please make sure that you only make the number of copies needed so that waste is avoided.</p> <p>Unless we can cut the cost of photocopying I will have to consider ways of introducing limits on the number of copies staff can make. Alternatively perhaps only senior staff will be allowed to use the machine.</p> <p>I hope these measures will not be necessary and look forward to receiving your co-operation in helping to reduce photocopying costs.</p> <p>Rashid Hassan Langland Manufacturing plc</p>
Include a name and date/reference.	<p>RH/ST 25 May 200-</p>

<p>Clear heading.</p> <hr/> <p>Centre important details.</p> <hr/> <p>Use sub-headings where possible.</p>	<h2 style="text-align: center;">ELECTRICAL REWRITING</h2> <p style="text-align: center;">26 and 27 May 200–</p> <p>We regret that due to essential repairs to the hotel's electrical wiring the electricity will be cut off on 26 and 27 May</p> <p style="text-align: center;">between 9.30 and 11.30 am and between 2.30 and 4.30 pm</p> <p>is nothing operated by electricity will work. This includes lights, s and any other electrical equipment.</p> <p>is also means that our cleaning staff will not be able to use in the rooms. Any rooms not fully cleaned by 9.30 am er in</p> <p>will be cleaned</p> <p>Lat Lifts:</p> <p>Refreshments:</p> <p>Fire alarms:</p> <p>Guests are also reminded that during these times the hotel lifts will not be in operation. If anyone needs help they should contact the Reception desk.</p> <p>Tea and coffee will be provided in the main lounge for any guests remaining in the hotel during these times.</p> <p>Please note that guests will not be in any danger as the fire alarms, which operate on a different system, will still work during these times.</p> <p>We hope that this important electrical work does not cause problems for you and we regret any inconvenience caused.</p> <p>Ruth Fairless Manager</p> <p>RF/ST 20 May 200–</p>
--	--

ADVERTISEMENTS

Many companies advertise in newspapers, magazines or trade journals so as to reach out to a wide, and sometimes specific, market.

- to advertise vacant posts
- to promote products or services
- to announce special events or functions • to publicise changes in the organization.

The classified sections of newspapers categorise advertisements according to subject so that you can find any section quickly.



TYPES OF ADVERTISEMENT

There are two kinds of advertisement that you may be involved in helping to design: the *small ad* or *line advertisement*, and the *display ad*.

Small ads or line ads



In these ads the information is run on from line to line, often using the same font throughout, with no special layout. Charges are made by the line and there is normally a minimum charge for three or four lines.

Lots of small ads appear in a relatively small space, so you must try to use an opening which will catch the reader's attention. Then give as much summarised information as possible in as few lines as possible. But make sure you choose the right wording when considering the words to fit in a small space.

<p>Capitol Beta/ MRT City Hall</p> <hr/> <p>PREMIER SECURITY PRIVATE INVESTIGATION BRANCH THE ONE NAME FOR ALL PRIVATE INVESTIGATION NEEDS</p> <p>(Owned by the Singapore Police Multi-Purpose Co-Operative Society Ltd and The Singapore Government Servant's Co-Operative Thrift & Loan Society Ltd).</p> <p>Call Krishna at tel: 289 0479 (DIR) Roenie at tel: 281 4431 (DIR) Fax: 2852709</p> <hr/> <p>61 Other Personal Services</p> <p>MR FIX-IT: We fix anything and everything (carpentry, electrical etc). Enquiries: 2540021 anytime.</p> <hr/> <p>72 Packing/ Storage/ Delivery/ Removal</p> <p>A BUDGET PRICE REMOVAL SYS Professional household/ office removal & disposal services. Experienced uniformed workers with effective team leaders pro-</p>	<p>73 Office Equipment/ Supplies</p> <p>USED THOMSON PABX Telephone system with capacity of 6 lines + 20 extns, model: P10-A. \$800. Used Nitsuko 516 key telephone system with 5 lines + 12 key telephone set \$800. Used Switching system 2 lines + 3 extns \$300. Pls. call 2742754.</p> <p>1ST TELEPHONE EMPORIUM In town for major brand of new & used key telephone system. Ranges from 2 lines 3 extensions to 20 lines 50 extensions. Maintenance service is available. Call Sangal Enterprises at tel: 4713688 for details</p> <p>GTEED, BRAND NEW. Canon copiers NP150 \$1280 up to A3 copy size. 1 yr. g'tee. NP155: zoom/ enlargement, reduction up to A3 size \$350. Key phone \$680. Fax \$750 Speedcoms 7483375.</p> <p>NEW MINI-PABX Telephone system with 2 lines + 8 extns. c/w 1 unit of loudspeaker phone & speed dial memories & 4 unit of standard set. \$980. Call 2748450.</p> <p>RENT OR BUY Ricoh copier with full warranty and backup service. We also sell liquid copier for photocopy centre. Delta O.A. Tel 2721266</p> <p>WELL KNOWN KEY telephone available. Reasonable price to suit your budget. Call 2722571 for more information. After 5.30pm. Pg. 7012430</p> <p>BRAND NEW 7 months Rank Xerox model 6002 electronic typewriter & Rank Xerox model 1012 recopier for sale. Page: 8038774.</p> <p>BRAND NEW PORTABLE typewriters (electronic and manual) for sale. Economical and durable. Enquiries, please call: 5332585.</p> <p>AUTO NEW FAX \$890. Canon enlargement/ reduction copier from \$500 typewriter \$265 3374988.</p> <p>BRAND NEW FAX with lines sharing feature avail. at attractive price. Call: 4713988.</p> <p>CANON MP270, 305, 120, PC20/ 30, Xerox 1012, Minolta EP410Z, 350Z, Toshiba 5511. 7450417</p> <p>FAX \$80 ONLY. Typewriter \$328. Low Cost Copier, Shredder, Key Phone. Tel: 2704436.</p> <p>GOOD BUY, BRAND new typewriters, copier, fax, paper shredder, chequewriter, etc. 3388855.</p> <p>KEY TELEPHONE HYBRID system (8 lines x 32 ext.) for sale. Call: 256 2214 for details.</p> <p>NEW KEY TELEPHONE system with 2 lines & 3 units of key telephone sets. \$750.00. Call 2706383</p>
--	--

Display adverts

Display advertisements may incorporate a variety of font styles and sizes. Artwork or colour may be included. Charges will be based on the number of column centimetres, often with a minimum size. Information can be displayed within the advertisement to attract special attention to specific points.

WRITING STYLE

When asked to compile an advertisement you must be able to pick out the main points or features of whatever is being advertised and then put them over in an interesting, attractive way. It is essential to aim for your advertisement to be 'seen' when it stands next to lots of other advertisements. Here is AIDA from the advertising department explaining the technique for meeting this objective:

*Attention
Interest*



you must attract the reader's attention
get the reader's interest by mentioning something that will
appeal to them

Desire arouse the reader's desire to buy, to attend a function to find out more or to contact the writer

Action make the audience want to do something as a result of reading the ad.

You will achieve these AIDA objectives if you follow these guidelines:

- use a company logo, prominently displayed
- compose a catchy headline and display it prominently
- use spacing to advantage, giving special items prominence
- categorise the information using sub-headings, bullet points
- clearly state the action you want the reader to take
- make your advertisement eye-catching
- aim for your advertisement to stand out from all the others around it.

Here is an effective advertisement.

Clear heading stating company and position.

AURORA HOLDINGS

require a

SUPERVISOR
for the Customer Service Department
at its new superstore in Kowloon

A pleasant manner, tact, diplomacy and the ability to cope under pressure are essential attributes, as well as:

- O level English and Maths (or equivalent)
- the ability to motivate and lead
- a clean driving licence

Previous experience is useful but not essential as training will be given. Working hours 40 a week, Monday to Saturday

Use bullets where possible.

Benefits: ✓ Attractive salary
✓ Staff discount on purchases
✓ Subsidised meals
✓ 20 days annual leave plus statutory holidays

State benefits clearly.

Applications should be sent to:

Ms Chew Mei Mei
Human Relations Manager
Aurora Holdings plc
25 Nathan Road
Hong Kong

Give clear instructions for applications.

Closing date for applications. 30 June 200-

Checkpoint



Bring in to class a copy of a local newspaper, journal or magazine. Turn to the classified ads section and see if any adverts jump out at you. What makes these adverts so successful?

LEAFLETS

Most organisations produce leaflets or brochures for any number of reasons:

- to publicise goods or services
- to promote special events and promotions
- to give information of any kind.

Such leaflets may take the form of a single page, so they could be designed as a folded document – A4 size could be folded once or twice to make a four-page or six-page leaflet as shown here:



DESIGNING LEAFLETS

Here are some guidelines to consider when designing leaflets:

- 1** Use a company logo, prominently displayed.
- 2** Use an appropriate heading that clearly states what the leaflet is about.
- 3** Consider carefully the information which needs to be included in the main body of the leaflet. Break it up according to different aspects of the main theme.
- 4** Use sub-headings and bullet points where possible.
- 5** Use straightforward, simple language and short sentences.
- 6** Be as persuasive as possible, making everything sound interesting and beneficial.
- 7** Use everyday language instead of technical jargon.
- 8** Aim for an effective and attractive display which uses space to advantage.
- 9** If you want a response give full details – what to do, who to contact, telephone number, etc.
- 10** If a portion is to be completed, refer to Unit 15 on form design.

Checkpoint



Is there a leaflet or brochure describing the college where you are studying? While you are out and about, pick up some leaflets in shops or offices and bring them in to class. Have a look at the layout of the leaflets and see how they conform to the guidelines in this unit.

Here is a simple but effective leaflet.

**SALE OF THE CENTURY
GOOD QUALITY FURNITURE
AT
BARGAIN PRICES!**

We are pleased to announce that we are holding a
GRAND SALE
of surplus and slightly damaged furniture.

The date for your diary is
Saturday 27 September at 10 am

We will be selling a wide range of superb furniture at **half price OR LESS**:

- chairs
- tables
- cabinets
- beds
- wardrobes
- chests of drawers

On this occasion we will not be offering our usual delivery service. All items bought must be taken away by customers on the day.

Come along and see what we have for sale **from**

6 pm on Friday 26 September

BMI Manufacturing plc
Freeman Industrial Estate
Pitt Lane
Portsmouth
Hampshire PO13 7JJ

RH/ST
5 August 200–

Here is part of an effective leaflet:

Save on Energy

Much energy in offices are used up by air-conditioning and lighting. Here are some ways by which the environment could be helped through care in the work place.

Air-Conditioning

- Choose an energy-efficient air-conditioning unit.
- Choose an air-conditioning unit with the correct capacity for your needs.
- Service it regularly, for example, clean filters regularly.
- Adjust the thermostat to a comfortable 24 degrees Celsius.
- Ensure all windows and doors are shut. Seal all door and window gaps.
- Set the ventilation control to "close" to recycle the air.
- Turn off air-conditioning units when not required for long periods.

Recycle that Paper

- Collect newspapers, magazines, unwanted mail and cardboard padding and sell them to a waste paper collector. Set aside a designated spot to collect these discards.
- In an office complex, persuade your management corporation to set up a centralized waste paper collection system for all tenants.
- Keep used computer print-out paper. Turn them into memo pads, or telephone message pads. You could even give them to children as drawing paper.
- Use both sides of the paper when photocopying.
- Write on both sides of your writing paper. Use the back sides for drafting letters, listing work tasks, and even doodling.
- Re-use envelopes for sending mail/memoranda to staff.
- Consider recycled paper for your stationery needs. This way you can help prevent the environment.

Save Water

- Turn off taps promptly, and make sure they are shut tight. This minimises water wastage.
- Install a constant flow regulator.
- Install seal-closing delayed action water taps.
- Install dual-flush water cisterns.
- Inspect taps and pipes regularly for leaks and fix them promptly.

Lighting

- Use the right amount of light at the right place. Not all places need to be brilliantly lit.
- Use a single high-wattage lamp rather than several low-wattage ones.
- Switch to high intensity-low wattage fluorescent lamps.
- Keep the lights clean.
- Switch off lights when not needed, for example, during lunch hour.
- Paint your office in light colours.

Car Pools

- If you and your colleagues live near each other, consider car pooling to work.
- Try to use public transport where possible. The bus and the MRT trains provide connections island-wide.

Electrical Equipment

- Switch off electrical equipment when not in use.
- Service electrical equipment regularly.
- Repair faulty electrical equipment promptly.

Remember, when we're used, remember, we're not paper!

To produce one tonne of paper, it takes 17 trees. If we manage our paper wastage better, we will save on paper. You will also save on fuel used, resulting in less pollution.

Do your bit. Do your part. Be a friend to the environment.

These tips are simple and easy to carry out. A little thought for the environment will save the world a better place to live in for generations to come.

Reproduced courtesy of the Ministry of the Environment and Water Resources, Singapore. The Ministry of the Environment and Water Resources, Singapore, as well as the indicated corporate partners on the brochure will not be held responsible for how the contents of the brochure is being used and consequences that may result from its usage.

Here are some pages from another effective leaflet:

ou know that brushing your teeth every day can help you avoid cavities. But that's not enough to keep your teeth healthy. You may be surprised to learn that most tooth loss in adults is not caused by tooth decay—it's caused by gum disease. Gums cover and protect the bone that supports your teeth. This bone is like a foundation that supports a building—if the foundation becomes weakened, the building may fall down, even though there's nothing wrong with the building itself.

Similarly, if the gums are not cared for, the bone underneath can become infected and damaged. You can lose your teeth if the bone is not strong enough to hold your teeth in place—even if you've never had a cavity in your life!

What causes gum disease?

Gum disease is caused by plaque—a sticky, colorless film of bacteria that is constantly forming on your teeth. These bacteria produce toxins that can irritate the gums and damage teeth.

The earliest stage of gum disease is called gingivitis. This is a swelling of the gums that develops when plaque collects above and below the gumline. With proper oral care every day and regular visits to the dentist, gingivitis can be prevented or reversed because no permanent damage has occurred.

How does gum disease progress?

Left untreated, gingivitis may progress to a more severe form of gum disease called periodontitis. Common symptoms of periodontitis are red, swollen gums that have started to pull away from the teeth, creating pockets. Periodontitis damages the bone that supports the teeth. Once periodontitis develops, the damage can't be reversed; only a professional treatment program and an improved level of daily oral care at home can keep it from getting worse.

Am I at risk for gum disease?

Yes, gum disease can affect you at any age; however, it most often affects adults. In fact, about three out of four adults over age 35 have gum disease now or have had it in the past.

Your risk of getting gum disease may increase if you smoke or have certain medical conditions. It is therefore vital to keep your dentist informed of your general health.

Can I tell if I have gum disease?

You may have gum disease if you notice that:

- Your gums are tender, swollen, or red.
- Your gums bleed when you brush or floss.
- You can't get rid of bad breath or a bad taste in your mouth.
- There's pus from your gumline or between your teeth.
- Your teeth are loose or separating.
- Your teeth or dentures no longer fit together correctly.

What should I do if I think I have gum disease?

Visit your dentist right away for a cleaning and exam. In most cases, gum disease can be reversed or controlled if caught and treated early enough.

Better yet, by cleaning your teeth properly every day and making regular dental visits you can help prevent gum disease from ever developing.

But remember, cleaning your teeth is a two-step process of brushing first followed by cleaning in between your teeth—to get to areas your toothbrush can't reach.

How should I be cleaning in between my teeth?

There are many ways to clean in between your teeth, like flossing. Did you know that if you don't floss, you're leaving up to 40% of your tooth surfaces untouched and uncleared!

- 1 Take about 18 cm of floss and loosely wrap most of it around each middle finger, holding more tension on one finger than the other, leaving 1 cm of floss to "bounce".
- 2 With your thumbs and index fingers holding the floss and gently while it does not bounce your teeth, slide (being careful not to snap) floss in and out your gums.
- 3 Cover the floss around each tooth in a "C" shape and gently move it up and down the sides of each tooth, including under the gumline. Use a new section of floss as you move from tooth to tooth.

At first, flossing might feel awkward. But stick with it! With just a little patience and practice, it will begin to feel as natural as brushing your teeth.

My gums bleed when I floss; should I stop when this happens?

No. Don't worry about your gums bleeding at first—this is quite common. It may be a sign that you have some form of gum disease. After a few days of flossing, the bleeding should stop as your gums become healthier. If bleeding persists, consult your dentist.

How long does it take for flossing to start paying off?

The fact is, flossing provides unpredictable benefits that start from day one. After flossing, your teeth and gums feel cleaner because the floss reaches areas your toothbrush can't. Your breath will be fresher, and the health of your gums will improve.

So, if your dental floss is gathering dust on the bathroom shelf, why not pick it up and try again? Even if it feels awkward at first, keep practicing. Pretty soon, you'll feel the difference and find that it becomes part of your daily routine.

What kind of floss is best?

While there are a number of different kinds of floss (waxed, unwaxed, flavored), they are all designed to reach between the teeth and below the gumline to remove plaque.

So use whatever type of floss you prefer. Some of the newer flosses are easier to use; they are more shred-resistant and slide smoothly between the teeth.

If you have trouble holding or using floss, you may want to try a dental flossette. It eliminates the need to wrap and guide the floss between the teeth with the fingers, and can give you better control. Once the flossette is inserted between the teeth, use the same method of flossing as above. Ask your dentist or hygienist to show you if you are unsure.

If you have braces or restorative dental work (such as a bridge) that interferes with normal flossing, you may want to try a threading floss. This floss has a stiffened end that allows it to be threaded in between your teeth or under bridgework.



A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: P, Q

Padding

Great grandfather was famous for ‘padding’, i.e. unnecessary, verbose words or phrases that we should not be using in the twenty-first century business writing. For example: ‘You may wish to know that’, ‘We regret to inform you’, ‘Please be advised’, ‘I am writing to inform you’, ‘in actual fact’, ‘in this connection’, ‘at the end of the day’, ‘in due course’, ‘in view of the fact that’, ‘at this moment in time’.

Pass up

When you *pass* something, you move it from one person to another. You do not *pass up* your homework – you *pass in* your homework. *Pass up* is used when talking about chances or offers to do something. When you pass something up you are giving something a miss.

Per cent/percent

British English uses two words, whereas American English uses one.

Per diem

This is a financial term meaning ‘by the day’. For example:

We pay speakers a *per diem* of \$50.

Practice/practise

British English makes the distinction that *practice* is a noun and *practise* is a verb. All you have to figure out is whether your word is a noun or a verb – sometimes it’s not that easy!

Practical or practicable

Practical means useful or sensible. *Practicable* means feasible.

IN THE BIN: P, Q

permit me to say





TEST YOURSELF

- 1 Design a small line ad announcing a new Business English course starting soon at your college. Mention the duration and how many hours a week. Include a contact number.
- 2 You work for Aurora School of Physical Therapies in Bedford, telephone 0119 387472. You offer weekend courses in Reflexology, Aromatherapy and Massage – also various post graduate courses. Design a small line ad. Anyone who wants a prospectus can call the school.
- 3 Design a small line ad regarding an item of office equipment that your company wishes to sell. Make up the details.
- 4 You work for Mr. James Tan, Human Resource Manager at Victory Enterprises Pte Ltd, 201 Nathan Road, Kowloon, Hong Kong. Mr. Tan said to you today:

'Can you help me to design an ad – we need someone to help Robert in the Sales Department – he needs an assistant because he's away so often. Male or female, a couple of A levels would be good. Not too young though, 25-35-ish. We need someone with lots of common sense, able to work alone. Good telephone manner and diplomacy are essential for this job. You can't be rude to our customers or they'll be off straight away. Good old-fashioned politeness – that's all we ask. Mention that we'll offer a good salary, 4 weeks' holiday, hours 9–5, good career prospects, medical and dental benefits – but in return we expect loyalty and hard work. Try to make it really eyecatching and they'll come flooding in!'

Design a suitable advertisement.

- 5 You work for Aurora International Ltd, a large travel company based in modern headquarters at Aurora Court, 14–18 Holborn, London EC1N 9JE. The company offers all employees a competitive salary and many benefits including use of worldwide holiday accommodation and discounts on flights. Your fax number is 0208 333 1782. The manager said to you today:

Please draft an advert for me. We urgently need bright, intelligent reservation agents to join our team. We provide thorough training so previous experience in the travel industry isn't essential. Applicants do need basic keyboard skills though, and a reasonable geographical knowledge. Oh, and a good telephone manner goes without saying. The next training session will start on the 30th of next month so applicants must be available for that. Applicants need to be interested in quality customer service, a real people person. Faxes only I think so don't give our address.

Design a suitable advertisement.

- 6 You work for Mr. David Fenworth, Manager of Fenworth Fashions, 117 High Street, Hale, Cheshire WA5 7TJ. (LCCIEB EFB2 style)

Mr. Fenworth has just been told that some urgent repair work is being made to the staff car park next week and the car park will be closed for three days from 8 to 10 August. During this time staff who use their cars to come to work can use the customers' car park but there isn't a lot of room in this. It would be helpful if staff didn't use their cars for these three days and would use the bus or make alternative transport arrangements to

get to the shop. It would also help if staff could give each other lifts to work so there won't be so many cars using the car park. Mr. Fenworth has asked you to write a notice about the car park to be placed on the staff notice boards.

Write the notice.

- 7 There have been some problems recently with the fire alarm system in the offices of *Link Services*. The fire bell has sounded when no-one has touched any part of the alarm system and when there has not been a fire. This has caused confusion in the offices as well as a lot of disruption.

The system is going to be repaired next Thursday. At 1400, staff from *Southern Security* will be carrying out this work and have said that they will need to test the bell on several occasions. The work will take about 2 hours. You have been asked to **produce a notice** to be placed in each office announcing this. Your manager, Mr. Claude Bernard, says this to you:

'Of course, staff should ignore the fire bell while the security staff are repairing the system. But if there is a real fire during this time, our staff will quickly go through each office and tell people to leave the building.'

'Once the system is repaired, any time that staff hear the fire bell they must follow the usual procedure and get out of the building immediately. It could be a real fire.'

'Please make all of this very clear and thank everyone for cooperating.'

Task

Write the notice. (LCCIEB EFB2 style)

- 8 You work at a local health centre where the aim is to provide a high standard of service for all patients. To help to meet this aim there is a team of fully qualified and trained practice nurses and health visitors. You have been asked to design a leaflet to highlight the work of the nursing team. Here are your notes of what must be included:

Practice Nurses and Health Visitors = role developed to bridge the gap between medical and nursing care. They see anyone with minor illnesses (sore throats, earache, coughs/hayfever/asthma, diarrhoea and vomiting, minor traumas, sticky eyes, infant colic, feeding problems)

Doctors = more time for more serious consultations.

Nursing Team always works closely with Doctors to ensure best possible care for all.

Practice Nurses are available Mon–Fri 8.30–12.15, Mon/Wed/Fri 2.00–6.00, Tue/Thurs 4.00–6.00.

Design a leaflet (either A4 size, or fold A4 into three to make a six-sided leaflet) to issue to patients at the health centre.

- 9 You work for Mrs Ruth Fairless, Office Manager of the Bateman Hotel, Norland Road, Tenwick, Cumbria C49 8JY. (LCCIEB EFB2 style)

The hotel is well known for its Christmas lunches and often guests enjoy staying over the Christmas period. For the first time this year the hotel is planning to offer something similar on New Year's Eve and New Year's Day. Many people enjoy celebrating the New Year and Mrs Fairless has asked you to draft a leaflet to send to all the guests who have ever stayed at the hotel informing them about these New Year celebrations.

You made some notes when speaking to Mrs Fairless, as follows.

Guests staying for one night on 31 December and will be able to go to the hotel's grand dinner and dance that evening. A special five course dinner will be served and guests will be able to celebrate until 2 am.

On the following day there will be a special boat trip on the lake next to the hotel and lunch will be served on the boat. Afternoon tea will be served back at the hotel before guests leave.

Entertainment will be provided for children on 31 December and there will be a disco for older children.

All included in special price.

Children who stay in their parents' room will be free. If guests stay on longer, regular rates will apply.

Draft the leaflet.

- 10 You work for *Eastern Jewels*, a company that buys and sells second hand jewellery, from its shop in Central Arcade in the city of Metroville. You assist the shop manager, Mr. Alexander Pletnev.

There have been a lot of new housing developments in Metroville recently and Mr. Pletnev feels that it would be a good idea if a leaflet was produced, for delivery to all these new houses. Mr. Pletnev says this to you.

'Please draft a leaflet for us. If you design it I can get a friend of mine who is a printer to publish it. So if you want to include any picture, maps etc., just say what you want.'

'Basically, I'd like the leaflet to tell everyone that we will give a good price to anyone who wants to sell any jewellery. You'd better remind everyone that we are a very reputable company (we've been in Metroville for over 30 years now) and we'll always give a fair price.'

'I'm sure you can do a good job to make the leaflet interesting. You can tell people that they should not keep old jewellery when they can get good money for it.'

'You'll need to give our address, but you say that anyone can call in to see us with their jewellery, but we'll also visit anyone in their own home if they wish.'

Eastern Jewels' telephone number is 01457 666224 and its e-mail address is *easternjewels@freemail.net*

Task

Write the leaflet. You do not have to draw any pictures but you can indicate where you want any of these to appear. (LCCIEB EFB2 style)

Unit 8

Oral presentation

LEARNING OUTCOMES

After studying this unit you should be able to:

- Describe the steps involved in making a presentation
- Attract and keep an audience's attention
- Put forward ideas that flow naturally and develop as the presentation unfolds
- Vary the pace, pitch, stress, volume and tone of your voice
- Speak clearly
- Communicate in a non-verbal way
- Overcome anxiety and increase confidence in public speaking
- Create and take advantage of effective visual aids
- Deal with questions from the audience
- Manage the presentation

In the work environment, we make presentations all the time. It is another form of communication. To all of us in the workplace, almost every day presents opportunities for us to give a presentation, whether it is formal or informal, individual or group, impromptu or prepared.



This unit has been written by Ricky Lien, to whom I am very grateful. Ricky is a professional speaker and trainer on leadership, communication skills and motivation. Check out his website at www.mindsetmedia.com.sg and sign up for his free monthly newsletter. Ricky is a good friend and an excellent presenter – and that's why I asked him to write this unit for me. Thanks Ricky!

WHAT IS A PRESENTATION?

A presentation is any opportunity to communicate your point of view or ideas to an audience. This can be informal or formal, impromptu or prepared, individual or group.



Although we may not address the media or large groups of people, in business we may make presentations to our:

- bosses
- new employees
- customers
- colleagues
- suppliers.

Also, let's not forget that in a social setting, almost everyone may be required to make a speech at a party, a social gathering, a wedding, or at a party.

Did you know?



The truth is, nobody is born a good speaker – good speaking is learned and takes a great deal of hard work.

This unit will introduce you to the art of making presentations or public speaking where you will be more powerful, more persuasive and more impressive as a public speaker. And also more confident as you will face the opportunity of making a speech with less fear.



We will cover the following important topics:

- *Planning*
 - 1 Get to know your listeners
 - 2 Analyse the circumstances around your talk
 - 3 The location and the size of the audience
- *Writing*
 - 4 Brainstorm the topic
 - 5 Get the hard information
 - 6 Write a draft and read it aloud
 - 7 Use visual aids
 - 8 Beyond the rough draft
- *Completing*
 - 9 Practice, practice, practice
 - 10 It's natural to feel nervous
- *Deliver the presentation*
 - 11 Delivery of your speech
 - 12 Handling questions

1 GET TO KNOW YOUR LISTENERS

One of the most common communication barriers in presentations is the speaker's assumption that they know and understand the audience. If you want to achieve your purpose, if you want your listeners to see the world from your perspective, then you need to construct messages that start with their way of seeing the world.

Good speakers, in their preparation, clarify the interests and needs of their listeners and determine what values, hopes, advantages, fears and concerns their listeners have before they determine what it is they could say to those listeners.

Here are some you need to ask of two or three of the people who will be attending your presentation:

- What do you want to know about the topic? Be careful and tactful here as most people don't like to be exposed as ignorant or unknowledgeable.
- Do you know the knowledge level of the audience on this topic?
- Do you know why I'm giving this talk and why you're here?
- What sort of work have you done in this area?
- Why are you attending this presentation?
- Do you think that my topic will have an impact on your work?
- How interested are you in this topic?
- How long do you want me to present for?

Naturally, if you already have a certain amount of time allotted to you for your presentation, the last question may already be answered. If you question people carefully you may find they want you to talk briefly and then open up the meeting to questions and answers.

Remember



Questions are a better, more realistic form of communication. It is easy to switch off when someone is just talking to you. When specific questions are being answered there is a real need to listen and participate.

For example, asking, 'Are you interested in a 20-minute talk about Apple and IBM type computers?' will elicit a very different response from 'Have you ever used an Apple Computer? What did you like about it?' The first question can be answered by a simple 'Yes', or 'No'. The second question demands a detailed answer.

So the more you know about your audience, the more you will be able to talk to them in language they understand. It's a good idea to start with the person who invited you to present. Quiz them as they will be able to make some suggestions as to how you can get a better feel of your audience.

Learn to answer questions strategically

‘What’s in it for me?’ Your listeners always listen with this question in mind. This should guide both your topic and your sentence construction.

‘What do I want to say?’ You will have particular points that you want to make. Your goal must be to align your listener’s needs and attitudes with your needs and attitudes.

‘What is the most effective way of constructing and presenting the particular things I want to say to achieve my purpose?’ Get to know about both your topic and your listeners. The two are always related.

Learn your audience’s demographics

To establish your listener’s values, priorities, and concerns you will need to have an idea of their demographic characteristics. You may be able to learn their age, gender, cultural identity, ethnic background, race, religious affiliations, and group memberships.

Remember



Good speakers can become that way only by becoming good listeners first. Disciplining ourselves to take the time to listen first can be hard work. Our more automatic and probably more egocentric response is to think first about what we want to say. However, if we think of our listeners first, and seriously consider their interests and concerns as our interests and concerns, it will pay dividends. Being disciplined in this way, we will be rewarded with endless resources to achieve their goals because it starts in the place where our listeners are.

A checklist on listening

- To be a good speaker, be a good listener.
- Audience analysis makes successful presentation planning. It is the starting point for the planning of any presentation.
- Make it a habit to gather information on demographic features of your audience – age, gender, occupation, cultural background, group memberships.
- Understand the role of the audience’s attitude towards you as the speaker.
- Good presentations start where the audience is and then move them towards the speaker’s point of view.
- What does the audience expect of you?
- Why are they here?
- What is their knowledge level?
- Do you expect friendliness, indifference or hostility?

- Will they be able to use what you are going to tell them?

2 ANALYSE THE CIRCUMSTANCES AROUND YOUR TALK

Your presentation will be affected by location and the audience. In adjusting your presentation to the audience, you have to decide:

- What level of language and style to use?
- What is the circumstance and occasion of your speech or talk?
- Is it a sales presentation, a speech at a wedding, or an informational speech?
- Is it a light-hearted, persuasive, political, joyful, passionate speech?
- What is the time length and situation of the presentation?

Remember



Learn about and understand your audience, and don't make any assumptions.



A checklist of questions about the audience

- How many people will there be in the audience?

- What is the age group of the audience?
- What are the language, literacy and numeracy levels of the audience?
- What is the gender make-up of the audience?
- What sort of work do the people do?
- Is the audience enthusiastic or depressed about the topic you have chosen?
- What has brought your audience together?

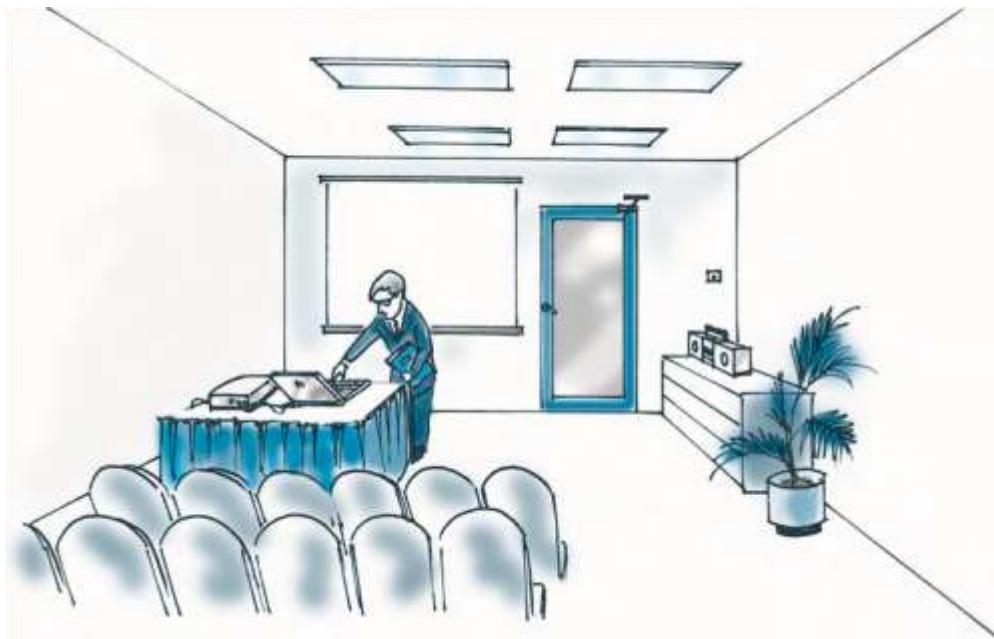
Remember



If you are to make a memorable presentation, it is your job to address all these important issues.

3 THE LOCATION AND THE SIZE OF THE AUDIENCE

The location of a meeting and the facilities provided will have a major bearing upon your ability to give an interesting presentation. If you have video, slide, audio, and overhead projector facilities, you will be able to illustrate your report.



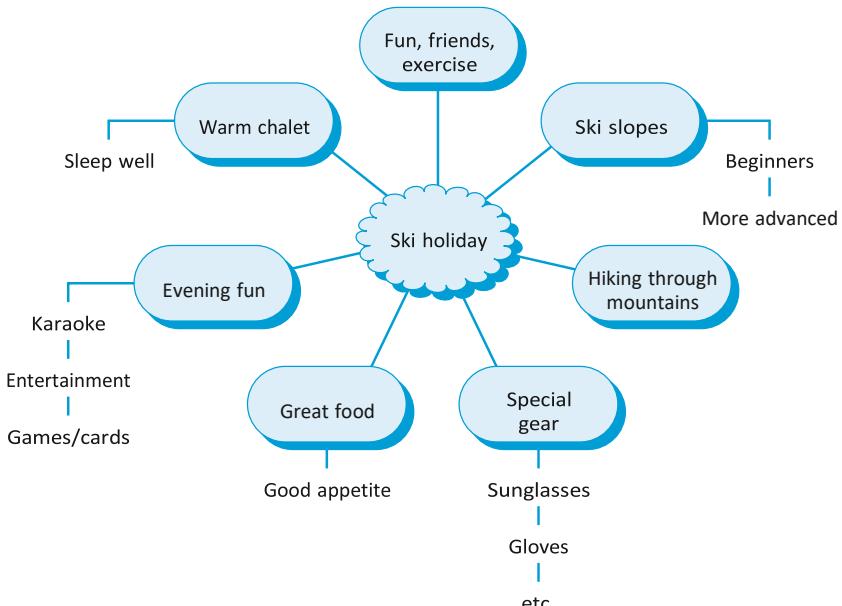
A checklist for the venue

- The room size, seating arrangements, layout, set-up and acoustics
- The technical arrangements, e.g. microphones (either hand held or lapel mikes), power points, computer use, audio-visuals, lighting, music, and whether assistance is available (and have you notified your requirements in advance?)
- What controls are there for air-conditioning (too cold, too hot), lighting, moving people in/out?
- What are the seats like?
- Are there coffee facilities?

4 BRAINSTORM THE TOPIC

To get further ideas on what you want to say, you should brainstorm the topic. This consists of writing down everything about the topic that comes into your head. Jot down anything you feel may be useful – quotes, ideas, anecdotes, facts, figures, examples, anything. Don't worry about organising it yet, you can do that later. Just get your brain working and write down all you can think about the topic you are going to speak about.

Imagine that you are going to talk about a holiday trip to the snow mountains, and the enjoyment that can be had from such an adventure. So your brainstorming page might look something like this:



If you then have a close look at the notes you have written, you can probably find a theme that you can develop and that can become the central idea of the talk. Keep the early points in mind. Remember who the audience is going to be, try to include stories of your own, or stories that your audience don't already know. If you have some personal anecdote that will illuminate the story, jot it down.

Remember



Make the brainstorming session as long as possible. Write down as many things as you possibly can.

At the end of the brainstorming you will have worked out a theme for your talk. You could argue that having a holiday in the snow mountains is a really refreshing and different holiday!

A checklist for brainstorming

- Do you already have some good stories, analogies or examples?
- Do you have the facts and statistics necessary to support your argument?
- Have you got the must-know, should-know and the nice-to-know points?
- Do you have more material than you need in case you need to stretch the presentation out?

5 GET THE HARD INFORMATION

Now that you have your ideas in some kind of order, you have to gather sufficient evidence to back up your ideas. The quality of a good speech is often determined by the quality of the information it provides. Start now to read up and research as much information as possible on holidaying in the snow mountains. Can you find any interesting statistics? Some unusual facts? Something that will keep your audience interested?

For example, you could gather information from tourist associations about the frequency of visits to particular snowy areas of the world. You could research holiday packages from the backpacking variety right up to the five-star quality range! You could find out which country offers the best variety of snow ski holidays. Why not also get facts about how the holiday resorts started, and a bit of their history?

The facts, statistics, quotes and opinions that your research produces will add to the persuasiveness of your presentation. Remember to present statistics in an interesting and dramatic way. The value of facts and figures is two-fold. They lend authority to your presentation and increase your confidence.

Did you know?



A speech that is full of observation and information will keep the interest of your audience.



Checklist for your key facts

- Have you collected sufficient facts and figures to support your argument?
- Do you have good quotes that are entertaining and memorable for your audience?
- Have you checked to ensure that your information is relevant and up-to-date?
- Have you double-checked your information to make sure that it will withstand criticism and is accurate?

6 WRITE A DRAFT AND READ IT ALOUD

Once you have come up with a good idea and theme, done your research and have good quotes and a good solid body of interesting information, the best way to develop your speech is to let it stew for a while. The more time you let the ideas float around in your head, the clearer they'll become and the easier you will be able to write them down.

When you write the first draft of your speech, it should contain the three basic elements:

- The introduction
- The discussion
- The conclusion

You will want to change the speech as you read over it and as you practise it. During this process, you will be able to polish your draft, add some things to it, and take some things away. Some things you will want to expand on and you will be able to improve your expression and provide better examples as you keep on drafting.

Let us look at these three basic elements in detail.

The introduction

If the speech is a formal one, it is customary to thank the people who invited you there. You might also have to address and thank important people who are there at the presentation. Spend about 10% of your allotted time on your introduction.

It has become an accepted procedure to grab the attention of your audience immediately. Much like a newspaper headline, hit the audience between the eyes with a catchy headline that grabs their attention immediately. To help you, study the headlines in newspapers, or have a look at the headlines in the monthly magazines, and get an idea of how to write attention grabbing headlines.

Remember



We are living in a world where every form of mass media – from radio and television to newspapers and magazines – uses the opening to excite and capture the attention of the audience. A speech is no different. It should have an exciting and interesting opening that captures the audience's attention.

After you have delivered the headline, follow it by a clear and concise statement of what you intend to talk about, ‘Today, I’m going to show you how to ...’ Express your point clearly and concisely so that your audience knows where you stand on this issue.



Checklist of questions to ask yourself about your introduction

- Do you have a headline that will ‘grab’ your audience’s attention?
- Have you included a statement that clearly states your topic and expands your headline?
- Have you clearly stated your point-of-view and where you stand on the issues?
- Have you tested and practiced your introduction so that it is clear and easy to understand?

The discussion

In the discussion or body of your presentation, you develop your arguments and convince your audience of your conviction. Your research now comes into use and you quote facts, provide information from authorities, use logical argument and support your argument with examples. This is the major portion of your speech and should take up about 80% of the allotted time.

Checklist of points to remember

- Keep your examples on a personal level. People want to listen to your story, not a heap of dry facts.
- Verbal communication is the least successful way of communicating so keep to a fairly low number of points.

- Make your points clear.
- Use appropriate audio-visual aids to keep your audience interest up.
- Use the appropriate body gestures to help get your points across.
- Make sure you signposts along the way, i.e. keep your audience informed of where you are in your speech, ‘There are five points, and the third point is...’ so the audience knows how you are progressing and when you are going to finish.
- Do you have sufficient evidence to ‘sway’ or to persuade your audience to take action or to agree with your point of view?
- Have you picked several ‘must-know’ points that are powerful?
- Do you have a logical flow to your argument?
- Are your facts presented in an easy fashion so that the audience understands the information?

The conclusion

Audiences tend to remember the beginning and end of a speech. These are the parts of speech that your audience finds easiest to remember, so they can become the parts in which the most important information can be conveyed. So remember to signpost your audience when you are finishing your talk by pausing and announcing clearly ‘in conclusion’ or ‘to sum up’. Once your audience knows that you will be winding up your presentation soon, they will pay more attention again and this is an opportunity for you to explain your main argument, or the points that you want to make, again.

Checklist to remember about your conclusion

- Repeat the important points.
- Use different words and different illustrations to get your point across.
- Keep your conclusion short and to the point (around 10% of the total speaking time).
- Try and end with a big bang. If you can think of a one-liner or a memorable expression, now is the time to use it.
- Use a key transition statement to show you are coming to the end of your presentation.
- Decide how you are going to summarise your argument.
- Have a clear call to action so that your audience will take action after you have finished your talk.

7 USE VISUAL AIDS

It is important to consider which visual aids may be used to enhance the presentation of mere facts. Visual aids help to create interest and to illustrate points that may be hard to explain using words alone. They also help the speaker to remember details of the

presentation and, if used tastefully, they can help to improve the speaker's professional image.

Here are some visual aids that you might consider for your presentation:

- Overhead projector and transparencies.
- Whiteboard.
- Flip charts to prepare.
- Video clips.
- Models and/or samples.
- A computer-based program such as Microsoft PowerPoint.

Did you know?



Up to 50% of information is taken in through the eyes, you should consider adding visual aids to enhance your presentation.

Let's look at these visual aids in more detail:

Overhead projector and transparencies – Pieces of clear plastic that contain your text and/or graphics. Place this onto the overhead projector for projection onto a screen. You can either create the drawings by hand or use a computer and a printer to prepare them.

White board – A flat writing surface in which you can either draw or write your illustrations as you make your presentation.

Flip chart – Using felt tip colour markers, you record ideas generated during the presentation. You can also pre-prepare them and use them as illustrations during your talk.

Video clips – Recordings can be used to show clips of specific instances that you want to be discussed. The modern use of DVD and VCD players is beginning to overshadow the older technology of video tapes.

Photographs and prepared diagrams – These are pre-printed and can be used at the precise moment to illustrate your points.

Models, actual samples of the things being talked about – The physical samples of the objects being talked about can be introduced at the appropriate time so that your audience is able to see, feel and touch the salient points of the article being discussed.

PowerPoint slides – Coupled to an LCD projector, most speakers draw upon this technology to assist them with their presentations. The PowerPoint computer software is powerful and designed specially to be used for presentations.

The grid consists of nine slides arranged in a 3x3 pattern:

- Top Row:**
 - The Changing Role of The Secretary** by Shirley Taylor: A slide featuring a cartoon of a secretary at a desk with a typewriter, titled "The Changing Role of The Secretary" and "by Shirley Taylor".
 - Questions:** A slide with the title "Questions" and a list of six questions: 1. What do we do in the past? 2. What are we doing now? 3. What's it name? 4. What does the future hold? 5. How can employers help us? 6. How can we help ourselves?
 - Duties in the past:** A slide showing a woman at a desk with a typewriter, listing duties: Typing, Filing, Creating letters, Smoothing papers, Making tea and coffee, Buying the boss's wife's birthday present.
 - What are you doing now?**: A slide with a cartoon of a person multitasking with multiple arms and hands, surrounded by documents and a telephone, with the word "DISCUSSION" vertically on the right.
- Middle Row:**
 - Information centre - Communication experts:** A slide with a trophy icon labeled "SECRETARY" and the text "Merger your own interests" and "Teamplayer".
 - DISCUSSION:** A slide with two numbered points: 1. What should EMPLOYERS be doing to help secretaries? 2. What should SECRETARIES be doing to help themselves?
 - What can employers do?**: A slide with three numbered points: Encourage us to take on broader responsibilities, Buy new computer hardware or software to make our job more productive and satisfying, Encourage us to study for professional qualifications.
- Bottom Row:**
 - Encourage us to attend secretaries' seminars and courses to develop existing skills and learn new ones:** A slide with text about attending seminars and courses.
 - What can secretaries do to help themselves?**: A slide with a photo of a secretary at work and a list of ten points: Come早, Offer broader skills, Update your computer and other skills, Never stop learning, Take the initiative - be pro-active, Develop contacts among non-personal skills, Consider to join professional networks, Work cleaner, not harder, Never say no, never be complacent!
 - DISCUSSION:** A slide showing a woman speaking at a podium with a presentation screen behind her.

8 BEYOND THE ROUGH DRAFT

Once you have written out your notes, break them up into a number of simple, easy-to-remember points. In these points, you might want to write down a single word, a memorable phrase, and a symbol of something to remind you of what to say.

After you have practised your speech a few times, you will find that you will remember the important bits, and all you need are some notes to prompt your memory.

Eventually, when you have done enough and you are really confident, you will find yourself making mental notes and just remembering the sequence of ideas and topics.

Remember



Rehearse your speech at least 4 times and up to 10 times if you really want to make a fantastic presentation.

9 PRACTISE, PRACTISE, PRACTISE

It is rare for anyone to remember a speech perfectly. If you want to deliver a really interesting, confident and memorable speech, you will need to practise. Speaking in public is a little like acting, you must rehearse, and you have to know your lines. The more rehearsals and the more practice you do, the better you will become.

During these practices, you will become less dependent on your notes, so that finally you are simply glancing down at them to ensure that you are presenting the points in the correct order and that you include the vital bits of information.

Did you know?



It's a good idea to prepare your presentation on audio cassette, and listen to it with a critical ear. Better still, if you have access to a video camera, place it on a tripod and film yourself practising. Tighten your structure, adjust your expression or change your order if you need to. Leave it for 48 hours before you listen to it again. You may have new thoughts, as you are now quite a distance from your initial attempt.

As you rehearse, consider how you look and sound. Remember to:

- Try not to stand behind a lectern.
- Express your power to your audience by speaking confidently.
- Stand tall.
- Make good use of facial expression and gesture to add feeling and greater meaning to your presentation.
- Use your voice well.

Checklist on practising

- Have you practised reading out your speech at least four times?
- Are you so familiar with your presentation that you hardly need to look at your notes?
- Have you practised ‘eye-ball’ your audience?
- Have you practised making your voice more interesting?
- Did you have access to a video camera and recorded your practice sessions for you to play back and learn from any mistakes made?

10 IT'S NATURAL TO FEEL NERVOUS

Even after you have practised constantly, you will still probably feel nervous when you finally get out there in front of your audience.



If you follow some of the pointers below, they will certainly help you to ease your nervousness and will make the experience much more pleasant.

- 1** When you feel nervous, take a deep breath, hold it. Then let it out with a confident smile. You will be amazed at how this helps to calm your nerves.
- 2** Pause to take deep breaths.
- 3** Look at your audience.
- 4** Use gestures appropriately, move your arms around to demonstrate your points.
- 5** Respond to the looks and body language of your audience.
- 6** Say to yourself, ‘I have something of value to say, and these people love to listen to me’.
- 7** Just because you are nervous doesn’t mean that you must freeze and do a bad job.

- 8 Keep on practising until your material becomes second nature. It will be there in your head.
- 9 Remind yourself that you are there to help the audience take something of value away.
- 10 Just imagine that you are the idol and your audience is there to soak away your message.
- 11 Dress one level better than your audience is dressed – this gives you further confidence and makes you look professional.
- 12 Leave yourself with plenty of time – don't rush about.
- 13 Be early.
- 14 Eat and drink only lightly.
- 15 Have a glass of warm water with a slice of lemon by your table.
- 16 Speak slowly, clearly and with impact.
- 17 Project your voice to reach the back row of the audience.

It's also very important to be willing to work on your self-esteem. Here are three exercises to help you build your self-esteem and confidence.

Exercise 1

- Make a list of all your accomplishments.
- List all the skills you've developed on the way – include everything from swimming badges to helping somebody to learn to ride a bicycle, from great meals you've cooked to getting your present job. Make it a long list.
- Recognise that you are a unique individual and worthy of success.

Exercise 2

- Make a list of all your essential qualities and values as a human being.
- Ask: What's distinctive about me?
- Ask 3 or 4 good friends to say what they think makes you who you are.

Exercise 3

- Imagine future presentations as if you are watching them on TV or a large film screen. 'See' yourself being a brilliant presenter and exactly as you wish. Play this positive picture story regularly in your mind, and as many times as you can throughout the day.
- Do this also last thing at night before you go to sleep.

11 DELIVERY OF YOUR SPEECH

We're now on our feet at last, facing our audience. The following seven factors will contribute towards our success during the presentation. Your critical success factors are:

- Your start.
- Audience mood.
- Your voice.
- Body language.
- Your visual aids.
- Timing.
- Conclusion.

The start

The greatest battle is won when you make a great start. Bear the following points in mind:

- Do not apologise.
- Be confident.
- Know the topic well.
- Be confident.

Audience mood

- Be empathic with your audience mood.
- Watch your audience's body language.
- Watch their facial expressions, glances exchanged, shuffling of feet.
- Be professional.
- Project the right degree of formality.
- Use good pace and drive.
- Don't be arrogant – this will turn your audience against you.
- Control your enthusiasm.

Your voice

- Use it with skill.
- Be clearly audible.
- Use a microphone if necessary.
- Keep your head up.
- Open your mouth wider than during normal speech.
- Speak more slowly so the audience can digest what you are saying.

- Stress on the consonants.
- Accent on the last syllable of each word for clarity.
- Use the right pace, i.e. the speed of speaking.
- Use a good pitch – the musical tone of your voice. Vary it. High notes convey urgency, the low notes convey emphasis.
- Use the right volume, i.e. the loudness should be sufficient for all to hear comfortably.

Body language

The body can help or hinder a good presentation. Pay attention to the following:

- Positioning of our body – stand in a good posture, do not pace around too much.
- Use your hands in proper gestures to support your points.
- Good use of eye contact – gains and holds attention and establishes rapport.
- Avoid mannerisms that irritate, e.g. swaying side to side, fiddling with marker pens, pointers or spectacles.
- Placing hands in pockets.
- Pacing to and fro.

Your visual aids

- When using flip charts or white boards, write from the side.
- Write legibly.
- Stand so that you do not block the view of the screen or flip chart.
- Do not speak to the board or screen.

Timing

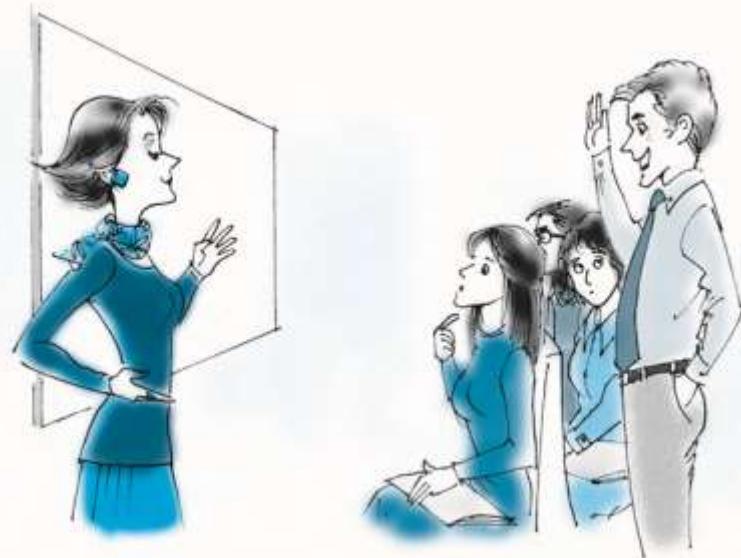
Make sure you end on time. Nothing is worse than going overtime unless you have checked with the audience first. Keep to your allotted time.

Conclusion

Finish with a bang. Go out on a high note. Ask the audience for action. Whatever else, leave no doubt in your audience's mind that you have come to an end of your presentation.

12 HANDLING QUESTIONS

You must also be prepared to answer any questions from the audience. If there is a question that you are afraid of, prepare your answer and consider it carefully before giving it.



The question and answer section is an important part of a presentation. Questions from the audience clarify their thinking on what you have just said. Maintain your professionalism, self-control and control of the situation.

You may want to leave questions until the end or inform your audience that you will take questions as you go along.

- Probably leaving questions until the end is a better timing as your train of thought can easily be broken by the interruption.
- Look directly at the questioner as you speak, repeat the question for all to hear.
- Answer the question by also looking at the audience and not just at the person who asked you the question.
- Regard question time as an opportunity, not as a threat.

Remember



If you do not know the answer to a question, ask whether somebody in the audience knows, if not tell the questioners that you will get back to them as soon as possible with the answer.

Questionnaire to test presentation skills

The skill	1 Poor	2	3	4	5	6	7 Excellent
1 Did the speaker speak clearly so that the audience understood easily?							
2 Did the speaker use language and vocabulary that the audience could understand?							
3 Was the tone of the presentation correct? Was it enthusiastic, serious or light-hearted to fit the occasion?							
4 Did the speaker choose relevant information?							
5 Was clear structure used and a sense of clear organization used?							
6 Did the speaker present the topic in a logical, flowing manner?							
7 Were the ideas at the heart of the presentation presented clearly?							
8 How successfully did the speaker hold and keep the audience's attention and interest?							
9 Did the speaker keep to the appropriate time and finish off what was supposed to be said?							
10 Did the speaker use appropriate body language, gestures?							
11 Did the speaker vary his/her voice, pace, stress words, correct pitch and was the volume comfortable for all to hear?							
12 Did the speaker use appropriate visual aids to enhance the presentation?							

13 Did the speaker handle questions well from the audience?							
Other comments:							

A–Z OF BLOOPERS AND BLUNDERS, COMMON ERRORS AND CLICHÉS: U, V, W, X, Y, Z

Undersigned

Great-grandfather used to refer to himself as a third person, i.e. ‘Please do not hesitate to contact the undersigned if you require any further information.’ Unfortunately, I still see people using this in their messages. What we should be writing is ‘Please call me at xxxx if you need any further information’.

Use/utilise

Use is much better than utilise. For example, ‘I used the dishwasher’, ‘John used the scissors to open the box’, ‘You should use a tissue to blow your nose’.

Whilst/while

‘Whilst’ is an old-fashioned word. Use ‘while’.

Who/whoever/whom/whomever

‘Who’ and ‘whoever’ are subjects, for example, ‘Who put sugar in my coffee?’ ‘Whoever loves me must also love my dog.’ ‘Please take these receipts to whoever is responsible for petty cash.’

‘Who’ and its related forms refer only to people, not to animals, things or ideas.

‘Whom’ and ‘whomever’ are objects, for example: ‘Teenagers often fall out with friends whom they have fought with’, ‘You always find fault with whomever I bring home.’ Unless you understand ‘who’, ‘whoever’, ‘whom’ and ‘whomever’ well, it is best to rephrase your sentences so that you don’t use these words. (NB: That’s what I do!)

Whose/who's

Many people confuse these words because the way to form the possessive of most words is to add an apostrophe and an ‘s’. For example, Mary’s desk, John’s advice.

However, pronouns like ‘whose’ do not follow this rule. ‘Whose’ is possessive but it does not need an apostrophe. For example, ‘The person whose suggestion is chosen will receive a special award.’ *Who's* is a contraction meaning *Who is*. For example, ‘Who’s the right person to ask about petty cash claims?’, ‘Martha is the person who’s co-ordinating this project.’

Your/you're

After a few SMS’s (text messages) with a friend, I received one that read ‘Your funny’. I wondered what she meant – ‘Your funny face?’, ‘Your funny smile?’ ‘Your funny feet?’

Of course, what she meant to say was ‘You are funny’. To use the contraction correctly, it should be ‘You’re’.

Remember, *your* is possessive. It describes the word or words immediately following it. For example: ‘Your experience’, ‘your confidence’, ‘your hair’, ‘your nose’.

‘*You're*’ is a contraction that means ‘you are’. For example, ‘You’re the right person for this job’, ‘Please give me a call when you’re next in Singapore’.

Section 5

Critical reasoning

Chapter 1

Analysing reasoning

We cannot begin to evaluate someone’s reasoning if we do not understand it, or if we understand the words but fail to grasp that reasons are being offered for accepting a point of view. The skills upon which this chapter focuses—recognizing reasoning, and identifying conclusions, reasons and assumptions—are the most basic abilities; upon them

the important skills involved in *evaluating* reasoning (the focus of our next chapter) depend.

Recognizing reasoning and identifying conclusions

Reasoning is, of course, presented in language, but not all communications in language involve reasoning, so we need to be able to pick out those features of language which tell us that reasoning is taking place. It is clear that we use language for a variety of purposes. For example, we may use it to tell a joke, to insult someone, to report factual information, to describe a scene or a personality, to tell a story, to express our feelings, to explain why we have acted in a particular way, to ask questions, to issue orders. What most uses of language have in common is the attempt to communicate something to others.

Sometimes we want to persuade others to accept the truth of a statement, and one way of doing this is to offer them reasons or evidence in support of this statement. This is the essence of argument. The simplest examples of arguments occur when someone, who believes some statement, will present reasons which aim at persuading others to adopt this same point of view. In more complex cases, someone may wish to assess and evaluate someone else's reasoning, or someone may be reasoning about their own or someone else's reasoning. We all use language in this way, often without thinking of what we are doing as being something so grand as 'presenting an argument'. For example, someone might say:

He must be older than he says he is. He told us he was forty-two, but he has a daughter who is at least thirty years old.

Here reasons are being offered for the conclusion that 'he must be older than he says he is'. So this simple, everyday piece of communication is an argument.

Here are some more very simple examples of argument. As you read through these examples, think about which statement the author is trying to get you to accept (that is, the conclusion) and which statements are being offered as reasons for accepting the conclusion:

The bus is late. It must have broken down.

That bird can't be a robin. It doesn't have a red breast.

You should try to appear confident in your job interview. The employers are looking for someone who can speak confidently in public.

Children learn languages much more quickly and speak them more fluently if they start to learn them at an early age. So if you want your children to be bilingual, you should speak two languages to them from the time they are born.

She didn't turn up for their date. She obviously doesn't really want to be his girlfriend. If she'd wanted a serious relationship with him she wouldn't have missed the date.

Argument indicator words

The language of reasoning can be very complex, but there are some relatively simple linguistic clues which can signal that reasoning is taking place. Certain characteristic words are used to indicate that someone is presenting a conclusion, the most commonly used being 'therefore' and 'so'. For example, the argument presented in the first paragraph of this section could be written as:

He told us he was forty-two, but he has a daughter who is at least thirty years old.
So, he must be older than he says he is.

'Hence' and 'thus' can also function in the same way as 'so' and 'therefore', though they are less commonly used. Other words may indicate the presence of a conclusion, for example, 'must', 'cannot'. In the original version above, the word 'must' is used to show that the reasons offered force us to draw the conclusion. The word 'cannot' could function in a similar way, since the conclusion could have been expressed as follows: 'He cannot be as young as he says he is'.

Sometimes the word 'should' can signal that someone is presenting a conclusion, because arguments often make a recommendation. This is shown in two of the examples above; the third, which recommends appearing confident in a job interview, and the fourth, which recommends speaking two languages to babies. All of these conclusion indicator words have other uses in addition to their function in arguments, so their presence in a written passage does not guarantee that an argument is being offered. However, they are useful indicators in assessing whether a passage contains an argument.

Recognizing arguments without argument indicator words

Some passages which contain arguments have no argument indicator words. In order to recognize them as arguments, it is necessary to consider the relationships between

statements in the passage, to assess whether some of the statements can be taken to support a statement expressing a conclusion. For example, the following passage can be construed as an argument:

Knowing the dangers of smoking is not sufficient to stop people from smoking. One third of the population still smokes. Everyone must know that smoking causes lung cancer and heart disease.

This passage is clearly presenting as a statistical fact that one third of the population smokes, and as an obvious truth that everyone must know the dangers of smoking. It is using these reasons to support the conclusion that knowing the dangers is not sufficient to stop smokers from smoking.

Note that the only candidate for a conclusion indicator—the word ‘must’—appears not in the conclusion, but in one of the reasons. Yet, we can be clear that the last sentence is not the conclusion, because no appropriate evidence (for example, that there have been programmes to educate the public about the dangers) is offered. Note also that in this example, as well as in our first example, the conclusion does not appear at the *end* of the passage. We need to be aware that conclusions can appear anywhere within a passage, even though it is possible for us to ‘tidy up’ an argument by writing out the reasons first and ending with a conclusion introduced by ‘so’ or ‘therefore’.

We have now considered two things we might look for to identify the conclusion of an argument:

- 1 conclusion indicator words,
- 2 the claim for which reasons appear to be offered.

Note that if we have identified a conclusion, we have also identified the passage as an argument, or as something which is intended to be an argument. If we have identified the conclusion by finding conclusion indicator words, then it is reasonable to regard the author as *intending* to present an argument. Earlier, we introduced the term ‘argument’ as one way in which people use language when they are attempting to persuade or convince others of the truth of something—that is to say, when they have a particular purpose. However, when trying to assess whether a written passage presents an argument, we are not solely trying to guess the purpose of the author in writing the passage. We can also attempt to interpret the way in which this piece of language functions: this is what we are doing when we identify the conclusion by the second method, that is to say by looking for the claim for which reasons appear to be offered. If a passage can be written out as a series of reasons supporting a conclusion, then it can be construed as an argument, even if the author did not quite intend it in that way.

Nevertheless, it is often useful as a first step to consider the purpose of a passage when trying to decide whether it is an argument. If you ask yourself, ‘What is the main point which this passage is trying to get me to accept or believe?’, you can then underline the sentence which you think expresses the main point. The next step is to check whether the rest of the passage contains a reason or series of reasons which support the main point.

You need not worry too much at this stage about whether they give conclusive support, because you are not yet attempting to evaluate the reasoning. Consider whether they are relevant to the main point, and whether they support it, rather than countering against it. Do they provide the kind of evidence or reasoning one would need to present in order to establish the truth of the main point? If you are satisfied on these matters, then you can take it that you have identified a conclusion of an argument, and thereby decided that the passage is an argument. You may find it useful to tidy up the argument by writing it out as a series of reasons, followed by your chosen conclusion, introduced by ‘So’ or ‘Therefore’.

Identifying conclusions

In this section are some examples in which we put these recommendations into practice.

The new miracle drug Amotril has caused unforeseen side effects of a devastating nature. Careful testing of the drug prior to its marketing could have prevented the problems caused by these side effects. Therefore, no new drugs should be released for public consumption without a thorough study of their side effects.

(Law School Admission Test, 1981)

This argument presents its conclusion in a straightforward way, and this helps to make it an easy passage to analyse. We first notice that the word ‘Therefore’ introduces the last sentence, so it is obvious that the conclusion we are being led to accept is:

no new drugs should be released for public consumption without a thorough study of their side effects.

The reason given for this is that careful testing of Amotril before it went on sale could have prevented the problems caused by its devastating side effects. In this case, we do not need to tidy up the argument, since it is clear what claim is being made. Moreover, the reason gives good support for the conclusion, provided we assume that one could not find out about a drug’s side effects without thorough study, and that it is never worth taking the risk of offering a drug for sale unless we are as certain as we can be that it has no serious side effects.

Here is another example:

People who diet lose weight. Pavarotti cannot have dieted. He hasn’t lost weight.

In this case, we do not have a conclusion indicator such as ‘So’ or ‘Therefore’, but we do have the word ‘cannot’. Is it being used to signal a conclusion? We must consider whether

the sentence in which it occurs is the main point which the passage is trying to establish. It seems that the passage *is* trying to convince us that Pavarotti cannot have dieted, and we seem to have a clear argument if we rearrange it to read:

People who diet lose weight. Pavarotti hasn't lost weight. Therefore, he cannot have dieted.

This is the most natural way to read the passage.

But suppose we had started out by assuming that the *main* point which the passage was aiming to get us to accept was that Pavarotti has not lost weight. Then, we would have set out the argument as follows:

People who diet lose weight. Pavarotti cannot have dieted. Therefore, he hasn't lost weight.

But this is an unnatural reading of the passage, in two respects. First, it would not be natural to use the words 'cannot have dieted' in the second sentence if the meaning it aimed to convey was that Pavarotti has been unable to diet. Secondly, even if we replaced 'cannot have dieted' with 'has been unable to diet', the first two sentences would be insufficient to establish the conclusion, since Pavarotti may have lost weight by some means other than dieting, for example by taking exercise. Moreover, the kind of evidence one would have to use to establish that Pavarotti had not lost weight would be evidence, not about whether or not he had dieted, but about what he weighed in the past compared with what he weighs now.

Here is another example in which there are no conclusion indicators such as 'so' and 'therefore':

We need to make rail travel more attractive to travellers. There are so many cars on the roads that the environment and human safety are under threat. Rail travel should be made cheaper. Everyone wants the roads to be less crowded, but they still want the convenience of being able to travel by road themselves. People will not abandon the car in favour of the train without some new incentive.

What is the main point which this piece of reasoning tries to get us to accept? Clearly it is concerned with suggesting a way of getting people to switch from using cars to using trains, on the grounds that it would be a good thing if people did make this switch. We could summarize the passage as follows:

Because the large numbers of cars on the roads are bad for the environment and human safety, and because people will not abandon the car in favour of the train without some new incentive, we need to make rail travel more attractive. So, rail travel should be made cheaper.

Notice that the word ‘should’ appears in the conclusion. This may have helped you to see which sentence was the conclusion. Now that we can see more clearly what the argument is, we may question whether it is a good argument. For example, is it the *cost* of rail travel which deters motorists from switching to using trains, or is it because rail travel is less convenient? Would reducing rail fares really make a difference? Are there any alternative measures which would better achieve the desired effect? Setting out the argument in this way can help us to see what questions we need to ask when we begin to evaluate arguments.

Judging whether a passage contains an argument

Sometimes the subject matter of a passage may make it appear at first sight that an argument is being presented when it is not. Consider these two passages, one of which can be construed as an argument, whereas the other cannot.

The number of crimes reported to the police is rising. The overall crime rate may not be rising. Traditionally, only a quarter of what most people regard as crime has been notified to the police.

Most crime is committed by those aged under 21. But most people aged under 21 are not criminals. Some people aged over 21 are persistent offenders.

Let us consider the first passage and ask what main point it is making. Does it try to convince us that the number of crimes reported to the police is rising? It presents no evidence for this, but simply presents it as a fact. Does it try to convince us that traditionally, only a quarter of what most people regard as crime has been notified to the police? Again, no evidence is offered for this. Does it offer evidence for the claim that the overall crime rate may not be rising? Well, it gives us information which shows that this is a possibility. The fact that reported crime is rising may make us suspect that crime is rising over-all. But when we are told that there has been a tendency for only a quarter of what is regarded as crime to be reported, we can see that if this tendency has changed in such a way that a greater fraction of what is perceived as crime is now reported, then the overall crime rate may not be rising after all. We can write this argument as follows:

Traditionally, only a quarter of what most people regard as crime has been notified to the police. So, although the number of crimes reported to the police is rising, the overall crime rate may not be rising.

Notice that the original version of this passage did not contain any of the ‘argument indicator’ words which we have listed, but it is nevertheless an argument.

Now let us look at the second passage. What does it aim to get us to believe? It presents three comments about statistics on crime, each of which, in a sense, it aims to get us to believe, since it asserts them as being true. However, it does not have a single major point to make, in the sense that none of the statements supports any of the others. You will see this if you try for yourself writing out the three possible ways of treating one of the statements as a conclusion. So this is a passage in which three pieces of information about the same subject-matter are not linked in any process of reasoning; but, because of the kind of information presented, that is to say, because it refers to statistics, we may at first be tempted to think of it as an argument, because the use of statistics is a common move in argument. We need to be aware, then, that argument is not just a matter of presenting information—it is, rather, a matter of presenting a conclusion based on information or reasons.

Summary: Is it an argument?

Here is a summary of the steps to take when trying to assess whether a passage is an argument:

- 1 Look for ‘conclusion indicator’ words, i.e. words such as ‘so’, ‘therefore’, ‘must’, ‘cannot’, ‘should’.
- 2 If there are no ‘conclusion indicator’ words, look at each sentence in turn and ask, *‘Does the rest of the passage give any extra information which tells me why I should believe this?’* If the answer is ‘No’, then this sentence is not a conclusion. If the answer is ‘Yes’, then the sentence is a conclusion.
- 3 If none of the sentences in a passage is a conclusion, then the passage is not an argument: *no conclusion, no argument*. If one of the sentences in a passage is a conclusion supported by a reason or reasons in the rest of the passage, then the passage is an argument.
- 4 When you have found a conclusion in a passage, rewrite the passage with the conclusion at the end, introduced by ‘So’. Read through this re-written passage to check that it makes sense. If it does, then you can be certain that this passage is an argument.

Do not worry at this stage about whether the reasons are true, or about whether they give conclusive support to the conclusion.

Exercise 1: Identifying arguments and conclusions For

each of the following passages:

- decide whether it is an argument and
- if it is an argument say what the conclusion is.

- 1 Before they start school, all children need to acquire many skills, for example, speaking, dressing, washing, identifying colours. Parents should be perfectly capable of

- teaching these skills. Instead of spending money on nursery education, we should spend it on educating people to become good parents.
- 2 Human beings learn more between birth and the age of five than at any other time in their lives. Ninety per cent of three and four year olds receive some form of pre-school education. More than fifty per cent of children aged under five attend school.
- 3 Red squirrels can eat yew berries, hawthorn berries and rosehips. Grey squirrels can eat none of these. However, grey squirrels eat acorns which red squirrels cannot eat.
- 4 Millions of pounds of public money are spent defending riverside farm-land from flooding. Some of this money should be given to farmers to compensate them for taking such land out of production. This would save money and would benefit the environment, since if rivers were allowed to flood, their natural flood plains would provide wetland meadows and woodland rich in wildlife.
- 5 The Meteorological Office in Bracknell said total rainfall in England and Wales for the autumn months had been 34 per cent above the long-term average. December was wetter still—57 per cent above the average for the month in England and Wales. Scotland has also had a wet autumn and winter.
- 6 The North American Wildlife Federation, which sponsors an annual watch for endangered species, reports that sightings of the bald eagle between 1978 and 1979 increased by 35 per cent. In the watch of 1979, 13, 127 sightings of bald eagles were reported, 3,400 over the 1978 count. This indicates considerable growth in the bald eagle population.

(Law School Admission Test, 1981)

- 7 In recent years, the demand for computer-literate personnel has increased. More students are graduating in computing science than before. Some companies find that these graduates require further training before embarking on a career in computing.
- 8 We could reduce road accidents by lowering speed limits, and making greater efforts to ensure that such limits are enforced. But, because this would inconvenience the majority who drive safely, this would be an unacceptable solution to the problem of careless drivers who are unsafe at current speed limits.
- 9 Wealth should be distributed more evenly. The purpose of distributing wealth must be to produce more happiness. The same amount of wealth will yield more happiness if it is distributed widely than if it is divided with great inequality. A dollar to a poor man means more than a dollar to a rich man—in that it meets more urgent needs and, therefore, produces more happiness.
- 10 Government campaigns against smoking are always based on the assumption that the greatest risk to health from smoking is the risk of getting lung cancer. But this is not so. It is true that heavy smoking roughly doubles a person's chance of dying of heart disease, whereas it increases the chance of dying from lung cancer by about ten times. But we have to take into account the fact that there is a much higher incidence of heart disease than of lung cancer in the general population. This means that for every smoker who develops lung cancer, there will be about three who die of self-induced heart disease.

Identifying reasons

We use reasons in a number of ways, for example to support conclusions of arguments, to support recommendations, to explain why something has happened or why someone has acted in a particular way. This section focuses on the use of reasons to support conclusions of arguments.

If we have identified a conclusion of an argument which has no argument indicator words, then it is likely that we will already have some idea as to what the reasons of the argument are, since in order to identify the conclusion, we will have had to assess which parts of the passage could be taken to give support to the chosen conclusion—hence which parts are the reasons. This is what you were doing when you worked through Exercise 1. But if we identify the conclusion by the presence of argument indicator words, then we will have to look again at the passage in order to identify the reasons.

Sometimes we will find characteristic words which indicate the presence of reasons, words such as ‘because’, ‘for’, ‘since’. For example, our earlier argument about Pavarotti could have read as follows:

People who diet lose weight. Since Pavarotti hasn’t lost weight, he cannot have dieted.

In this example, the word ‘Since’ signals that ‘Pavarotti hasn’t lost weight’ is being offered as a reason for the conclusion that Pavarotti cannot have dieted. Sometimes a phrase will be used which tells us explicitly that a reason is being offered, a phrase such as ‘the reason for this is’; and sometimes reasons are listed, introduced by the words ‘firstly...secondly...[and so on]’.

Arguments often use hypothetical or conditional statements as reasons. These are statements which begin with ‘If’ (or ‘when’ or ‘where’) and which say that something is true, or will be true, or will happen, provided that (on the condition that) something else is true or something else occurs—for example, ‘If I read without wearing my glasses, I will get a headache.’ When you see a sentence beginning with the word ‘If’, think about whether this sentence is being offered as one of the reasons for a conclusion. It is important to remember that it is the whole statement which is being presented as a reason. You should not attempt to break the statement down into two reasons. Sometimes an argument has a hypothetical statement for a conclusion, so you cannot just assume that any hypothetical statement is being offered as a reason.

In common with conclusion indicator words, these reason indicator words can be used in ways other than to introduce a reason, so their presence cannot guarantee that a reason is being offered—but it can be a useful clue. Sometimes, however, we will find no such words or phrases, and will have to rely on our understanding of the meaning of the passage. It may be useful to ask yourself, ‘What kind of reason would I have to produce in order to provide support for this conclusion?’ You should then look in the passage to see if such reasons are offered.

In addition to the hypothetical statements already mentioned, many different kinds of statements can function as reasons. They may be items of common knowledge, general

principles, reports of the results of experiments, statistics, and so on. What they have in common is that they are put forward as being true. Not all the reasons offered in an argument can be given support *within that argument*. That is to say, arguments have to start somewhere, so every argument must offer at least one basic reason for which no support is offered. Thus those who present arguments will often take as a starting point something which is obviously true, or the truth of which can easily be checked by others. However, this is not always the case. People may present something which is contentious as a basic reason, and they may fail to give support for such a statement precisely in order to conceal the contentious nature of their argument. So the evaluation of reasoning, which will be discussed in the next chapter, will require us to consider whether the basic reasons presented in any argument are true.

The structure of arguments

The reasons in an argument can fit together in a number of ways. Sometimes there may be only one reason supporting a conclusion, for example:

Pavarotti is thinner. So he has probably been dieting.

In our original Pavarotti argument, there are two reasons:

Reason 1 People who diet lose weight.

Reason 2 Pavarotti hasn't lost weight.

These two reasons, *taken together*, support the conclusion:

Pavarotti cannot have dieted.

Neither reason on its own would be sufficient to support the conclusion. The number of reasons used in this way in an argument need not be limited to two. An argument could have three, four or a whole string of reasons which need to be taken together in order to support the conclusion.

However, sometimes when there are two (or more) reasons, they are offered not as jointly supporting the conclusion, but as independently supporting it, for example:

Cigarette advertising should be banned because it encourages young people to start smoking. But even if it had no such influence on young people, it should be banned because it gives existing smokers the mistaken impression that their habit is socially acceptable.

In this case, the conclusion that cigarette advertising should be banned could be supported either by the claim that it has the adverse effect of encouraging young people to start smoking, or by the claim that it has the adverse effect of making smokers think that their habit is socially acceptable. Unlike the Pavarotti argument, the author of this argument does not regard it as necessary to offer both reasons, and would claim that the argument had established its conclusion if *either* reason could be shown to be true. But when an argument offers reasons as jointly supporting the conclusion, then evaluating the argument requires an assessment of the truth of *all* the reasons.

In the two examples we have just presented, it is clear that in one case joint reasons, and in the other case independent reasons, are being offered. But in some arguments it will be debatable whether the reasons are intended to support the conclusion jointly or independently. Consider the following example:

Our 40,000 GIs stationed in South Korea support a corrupt regime. The savings in dollars which would result from their coming home could make a sizable dent in the projected federal deficit. Furthermore, the Korean conflict ended 30 years ago. Hence it is time we brought our troops home.

(James B.Freeman, Thinking Logically, p. 165)

In this case each one of the first three sentences presents a reason for the conclusion, which appears in the last sentence. Because they are all quite strong reasons for the claim that the troops should be brought home, it may be that the author regards them as independently supporting the conclusion. On the other hand, if they are taken jointly, they present a much stronger case for the conclusion. We could interpret the argument either way here, but it should be remembered in cases like this that, provided all the reasons are true, the argument could be judged to be stronger if it is interpreted as presenting joint rather than independent reasons.

Arguments can become much more complicated than the above examples. Reasons may be offered for a conclusion which is then used, either on its own or together with one or more other reasons, in order to draw a further conclusion. It is useful to make a distinction in such cases between an *intermediate conclusion* and a *main conclusion*. Here is an example of an argument with an intermediate conclusion.

A majority of prospective parents would prefer to have sons rather than daughters. So, if people can choose the sex of their child, it is likely that eventually there will be many more males than females in the population. A preponderance of males in the population is likely to produce serious social problems. Therefore, we should discourage the use of techniques which enable people to choose the sex of their child.

The main conclusion here, signalled by ‘Therefore’, is that

we should discourage the use of techniques which enable people to choose the sex of their child.

The immediate reasons given (jointly) for this are:

if people can choose the sex of their child, it is likely that eventually there will be many more males than females in the population

and:

A preponderance of males in the population is likely to produce serious social problems.

The first of these two reasons is itself a conclusion, signalled by the word ‘So’, which follows from the basic reason that

A majority of prospective parents would prefer to have sons rather than daughters.

Thus an analysis of this passage reveals that the first sentence is a *basic reason*, which supports the *intermediate conclusion* expressed in the second sentence, which in turn, taken jointly with the additional reason offered in the third sentence, supports the *main conclusion* in the last sentence. Unfortunately, not all arguments will set out their reasons and conclusions in this obvious order of progression, so you cannot simply take it for granted that basic reasons will always appear at the beginning, with intermediate conclusions in the middle and main conclusion at the end.

We have identified two important approaches to identifying the reasons which are being offered in an argument—first, asking what kind of reason could give support to a particular conclusion, and secondly, attempting to sort out the way in which the reasons in a passage hang together. It may seem that detailed knowledge of the subject matter will be necessary before one can begin to analyse the argument, and no doubt it is true that the more familiar you are with the subject matter, the more readily will you be able to work out the structure of the argument. However, on many topics, most people will be able to go a long way towards understanding arguments which they encounter in newspapers and textbooks, and they will improve at this task with the kind of practice afforded by the following sets of exercises.

Exercise 2: Offering reasons for conclusions

Working with a partner, take it in turns to think of a simple claim which you think you have good reason to believe. (For example, you may think that there should be speed limits lower than 30 mph on housing estates, because cars travelling at 30 mph on streets where children play can easily cause road deaths.) Tell your partner what your ‘conclusion’ is (in this example ‘Speed limits on housing estates should be lower than 30 mph’). Your partner must then try to offer a reason for this. They may not come up with your reason, but they may come up with another good reason. What you are practising in this exercise is thinking about the *relevance* and the *strength* of potential reasons. You may not come up with the strongest reason, but you should aim to produce something which is clearly relevant, and gives some support to the conclusion, rather than being neutral or counting against it.

Exercise 3: Identifying reasons

This exercise also gives you practice in assessing what could count as a reason for a given ‘conclusion’. In each question, pick the answer which could be a reason for accepting the truth of the conclusion, and say why this is the right answer, and why the other options are wrong. Note that you are not to worry about whether the reason is true. You must just consider whether, if it were true, your chosen reason would support the conclusion.

1 Conclusion: Blood donors should be paid for giving blood.

- (a) The Blood Donor service is expensive to administer.
- (b) People who give blood usually do so because they want to help others.
- (c) There is a shortage of blood donors, and payment would encourage more people to become donors.

2 Conclusion: When choosing someone for a job, employers should base their decision on the applicants’ personalities, rather than on their skills.

- (a) Personalities may change over time, and skills go out of date.
- (b) Skills can easily be taught, but personalities are difficult to change.
- (c) Some skills cannot be acquired by everyone, but everyone can develop a good personality.

3 Conclusion: Light-skinned people should avoid exposure to the sun.

- (a) Ultra-violet light from the sun can cause skin cancer on light skins.
- (b) Dark-skinned people do not suffer as a result of exposure to the sun. (c) Light-skinned people can use sun creams in order to avoid sunburn.

4 Conclusion: Installing insulation in your house may be economical in the long run.

- (a) Less fuel is needed to heat a house which has been insulated.
- (b) In a house which has been insulated the air feels warmer. (c) Some types of insulation cause houses to be damp.

5 Conclusion: In order to reduce crime, we should not use imprisonment as a punishment for young offenders.

- (a) Young offenders could be taught job skills whilst in prison.
- (b) It would be expensive to build new prisons to relieve prison over-crowding.
- (c) Young offenders are more likely to re-offend if their punishment has been a term of imprisonment.

6 Conclusion: Sam could not have committed the murder.

- (a) Sally had both the opportunity and a motive to commit the murder.
- (b) Sam could not have gained anything by committing the murder.
- (c) Sam was several miles away from the scene of the murder when the victim was stabbed to death.

7 Conclusion: A vegetarian diet may be beneficial to health.

- (a) vegetarian diet lacks certain important vitamins.
- (b) A vegetarian diet excludes animal fats which can cause heart disease.
- (c) A vegetarian diet excludes fish oil which is thought to be beneficial to health.

8 Conclusion: Parents should be strongly recommended to have their children vaccinated against polio.

- (a) Some parents think that there is a risk of harmful side effects from the polio vaccine.
- (b) If a substantial percentage of the population is not vaccinated against polio, there will be outbreaks of the disease every few years.
- (c) The risk of becoming infected with polio is very low.

9 Conclusion: Those people who die from drowning are more likely to be swimmers than to be non-swimmers.

- (a) People who cannot swim are much more likely than swimmers to avoid risky water sports.
- (b) Many deaths from drowning occur because people on boating holidays fail to wear life-jackets.
- (c) Even those who can swim may panic if they fall into the sea or a river.

10 Conclusion: Some types of chewing-gum are bad for the teeth.

- (a) Some chewing-gums are sweetened with sorbitol, which helps to neutralize toothrotting acids.
- (b) The action of chewing gum can get rid of particles of sugar trapped between the teeth.

(c) Some chewing-gums are sweetened with sugar, which causes tooth decay.

Answers to Exercise 3 are given on p. 123.

Exercise 4: Identifying parts of an argument

For each of the following arguments, identify the main conclusion and the reasons. Say whether there are any intermediate conclusions. Say whether the reasons support the conclusion jointly or independently.

- 1 The odds that a dangerous leak from a nuclear power plant could occur are so small as to be almost impossible to calculate. I have as much chance of being seriously injured backing out of my drive as I would living next to a nuclear power plant for a year. So someone living next door to a nuclear power plant should feel 100 per cent safe.
- 2 The one third of people who smoke in public places are subjecting the rest of us to discomfort. What is more, they are putting our health at risk, because ‘passive’ smoking causes cancer. That is why it is time to ban smoking in public places.
- 3 The existence of God is not self-evident to us. Yet from every effect the existence of the cause can be clearly demonstrated, and so we can demonstrate the existence of God from His effects. Hence the existence of God, insofar as it is not self-evident to us, can be demonstrated from those of His effects which are known to us.
- 4 Radioactive elements disintegrate and eventually turn into lead. So if matter has always existed there should be no radioactive elements left. The presence of uranium and other radioactive elements is scientific proof that matter has not always existed.
- 5 A foetus’s heart is beating by 25 days after fertilization. Abortions are typically done seven to ten weeks after fertilization. Even if there were any doubt about the fact that the life of each individual begins at fertilization, abortion clearly destroys a living human being with a beating heart and a functioning brain. If the first right of a human being is the right to his or her life, the direct killing of an unborn child is a manifest violation of that right.
- 6 It has always been the case in the past that new discoveries of mineral reserves have kept pace with demand. For example, bauxite reserves have tripled in the last ten years, while demand has doubled over the same period. At no time have the known reserves of minerals been as great as the total mineral resources of the world. Therefore, even though at any given time we know of only a limited supply of any mineral, there is no reason for us to be concerned about running out of mineral resources.
- 7 In rape cases, sentences should be lighter for those who plead guilty than for those who plead not guilty. For a victim of rape, appearing in court is a very distressing experience. If the defendant pleads guilty, the victim does not have to appear in court.

- If sentences are as heavy for those who plead guilty as for those who plead not guilty, all defendants will plead not guilty, because there is nothing to lose.
- 8 If imprisonment worked as a deterrent to potential criminals, the more people we had in prison to serve as examples, the more would their lesson be conveyed to those outside prison. But today we have record numbers of people in prison, and a crime rate which is growing, not decreasing. Thus, imprisonment is not an effective deterrent.
- 9 Those who oppose any and all restrictions on freedom of the press are wrong. Consider the effects of freedom to report on cases of kidnap. Experience shows that kidnap victims are less likely to be killed by their captors if the kidnapping is not reported. To report a kidnap can thus endanger a victim's life. If we do not pass legislation against publishing in these circumstances, some newspapers will continue to be irresponsible and will publish details of the kidnapping before the victim is released or rescued.
- 10 [If killing an animal infringes its rights, then] never may we destroy, for our convenience, some of a litter of puppies, or open a score of oysters when nineteen would have sufficed, or light a candle in a summer evening for mere pleasure, lest some hapless moth should rush to an untimely end. Nay, we must not even take a walk, with the certainty of crushing many an insect in our path, unless for really important business! Surely all this is childish. In the absolute hopelessness of drawing a line anywhere, I conclude that man has an absolute right to inflict death on animals, without assigning any reason, provided that it be a painless death, but that any infliction of pain needs its special justification.

(Lewis Carroll, 'Some popular fallacies about vivisection', in The Complete Works of Lewis Carroll, Nonesuch, 1939, p. 1072)

Answers to Exercise 4 are given on p. 126.

Exercise 5: Thinking about assumptions

Here is a slightly longer passage of reasoning taken from an article in a newspaper, discussing whether Bill Clinton, the President of the USA, should be criticized for his alleged sexual involvements with women other than his wife. The following points may make it easier to understand the passage:

- The author uses the word 'syllogism' in the second sentence, but it is used inaccurately. A syllogism is a particular form of argument. What the author describes as a syllogism is simply a hypothetical statement.
- In the first paragraph the author refers to Richard Nixon, a former president of the United States, and says that 'the American people could not be sure where he was during the day'. This is a reference to the widespread perception of Nixon as being an untrustworthy politician. His nickname was 'Tricky Dickie'.

Now read the passage, say what you think is its main conclusion, and write down a list of assumptions which you think it makes.

Two justifications are generally given for the examination of a politician's sex life. The first is the prissy syllogism that 'if a man would cheat on his wife, he would cheat on his country'. But Gerry Ford and Jimmy Carter were, by most accounts, strong husbands but weak presidents. I would guess that Pat Nixon knew where Dick was every night. The problem was that the American people could not be sure where he was during the day. Conversely, it is a sad but obvious fact that, to many of those men to whom he gave unusual political nous, God handed out too much testosterone as well.

The second excuse for prurience towards rulers is that leaders, tacitly or explicitly, set examples to the nation and thus their own slips from grace are hypocritical. But Bill Clinton, unlike many senior US politicians, has never publicly claimed that he has led an entirely decent life.

And if the United States does wish to impose strict standards of sexual morality on its leaders, then it must properly address the Kennedy paradox. A month ago in Dallas, I watched people weep and cross themselves at the minute of the 30th anniversary of JFK's assassination. If only he had lived, they said then, and millions of middle-aged Americans say it daily. They construct a cult of stolen greatness. But if JFK had lived, he would have been trashed weekly by bimbo anecdotes in the supermarket magazines. If he had run for President in the Eighties, he wouldn't have got beyond New Hampshire before the first high-heel fell on television.

So we must tell the snipers not to fire at Bill Clinton [because of his sex life].

(Mark Lawson, the Independent, 30 December 1993)

Identifying assumptions

We have discussed the two most basic components of arguments—reasons and conclusions—but our understanding of arguments will not be complete unless we can recognize the assumptions upon which an argument relies.

Defining 'assumption'

In order to clarify what is meant by the word 'assumption' in the context of reasoning, let us first consider what we might mean in everyday conversation by talking about 'assuming' something. Suppose you tell me that you are going to the post office before

lunch, and I say, ‘Take the car, because it will take you too long to walk’. You might reply, ‘You’re assuming it will take me too long to walk, but you’re wrong.’ Here you would be referring to something which I have just stated, and telling me that I was mistaken. Hence, everyday usage of the term ‘assumption’ can imply that an assumption is something which is explicitly asserted, but is not, or may not be, true. One connotation of ‘assumption’, as people normally use the word, is of a belief that we hold in the absence of strong evidence for its truth—that is to say that the term may mark a distinction between what is known and what is merely believed.

If we interpret the term ‘assumption’ in this way, we might think that ‘assumption’ can refer to reasons and conclusions of arguments—that is, to things which have been stated but which may or may not be true. However, those concerned with argument analysis typically make a distinction between reasons, conclusions and assumptions in an argument, and we shall be accepting this distinction here. Moreover, our use of the word will not imply a distinction between what is known and what is merely believed.

For the purpose of our discussion of assumptions in reasoning, we shall use the word ‘assumption’ to mean something which is taken for granted, but not stated—something which is implicit rather than explicit. It is the fact that an assumption is unstated which distinguishes it from a reason. There may, or may not, be strong evidence for the truth of an assumption of an argument, and this is a characteristic which it has in common with a reason.

Sometimes in the process of evaluating arguments, the term ‘presupposition’ is used instead of ‘assumption’. We prefer the term assumption, because of the possibility of confusion between ‘presupposing’ and ‘supposing’. Usually when arguments tell us to ‘suppose that x is true’, they are neither stating nor assuming that x is true; they are merely exploring what would follow from the truth of x , and often they are doing this precisely in order to show that x must be false. So we must not take the presence of the word ‘suppose’ in an argument to indicate that an assumption is being made. Indeed, since we are using the term ‘assumption’ to denote something which is not stated, there are no special words in arguments to indicate the presence of this kind of assumption.

In the sense of ‘assumption’ set out above, arguments have many assumptions. For each argument we encounter, there will be a whole host of shared background information—for example, the meanings of the words in which the argument is expressed, and general knowledge which gives support to the reasons which are presented. Sometimes these assumptions will be so uncontroversial that we will not be interested in making them explicit. Sometimes, however, we will suspect that an argument rests upon a dubious assumption, and it will be important for us to express exactly what that assumption is in order to assess the argument.

We shall say more later about assumptions concerning the meanings of words, assumptions about analogous or comparable situations, and assumptions concerning the appropriateness of a given explanation. But for this chapter, we shall focus on the following two important ways in which assumptions function in an argument: first, in giving support

to the basic reasons presented in the argument; second, as a missing step within the argument—perhaps as an additional reason which must be added to the stated reasons in order for the conclusion to be established, or perhaps as an intermediate conclusion which is supported by the reasons, and in turn supports the main conclusion. Let us explore these two uses of assumptions by looking at some examples.

Assumptions underlying basic reasons

The following argument (used in a slightly different form on p. 7 as an example of an argument without a conclusion indicator word) provides an example of the use of an assumption in the first sense, that is to say as something which is intended to support one of the basic reasons of the argument.

One third of the population still smokes. Everyone must know that smoking causes lung cancer and heart disease. So, knowing the dangers of smoking is not sufficient to stop people from smoking.

This piece of reasoning presents two (basic) reasons for its conclusion:

Reason 1 One third of the population still smokes.

Reason 2 Everyone must know that smoking causes lung cancer and heart disease.

In such arguments, the basic reasons may be well-established facts, or they may make the kind of factual claim which we could easily check. Reason 1 seems to be of this nature—that is to say that either it is a generally accepted fact, backed up by reliable statistics, or the author of the argument has made an error about the statistics, and the fraction of the population who smoke is something other than one third. But we do not need to worry about the reasonableness or unreasonableness of assumptions in relation to reason 1, because we would be able to check the correct figure, and in any case, the exact figure is not crucial to establishing the conclusion. Provided that *some* of the population still smoke—and our own experience confirms the truth of this—and provided reason 2 is true, then reason 1, taken together with reason 2, gives support to the conclusion.

Reason 2, however, seems a less straightforward factual claim than reason 1. What lends support to this statement? The claim that ‘everyone *must* know...’ suggests that there is an underlying reason for expecting people to be well-informed on this topic, and the obvious candidate is that there has been widespread publicity on the dangers to health of smoking—on television, in newspapers and by means of posters in the waiting-rooms of doctors and

hospitals. Yet, the move from the doubtless true claim—that there has been publicity about the dangers—to the further claim—that everyone must know about the dangers—depends upon an assumption that everyone has absorbed this information, is capable of understanding the messages which are being put across, and accepts the truth of those messages.

This may seem a reasonable assumption to make, but there may well be those who would wish to challenge it by pointing out that, despite publicity campaigns, some people may not believe that there is a causal link between smoking and ill-health, because they think that the statistics are inconclusive. Even if you do not regard this assumption as controversial, the example illustrates the way we can attempt to identify potentially controversial assumptions underlying the basic reasons presented in an argument. Clearly the identification of such assumptions is closely associated with evaluating the truth of reasons, which will be discussed further in the next chapter.

Another example of assumptions which underlie basic reasons is provided by the passage below:

Occupational accidents will never be eliminated because all human activity entails risk. But the total number of accidents could be greatly reduced, and the surest way of achieving such a reduction is to penalize, with fines or even imprisonment, those employers on whose premises they occur. Such a policy might result in cases of individual injustice, but it would be effective in securing safer workplaces.

Before reading on, ask yourself what this passage is recommending, and why.

The passage is recommending the imposition of penalties on employers on whose premises occupational accidents occur, on the grounds that this would be the best way to reduce the number of such accidents. There is an obvious unstated assumption here that the threat of penalties would influence the behaviour of employers. But there is a further assumption, since the existence of penalties would not reduce the number of accidents if it were beyond the power of employers to prevent some of the accidents which now occur. So the argument assumes that it is possible for employers to take measures which will prevent the occurrence of some accidents.

Both these assumptions function as reasons which need to be taken together in order to support the claim that the threat of penalties would reduce accidents; and both are reasonable assumptions to make. However, even with these assumptions, the conclusion is too strong, since nothing has yet been said to support the idea that introducing penalties is the *surest* way of achieving a reduction in accidents. So there is yet another assumption—that no other method would be as effective in reducing the number of accidents—and this assumption is more controversial than the others, since it may be possible to get employers to take appropriate action by offering them incentives.

Assumptions as unstated reasons or conclusions

The second type of assumption is one which is needed to fill a gap within the argument, either as an additional reason, without which the reasons which *are* offered do not fully support the conclusion, or as a missing link between the reasons and the conclusion. Here is an example of an argument which illustrates the former:

In tests designed to investigate the effect of a time delay on recalling a list of words, subjects remembered fewer words after a 30-second delay than after a 10-second delay. Therefore, after a 60-second delay, we would expect subjects to remember even fewer words than after a 30-second delay.

Before going on, ask yourself what is being assumed. Write down any assumption you can identify.

The argument gives just one reason for its conclusion that subjects can be expected to remember fewer words after a 60-second delay than after a 30-second delay. The reason is the piece of evidence that fewer words are remembered after 30-seconds than after 10 seconds. But this piece of evidence supports the conclusion only if it is true that the ability to recall goes on declining after a 30-second delay. So the argument is relying on this assumption in order to draw its conclusion. If we did not make this assumption explicit, we might happily accept the conclusion as obviously following from the evidence. Even when the assumption has been identified, we may consider it a reasonable assumption to make. Nevertheless, it is possible that subjects would be able to remember just as many words after 60 seconds as after 30 seconds, perhaps because the number of words still retained in the memory was a manageable number for the memory to hold. Self-respecting psychologists would not be prepared to draw a firm conclusion without carrying out an appropriate further test.

Here is another example in which one of the reasons has been left unstated:

If cigarette advertising were banned, cigarette manufacturers would save the money they would otherwise have spent on advertising. Thus, in order to compete with each other, they would reduce the price of cigarettes. So, banning cigarette advertising would be likely to lead to an increase in smoking.

Before reading further, think about the reasoning in this passage. What conclusion is it trying to get us to accept? What basic reason does it offer? Is there an intermediate

conclusion? Can you identify a stage in the argument which has not been stated? The argument starts with a basic reason:

If cigarette advertising were banned, cigarette manufacturers would save the money they would otherwise have spent on advertising.

From this it draws the conclusion (an intermediate conclusion):

Thus, in order to compete with each other, they would reduce the price of cigarettes.

It then draws the main conclusion:

So, banning cigarette advertising would be likely to lead to an increase in smoking.

The main conclusion would not follow from the intermediate conclusion if a reduction in the price of cigarettes made no difference to the numbers of cigarettes bought and smoked. So an assumption underlies this move—that if cigarettes were cheaper, smokers would smoke more, or non-smokers would become smokers. The conclusion does not say exactly what it means by ‘an increase in smoking’, so we cannot be sure whether the assumption is:

If cigarettes were cheaper, smokers would smoke more,

or

If cigarettes were cheaper, more people would smoke,

or perhaps both of these. However, it clearly requires at least one of these assumptions in order to support the conclusion, and perhaps both assumptions are questionable. This is a case of an assumption which, taken together with an intermediate conclusion, gives support to the main conclusion of the argument.

In some pieces of reasoning, an intermediate conclusion may be left unstated. Imagine the following report being made by a policeman to his superior officer about a theft from an art gallery:

The burglar must have left by the fire escape. This person is not in the building now, but has not been seen leaving the building, and there are guards posted at each entrance.

What intermediate conclusion is the policeman drawing which he has not actually stated? Is this a reasonable conclusion to draw?

The policeman gives three reasons which, taken together, are intended to support the conclusion that the burglar must have left by the fire escape:

Reason 1 This person is not in the building now

supports the claim that the burglar must have left the building. But

Reason 2 [the person] has not been seen leaving, and Reason
3 there are guards posted at each entrance

do not entitle us to conclude that the burglar must have left by the fire escape unless we assume that reason 3 supports an intermediate conclusion to the effect that no-one could leave undetected except by the fire escape. This assumption, taken together with reasons 1 and 2, give strong support to the conclusion. However, the assumption itself is open to dispute. Perhaps the guards were insufficiently watchful, or failed to recognize the burglar as a burglar, or perhaps it is possible for someone to leave the building undetected through a window on the ground floor.

In the above examples, we have often found that identifying an assumption has led us to question the truth of that assumption, and perhaps to reserve judgement on an argument until we have obtained further evidence or information. But sometimes when we have identified an assumption, we will see that there is no reason at all to think it is true, and we will therefore judge that the argument does not give strong support to its conclusion. Consider the following example:

Some people say that the depiction of violence on television has no effect on viewers' behaviour. However, if what was shown on television did not affect behaviour, television advertising would never influence viewers to buy certain products. But we know that it does. So it cannot be true that television violence does not affect behaviour.

See if you can pick out the missing assumption here, and say what is wrong with it.

At first sight, this looks like a plausible argument, and many people will be tempted to accept that it is successful in establishing its conclusion. Yet, whichever way we interpret it, it rests on a dubious assumption. One way of interpreting it is to see it as relying on the assumption that, on the one hand, the depiction of violence on television and, on the other hand, advertising on television are alike in important ways—indeed, in ways which allow us to conclude that if one affects the behaviour of viewers, the other one must also affect the behaviour of viewers. But the only thing which they have in common which is mentioned in the argument is that both are shown on television.

Perhaps they are alike in some respects, for example, in that they are dramatic, and likely to make an impact on viewers in such a way that viewers remember them. But perhaps the differences between them make a difference to their effects on viewers'

behaviour. They are different in that programmes depicting violence are not trying to *sell* violence, not trying to make it attractive to the viewer. There may also be a difference in that most people's natural response to violence is not one of approval, whereas they may well approve of and aspire to some of the lifestyles depicted in advertisements. So the assumption that the two are alike in ways which are relevant to their possible effects on viewers' behaviour is questionable.

There are two other possible interpretations of the passage, each of which rests on a dubious assumption. It *may* be suggesting that because television advertising affects viewers' behaviour, *everything* shown on television, including depictions of violence, must affect behaviour. In that case, the dubious assumption is that if one aspect of television output affects behaviour, all aspects must. Alternatively, it *may* be suggesting that the example of advertising demonstrates that *some* things shown on television affect behaviour. In that case, in drawing its conclusion, it relies on the wholly implausible assumption if some things which are shown on television affect behaviour, then violence shown on television must be one of those things.

The discovery that this argument does not give strong support to its conclusion does not establish that its conclusion is false. Perhaps violence shown on television does affect viewers' behaviour, but, if this is so, it is a truth which cannot be established by means of this particular argument. The ability to identify the mistakes in other people's reasoning is a valuable skill which will be discussed in more detail in the next chapter.

The examples discussed above have been of specific assumptions relating to the subject matter of particular arguments. There are some assumptions which form the whole context in which an argument is presented, but which may not be made explicit, so that someone unfamiliar with the context will find it more difficult to understand the argument. Consider the following passage:

It has been claimed that powdered rhinoceros horn has aphrodisiac properties, but scientists investigating its effects have been unable to find any chemical effect on the human nervous system. Also, an experiment was carried out in which 100 people ate powdered rhinoceros horn, and another 100 people ate powdered rice, without knowing what they were eating. Very many more of those who ate the rice reported feeling an increase in sexual arousal than did those who ate the rhinoceros horn. This demonstrates that rhinoceros horn probably does not have aphrodisiac properties.

In describing the experiment, and making the claim about what it demonstrates, this argument does not bother to state that powdered rice is not an aphrodisiac. But we can understand that this is being taken for granted, if we reason as follows:

'If rhinoceros horn has aphrodisiac properties, then more people should report an increase in sexual arousal after eating rhinoceros horn than after

eating powdered rice, which we know does not have aphrodisiac properties. But this did not happen in the experiment. So rhinoceros horn does not have aphrodisiac properties'.

Someone familiar with the way in which such experiments are carried out—the use of a control group of people with which to compare those on whom the rhinoceros horn is tested, the attempt to eliminate irrelevant psychological effects by keeping subjects ignorant of which substance they are eating—will readily understand why the conclusion is being drawn, and will see that there is an unstated assumption that powdered rice is not an aphrodisiac.

Someone unfamiliar with the context of experiments might find it more difficult to understand what was going on. They might, of course, notice that nothing is said about the aphrodisiac properties of powdered rice, and they might reason as follows:

Powdered rice either does or does not have aphrodisiac properties. If it does, then the experiment cannot tell us whether rhinoceros horn has no aphrodisiac properties or merely weaker aphrodisiac properties than does powdered rice. If it does not, then the experiment *does* indicate that rhinoceros horn does not have aphrodisiac properties, because if it did have such properties, the number of those reporting an increase in sexual arousal should have been higher amongst those who ate rhinoceros horn than amongst those who ate powdered rice.

However, this is a complex piece of reasoning, and, rather than hitting upon this, readers of the argument might instead imagine a context in which it is not known by the experimenters whether *either* substance has aphrodisiac properties. They might then conclude that the experiment appeared to indicate that both substances had aphrodisiac properties, although the powdered rice had much stronger aphrodisiac properties than the rhinoceros horn. So they might regard the conclusion of the argument as mistaken, even though, provided one assumes that powdered rice is not an aphrodisiac, it is a reasonable conclusion to draw from the evidence.

This is an example, then, of an argument with a specific unstated assumption, which it will be more difficult to identify if one is unfamiliar with the context—the whole set of background assumptions—in which the argument is set. This indicates the value of understanding certain contexts of arguments, and that it is valuable to ask certain questions about any argument which cites experimental evidence—for example, what is the purpose of any comparison which is being made between different groups of people, what differing conclusions could be drawn on the basis of one set of assumptions as opposed to a conflicting set of assumptions?

We have said little here of assumptions about the meanings of words and phrases used in reasoning, but we shall discuss this in greater detail in Chapter 5. The following exercises will enable you to practise the skill of identifying assumptions.

Exercise 6: Identifying someone else's assumptions

Sometimes we may find it more difficult to identify the assumptions underlying our own reasoning than to identify the assumptions upon which others are relying. This exercise aims to make you more aware that there may be unstated beliefs in your own reasoning which others would wish to challenge. Suppose, for example, you were to say that the police force should devote more of their time to patrolling on foot in rural areas and suburbs, and, as your reason for believing this, you said that crime has increased in these areas. Someone may point out to you that you are assuming that the presence of policemen on the streets and country lanes can deter potential criminals from committing crimes.

Work with a partner for this exercise. From the following list, choose a statement with which you agree, and give your partner just one reason why you believe this. Your partner must then try to identify any unstated assumptions upon which your view depends.

- 1 Smoking in public places should be banned.
- 2 Boxing is a barbaric activity.
- 3 People should be allowed to hunt foxes.
- 4 Coarse fishing is a pointless pastime.
- 5 The older one gets, the wiser one becomes.
- 6 Newly qualified drivers should not be allowed to drive on motorways.
- 7 The pattern of family life has changed in recent years.
- 8 Schools should be required to provide sex education.
- 9 Too many new motorways are being built.
- 10 It was a good idea to set up the National Lottery.

You can continue this exercise choosing your own topics. Choose something which is of general interest, but about which you know people tend to disagree.

Exercise 7: Identifying assumptions in arguments

For each of the following passages, identify any unstated assumptions, and say whether they are:

- assumptions which underlie a basic reason, or

- assumptions which function as an additional reason, or • assumptions which function as an intermediate conclusion.
- 1 Men are generally better than women at what psychologists call ‘target-directed motor skills’, but what the rest of us call ‘playing darts’. Many people would say that this is not due to innate biological differences in the brain, but is due to the fact that upbringing gives boys more opportunities to practise these skills. But there must be some innate difference, because even three-year-old boys are better than girls of the same age at target skills.
 - 2 Allowing parents to choose the sex of their children could have serious social costs. There would be a higher percentage of males who were unable to find a female partner. Also, since it is true that 90 per cent of violent crimes are committed by men, the number of violent crimes would rise.
 - 3 When people live in a house for a long period of time, they develop a strong commitment to the local neighbourhood. So the continued fall in house prices may have a beneficial effect. The middle classes will become enthusiastic campaigners for better schools, and against vandalism, traffic congestion and noisy neighbours.
 - 4 If the money has been stolen, someone must have disabled the alarm system, because the alarm easily wakes me if it goes off. So the culprit must be a member of the security firm which installed the alarm.

- 5 The campaign to eradicate measles has been so successful that many doctors have never seen an actual case. Ironically, this puts those few people who do contract the disease in greater danger than they would have been before. The disease can cause serious complications, and it is difficult to diagnose without previous experience because the symptoms are similar to those of several other diseases.

(Law School Admission Test, Dec.

- 1984) 6 There is a much higher incidence of heart attack and death from heart disease among heavy cigarette smokers than among people who do not smoke. It has been thought that nicotine was responsible for the development of atherosclerotic disease in smokers. It now seems that the real culprit is carbon monoxide. In experiments, animals exposed to carbon monoxide for several months show changes in the arterial walls that are indistinguishable from atherosclerosis.*

(Law School Admission Test, March

- 1985) 7 Patients on the point of death, who either died shortly afterwards or were revived, have often reported visions of places of exquisite beauty, intense feelings of peace and joy, and encounters with loved ones who had predeceased them. These experiences clearly suggest that there is life after death. Skeptics often claim that such phenomena are caused by changes in the brain that precede death, because these phenomena resemble certain altered states of consciousness that can be induced by drugs or organic brain disease. This objection fails, however, because most of the patients whose experiences of this nature have been reported were neither drugged nor suffering from brain disease.*

(Law School Admission Test, Oct. 1985)

- 8 The growth in the urban population of the USA has put increasing pressure on farmers to produce more food. Farmers have responded by adopting labour-saving technology that has resulted in a further displacement of population to cities. As a result, the farm

population, formerly a dominant pressure group in national politics, has lost political power.

(Law School Admission Test, Feb.

1983) 9 Human beings have the power either to preserve or to destroy wild plant species. Most of the wonder drugs of the past fifty years have come from wild plants. If those plants had not existed, medicine could not have progressed as it has, and many human lives would have been lost. It is therefore important for the future of medicine that we should preserve wild plant species.

10 Thirty years ago the numbers of British people taking holidays in foreign countries were very small compared with the large numbers of them travelling abroad for holidays now. Foreign travel is, and always has been, expensive. So British people must on average have more money to spend now than they did thirty years ago.

Answers to Exercise 7 are given on p. 131.

Exercise 8: Re-working Exercise 5

Re-read the passage for Exercise 5 (p. 22). Identify its conclusion, reasons and unstated assumptions. Compare the list which you originally wrote for Exercise 5 with the unstated assumptions which you have now identified.

Answers to Exercise 8 are given on p. 134.

Chapter 2

Evaluating reasoning

Summary: Parts of an argument

Let us remind ourselves of the most important points covered in the last chapter:

- 1 *An argument offers a reason or reasons in support of a conclusion.*
- 2 Conclusions may
 - state a supposed fact ('It is dangerous to drive a car after drinking alcohol') or
 - make a recommendation ('You ought not to drive your car').
- 3 Some arguments introduce their conclusion with the word 'So' or the word 'Therefore'; some arguments do not contain the words 'So' or Therefore'.
- 4 A conclusion does not have to be the last statement in the argument. *Conclusions can appear anywhere* in the argument.
- 5 An argument can have *unstated assumptions*, that is, items of information, or ideas, which are not explicitly stated in the argument but upon which the argument relies in order to draw its conclusion.
- 6 *Arguments can have many different structures*, for example:
 - one reason supporting a conclusion,
 - two or more reasons which, taken together, support the conclusion,
 - two or more reasons, each of which independently supports the conclusion,
 - a reason, or reasons, which support an intermediate conclusion, which is then used, either on its own or with other reasons to support a main conclusion.

Once we understand both the explicit and the implicit reasoning in a passage, we are in a position to assess whether the reasoning is good. There are two questions involved in this assessment:

- Are the reasons (and any unstated assumptions) true?
- Does the main conclusion (and any intermediate conclusion) follow from the reasons given for it?

The answer to both of these questions must be 'yes' in order for an argument to be a good argument. Let us illustrate this with some simple examples. Here is the first one:

All the Norwich city buses are red. So if the vehicle you saw wasn't red, it wasn't a Norwich city bus.

In this argument, if the reason is false—that is to say, if it is not true that all the Norwich city buses are red—then the argument cannot establish that any vehicle which is not red is not a Norwich city bus. So it is clear that we need to know whether the reason is true in order to know whether we should accept the conclusion. If the reason is true, then in this example we have a good argument, since the reason supports the conclusion.

By contrast, in our second example the reason does not support the conclusion:

All the Norwich city buses are red. So if the vehicle you saw was red, it was a Norwich city bus.

Here, even if the reason is true, the conclusion is not established, since the reason establishes only that all the Norwich city buses are red, and *not* that no other vehicles are red. This example illustrates that our second question—as to whether the conclusion follows from the reasons given for it—is also crucial to any assessment of an argument.

Evaluating the truth of reasons and assumptions

Common knowledge

It is obvious that no-one will be in a position to know whether all the reasons presented in all the arguments that they may encounter are true. However, we all have a share in a body of common knowledge, many of us have detailed knowledge about our particular field of work or study, and we have some ideas about whom to trust to give us correct information on subjects which are less familiar to us.

Common knowledge can take us a long way in assessing many of the short arguments we looked at earlier. For example, we noted (p. 25) that in the following argument, it was easy for us to assess the first of the reasons:

One third of the population still smokes. Everyone must know that smoking causes lung cancer and heart disease. So, knowing the dangers of smoking is not sufficient to stop people from smoking.

We may not know the accuracy of the claim that one third of the population still smokes. But we know that quite a number of people still smoke, because we see them doing so; and the argument only needs to establish that *some* people still smoke, despite knowing the dangers. The second reason—that everyone must know the effects of smoking—is more difficult to assess. We observed that it depends upon an assumption that the publicity about the dangers of smoking has been absorbed by everyone,

Perhaps one way to find out if this is so would be to interview smokers in order to discover whether they believe that smoking is dangerous to health. If we found that many smokers did not believe this, we would have produced a piece of additional evidence which would cast doubt on the conclusion. (We shall say more about evaluating additional evidence in a later section.)

We may sometimes need to assess the truth of statements by relying on other people as authorities, perhaps because being certain about the truth of a particular statement depends upon direct experience, which we lack. For example, we may find ourselves as members of a jury having to assess the evidence of eye witnesses to a crime. We do not have the direct experience of what happened, and we may hear two witnesses describing the events in conflicting ways. Another case in which we may have to rely on authorities is where knowledge depends upon expertise, which we ourselves lack. We may, for example, have to rely on the authority of scientists, because we lack the expertise to carry out for ourselves the experiments which they claim establish the truth of something. Although we cannot guarantee that by relying on the authority of others, we will never be mistaken about anything, there are certain criteria we can use in order to minimize the chances of being misled by other people.

Reliability of authorities

If one of your acquaintances has a record of being untruthful, then you are much more cautious about accepting their statements as true than you would be about believing someone who, you thought, had never lied to you. For example, if someone who always exaggerates about his success with women tells you that at last night's disco several women chatted him up, you will be inclined to be sceptical. The habitual liar is an obvious case of someone whose statements are unreliable. In assessing the reliability of authorities, we have to think about the circumstances which could make it likely that what someone said was untrue.

Of course, people who are not habitual liars may deceive others on occasions. They may do so because they stand to lose a great deal—money, respect or reputation—by telling the truth. So when we have to make judgements about the reliability of people we know to be generally truthful, and about people with whom we are not acquainted, we should bear this consideration in mind. That is not to say that we should assume people are being untruthful, simply because it would be damaging to them if others believed the opposite of what they say. But when we have to judge between two conflicting pieces of information from two different people, we should consider whether one of those people has a vested interest in making us believe what they say. For example, if an adult discovers two children fighting, then each child has a vested interest in claiming that the other started the fight. But the evidence of a third child who observed the fight, but knows neither of the protagonists, could be taken to be more reliable in these circumstances.

If someone was not in a position to have the relevant knowledge about the subject under discussion, then it would be merely accidental if their statements about the subject were true. There are a number of circumstances which prevent people from having the relevant knowledge. The subject under discussion may be a highly specialized subject which is understood only by those who have had appropriate education or training. We would not expect reliable information on brain surgery to be given by people who have had absolutely no medical training. This is why in many areas of knowledge, we have to rely on what experts say. Of course, people who are not experts can read about specialized subjects, and pass on information to us about such subjects, so we do not have to disbelieve people simply because they are not experts. But we would be wise to ask the source of their information. For example, if someone told us that they had read that a new car had better safety features than any other model, we should regard the information as more reliable if it came from a consumer magazine or a motoring association than if it was a report of a comment made by a famous person who owned such a car.

Another circumstance in which someone would not be in a position to have the relevant knowledge would be where eye-witness testimony was crucial, and the person could not have seen clearly what happened—perhaps because of poor eyesight, or perhaps because they did not have a clear line of vision on the incident. In the case of a road accident, for example, we would expect to get a more accurate account of what happened from someone with good vision who was close to the accident and whose view was not obscured in any way, than from someone with poor eyesight, or who was at some distance from the accident, or who was viewing it from an angle, or through trees. Similar considerations would apply in the case of information dependent upon hearing rather than vision.

Someone who aims to tell the truth, and who is in a position to have the relevant knowledge may nevertheless be unreliable because of circumstances which interfere with the accuracy of his or her judgement. For example, emotional stress, drugs and alcohol can affect our perceptions. We can be distracted by other events which are happening concurrently. A parent with fractious children in the car may notice less about a road accident than someone who is travelling alone. We can forget important aspects of what has happened, particularly if some time elapses before we report an incident. In the case of people gathering and assessing evidence, as for example scientists and psychologists do, the accuracy of their observations and interpretations can be affected by their strong expectation of a particular result, or their strong desire to have a particular theory confirmed.

Sometimes when we have evidence from more than one source, we find that two (or more) people agree in their descriptions of events—that is to say, their evidence corroborates the statements of others. In these circumstances, unless there is any reason to think that the witnesses are attempting to mislead us, or any reason to think that one witness has attempted to influence others, we should regard corroboration as confirming the reliability of evidence.

Summary

Here is a summary of the important questions to ask yourself about the reliability of evidence and of authorities:

1 Is this person likely to be telling a lie, to be failing to give full relevant information, or to be attempting to mislead?

- do they have a record of being untruthful?
- do they have a reason for being untruthful?

(Would they gain something very important by deceiving me?)

(Would they lose something very important by telling the truth?)

2 Is this person in a position to have the relevant knowledge?

- If expert knowledge is involved, are they an expert, or have they been informed by an expert?
- If first-hand experience is important, were they in a position to have that experience?
(If observation is involved, could they see and hear clearly?)

3 Are there any factors which would interfere with the accuracy of this person's judgement?

- Was, or is, the person under emotional stress?
- Was, or is, the person under the influence of alcohol or drugs?
- Was the person likely to have been distracted by other events?
- Does the person have a strong desire or incentive to believe one version of events, or one explanation, rather than another?
- In the case of first-hand experience of an event, was information obtained from the person immediately following the event?

4 Is there evidence from another source which corroborates this person's statement?

Evaluating support for conclusions

You have already had some practice in judging whether a conclusion follows from, or is supported by, a given reason. This was what Exercise 3 involved, since you were asked to pick out from three statements the one which could be a reason for accepting the truth of the conclusion. When trying to decide whether conclusions of arguments are established by the reasons presented, you are essentially doing the same thing as you did for Exercise 3, but you may have to take into account more than one reason. You may also have to assess a chain of reasoning, which could involve judging whether an intermediate conclusion follows from some basic reasons, and also whether it in turn supports a main conclusion.

A reason will not support a conclusion if it is not *relevant* to the conclusion. This may seem very obvious, since if a reason is concerned with some topic completely unrelated to the subject matter of the conclusion, it would be clearly mistaken to think that the reason could support the conclusion. However, when we talk about a reason being *relevant* to the conclusion, we do not simply mean that it is about the same topic. What we mean is that the reason, if true, *makes a difference* to the acceptability of the conclusion. Relevance in this sense does not necessarily mean that a *relevant* statement *supports* a conclusion. A statement could be relevant and yet count against the conclusion. If we look again at one of the questions from Exercise 3 on p. 18, we can see an example of this:

Conclusion: Blood donors should be paid for giving blood.

Which of the following, if true, could be a reason for the above conclusion?

- (a) The Blood Donor service is expensive to administer.
- (b) People who give blood usually do so because they want to help others.
- (c) There is a shortage of blood donors, and payment would encourage more people to become donors.

The correct answer to this question is (c), which supports the conclusion by showing that if payment were offered to blood donors, this could remedy the shortage of donors. But (a) is also relevant to the conclusion, in the sense that it has some bearing on the recommendation to pay blood donors. If the blood donor service is already expensive to administer, then this may be a reason for rejecting the recommendation. Hence (a) does not support the conclusion, it counts against it.

You may find it useful to think about whether reasons are relevant, because if you can quickly spot that a reason is irrelevant, then you will know that it does not support the conclusion. However, the above example shows that the judgement that a reason is relevant is not sufficient to tell you that the reason supports the conclusion. You will still have to think about the way in which it has a bearing on the conclusion.

The strength of support which reasons provide for a conclusion can vary. In the argument on p. 36, for example, the reason gives the strongest possible support to the conclusion. The argument says:

All the Norwich city buses are red. So if the vehicle you saw wasn't red, it wasn't a Norwich city bus.

In this case, if the reason is true, the conclusion *must* be true. Other arguments may provide less strong support, and nevertheless be good arguments. We can have good reason for believing that something will happen in the future based on evidence from the past, or for believing that what is known to be true of a number of cases will be true of another similar case. For example, we could have good reason to believe that a new car will be reliable, based on the knowledge that most other cars of that model have been reliable. It is not possible to be precise about degrees of strength of support, and in many cases we may need

to find out more about the context of an argument in order to assess whether the reasons give strong, fairly strong or only weak support for the conclusion.

In addition to differences in the strength of arguments, there are also different ways in which reasons can support their conclusions. We have already mentioned arguments which use past experience as evidence for their conclusion, and arguments which draw their conclusions on the basis of what is true of similar cases. We are not going to review all of the ways in which arguments can support their conclusions, because it is not particularly important that you should be able to classify arguments into different types. What is important is that you should ask yourself the following questions about the argument:

- 1 Are the reasons/evidence relevant to the conclusion?
- 2 If so, do the reasons/evidence provide a good basis for accepting the conclusion?
- 3 If the conclusion recommends some action or policy, would it be reasonable to act on the basis of the reasons/evidence?
- 4 Can I think of any other evidence, not mentioned in the argument, which would weaken or strengthen the conclusion?

Let's put this into practice with a few examples. Consider the following argument:

You ought to take a Happitum travel sickness pill when you go on the ferry.
They are very effective against sea-sickness, and you have always been sick in the past when you've travelled by sea.

In this example, it is easy to see that the reasons, if true, give fairly strong support to the conclusion. If you have always been sick on sea crossings, then past experience suggests that you are likely to be sick this time, unless you can prevent this, perhaps by taking some effective drug. So it would be reasonable to act on the evidence that Happitum is effective in preventing sea-sickness. Of course, there may be other considerations, not mentioned in the argument, which would count against the conclusion. If, for example, Happitum had serious side-effects, then it might be more sensible to endure sea-sickness rather than risk ill-health from the drug. Or maybe there are techniques for combating sea-sickness (for example, staying on deck and breathing deeply), which are likely to be effective, and which are less unpleasant than taking a drug. Here is another example:

New drugs have been developed which can combat the body's tendency to reject transplanted organs. In the past, most of the deaths which have occurred shortly after heart transplant operations have been due to rejection. So it is likely that these new drugs will improve the survival rate of heart transplant patients.

Are the reasons relevant to the conclusion? Yes, since if most deaths of heart transplant patients have been caused by organ rejection, then the use of drugs which counteract rejection is likely to enable some patients to survive who would have died without the

drugs. The reasons are not only relevant to the conclusion, they give it strong support, since if some patients survive who would otherwise have died, this means that the survival rate is higher. There may, of course, be evidence not presented here which would count against the conclusion, for example, if the drugs were highly toxic. But on the assumption that the drugs have been tested for toxicity, and found to be relatively safe, we can regard the conclusion as well supported by the reasons. Let's look at one more example:

Introducing an extra written test for learner drivers in the UK will do nothing to reduce the high accident rate amongst drivers aged 17 to 21, because it will not improve their driving skills. In Portugal, every aspiring driver has to have five weeks' theoretical instruction and a stiff examination before he or she is legally entitled to touch the wheel, but this does not result in a low accident rate amongst new drivers. The test is regarded by most as a bureaucratic hurdle to be jumped and forgotten about as soon as possible. All it indicates is that the candidate can read and write. It has no bearing on his or her ability to drive.

This argument uses evidence from Portugal in order to draw a conclusion about what is likely to happen in the United Kingdom. Its major reasons:

In Portugal, every aspiring driver has to have five weeks' theoretical instruction and a stiff examination before he or she is legally entitled to touch the wheel, but this does not result in a low accident rate amongst new drivers

and:

[the test] has no bearing on his or her ability to drive.

are offered in support of the conclusion that:

Introducing an extra written test for learner drivers in the UK will do nothing to reduce the high accident rate amongst drivers aged 17 to 21, because it will not improve their driving skills.

We need to ask first whether the reasons are relevant to the conclusion. Remember that we are not questioning the truth of the reasons at this stage. We are considering whether, assuming the reasons to be true, they support the conclusion.

So, if it's true that the written test in Portugal does not produce a low accident rate amongst new drivers, and that it has no bearing on driving ability, is this relevant to the claim that such a test in the UK will have no impact on the accident rate amongst drivers aged 17 to 21? Well it certainly is a piece of evidence which is worth taking into account, since it is one example of a test which has not had the result which is perhaps hoped for in

the UK. But when we consider whether the evidence gives us sufficient basis for accepting and acting upon the conclusion, a number of further questions come to mind. Is there any evidence from other countries besides Portugal? Are the accidents in this age group (both in the UK and in Portugal) attributable mainly to the driver's lack of skill, or perhaps to the driver's reckless attitude? Are there any cultural differences which might give a test greater impact on attitudes amongst young drivers in the UK than it has amongst their counterparts in Portugal? There is insufficient evidence in this argument to give strong support to the conclusion.

Identifying flaws in reasoning

If the reasons which are presented in an argument do not support the conclusion at all, then the argument has a *flaw*. The skill of identifying flaws in reasoning is being able to see that the conclusion does not follow from the reasons or evidence, and being able to say *why* it does not follow.

Example 1: Some does not imply all

In Chapter 2, when discussing assumptions, we presented the following example of an argument:

Some people say that the depiction of violence on television has no effect on viewers' behaviour. However, if what was shown on television did not affect behaviour, television advertising would never influence viewers to buy certain products. But we know that it does. So it cannot be true that television violence does not affect behaviour.

One way of summarizing this piece of reasoning is:

- 1 Television advertising affects viewers' behaviour.
- 2 So, what is shown on television affects viewers' behaviour.
- 3 So, violence shown on television must affect viewers' behaviour.

Statement 1 is a basic reason from which statement 2 is meant to follow.

If we take statement 2 as meaning that *some* of what is shown on television affects behaviour, then it does follow from statement 1, because television advertising *is* some of what is shown on television. However, statement 2 interpreted in this way does not support statement 3, as it is intended to, because violence might be one of the things shown on television which does not affect behaviour. If, on the other hand we interpret statement 2 as meaning that *everything* shown on television affects behaviour, then it does not follow from statement 1, because there is no reason to think that just because one thing shown on television affects behaviour, everything else shown on television will do the same. So,

whichever way we interpret statement 2, this is not a good piece of reasoning, because it does not give good grounds for the conclusion it draws.

If we are asked to say what the flaw in the reasoning is, we could express it as follows:

The fact that *some things* which are shown on television affect viewers' behaviour is not a good reason for thinking that violence shown on television must affect viewers' behaviour,

or:

The fact that *advertising* shown on television affects viewers' behaviour is not a good reason for accepting that *everything* shown on television affects viewers' behaviour.

The ability to state flaws in this way is an important skill to develop, because it can be an effective way of showing other people that there is something wrong with their reasoning. Note that we have stated this flaw without ever considering whether the basic reason—that television advertising affects viewers' behaviour—is true. If we can identify flaws in reasoning, then we can often be satisfied that a particular piece of reasoning does not establish its conclusion, without needing to dispute the truth of the claims upon which the conclusion is based.

We noted in our earlier discussion of the above example that another way of interpreting the argument was to see it as assuming, unjustifiably, that television advertising and violence shown on television were comparable, or analogous, in all relevant or important respects. When assessing arguments, it is useful to look out for analogies or comparisons, and to consider whether the two things which are being compared really are alike in ways which are relevant to the conclusion which is being drawn. This was evident in our discussion on pp. 43–44 of the argument about written tests for learner drivers in Portugal and the United Kingdom.

Example 2: Insufficient evidence Let

us consider another example:

If people became healthier as the affluence of the country increased, we would expect the population to be healthier now than it was thirty years ago. But over the last thirty years new illnesses, such as chronic fatigue syndrome, have appeared, and we have become more vulnerable to old diseases such as heart disease, strokes and cancer. So the increased wealth of the country has not produced improvements in the health of the population.

The first thing to do when we want to assess whether an argument is flawed is to sort out what the conclusion is, and what evidence or reasons are offered for it. Before reading on, identify the conclusion and the reasons in this passage.

The conclusion, signalled by the word ‘So’ which introduces the last sentence, is:

the increased wealth of the country has not produced improvements in the health of the population.

The evidence offered for this is that over a period during which the wealth of the country has increased, new diseases have appeared, and certain old diseases have become more common. Here is a more detailed analysis of the reasoning. There are two strands. First:

Basic reason 1: Over the last thirty years new illnesses, such as chronic fatigue syndrome, have appeared, and we have become more vulnerable to old diseases such as heart disease, strokes and cancer.

This is intended to support an unstated:

Intermediate conclusion: There have been no improvements in the health of the population over the last thirty years.

The second strand is as follows:

Assumption (unstated): The affluence of the country has increased over the last thirty years.

This gives support to:

Basic reason 2: If people became healthier as the affluence of the country increased, we would expect the population to be healthier now than it was thirty years ago.

The intermediate conclusion and basic reason 2 are then taken together to support the main conclusion. Before reading on, ask yourself whether any of the moves in this reasoning are flawed. Do you accept that the intermediate conclusion follows from basic reason 1, that basic reason 2 follows from the unstated assumption, and that the main conclusion follows from the intermediate conclusion together with basic reason 2?

Remember that when we are looking for flaws, we are not considering whether the reasons are true. So, we do not ask, ‘Is it true that the wealth of the country has increased over the last thirty years?’ and ‘Is it true that new diseases have appeared, and certain old ones have become more common?’. We say instead, ‘Even if these claims are true, do they give adequate support to the conclusion that the increased wealth of the country has not

produced improvements in the health of the population?’ It is clear that they do not give adequate support, because we have not been given much information about the general health of the population. It may be true that there is more vulnerability to heart disease, strokes and cancer, but perhaps some ‘old’ diseases, for example tuberculosis and bronchitis, are much less common. Perhaps people have longer lives than was the case thirty years ago, and perhaps they are relatively healthy for long periods of their lives, before succumbing in old age to heart disease, strokes or cancer. There is a problem of interpretation here—what exactly is meant by ‘the health of the population’? If we assume that it refers to the percentage of people’s lives during which they are free from illness, then we have insufficient information upon which to base the conclusion. Now we must state concisely what the flaw is:

Even if some new diseases have appeared and some old diseases have become more common during the last thirty years, it does not follow that the population is less healthy than it was thirty years ago, because people may have long periods of good health before suffering from these diseases.

Note that the flaw occurs in the move from basic reason 1 (the claim about prevalence of diseases) to the unstated intermediate conclusion (that the population is less healthy now than thirty years ago). Note also that, in establishing that this is a flawed argument, we have *not* established that the main conclusion is false. It may be true that the increased affluence of the country has not produced improvements in the health of the population. This could be true if, as the argument tries to suggest, there have been no improvements in the health of the population. But it could be true even if there have been improvements in the health of the population, because those improvements might have occurred even if the country had not become more affluent. So someone aiming to counter the original conclusion in the way set out in Example 3 would also be producing a flawed argument.

Example 3: Correlation not cause

Making a connection between health and affluence, someone might reason:

There have been improvements in the health of the population over the past thirty years, a period during which there has been an increase in the affluence of the country. So the increased affluence of the country has produced the improvements in the health of the population.

The question as to whether increased affluence has or has not produced improvements in the health of the population cannot be settled without more evidence—evidence both about the incidence of all illnesses in the population, and about whether any improvements in health could not have occurred without greater affluence. The argument simply assumes,

without producing any evidence for it, that because two things have occurred together, one of them must have caused the other.

This unwarranted assumption of a causal connection often occurs when someone discovers a correlation—that is, a connection between x and y such that whenever you find x , you are likely to find y , or such that whenever a person or a population has characteristic x , they are likely to have characteristic y . For example, suppose you find that children who frequently watch violent videos are likely to be aggressive; this may be because watching violent videos causes children to be aggressive, or it may be because having a natural tendency to aggressive behaviour causes children to enjoy watching violent videos. Or suppose you find that people who have a great deal of tooth decay are likely to be overweight. This may be because a third factor—perhaps eating large amounts of sugary foods—causes both these conditions. All that you have found when you have discovered a correlation is that two things occur together. This may be because x causes y , or because y causes x , or because x and y are both caused by something else; or it may be simply coincidence. You are guilty of flawed reasoning if you just assume, without further evidence, that x causes y .

Summary: How an argument can be flawed

We have now seen four different ways in which an argument can be flawed. In Example 1, on the effects of television violence, one interpretation of the argument was flawed because *it drew a general conclusion about the effects of television from just one case* (advertising) of which the effects were claimed to be known. The flaw in the other interpretation of the argument was that *it relied on an inappropriate analogy* or comparison. In Example 2, the original argument about increased affluence and health, the argument was flawed because *it drew its conclusion on the basis of insufficient evidence* (the evidence that *some* old diseases are more prevalent), whilst at the same time *failing to look for other relevant evidence* (for example, the reduced incidence of some diseases, the percentage of people's lives during which they are free of illness, and so on). In Example 3, claiming that increased affluence had produced an improvement in the health of the population, the argument was flawed because *it assumed that because two things have occurred together, one has caused the other, and because it failed to consider other possible causes* of the improvements in the health of the population.

The summary shows just some of the ways in which arguments can be flawed. In order to become skilled in identifying flaws in arguments, it is necessary to practise on numerous arguments on a wide range of subject matter. The next exercise offers some practice of this kind. Remember that you are to focus simply on the skill of identifying flaws, and you

should not worry in this exercise about whether the reasons are true. Bear in mind the following points:

- 1 Identify the main conclusion.
- 2 Identify the reasons and the way they are meant to support the main conclusion.
- 3 For each step of the argument, ask ‘Does this (main or intermediate) conclusion follow from the reasons which are given for it?’
- 4 Explain why the conclusion does not follow—that is, think of a reason why the conclusion *might not* be true, even if the reason(s) given are true.

Exercise 9: Identifying flaws Identify

the flaws in the following pieces of reasoning.

- 1 A fantastic basketball team could be created if the best player from each of the best teams formed a new club. Basketball would then become an exciting game for fans everywhere.

(Law School Admission Test, Oct. 1985)

- 2 Crimes and outrages of all sorts have been committed under a full moon by a wide variety of people. The advice to derive from this is clear: when the moon is full, trust no-one, not even yourself.

(Law School Admission Test, Sept.

- 1984) 3 Young people today have more formal education than their grandparents had. Wilma is young, so she must have more formal education than her grandparents had.*

(Law School Admission Test,

- 1982) 4 Neither marijuana nor LSD can be harmful, since they are used by doctors to ease the pain of cancer patients.*

(Law School Admission Test,

- 1982) 5 Adolescents frequently suffer from anaemia, but this is not, as is often supposed, due to insufficient iron in their diets, but is a result of this group’s having a higher requirement for iron than that of the rest of the population.*

(Law School Admission Test, Feb.

- 1983) 6 We know that diet is an important cause of disease. One example of a disease which is attributable to diet is the heart attack, which is so common in Western countries. In countries with different diets, the diseases differ also. For example, in Japan the most common fatal diseases are strokes and cancers of the stomach. The Japanese diet has a much lower fat content and a much higher fibre content than the Western diet. So if people in the West were to adopt a Japanese low-fat/high-fibre diet, they would be unlikely to die from heart attacks. They would die instead from the diseases which are common in Japan—that is to say, strokes and cancers of the stomach.*

- 7 Who invented cooking? Since cooking requires heat, the first cooks must have used fire. Until recently, there was no evidence of fire having been used earlier than 200,000 years ago. But now, reliable scientific evidence has shown that the ancestors of *Homo Sapiens* were lighting fires almost 400,000 years ago. So cooking must have been invented at that time.

- 8 The witness said that he had seen Fred in the vicinity of the shop at the time the fire was started. But we know this witness has a grudge against Fred, and he has been

- known to give unreliable evidence in the past. So we cannot rely on this person's statement. Hence Fred must have been somewhere else when the fire was started.
- 9 Most people could be musical geniuses if they practised hard enough. A psychologist interested in whether genius is mainly hard work rather than inspiration has examined the lives of 76 composers. Most of them had at least a decade of painstaking training before they wrote any masterpieces. Mozart, for example, was drilled incessantly by his father in techniques of composition before he composed his first work of genius at the age of 12.
- 10 Some people claim that poverty is one of the causes of crime. But there can't be any kind of link between being poor and committing crimes, because lots of people who are poor never commit a crime.

Answers to Exercise 9 are given on p. 137.

Evaluating further evidence

Often when we present a case to someone else for accepting a particular conclusion, they will say, 'Ah, but what about...?', offering some piece of information which we have not mentioned and which they think weakens our case. In relation to our earlier example on the dangers of smoking, imagine someone saying to you, 'Knowing that smoking is dangerous cannot be sufficient to stop people from smoking, because there has been so much publicity about the health risks, and yet people still smoke.' Let us suppose that a survey of smokers' beliefs has been carried out. You might then reply to the above statement, 'Ah, but what about that survey which showed that, unlike non-smokers, smokers generally believe that smoking is *not* bad for one's health?' The other person must then consider what impact this has on their conclusion.

Being able to assess the impact of additional evidence is valuable because people frequently challenge each others' reasoning by offering some new piece of information. One response to such challenges would be to question the truth of the new piece of evidence, and this would involve one of the skills we have already mentioned—that of evaluating the truth of evidence or reasons. Another response might be to say that even if the new piece of evidence were true, it would not weaken the conclusion. This involves the other vital skill which we have discussed—that of assessing the degree of support which a reason gives to a conclusion.

Of course, the context may not be one in which we are trying to defend a conclusion—nor should we be thinking in terms of the necessity to defend a conclusion at all costs. That would be to indulge in uncritical thinking—being determined to believe something even in the face of evidence to the contrary. So we must be prepared to acknowledge that sometimes additional evidence will weaken our conclusions. Sometimes new evidence comes to light not in the context of a discussion, not when someone else is trying to undermine one's own reasoning, but simply in relation to a subject upon which we already hold an opinion, and believe that we hold that opinion for good reasons. Once we see that the new evidence is relevant to the issue, we must then consider whether it counts for or against

our earlier opinion—that is to say we must consider whether it *strengthens* our reasoning and not merely whether it *weakens* it.

Exercise 10: Further evidence

This exercise gives you practice in evaluating the impact of additional evidence on an argument. For each of the following multiple choice questions, pick the correct response, explain why it is the correct response, and explain why each of the other responses is incorrect.

1 A recent study found that school-age children who participate in school-related sports activities fight less during school and school-related activities than do those children who do not participate. It was concluded that sports must satisfy an aggressive impulse which would otherwise be released through fighting.

Which of the following, if true, weakens the conclusion referred to in the above passage?

- (a) School-related sports activities are always supervised by adults.
- (b) Supervisors of school-related sports activities discourage participants from being extremely aggressive.
- (c) Children who participate in school-related sports activities tend to be more aggressive physically than those who do not participate.
- (d) Approximately 85 per cent of the fights children get into during school or schoolrelated activities take place during break times.
- (e) Most schools suspend those who fight during school or school-related activities from the schools' sports teams.

(Law School Admission Test, 1982)

2 Although the number of undergraduates studying engineering has grown greatly over the last five years, there may be a shortage of engineering teachers in the near future because the number of people receiving PhDs in engineering, those most likely to teach, has not been increasing. This results because the high salaries offered to engineers without advanced degrees reduce the incentive to pursue postgraduate studies. Therefore, businesses will have to recognize that their long-term interests would best be served by reducing salaries for those without advanced degrees.

Which of the following, if true, would *most* weaken the above argument?

- (a) Enrolment in the sciences has grown over the last five years.
- (b) Fewer than half of the people who have received PhDs in engineering teach fulltime.
- (c) Businesses pay high salaries to engineers with advanced degrees.
- (d) The increases in engineering enrolment are due to the high salaries paid by businesses.
- (e) Many university programmes are funded by businesses interested in engineering research.

(*Law School Admission Test, Dec. 1983*)

3 *Joan*: One method of reducing serious crime in the United States is to adopt the English system of providing free heroin to heroin addicts.

Anna: That's absurd. It's just like giving free cars to automobile thieves.

Which of the following, if true, would *most* strengthen Joan's argument?

- (a) Heroin addicts are more likely to be violent under the influence of drugs than when they are anticipating using those drugs.
- (b) The amount of money needed annually to supply heroin to heroin addicts is less than the amount lost annually by the victims of drug-related crimes.
- (c) It is cheaper to provide addicts with drugs than to jail them after they have committed crimes.
- (d) The amount of serious crime committed by non-addicts is roughly equal in England and the United States.
- (e) A substantial amount of serious crime is committed by heroin addicts in order to support their habits.

(*Law School Admission Test, Oct. 1983*)

4 Since only four per cent of all automobiles fail the state's annual safety inspection solely because of defective direction indicators, the state's automobile association recommends that direction indicators no longer be inspected. Although they are an important safety feature, too few are defective to make the expense of testing them worthwhile.

Which of the following, if true, points out the *most* serious weakness in the recommendations of the automobile association?

- (a) Owners will no longer maintain their direction indicators in working order if the inspection requirement is dropped.
- (b) Owners of vehicles with defective direction indicators may not have learned to use manual direction signals.
- (c) Eliminating the inspection of the direction indicators will make the state's inspection procedure less thorough than those of neighbouring states.
- (d) Vehicles with defective direction indicators will fail inspection anyway if they have other safety defects.
- (e) Vehicles that have defective direction indicators may have other defects not covered by the safety inspection system.

(*Law School Admission Test, Feb. 1983*)

5 A recent study found that if children watched up to one hour of television a day, their performance in school was unaffected, but if they watched between two and three hours a day, they were likely to perform considerably less well than their peers who watched less. The researchers concluded that if parents carefully monitored the time their children watched television, the children's school performance would be maintained at adequate levels.

If true, which of the following statements about the children in the study would *most* strengthen the conclusions of the researchers?

- (a) Most of the children who performed at below average levels in school watched more than two hours of television a day.
- (b) Children who watched television mostly at weekends performed better in school than children who watched television mostly on school nights.
- (c) Children who spent more time reading than watching television performed better in school than those who did not.
- (d) The disparities among the children in terms of school performance lessened when the television viewing habits of the children became more uniform.
- (e) The children who reduced the amount of television they watched daily spent the extra time reading.

(Law School Admission Test, Dec. 1985)

6 It is unwise to continue the career training and employment programmes administered in most prisons today. These programmes do not achieve what they are meant to achieve because most ex-prisoners choose not to pursue the occupations they followed during the time they spent in prison.

Which of the following, if true, *most* weakens the above argument?

- (a) Many habits and skills learnt in prison training programmes are valuable in a great variety of occupations.
- (b) Prisons have an obligation to provide prisoners with occupational training they will later use in employment.
- (c) Prison career training programmes tend to make prisoners more productive during their time in prison.
- (d) Training prisoners for future employment is a major goal of most rehabilitation programmes today.
- (e) In most prisons today, prisoners can prepare for their choice of a number of occupations.

(Law School Admission Test, 1986)

7 Certain physiological changes accompany the psychological stress of telling a lie. Reliable lie detection is possible because, with the appropriate instruments, we can measure the physiological symptoms of lying.

Which of the following, if true, *most* weakens the above argument?

- (a) Lie detectors are expensive machines, and they require careful maintenance.
- (b) Some people find lying only moderately stress-inducing.
- (c) Lie detection requires highly trained, capable personnel.
- (d) Even the appropriate instrument can be misused and abused.
- (e) Numerous kinds of psychological stress produce similar physiological symptoms.

(Law School Admission Test, March 1984)

Answers to Exercise 10 are given on p. 139.

Questioning explanations

Some pieces of reasoning, rather than trying to convince us that we should accept a particular conclusion, aim instead to explain something which we already accept as being true. This is a case of giving *reasons why* something is as it is, rather than giving *reasons for* believing something. The difference is illustrated by the following report from the *Independent* of 17 February 1994:

Latest figures for cancers in England and Wales show an increase of four per cent in 1988. Richard Doll, consultant to the Imperial Cancer Research Fund, said one explanation was the rising number of elderly people.

Richard Doll's comments are not trying to convince us of the fact that cancers increased in 1988. They are taking the truth of that for granted, and trying to explain why this increase occurred.

This is a case of an explanation occurring as an independent piece of reasoning; but we may also find explanations offered within an argument, as part of a longer passage of reasoning. What we need to know about an explanation is whether it is the correct explanation. It may not be easy to settle such a question, but there are strategies we can use to attempt some assessment of an explanation. One is to examine any questionable assumptions underlying the explanation. Another is to think of possible alternative explanations. If we can think of two or three equally plausible explanations of something, then we should be cautious about accepting any of them as the correct explanation until we have further information.

We can try these strategies on the above example, although it may seem presumptuous to question the judgement of a leading authority in cancer research! What assumptions underlie Richard Doll's explanation? If the increase in cancers is attributable to 'rising numbers of elderly people', this must be because people who, had they lived in earlier times, would have died from other diseases (which are now more easily treatable or preventable) are living to an age at which they are likely to get cancer. No doubt further support for this assumption could be found by examining figures on the incidence of cancer in different age groups.

What alternative explanations of the increase in cancer can we suggest? Well, there would be an increase in cancer figures if the population in general were more susceptible to the disease—perhaps because of pollutants in the environment. There would be an increase in the figures if particular groups had a greater incidence of cancer, due to changes in habits and practices. For example, it could be that new medications for circulatory diseases cause more cancers, or that more cancers are caused by more women taking hormone replacement therapy. Light could be shed on the plausibility of these alternative explanations by examining figures on the incidence of cancer amongst different groups. We are not suggesting that Richard Doll's explanation is likely to be incorrect—in fact he

is more than likely to have taken all these factors into account before offering his explanation. But the example serves to illustrate the way in which we can question explanations, perhaps reserve judgement on them until we have more information, and perhaps take steps to investigate which of various alternative explanations is the most plausible.

The following passage describes a piece of research which aimed to find out the most plausible explanation of a known fact. It is adapted from an article in the *Independent on Sunday* of 25 June 1995:

Motorists in their teens and twenties have a low opinion of elderly drivers, whom they regard as bumbling old fools who shouldn't be allowed on the roads.

Some old drivers are indeed incompetent, and data from the USA has shown that the accident rate for drivers rises substantially after the age of 70. A research team at the University of California at Los Angeles has now carried out a detailed study of the abilities of elderly drivers. The research team recruited volunteers in their early seventies who, according to their doctors, had signs of early dementia due to Alzheimer's disease, or to narrowing of the arteries. Other drivers of the same age had diabetes as their only medical condition, and a group of younger drivers was used for comparison.

All the drivers—the demented, the diabetics and the young controls—were taken on a drive around a three-mile road network with intersections, speed bumps, traffic signs, signals and parking lots. Each driver's performance was graded by an instructor in the car, which was fitted with an on-board computer which recorded braking speed, steering, crossing the centre line, and so on. The drivers also worked their way through a series of standard tests of mental ability, concentration and short-term memory.

The results showed that the 70-year-olds with diabetes did just as well on the test drives and mental tests as the younger drivers. The drivers with early dementia did worse. They drove slowly, and the mistakes they made were serious—for example, turning into a one-way street marked 'no entry'. The conclusion was that drivers in their seventies in normal health (with normal vision) can perform at a level comparable with young, healthy adults—at least in a suburban, non-stressing environment. Statistics showing that drivers in this age group have high accident rates are, the report says, at least partly attributable to people continuing to drive after they have become mildly demented.

Before reading on, ask yourself the following questions:

- what was the known fact which the study sought to explain?

- what explanation would the author expect young motorists to give?
 - what explanation does the report of the study give?

The passage tells us in the second paragraph that data from the USA shows that the accident rate for drivers rises substantially after the age of 70. This is the fact which is to be explained, and it means, of course, that *as a group* the drivers aged over 70 have a higher percentage of accidents than those aged under 70. It is clear from the first paragraph that the author would expect young drivers to explain this fact by saying that *all* drivers aged over 70 are incompetent, and therefore more likely to have accidents. The study did tests to assess the competence of drivers, and found that those aged over 70 who had dementia were less competent than young drivers, but those aged over 70 who did not have this medical condition were no less competent than young drivers.

This suggests that the most plausible explanation of the higher accident rate amongst drivers aged over 70 is that *some* drivers aged over 70 are incompetent due to dementia. We should note that the article suggests that the driving test was conducted in a ‘suburban, non-stressing environment’. If this is correct, then, in order to be certain that the explanation offered by the study was the most plausible, we would want some evidence about the competence of both young drivers and drivers aged over 70 in more stressful traffic conditions.

Of course, dividing all drivers into only two groups, over 70 and under 70, obscures any statistical differences in the very large under-70 group—this is an example of how critical of statistics we must be, even when we accept them. For example, drivers under 25 have a significantly higher accident rate than those over 25. Elderly drivers might wish to argue that this showed a high incidence of undiagnosed dementia among young drivers!

Exercise 11: Offering alternative explanations

For each of the following passages, identify which part of the passage is the explanation, and which part is the fact which is being explained. Then suggest an alternative explanation for this fact. Do not worry if you are uncertain whether your explanation is true. Just try to think of something which, if it were true, would be another possible explanation.

1 Public confidence in the police force is declining at the same time as fear of crime is growing. People’s lack of confidence in the police is the reason why they are so much more fearful of crime.

2 Why has the divorce rate increased so much over the last thirty years? It is because there are so many more couples these days who are unhappily married.

3 The human race has never received a well-authenticated communication from beings elsewhere in the universe. This is because the only intelligent life in the universe is on our own planet.

4 The number of cars per head of population in Britain continues to rise. This is why, whenever a new road such as the M25 is built, the density of traffic in that area increases.

5 Because the weather was so bad in Britain last summer, the number of people taking holidays in British resorts declined.

Answers to Exercise 11 are given on p. 144.

Exercise 12: Identifying and evaluating explanations

In each of the following three passages, an explanation is offered, or a number of different explanations is considered, for a given fact or phenomenon. For each passage:

- (a) identify the fact or phenomenon which is to be explained,
- (b) find the explanation or explanations given in the passage,
- (c) think of any other possible explanations which are not mentioned in the passage, (d) either
 - say which explanation you think is the most plausible, and why; or
 - think about further evidence you would need in order to decide which explanation is the most plausible.

This exercise could form the basis of a class discussion.

1 Girls doing well while boys feel neglected, study finds

Boys are blamed for everything, complained a 14-year-old, encapsulating the jaundiced view of school that seems to be having such a bad effect on boys' exam results.

It was a myth that girls perform poorly at school, said Michael Younger, whose study of an East Anglian comprehensive elicited the 14-year-old boy's comment. Boys are the problem.

The boy also complained: 'Girls are treated a lot better and get first choice of equipment and task'.

Reflecting the national picture, the girls at this school have done consistently better at GCSE than the boys, although the gap has narrowed.

Mr Younger said some schools should take credit for implementing equal opportunities policies which had reduced discrimination against girls.

They now had to tackle boys' under-achievement and disengagement, although Mr Younger admitted that it was a complex problem to which he did not have any easy answers.

He and Molly Warrington, his fellow researcher at Homerton College, Cambridge, found that boys felt they were unfairly treated or neglected in class, although teachers and the majority of girls disagreed.

Staff said boys went to considerable lengths not to appear swotty—for instance, denying to classmates they had done homework even when they had, or playing up in class. They saw boys as unable to concentrate or organise themselves and lacking in motivation.

Girls tended to be more focused, and study was not seen as bad for their image. Parents and teachers agreed that girls did more homework, while boys saw it as a necessary evil to be done as quickly as possible.

Seventy per cent of girls thought female teachers treated boys and girls equally; only 46 per cent of boys agreed.

A majority of all the pupils surveyed thought male teachers were biased towards girls, however—accepting behaviour from girls which they punished in boys.

A fifth-form girl agreed that girls were treated more leniently by male teachers. 'The girls have a reputation for being well-behaved, so if, for example, they don't do their homework they won't get told off as much.'

Boys from the same year complained that they got less attention from male teachers than the girls did.

Girls appeared to have clearer goals, said Mr Younger, which led them to focus on their work. Some boys had no idea what they wanted to do after GCSE and several had no idea what later courses to take.

(*Guardian*, 26 August, 1995)

2 Number of road deaths at post-war record low

Fewer people were killed on Britain's roads last year than in any year since 1926, but a rise in the number of those seriously injured suggests that further improvements are unlikely.

Preliminary figures released by the Department of Transport suggest that 3,651 people died on the roads, a fall of 4 per cent compared with 1993 when 3,814 died—the previous post-war record low.

The fall in deaths, despite an increase in road traffic of 3 per cent, appears to be explained by better paramedic treatment at the roadside and improved medical care, since the figures for serious injuries have increased to 46,784, a rise of 4 per cent.

In fact the number of deaths is just about the only figure to have gone down between 1993 and 1994. Serious injuries for both car users and

pedestrians also increased. Indeed pedestrian casualties rose by 2 per cent overall from 1993 levels to 49,026 and while deaths fell by 7 per cent to 1,148, serious injuries increased by 4 per cent to 11,924.

While Britain generally has a good safety record on the roads compared with its European neighbours, the number of child casualties is proportionally higher and last year reinforced the trend, with child casualties going up by 6 per cent to 45,239. The number of child pedestrians killed on the road went up from 135 to 173, a rise of 28 per cent.

Edmund King, campaigns manager of the RAC, said: 'There are very worrying features about these figures, particularly on child deaths. One thing that could be done quite easily is to bring the clocks into line with the Continent so that children would not have to go home from school in the dark'.

He says that the increase in serious injuries shows that the number of accidents is rising and he feels many are caused by drivers feeling too insulated in their modern cars. Mr King said, 'They listen to the stereo, have the heater on and it's almost as if the outside world doesn't exist. And then they fall asleep or make a mistake...'

Brigitte Chaudhry, national secretary of RoadPeace, an organisation for road accident victims, said the figures on deaths may be misleading; 'Deaths are only counted as such if they occur within 30 days of the accident. Nowadays, many people are kept alive for much longer thanks to modern medical techniques and die later than that.'

She added that the main reason for the reduction in deaths over the last 30 years is a decline in the number of vulnerable road users, such as pedestrians and cyclists, using the roads: 'As there are fewer pedestrians on the road and more are getting hurt, it suggests that roads are more dangerous and not safer'

(Independent, 31 March 1995)

3 Science debunks miracle of weeping madonna

The only weeping madonna officially accepted by the Roman Catholic Church has been exposed as a fake by an Italian scientist who used the logic of Mr Spock, the deductive reasoning of Sherlock Holmes and a knowledge of capillary attraction.

There has been a sharp increase in the sightings of weeping madonnas, from Ireland to Croatia, but the only one recognised by the Church is a statue of the Virgin Mary in the town of Siracusa in Sicily. It first began weeping in 1953.

The ‘miracle’ of a statue that appears to weep has even been caught on film. But Luigi Garlaschelli, a chemistry researcher at the University of Pavia, believes he has an explanation.

Dr Garlaschelli has made his own weeping madonna which baffled onlookers into believing the statue was able to shed tears without any mechanical or electronic aids or the deployment of water-absorbing chemicals.

The secret, he revealed, is to use a hollow statue made of thin plaster. If it is coated with an impermeable glazing and water poured into the hollow centre from a tiny hole in the head, the statue behaves quite normally.

The plaster absorbs the liquid but the glazing prevents it from pouring out. But if barely perceptible scratches are made in the glazing over the eyes, droplets of water appear as if by divine intervention—rather than by capillary attraction, the movement of water through sponge-like material.

Dr Garlaschelli said the actual madonna of Siracusa is kept behind a glass partition and he is unable to inspect its glazing for himself. ‘I think permission won’t be granted to examine it,’ he said. ‘Many of these relics are not allowed to be examined. However, examination of a copy from the same manufacturer as the original proved it to be made of glazed plaster and to possess a cavity behind the face.’

(Independent on Sunday, 9 July 1995)

Answers to Exercise 12 are given on p. 145.

Summarising the skills of evaluation

The skills discussed in this chapter need to be used together when assessing a passage of reasoning. We need to consider whether the reasons, and any unstated assumptions, are true; whether the argument relies upon evidence from anyone whose authority is questionable; whether anything which we ourselves know, but which is not stated in the passage, weakens or strengthens the conclusion; whether, if the passage relies upon an explanation, we can think of equally plausible alternative explanations; and finally whether we can identify flaws in the reasoning which show us that the conclusion is not well supported by the reasons.

Here is a checklist to work through when assessing the reasoning in the passages in Exercise 13:

- 1 Find the conclusion.
- 2 Find the reasons and any unstated assumptions.
- 3 Consider how far you can go in assessing the truth of the reasons and the unstated assumptions. Think about how you would seek further information to enable you to assess the truth of reasons.

- 4 Does the reasoning rely on evidence from sources whose authority is questionable?
- 5 Do you yourself have any knowledge which strengthens or weakens the conclusion? (Remember to subject your own ‘knowledge’ to the same standards of scrutiny as you apply to the claims made by other people!)
- 6 Does the passage contain any explanations? If so, are they plausible, and are they the only plausible explanations of what is being explained?
- 7 If you believe that the conclusion is not well supported by the reasons and assumptions, can you state the way in which the move from reasons to conclusion is flawed?

Exercise 13: Practising the skills

Identify and evaluate the reasoning in each of the following passages.

1 The Automobile Association has objected to the idea, floated by the roads minister, to allow drivers on British motorways to ‘undertake’—or pass other cars on the left instead of the right.

Yet the minister’s diagnosis of the problem is correct. Too often, a driver hugs the right-hand lane of a motorway, and sees no reason to move since he is already travelling at the speed limit or above. Another approaches from behind wanting to pass, but is blocked by the smugly virtuous driver in his path. (The protagonists in such disputes are almost always men.) At best, the result is a locking of horns, lights and brakes; at worst, the faster driver can lose patience and provoke a crash—sometimes with fatal results.

The ideal solution is obvious: for Britons to adopt the rigid discipline common in some parts of continental Europe, where drivers who overtake always return briskly to the lane from which they came. That is the theory here too; but the police seem unable to force drivers to obey the law as it stands.

The minister’s solution is second best. Overtaking on both sides works tolerably on congested 55 mph highways in the United States; it allows all lanes on a road to be used to the full, and thus reduces delays and the frustration they cause. As British traffic conditions come more and more to resemble those of the USA, the American solution seems increasingly tempting.

But there are legitimate doubts about whether US habits would work in Britain. Might our higher motorway driving speeds and narrower roads cause more accidents under a US-style system? Might British drivers become confused, resulting in more accidents until things settle down? Only research and consultation with experts, rather than merely with

driving organisations, can answer those questions. At the moment, there is little evidence either way.

In the meantime, safety would be improved by a change to the Highway Code obliging drivers not only to indicate before changing lanes, but also to leave their indicators on while they are in the overtaking lane. The flashing indicator would serve as an unaggressive signal to drivers in front to pull over to the left as quickly as they safely can; and it would remind the overtaker to do the same immediately afterwards.

(Independent, 28 September 1993—adapted)

2[The reduction in the price of *The Times* newspaper has] demonstrated a basic maxim of the market system which is neglected by most British business. If you lower your prices, it is very likely that you will *enlarge* the market for your sort of product.

The lesson seems so trite that I am embarrassed to set it out in print. And yet it seems to pass over the heads—or beneath the notice—of almost everyone involved in financial decision making. If the market for a category of thing is static or contracting, the standard British response is to raise prices so as to maintain profit levels. Scarcely anyone seems to consider the possibility that lowering prices by cutting profit margins to the bone can do more than merely redistribute a fixed amount of custom, by actually enticing more people into a market they might otherwise not enter at all. The total number of possible customers is increased by those who might now consider, say, purchasing a quality newspaper at all, or who return to buying such a newspaper every day or perhaps more than one newspaper per day.

The market for most commodities is not set in stone; people's tastes and preferences are not immutable. They will exercise their freedom to choose when given half an economic chance, just as they can be forced to give up things that they like if they become too expensive. With every tax increase on cigarettes, the number of people smoking drops. When London restaurant prices became seriously out of line with spending power, so many people stopped eating out that a great many restaurants closed.

A simple inversion of this principle—cut prices as low as you can and people will buy more—is the prevailing philosophy in countries such as the United States, where supermarkets, for example, expect to run on profit margins of 1 or 2 per cent as opposed to the 8 per cent which is normal in Britain. In what has been described as a gloomy forecast for British food retailers, Tesco has predicted that the industry would be hit by 'intense competition and further pressure on prices' in the coming years.

Well, one man's gloom is another's cheap food. And in the same statement, Tesco's chairman reported that Tesco's sales and profits were

both up as a result of—guess what—its ‘lower pricing’ policy. Just fancy that.

(Janet Daley, Copyright © The Times, 23 September 1993)

3Crime figures have certainly risen since the Fifties, but it should be remembered that only 5 per cent of crimes have a violent or sexual content. A quarter of reported crimes are burglaries, vandalism or criminal damage. Figures for crimes of these types have increased, but a great deal of such crime is trivial—70 per cent of burglaries are of amounts under £100. Some of the increase is to do with increased opportunity—there are more things now for people to steal and vandalise.

People are more inclined to report crime now than they were in the Fifties. Because of insurance, 98 per cent of car crimes are reported. And the physical violence which used to be taken for granted in domestic situations no longer is. So, quite rightly, more of it gets reported. Of the three categories of rape, reports of rape by strangers has barely increased. It’s with intimates and acquaintances that it’s really gone up.

So now we call everything crime and ask the police to protect us, all the time fostering a myth that the past was much more peaceable. But in some streets in London, you couldn’t hang washing out in the Thirties for fear of its being stolen, and there was a fight on the steps outside the pub every Saturday night.

The fears that people have of crime are based on the assumption that the incidence of violent and serious crimes has increased greatly in the past forty to fifty years. But they are mistaken in thinking that the evidence supports this assumption.

*(adapted from an article by David Hare, Independent on Sunday,
10 October 1993)*

Answers to Exercise 13 are given on p. 146.

Chapter 3

Recognizing implications

Drawing conclusions

One important aspect of reasoning is the ability to go further than the information you have been given, to draw conclusions from evidence, to see what follows from statements which other people make. This is an ability which we all exercise to a certain extent in our daily lives. If we draw back the curtains in the morning, and find that last night's snow covering has gone, we conclude that the temperature must have risen overnight. If we know that a friend has completed a 150-mile car journey in two hours, we conclude that they must have exceeded the 70 mph speed limit.

Sometimes our conclusions will be more tentative than in these two examples. If we know that a colleague's children have all had bad colds recently, and we hear that colleague sneezing throughout the day, then it is reasonable to conclude they have caught a cold. But they may not be suffering from a cold. Perhaps their sneezing is caused by an allergy to something in the office, for example, a new pot plant or a new type of printing ink. In cases like this, where the evidence points to a conclusion which may need to be reconsidered in the light of further evidence, it is best to express our conclusion as something which is 'probable' or 'likely'.

To improve our capacity for critical reasoning, we need to exercise the ability to draw conclusions in a systematic way whenever we are presented with information—in discussions with others, when reading newspapers and textbooks, when listening to the comments of politicians. We may find it easiest to draw conclusions about those subjects with which we are most familiar, but with practice, we can make progress in improving the ability in relation to less familiar topics.

Let us turn to some examples to illustrate this. Consider the following passage:

Men with low blood cholesterol levels are more likely to develop intestinal cancer than those with high blood cholesterol levels. But men who have high blood cholesterol levels have an above-average risk of suffering a heart attack.

(Law School Admission Test, Dec. 1984)

What conclusions can be drawn from this information? Can we conclude that it would be a good thing for all men to aim to have a low blood cholesterol level, on the grounds that

this would reduce their risk of suffering a heart attack? No, not from the information available, because if they achieved a low blood cholesterol level they would be more likely to develop intestinal cancer. So the most which can be concluded is that lowering a patient's blood cholesterol level in order to reduce the risk of heart attack may increase the patient's risk of intestinal cancer, and thus that it may not be wise to attempt to lower a patient's blood cholesterol level.

Note the tentative nature of this conclusion. It is possible that further information might lead us to revise the conclusion. Suppose that intestinal cancer is a disease which usually occurs in old age. In that case, lowering someone's blood cholesterol level may move them out of the group likely to die relatively young from a heart attack, and into the group likely to live much longer, but also at risk of—eventually—developing intestinal cancer. In that case, it may be wise to attempt to lower the blood cholesterol levels of those likely to suffer heart attacks.

Let us look at another example:

Repeated spraying with the insecticide did not rid the tobacco fields of the insect. Only the strongest of the species survived each spraying. When they mated, they produced offspring more resistant to the insecticide than they were.

(Law School Admission Test, June 1983)

What can be concluded from this information? We know that the insects which were strong enough to survive repeated spraying with insecticide produced offspring with even greater resistance to the insecticide. In the original population of insects, there were obviously some with weak resistance and some with strong resistance, so perhaps it is just a matter of chance whether a particular insect has strong or weak resistance, and therefore just a matter of chance that the offspring of the survivors had strong resistance.

But if it were just a matter of chance, then we should expect the new generation to include some insects with weak resistance to the insecticide. The fact that they all had strong resistance suggests that there is something about being the offspring of those with strong resistance which makes insects more likely to have strong resistance. And this suggests that resistance to insecticide, in at least some species, can be passed from one generation of insects to the next. This is a useful conclusion to draw because it tells us that repeated spraying with insecticide may not have the effect of eventually eliminating insect pests. It may even have the effect of making the insect population stronger, if those which have the resistance to the insecticide are strong in other respects as well, for example, in their abilities to reproduce or to withstand adverse weather conditions and disease.

Here are some exercises for you to practise your skill in drawing conclusions.

Exercise 14: Drawing conclusions

For each of the following, say what conclusion you can draw from the passage.

- 1 The pond is frozen this morning. It was not frozen yesterday.
- 2 There is a ‘flu epidemic sweeping through the school. Gitta, one of the pupils, has a very high temperature and aching muscles, both of which are symptoms of ‘flu.
- 3 The winter has been very severe. When we have a severe winter, the daffodils usually come into flower late.
- 4 Jane arrived before Jim, although they set off at the same time, and they were both travelling by car.
- 5 The murder victim died at 9 pm on Saturday. It is suspected that he may have been poisoned, but it is not yet known whether it was poison or the blow to his head which killed him. The injury to the head would have caused death instantly, had he still been alive when he was hit. It has now been discovered that Ms Brown, the chief suspect, was with friends five miles away from the murder scene between 7 pm and 10 pm on Saturday.

Answers to Exercise 14 are given on p. 151.

Exercise 15: Assessing implications

For each of the following passages, assume that what is said in the passage is true, and assess whether each of the responses (a) to (e) is *true, false, probably true, probably false*, or whether you have *insufficient information* in the passage to draw any conclusion about the statement’s truth or falsity. Write your answer—*T, F, PT, PF*, or *II*—at the end of each of the sentences (a) to (e). You may find it interesting to compare your answers to the exercise with someone else’s.

- 1 A study from Sweden reports that the incidence of skin cancer increased by 50 per cent between 1979 and 1987. Exposure to sunlight is known to cause skin cancer in lightskinned people. The incidence of skin cancer was found to be higher amongst professionals than amongst manual workers—thus it was higher amongst those who can afford to take holidays in places with very sunny climates. Twenty per cent of skin cancer cases occurred amongst those aged between 20 and 39, although most types of cancer are uncommon in this age group.

(Report in the Independent, 30 March, 1993)

- (a) Manual workers in Sweden have no risk of getting skin cancer.
 - (b) There is a lower risk of skin cancer for those aged over forty than for those aged under forty.
 - (c) The increase in the incidence of skin cancer in Sweden indicates that exposure to sunlight cannot be the only cause of skin cancer.
 - (d) Those aged over 40 in Sweden are more likely than the rest of the population to take holidays in places with sunny climates.
 - (e) The increased incidence of skin cancer in Sweden may be due to an increase in the numbers of people taking holidays in places with sunny climates.
- 2 Nearly 600 people, most of whom had an inflated sense of their own safety as car drivers, took part in a study which investigated ways of getting people to drive more safely. The drivers were asked to fill in a question-naire detailing an imaginary accident which they had caused and which had serious repercussions, such as the loss of a child's life. They had to write a description of the consequences, and imagine the subsequent guilt, lack of confidence or inability to drive again. Before the study, 50 per cent of the group said they would be prepared to drive at over 80 miles per hour on a motorway. After completion of the questionnaire, this figure fell to 27 per cent. The group most likely to overestimate their driving skills and safety were young men.
(Report in the Independent, 5 November 1993)
- (a) Most drivers have an inflated sense of their own safety.
 - (b) Some drivers who overestimate their driving skills tend to drive too fast.
 - (c) People with only a few years' driving experience do not overestimate their skills.
 - (d) Forcing drivers to imagine that they have had a serious road accident may make them drive more responsibly in the future.
 - (e) Imagining that one has caused a serious accident has the undesirable effect of reducing one's confidence as a driver.
- 3 Many people who have bad headaches worry that this might be the first symptom of a brain tumour. Such worries are almost always groundless. Neurologists are agreed that a headache which has persisted for a year with no other symptoms is unlikely to be due to a brain tumour. The early symptoms of brain tumours are indeed headaches which are worst on waking, accompanied by vomiting, failing vision and, later, drowsiness. If there is a tumour at the front of the skull, the first symptom may be a change in personality. All of these symptoms, however, have other possible causes. It is possible to diagnose tumours with brain scanning techniques, and early diagnosis improves the chances of successful treatment.

(Independent on Sunday, 21 March 1993)

- (a) A change in someone's personality indicates that they have a brain tumour.
- (b) Brain scanning can be carried out without risk of harm to the patient.
- (c) Neurologists think that headaches are never symptoms of brain tumour.
- (d) People suffering from headaches, vomiting and failing vision would be wise to have a brain scan.
- (e) Someone suffering from headaches, vomiting and failing vision is not necessarily suffering from a brain tumour.

4 A technique for inducing phantom sheep pregnancies has been developed to address the problem of what to do with the million lambs born each year to mothers which for one reason or another cannot breast-feed them. Fostering is notoriously difficult because a ewe quickly forms a bond with its own lamb and rejects all others. Farmers are forced to rear orphaned lambs themselves, and lack of maternal contact can cause behaviour abnormalities. Gently stretching the neck of the cervix with two fingers sends nerve signals to the animal's brain that mimic those produced in labour. The sheep believes it has given birth to a second lamb. The orphaned lamb can then be introduced to its new mother with an 80 per cent chance that it will be accepted.

(Independent, 22 March 1993)

- (a) A ewe which gives birth to two lambs from one pregnancy will form bonds with both lambs.
- (b) A ewe will actually reject her own lamb if she is introduced to an orphaned lamb.
- (c) An orphaned lamb may fail to develop normal behaviour if it is not fostered by a ewe.
- (d) An orphaned lamb needs maternal contact in order to grow to adulthood.
- (e) The formation of a bond between a ewe and a lamb can occur even if the ewe is not the mother of the lamb.

5 Dipping of sheep protects the animals from scab and blowfly attacks. Leather manufacturers report that since sheep dipping ceased to be compulsory last year, 60 per cent of British sheepskins have been found to have damage from these parasites. But there are worries that sheep dips can cause health problems for farmers who use them. The Veterinary Products Committee examined medical evidence on 266 cases of people who believed that their influenza-like symptoms were caused by exposure to sheep dip. They found a possible link to sheep dip in only 58 of these cases, and of these 58, only three had worn protective clothing while using the dip. The long-term effects of low level exposure to sheep dip are not known. However, because of concerns about safety, the Ministry of Agriculture has introduced legislation requiring farmers who use sheep dips to have a certificate of competence.

(Independent, 2 December 1993)

- (a) Scab and blowfly cause distress to sheep.
- (b) There is no evidence that there may be a link between influenza-like symptoms and the use of sheep dips.
- (c) Protective clothing prevents sheep dip from damaging farmers' health.
- (d) Low-level exposure to sheep dip is known to be dangerous enough to justify banning the use of the dip.
- (e) Sheep dips need to be handled with great care because they present a risk to the health of farmers who use them.

Answers to Exercise 15 are given on p. 151.

Sometimes a whole argument has implications which go beyond the particular subject with which it is concerned. There are two important ways in which an argument can do this—by exhibiting a particular structure or shape, which it can have in common with arguments on other topics, or by relying on a general principle which can be applied to other cases. The skills involved in dealing with implications of arguments can be described as *recognizing parallel arguments* and *recognizing and applying principles*.

Recognizing parallel arguments

The value of this skill is that being able to recognize parallel arguments may help us to see what is wrong with an argument. Sometimes it is easier for us to recognize a flaw in an argument if the argument is about a familiar subject. Suppose you are presented with an argument on an unfamiliar topic, and although you doubt your ability to assess the subject matter, you can nevertheless see that the argument has a particular shape or pattern. If you can substitute some familiar subject matter into this pattern, you may be able to see whether the argument is good. Not all arguments can be dealt with in this way; those which can, tend to be relatively short and to succeed or fail in virtue of their structure, rather than because there is additional evidence which counts against them.

Someone who objects to an argument by saying ‘You might as well argue that...’ is often presenting a parallel argument to show that there is a problem with the original argument. This is what is happening in the two following examples of conversations:

1 *James*: I mean what I say because I say what I mean.

John: You might as well argue that you eat what you see because you see what you eat.

2 *Sam*: We have all had the experience of being deceived by our senses—the stick which looks bent when it is straight, and so on—and all the information we get through our senses in this way is potentially illusory, therefore sense experience is always unreliable.

Jo: You might as well argue that since we’ve all had the experience of being lied to—that even lovers lie and that everyone is potentially untrust-worthy, therefore no-one can ever be trusted.

The argument presented in Exercise 5 (p. 22) offers an example in which, if we construct a parallel argument, we can see that an unwarranted inference has been made. The argument concerned the claim that there is no justification for public discussion and condemnation of the sex life of the US president. In order to persuade us that a husband who deceives his wife can nevertheless be a good president, it gave examples of presidents

who had been good husbands (in the sense that they did not deceive their wives) but bad presidents. We could summarize this section of the argument as follows:

Someone who does not deceive his wife can nevertheless be a bad president. So someone who does deceive his wife can be a good president.

Although the conclusion here may be true, and although—especially if we agree with the conclusion—we may be tempted to think that a good reason has been offered for it, in fact the first sentence is not a good reason for accepting the conclusion. This is evident if we look at the following parallel argument:

Someone who is not cruel to children can nevertheless be a bad childminder. So someone who is cruel to children can be a good child-minder.

We can immediately see with this example that the conclusion cannot be true, because someone who is cruel to children cannot possibly be a good child-minder. If the conclusion must be false, then this cannot be a good argument even if the reason offered is true. The reason no doubt is true, because in order to be a good child-minder you have to do more than merely refrain from cruelty to children. The argument is bad because the reason is not sufficient to establish the conclusion, and if this is so with the argument about child-minders, then it is also the case with the parallel argument about US presidents. Whether or not a president who deceives his wife can nevertheless be a good president depends upon whether the tendency to deceive extends to all areas of the president's life. It does not depend upon whether a president who is an exemplary husband deceives the public about some of his actions.

Exercise 16: Identifying parallel arguments

In these multiple-choice questions, you should pick the answer which uses reasoning parallel to the reasoning in the original passage.

- 1 Because heroin addicts usually have one or more needle marks on their arms, and Robert has some needle marks on his arm, it follows that Robert is probably a heroin addict.

Which of the following most closely parallels the reasoning used in the argument above?

- (a) Because patients with malaria usually have high fevers, and George is a patient with malaria, George probably has a high fever.

- (b) Because patients with malaria usually have high fevers, malaria probably causes high fevers.
- (c) Because doctors have high incomes, and people with high incomes pay high taxes, doctors probably pay high taxes.
- (d) Because students are usually under twenty-five years old, and Harold is under twenty-five years old, Harold is probably a student.
- (e) Because heroin addicts usually have needle marks on their arms, most heroin addicts probably inject the drug directly into their veins.

(Law School Admission Test, Feb. 1986)

- 2 It has usually been claimed that in eras of high infant mortality, parents adopted indifference to children as an emotional defence. But some scholars deny that parents were indifferent to children because so many died, arguing instead that children died because their parents were so unconcerned about them as to spare no time for them.

Which of the following is most similar in its structure to the argument described in the last sentence above?

- (a) It was not the school's new reading programme, but parents' increased concern with their children's schoolwork that produced better reading scores.
- (b) It is not true that the lack of qualified workers depresses wages in the poor sectors of an industrial economy; rather, the low wages attract unskilled labour.
- (c) It is not changing demand that prompts the introduction of new fashions; actually the clothing industry brings in new fashions whether the public wants them or not.
- (d) It is not true that those who take illegal drugs harm only themselves; by supporting organized crime, they harm society as well.
- (e) It was not considered worthy of a poet to write for the Elizabethan theatre; nevertheless, many poets did so.

(Law School Admission Test, June 1983)

- 3 The achievement of zero population growth in Great Britain has not forestalled the recent political and economic decline of Great Britain. We must conclude that rapid population growth is not the economic disaster social scientists have led us to believe it to be.

Which of the following is most like the argument above?

- (a) Many people who do not smoke cigarettes develop chronic respiratory illnesses; therefore, cigarette smoking cannot be the health risk it is supposed to be.
- (b) Jerry bought expensive paint but she still had to apply two coats to the wall to cover the old colour; therefore, you might as well buy the cheapest paint available.
- (c) Even if the country uses less energy this year than it did last year, more oil will be imported than was imported last year; therefore, energy conservation should be encouraged.
- (d) This drug causes certain side effects in a small percentage of the population; we can conclude that it is safe for the majority of people.
- (e) Some of his paintings are dull and uninspired; we can conclude that he is not in the same class as the greatest artists.

(Law School Admission Test, Sept. 1984)

Answers to Exercise 16 are given on p. 154.

Recognizing and applying principles

Arguments which rely on general principles have implications beyond their own subject matter, because it is in the nature of a general principle that it is applicable to more than one case. A piece of reasoning may use such a principle without explicitly describing it as a general principle, so we need to be alert to the fact that some of the statements in an argument may apply to cases other than the one under discussion. There can be many kinds of principle, for example, legal rules, moral guidelines, business practices, and so on. Principles may function in an argument as reasons, as conclusions or as unstated assumptions. So, when we are going through the usual process of identifying reasons, conclusions and assumptions, we should ask ourselves whether any of them is a statement with general applicability.

The skill of identifying principles is valuable, because sometimes the application of a principle to other cases—that is to say, the further implications of a principle—may show us that the principle needs to be modified, or maybe even rejected. Suppose, for example, someone wants to argue against the use of capital punishment, and offers as a reason ‘Killing is wrong’. This principle, stated as it is without any qualification, obviously has very wide applicability. It applies to all cases of killing. So, if we are to accept it as a principle to guide our actions, it means that killing in wartime is wrong, and killing in self-defence is wrong. If we are convinced that killing in self-defence cannot be wrong, then we have to modify our original principle in order to take account of exceptions to it. Applying principles involves being consistent in our reasoning, recognizing all the implications of our own and others’ reasoning.

Another example is offered by a debate in the sphere of medical ethics. It has been suggested that when the demand for treatment for illness exceeds the resources available, and thus decisions have to be made about priorities, one type of illness which should come very low on the list of priorities for treatment is illness which individuals bring upon themselves by their actions or lifestyles. Such illness can be described as ‘selfinflicted’. Most doctors would *not* take the view that self-inflicted illness should not be treated, but it is an issue which is often mentioned when public opinion is consulted about how best to use the resources available for health care. For example, someone may say, ‘We should not give high priority to expensive heart treatments for smokers, because they have brought their illness on themselves.’

Clearly the principle underlying this is that ‘We should not give high priority to the treatment of self-inflicted illness’, and it is a principle with wider applicability. But in order to understand to which cases of illness it properly applies, we need to be clearer about what exactly is meant by ‘self-inflicted illness’. At the very least it must mean an illness which has been caused by the actions or behaviour of the person who is ill. On this definition, the principle would apply to a very wide range of illnesses—for example, smoking related diseases, alcohol and drug related diseases, diseases caused by unsuitable diet, some sports injuries, some road accident injuries, some cases of sexually transmitted disease. However, it may be claimed that one cannot properly be said to have *inflicted* a disease on oneself unless one *knew* that the action or behaviour would cause the illness, or it may be claimed that a disease cannot properly be said to be self-inflicted, if the action which caused the disease was carried out under some kind of compulsion or addiction.

So, perhaps one would wish to modify the definition of ‘self-inflicted illness’ to read, ‘an illness which has knowingly been caused by the deliberate and free action of an individual’. This definition would give the principle narrower applicability. For example, it would not be applicable to diseases caused by bad diet when the individual did not know the effects of a bad diet. Nor would it apply to cases of illness caused by addiction. But we may still find that those cases to which it did apply—for example, a motor-cyclist injured in a road accident through not wearing a crash helmet—suggested to us that there was something wrong with the principle.

Exercise 17: Applying and evaluating principles

For each of the following principles, think of a case to which it applies, and consider whether this particular application suggests to you that the principle should be modified or abandoned. This exercise would work well as the basis for a class discussion.

- 1 No-one should have to subsidize, through taxation, services which they themselves never use.
- 2 We should not have laws to prevent people from harming themselves, provided their actions do not harm others.
- 3 There should be absolute freedom for the newspapers to publish anything they wish.
- 4 Doctors should be completely honest with their patients.
- 5 You should never pass on information which you have promised to keep secret.

Answers to Exercise 17 are given on p. 156.

Chapter 4

Two skills in the use of language

Our earlier discussions of examples have relied upon the exercise of a skill which has not yet been explicitly mentioned—the understanding of language. This, of course, lies behind anyone's ability in critical thinking, since to think critically essentially involves dealing with reasoning which is expressed in language. Different individuals have differing levels of skill in dealing with language, but this is another skill which can improve with practice. You can extend your vocabulary, and increase your ability to deal with complex sentence structure. No specific exercises are offered in this book to practise these abilities, but this chapter will deal with two skills in language use which are directly related to reasoning well—the ability to use language with clarity and precision, and the ability to summarize someone else's reasoning.

The first of these skills is one which a good reasoner will have to possess, because sometimes the evaluation of reasoning crucially depends upon the clarification of the exact meaning of a word or phrase. The second skill—being able to summarize reasoning—is concerned primarily with understanding, rather than evaluating, reasoning. But since evaluation is not possible without understanding, and since summarizing is a useful aid to understanding, the development of this skill will be of great value.

Using language with clarity and precision

It is in the nature of the English language that words can have more than one meaning, and thus that sometimes the use of a word, or of a phrase, can be ambiguous. One trick upon which people sometimes rely when presenting an argument is to use an ambiguous word deliberately in order to lead people to accept a conclusion which the reasoning offered does not entitle them to draw. What is supposed to be a classic example of this trick appears in the following extract from *Utilitarianism* by John Stuart Mill:

The only proof capable of being given that an object is visible is that people actually see it. The only proof that a sound is audible is that people hear it: and so of the other sources of experience. In like manner, I apprehend, the sole evidence it is possible to produce that anything is desirable, is that people do actually desire it.

(J.S.Mill, *Utilitarianism*, Collins/Fontana, p. 288)

The ambiguous word here is ‘desirable’, and critics of Mill claim that in this passage, given the comparison of ‘desirable’ with ‘visible’ and ‘audible’, the meaning of ‘desirable’ must be ‘can be desired’. Yet, they say, Mill goes on to use this passage as a basis for the claim that happiness is ‘desirable’ in the sense that it ‘ought to be desired’.

In order to assess whether Mill really is attempting to play this trick, you would need to read Chapter 4 of *Utilitarianism*, where you may find more clues in the text as to the exact meaning which Mill intended. But for our purposes the example serves to illustrate the way in which a word may be used ambiguously.

Not all cases of ambiguity are deliberate. We looked at the following argument in Chapter 2:

If cigarette advertising were banned, cigarette manufacturers would save the money they would otherwise have spent on advertising. Thus, in order to compete with each other, they would reduce the price of cigarettes. So, banning cigarette advertising would be likely to lead to an increase in smoking.

We noted that it was not clear whether the phrase ‘an increase in smoking’ meant that the numbers of people who smoke would increase, or that those who smoke would smoke more, or both. There is no particular reason to think that this phrase has been left unclear deliberately in order to persuade us to accept an otherwise ill-founded conclusion. In this short passage, there are no further clues as to what the author might have meant. The person presenting the argument may have had a very clear idea of what they meant by the phrase, and may have believed that the argument gave strong support to the conclusion. Perhaps the exact meaning of the phrase was not spelt out because the author did not notice the ambiguity.

In such cases we need to evaluate both possible interpretations. Would a reduction in the price of cigarettes be likely to persuade more people to smoke? This is questionable, since it seems unlikely that what deters people from smoking is the price of cigarettes. Amongst those who do not smoke, there are, presumably, some who have never wanted to do so, and some who have given up smoking solely because of the health risks. For people in these two categories, the cost of cigarettes plays no part in their motivations. It is just possible—but very unlikely—that some ex-smokers would return to smoking, if only cigarettes were cheaper. It is possible, and a little more likely, that some nonsmokers—perhaps young people who have not yet developed the habit—would become smokers if cigarettes were cheaper.

Let us turn to the other interpretation—would a reduction in the price of cigarettes be likely to result in smokers smoking more? This is possible. There may be some smokers who restrict the number of cigarettes they smoke per day because they are expensive, who would like to smoke more, and who think that a few more cigarettes per day would not increase the health risks which they already incur.

We have seen two examples where an ambiguous word or phrase is used. In such cases, we need to look for clues in the text as to which interpretation is intended. If we are unable to find such clues, we need to evaluate the reasoning in relation to each of the possible interpretations.

Another type of case in which clarification is required is where a term is used which is obviously intended to encompass a whole class of objects, but since the writer's meaning has not been made clear, it is not immediately apparent what exactly the term covers. An example was presented in the last chapter, under the discussion of the application of principles. The principle in question was 'We should not give high priority to the treatment of self-inflicted illness'. It would not be possible to evaluate reasoning which relied on this principle until we had clarified the exact definition of the term 'selfinflicted illness'. Sometimes in such cases there will be clues in the text as to what the author must mean. Where we can find no such clues, we must consider all the definitions which we think are possible, and assess the reasoning based upon each of these in turn.

Exercise 18: Clarifying words or phrases

For each of the following passages, identify any word or phrase which is crucial to the reasoning, and which you think needs to be clarified. Identify the different possible interpretations of the word or phrase, and assess the difference they make to the reasoning in the passage.

- 1 What makes a beautiful face? How long or short should the perfect nose be; is there an optimal length to the face or ear lobe; what should the angle of the eyes be in respect to the bridge of the nose? Recent research suggests that beauty is simply a matter of being Mr or Ms Average.

Three hundred psychology students were asked to rate pictures of faces using an attractiveness score of one to five. Some of the pictures were of a single individual, and some were composite faces, made up from the features of two, four, eight, sixteen or up to thirty-two individual faces. The lowest scores for attractiveness were those for individual faces. The attractiveness ratings increased with the number of faces used to make a composite face.

So, take heart! Beauty is only the sum total of our big and little noses, receding and protruding chins, high and low foreheads. In order to be beautiful you do not have to be unusual—you only have to be average after all.

- 2 It is important that in bringing up children we should try to develop in them the quality of empathy, because those who lack it can be dangerous. For example, child molesters and psychopaths are dangerous precisely because they do not care about the suffering of others. However, children will need more than the quality of empathy in order to

grow up into the kind of citizens we want, because empathy can be used in good or evil ways—for example by the businessman who can use his understanding of others in order to inspire colleagues or in order to exploit them.

- 3 Doctors should always be honest with their patients. If a doctor tells a patient a lie, and they find out they have been deceived, then the relationship of trust which is crucial for successful medical treatment will have broken down. Moreover, since patients have a right to know everything about their medical condition, those patients who ask doctors about their condition should be given truthful answers to their questions.

Answers to Exercise 18 are given on p. 157.

Summarizing arguments

For most of the examples in this book, we have set out the structure of arguments simply by using the exact wording of the passages under consideration. In doing so, we have picked out the relevant parts of a passage—basic reasons and intermediate conclusions (both stated and unstated), and main conclusions—and set them out in a way which shows the progression of the reasoning. This may be quite easy to do with short passages, especially if they have very clear conclusion indicators and reason indicators. But with longer pieces, such as are often found in newspapers, you need a clear understanding of the whole passage before you can attempt to set out all the steps in the reasoning. Writing a summary can help with this understanding in two ways. First, having to express something in your own words forces you to come to grips with exactly what the passage is saying. Secondly, the particular kind of summary recommended here helps you to make a long argument more manageable by breaking it down into smaller stages.

First, pick out the main conclusion, either by identifying conclusion indicators, or by asking ‘What is the main message which this passage is trying to get me to believe or accept?’ Then pick out the *immediate* reasons which are intended to support this. These could be basic reasons and/or intermediate conclusions. Don’t try to summarize all the reasoning at this stage—for example, do not try to work out exactly how the intermediate conclusions (if any) are supported. Just concentrate on the one or two (or three, or more) statements immediately supporting the main conclusion. Then express the main conclusion and the statements supporting it in your own words. Your summary could have the following form:

The passage is trying to get me to accept that...[main conclusion]..., on the grounds that...[intermediate conclusion 1]...and...[basic reason] ...and...[intermediate conclusion 2].

When you have written this first brief summary, you will have a framework into which you can fit the more detailed reasoning. You can then take each intermediate conclusion in turn, and ask what reasons are offered in support of it. Let’s apply this to an example.

Example 1: Nicotine for smokers

Nicotine products, such as nicotine gum and nicotine patches, should be made available cheaply, widely advertised, and given endorsement from health authorities. This would make it likely that smokers would transfer their addiction to these less harmful products.

It is the impurities in tobacco which cause cancer, accounting for one third of cancer deaths in Britain per year, whereas the nicotine in tobacco provides pleasure, stimulation and stress relief. Although the impurities in tobacco could be removed, it is unlikely that the tobacco industry will clean up its product as long as sales of tobacco are buoyant.

It is thought that nicotine may be a contributory cause of heart disease. But the benefits to health from giving up tobacco are likely to outweigh the risks of taking nicotine.

What is the main message which this passage is trying to get us to accept? It is clearly concerned with the idea that nicotine products should be promoted, as a means of trying to get smokers to stop smoking tobacco.

The immediate reason it gives for promoting nicotine is that doing so would make it more likely that smokers would switch from harmful tobacco to less harmful nicotine products. So our first attempt at a summary would be:

The passage is trying to get me to accept that nicotine products should be made available cheaply, widely advertised, and given endorsement from health authorities, on the grounds that these products are less harmful than tobacco, and that promoting them would make it likely that smokers would stop smoking and use these products instead.

We have extracted two reasons here from the second sentence—that the products are less harmful than tobacco, and that promoting them would change smokers' behaviour. The rest of the passage is principally concerned with giving support to the first of these reasons—trying to show that these products *are* less harmful than tobacco. But paragraphs two and three can also be seen as lending some support to an unstated intermediate conclusion that if smokers knew more about which components of tobacco give them pleasure, and which put them at risk of cancer, they would switch to using nicotine products other than tobacco, especially if nicotine patches and gum were relatively cheap.

Example 2: Subsidizing the arts Now

let's try summarizing a longer passage:

[Some people maintain that there is no case for subsidising the arts because they are a minority interest] In its most sympathetic—or least unattractive—guise, this view presents itself as defending the interest of the poor. What subsidy for the arts amounts to is taking money from all the taxpayers (including those who never set foot in a museum or theatre, let alone the Royal Opera House) to help pay for the leisure activities of the privileged classes. And why, they say, should we subsidise snobbish entertainments such as opera when we don't subsidise proletarian ones such as football?

Quite apart from the patronising assumption that most ordinary people are permanently immune to culture, however inexpensive it might be made by subsidy (free in the case of most museums), there is an odd anomaly in this argument. Taken to its logical conclusion, it would undermine any kind of taxation in a democratic society. What is the difference between claiming that people should not have to pay for the arts if they never use them and saying that they should not have to support the school system if they are childless, or pay for road building if they have no car?

The way we collect and spend taxes is not based on the same principle as paying for private services. If the country decides that it believes certain things, whether universal schooling or the preservation of its cultural heritage, to be for the good of the nation as a whole, it does not require that every single taxpayer partake of those good things.

So why is art a good thing? Why is it so important that Covent Garden be given millions of pounds of our money, even though so few of us go to the opera, when thousands of people who prefer to play golf have to pay for it themselves? Why should my pastime be more worthy than yours?

John Stuart Mill was compelled to modify the simplistic utilitarian principle that good consisted in ‘the greatest happiness of the greatest number’, because it implied that all pleasures were equal: that pushpin was as good as poetry. The arts are not just an eccentric hobby. What the arts offer us is a way both of making sense of our condition and of transcending it. They are, in the end, what makes us human rather than bestial.

(Janet Daley, Copyright © The Times, 12 October 1995)

What is this passage trying to get us to accept? It discusses one type of argument against subsidizing the arts from public money, and says that ‘there is an odd anomaly in this argument’. It also seeks to explain why art is a good thing—the kind of thing which can be judged to be for the good of the nation as a whole. So clearly it is trying to convince us that one argument against subsidizing the arts is a bad argument, and that there is a positive reason for subsidizing the arts. Our first summary could be as follows:

The passage is trying to get me to accept that subsidizing the arts is a good thing, on the grounds that, like universal schooling, the arts are good for the nation as a whole, and things which are good for the nation as a whole should be subsidized from public money, even though some people who pay taxes may never use these services.

Two immediate reasons have been identified here—that the arts are good for the nation, and that it is appropriate to subsidize things which are good for the nation even if some taxpayers do not use them.

The first of these reasons is given support by the claim that the arts ‘are, in the end, what makes us human rather than bestial’. The second reason is supported by showing the implications of the principle sometimes used to defend the claim that we should *not* subsidize the arts—that principle being, that we should not subsidize from taxes those services which some taxpayers do not use. This would mean that taxes should not be used to subsidize education and road building because some taxpayers don’t have children, and some don’t drive cars. Since (it is assumed) these implications are unacceptable, the principle from which they follow should be rejected, and we should accept instead the principle that things which are good for the nation as a whole should be subsidized from tax revenue.

In these two examples, we have offered an initial simple summary, which does not seek to set out all the steps of the argument, but aims to identify the principal reasons which give immediate support to the main conclusion. We have then shown how, with this first brief summary as a basis, we can fill in the reasoning in a more detailed way. Exercise 19 gives you a chance to practise doing this.

In some particularly long or complex passages (for example, some of those in Exercise 20—especially 6, 7, 9 and 10), you may find it helpful to look first for themes in different sections of the passage, and to summarize each theme before you try to summarize the main conclusion and reasons.

Exercise 19: Writing a summary For

each of the following passages:

- Write a summary of the main conclusion and the immediate reasons (basic reasons or intermediate conclusions) offered for it,
- Identify the reasoning which is meant to support any intermediate conclusion you have identified.

1 It has been suggested that more generous damages for the victims of medical negligence would only serve to increase the number of doctors practising defensive medicine—treatment tailored not to the need of the patient, but to the doctor’s desire to avoid litigation.

The test of whether there has been any negligence in medical negligence actions is whether the doctor has departed from the standard of a reasonably competent

doctor—a standard that in practice is set by the medical profession, not the courts. It is therefore difficult to see how a ‘doctor’s desire to avoid litigation’ can be satisfied by adopting treatment that is not tailored to the need of the patient, because the need of the patient is precisely what the reasonably competent doctor should have in mind when making a diagnosis or giving treatment. On the contrary, the more that the doctor thinks about the courts rather than the interests of the patient, the more likely it is that she will find herself on the wrong end of a writ for negligence.

Nor is it clear how higher levels of compensation will produce this defensive reaction in doctors, since doctors do not themselves pay the compensation. The vast majority of medical accidents occur in hospitals. Since January 1990 the payment of damages for the consequences of negligence in NHS hospitals has been the responsibility of the health authorities.

If a ‘defensive’ state of mind, which is sometimes confused with ‘defensive medicine’ makes the doctor more careful, this may be to the benefit of both patients and doctors if it results in the prevention of avoidable errors.

(Letter to the Editor, Independent, 21 September

1993) 2 The results of IQ tests taken at an early age cannot be used to indicate future success in life. For the greatest reliability, information on any human abilities should be collected at different points in an individual’s life. Many outstanding people such as Freud and Einstein were not seen as highly intelligent even by the age of twenty, and certainly not by the age of ten. Picasso always had difficulty with reading because he had very little schooling, and so would have scored a very low IQ. The tests are not even a sensitive measure of exceptionally high intelligence, because of the ‘ceiling effect’, the upper limit of the tests being too low to distinguish between the top few per cent.

All long-term follow-up studies using an IQ measure show that, in whatever ways intelligence is defined and measured, it is only part of the complex causation of success, which must include opportunity and the will to strive. For example, the latest results from the Terman studies on gifted children in California, which have been going on since the Twenties, has found that, regardless of the IQ scores, the subjects were not noticeably more successful in adulthood than if they had been randomly selected from the same social and economic backgrounds.

The big influences in determining future achievement are socioeconomic status and gender. In the Far East, though, success is attributed to hard work rather than any IQ score, which probably explains why in America many young Asians with lower IQs are more successful than others of higher measured intelligence.

(Letter to the Editor, Independent, 28 June

1995) 3 In many parts of the world, young girls who become pregnant under the age of 16 face a real risk of death; in Africa the maternal mortality rate in girls aged 10–14 is five times higher than in women aged 20. The main hazard for the very young mother is that her pelvis will not have finished growing and will not be big enough for the baby to pass through. If the baby is too large for the pelvis the mother has to hope she will be able to be delivered using forceps or by caesarean section. Without skilled obstetric care, she will face a long, obstructed labour likely to end with a dead baby and damage to her pelvic organs—even if she escapes with her life.

The teenage mother in the West is likely to be better nourished and physically more mature than her counterpart in developing countries, but prospects for her baby are still worse than for the baby of an older woman. Babies born to teenagers are smaller, more likely to be premature and more likely to die during the first year of life. Until recently the assumption was that these risks were linked to the social deprivation of many teenage mothers, who are more likely than the rest of the population to be unmarried and less well educated. Yet research in Utah shows that white, married women in their teens who receive quality care during their pregnancies have poorer outcomes than older women. Their babies are twice as likely to be premature and undersized. The increased risk for mothers under 20 continues into the next pregnancy; a second baby born to a teenager is also more likely to be underweight or premature. The explanation for the higher risk of complications in teenage pregnancy in the West is likely to be similar to that in developing countries: a teenager hasn't finished growing. This may lead to both mother and infant competing for nutrients, while the immature uterus may predispose the mother to infective and other complications. Some politicians may use these statistics to denigrate teenage mothers. But the message we should draw is that the next generation of children will be healthier if mothers can choose not to become pregnant until they are mature. That means providing teenagers with the sex education and contraception they need to take control of their reproductive health.

(Dr Tony Smith, Independent on Sunday, 9 July 1995)

Answers to Exercise 19 are given on p. 158.

Chapter 5

Exercising the skills off reasoning

Most of the reasoning which you will encounter and want to assess—in, for example, newspapers, journals and textbooks—will not be presented in neat, short passages typical of the majority of those in this book. Instead, you will often find that you have to extract the reasoning from a long passage which may contain some irrelevant material, and which may present reasons and conclusions in a jumbled way, rather than setting them out in what would seem to be a clear series of steps. The task of assessing a long passage also differs from most of the exercises in this book, in that, rather than focusing on one particular skill, it requires you to bring all your reasoning skills into play. You will have to play the whole game, choosing the appropriate skills, just as the tennis player has to

play a game, choosing whether their well practised forehand drive or their beautifully honed backhand volley is the appropriate shot.

You have already had the opportunity to practise your skills on some longer passages in Exercise 13 (p. 61). In this chapter, we shall show some examples of analysis and evaluation of long passages of reasoning, and end with some passages with which you can get to grips yourself.

Longer passages of reasoning

Dealing with longer passages of reasoning can seem daunting at first, but it helps if we remember that the same skills are called for, whatever the length of the passage. We shall present the important steps, expanding on the list set out in Chapter 3:

- 1 The first task is to identify the conclusion and the reasons. You may find conclusion indicators (such as ‘therefore’ or ‘so’) and reason indicators (such as ‘because’ or ‘since’) to help you to do this. But some passages will contain no such words, and you will need to identify the conclusion by understanding the main message of the passage. So start by reading the whole passage, and asking yourself ‘What is this passage trying to persuade me to accept or believe?’ When you have answered this, ask ‘What immediate reasons or evidence is it presenting in order to get me to believe this?’ It may be helpful at this stage to write a brief summary, on the following lines:

This passage is trying to get me to accept
that...,
on the grounds that,
first..., second..., and so
on.

With very long passages, it may also be helpful to break the passage down into smaller sections, and look for themes in different parts of the text, before writing your summary.

- 2 When you have sorted out what reasons are being offered, you need to consider what assumptions are being made. These could be:

- assumptions which function as support for basic reasons, or as unstated additional reasons, or as unstated intermediate conclusions,
- assumptions about the meanings of words or phrases, so look for ambiguous words and terms which require more precise definition,
- assumptions that one case or one situation is analogous to or comparable with another, so look to see if any comparisons are being made,

- assumptions that a particular explanation of a piece of evidence is the only plausible explanation, so look out for explanations.

In identifying assumptions, you are reconstructing the background of a particular piece of reasoning.

- 3 Once you are clear about the reasoning and its background, you need to evaluate it. Consider how far you can go in assessing the truth of the reasons and the unstated assumptions. Think about how you would seek further information to enable you to assess the truth of reasons.
- 4 Does the reasoning rely on evidence from sources whose authority is questionable?
- 5 Do you yourself have any knowledge which strengthens or weakens the conclusion? Or can you think of anything which *may* be true and which would have a bearing on the conclusion? (Remember to subject your own ‘knowledge’ to the same standards of scrutiny as you apply to the claims made by other people!)
- 6 If you have identified any explanations in the passage, are they plausible, and are they the *only* plausible explanations of what is being explained?
- 7 If you have found comparisons in the text, are these comparisons appropriate—that is to say, are the two things which are being compared alike in all relevant respects?
- 8 From the information in the passage, can you draw any important conclusions not mentioned in the passage? Do any of these conclusions suggest that the reasoning in the passage is faulty?
- 9 Is the reasoning in the passage (or any part of the reasoning) similar to—or parallel with—reasoning which you know to be faulty?
- 10 Do any of the reasons or assumptions embody a general principle? If there is any such general principle, can you think of any applications of it which would suggest that there is something wrong with the principle?
- 11 If you believe that the conclusion is not well supported by the reasons and assumptions, can you state the way in which the move from reasons to conclusion is flawed? Your answers to questions 5 to 10 above may help you to do this.

This list is primarily applicable to passages which do contain a recognizable argument, with a main conclusion and with some reasons or evidence offered in support of it. It is, however, possible to find passages which contain reasoning, but do not come to a major conclusion. Perhaps they examine evidence from two opposing sides of an issue, and leave readers to draw their own conclusions. Or perhaps they are seeking to explain something, as did the passages in Exercise 12. Even for passages without a main conclusion you will find it useful to go through the steps listed above in attempting to evaluate the reasoning.

Two examples of evaluation of reasoning

Example 1: Science versus theology

In your dismally unctuous leading article (18 March) asking for a reconciliation between science and ‘theology’, you remark that ‘people want to know as much as possible about their origins’. I certainly hope they do, but what on earth makes you think that ‘theology’ has anything useful to say on the subject? Science is responsible for the following knowledge about our origins.

We know approximately when the universe began and why it is largely hydrogen. We know why stars form, and what happens in their interiors to convert hydrogen to other elements and hence give birth to chemistry in a world of physics. We know the fundamental principles of how a world of chemistry can become biology through the arising of self-replicating molecules. We know how the principle of self-replication gives rise, through Darwinian selection, to all life including humans.

It is science, and science alone, that has given us this knowledge and given it, moreover, in fascinating, overwhelming, mutually confirming detail. On every one of these questions theology has held a view that has been conclusively proved wrong. Science has eradicated smallpox, can immunize against most previous deadly viruses, can kill most previously deadly bacteria.

Theology has done nothing but talk of pestilence as the wages of sin. Science can predict when a particular comet will reappear and, to the second, when the next eclipse will occur. Science has put men on the moon and hurtled reconnaissance rockets around Saturn and Jupiter. Science can tell you the age of a particular fossil and that the Turin Shroud is a medieval fake. Science knows the precise DNA instructions of several viruses and will, in the lifetime of

many present readers of the *Independent*, do the same for the human genome.

What has ‘theology’ ever said that is of the smallest use to anybody? When has ‘theology’ ever said anything that is demonstrably true and is not obvious? I have listened to theologians, read them, debated against them. I have never heard any of them ever say anything of the smallest use, anything that was not either platitudinously obvious or downright false.

If all the achievements of scientists were wiped out tomorrow there would be no doctors but witch-doctors, no transport faster than a horse, no computers, no printed books, no agriculture beyond subsistence peasant farming. If all the achievements of theologians were wiped out tomorrow, would anyone notice the smallest difference?

Even the bad achievements of scientists, the bombs and sonar-guided whaling vessels, *work!* The achievements of theologians don’t do anything, don’t affect anything, don’t achieve anything, don’t even mean anything. What makes you think that ‘theology’ is a subject at all?

(*Letter to the Editor from Dr Richard Dawkins,
Independent,
20 March 1993*)

Let us evaluate Dr Dawkins’ argument, using the 11 steps listed earlier (pp. 88–89):

- 1 We must first try to write a brief summary of the passage, setting out what it seeks to persuade us to accept, and the reasons it gives why we should accept it. We are clearly being led to believe that theology is in some way inferior to science, because whereas science can give us a great deal of useful knowledge, theology cannot produce anything important or worth-while. We could express the main theme as follows:

This passage is trying to get me to accept that theology is not a respectable subject, in the way that science is, on the grounds that science has numerous achievements, all of which work, and most of which are beneficial, whereas the achievements of theology are ineffective and meaningless.

We need to set out the reasons in a little more detail. What support is given for the idea that science is such a valuable activity? The passage mentions scientific knowledge about the origins of life and the universe, the success of science in eradicating illnesses, achievements in space exploration. It describes the

restricted life we would have if the achievements of science were wiped out. It points out that even the bad achievements of science work.

How does it seek to persuade us that theology is worthless? It claims that theology has been proved wrong about the origins of human life. It suggests that theology has contributed nothing to our understanding of the causes of disease—it ‘has done nothing but talk of pestilence as the wages of sin’. It claims that theology has never said anything which is not either obvious or false. It suggests that no-one would notice if the achievements of theology were wiped out, and that these achievements, in contrast with even the bad achievements of science, do not work, have no effects, and have no meaning.

- 2 What assumptions underlie these reasons? The claim that science is responsible for ‘knowledge’ about our origins relies on the assumption that scientific theories—for example, theories about the origin of the universe, and the theory of evolution—constitute knowledge. Although the bad achievements of science are mentioned, they are not regarded as evidence that science is anything but a force for good, so there is an assumption that the bad effects of science do not outweigh the good effects. The conclusion that theology is not a subject relies upon an assumption that in order for something to be a subject, it must have some effect on people’s lives, or some meaning for people’s lives. Some of these assumptions may immediately strike you as questionable, but we shall deal with that presently under point 3.

Are there any words or phrases whose meaning needs to be clarified? There are some scientific terms—‘self-replicating molecules’, ‘DNA instructions’, ‘human genome’. We may not know the exact meanings of these terms, and perhaps this limits our ability to assess the claim that these aspects of scientific knowledge are worthwhile. If we do not know the context of this letter, we may question exactly what is meant by theology not being a *subject*. The letter was written in response to an article which welcomed the endowment of a lectureship in theology and natural science at Cambridge University, so Dawkins’ view is that theology is not respectable as a subject of academic study.

Are any comparisons made? Yes, the whole passage is about the relative merits of science and theology. In concluding that theology does not qualify as a subject, the passage must assume that science and theology are comparable in at least one respect—in that both should measure up to certain standards in order to count as subjects of academic study.

Are there explanations which rely on assumptions? The second paragraph takes for granted that the scientific explanation of the origins of human beings—based on scientific theories—is the correct explanation.

- 3 To what extent can we assess the truth of the reasons and unstated assumptions? Even non-scientists will have no difficulty in accepting that scientific research is responsible for advances in medical knowledge, and, if technology is to be regarded as a part of science, for many of the things (transport, computers, books, modern agriculture) which make our lives easier and more enjoyable. Non-scientists may feel ill-qualified to judge whether theories about the origins of the universe and of human life have the status of knowledge, and also whether, for example, research into the DNA instructions of the human genome is valuable. We can all think of some of the bad effects of science—for example, weapons of mass destruction, pollution—and we can consider whether on balance science is a worthwhile activity.

What of the comments about the worthlessness of theology? Is it true that no-one would notice if the achievements of theologians were wiped out tomorrow? Is it true that theology achieves and means nothing? Surely this is something we can find out only by investigating the role which religion plays in people's lives.

Maybe the thinking and the writings of theologians are of great value to many individuals, albeit in a very different way from the way in which science is valuable.

- 4 To what extent does the reasoning rely on authorities? The letter does not quote any specific sources, but the comments about the achievements of science derive their authority to some extent from the fact that the letter is written by a scientist. The whole area of scientific knowledge presents us with a dilemma in relation to the assessment of the reliability of authorities. On the one hand, scientists are in a better position than non-scientists to assess the validity and, in some respects, the value of the results of scientific research. On the other hand, because their whole life's work may have been based on a particular theory, some scientists may not be in the best position to make unbiased judgements about evidence which goes against their views in a particular area of scientific knowledge. Moreover, in a discussion claiming that the whole activity of science is valuable, we would expect a scientist to emphasize those aspects favourable to the case, and perhaps play down the unfavourable aspects. Similarly we would expect a theologian to regard his or her own work as valuable. However, the case does not rest solely on Dawkins' authority as a scientist. We can all look at some of the effects of science, and consider whether the world is a better or a worse place for the existence of science.
- 5 What knowledge do you have which would strengthen or weaken the conclusion? We do know that science has some bad effects, and perhaps this weakens the case that we would be worse off without the achievements of science. Perhaps you know many people who find religion a great comfort in their lives, or who enjoy reading the works of theologians. This would weaken the claim that theology has no effect on anyone's lives. One could perhaps attempt to make a case for the superiority of theology over science, in that science has bad effects, whereas theology does not. However, some may point out the evil influences of some religious ideas—for example, intolerance and hostility to those who think differently. Dawkins does not take this line: in fact his claim that theology has no effects entails that it has no bad effects.
- 6 Is the scientific explanation of the origins of human beings more plausible than a theologian's explanation? Not all theologians will see a conflict between the two. Some Christians, for example, might say that the idea that human beings were created by God is compatible with the scientific explanation offered by the theory of evolution.
- 7 Does the text make any comparisons, and are they appropriate? We observed earlier that the passage assumes that in order to qualify as a 'subject', both science and theology must meet certain criteria and that theology fails to do so. One might see the text as implying that science makes an excellent job of what science is supposed to do—discovering information about the physical world, and usefully applying this information—whereas theology is hopeless at doing what science is supposed to do. But why should this disqualify it as a subject for academic study? When Dr Dawkins lists all the scientific questions on which theologians have held mistaken views, we

- might point out that so have scientists; and it is possible that our understanding of the world will be superseded in the future.
- 8 We have already mentioned two conclusions we can draw from the passage, one, that the bad effects of science *may* outweigh the good effects, and two, if theology has no effects, it has no bad effects.
- 9 One might be able to construct parallel reasoning, but nothing obvious springs to mind. However Dr Dawkins is judging theology in scientific terms, which may not be appropriate. We could show this by using a parallel question: What has science ever done to help us understand God?
- 10 We identified the general principle that for something to be an appropriate subject of study it must have some effect on people's lives, or some meaning for people's lives. This seems a reasonable principle, provided it is broadly interpreted so that history, for example, is regarded as having meaning for people's lives.
- 11 The main objections to the reasoning are that the comparison between science and theology is inappropriate, in that theology should not be required to be useful *in the same sphere* as science in order for it to be a proper subject for academic study; and that theology may well satisfy the principle which requires it to have some effect on—or some meaning for—people's lives.

Example 2: On the legalization of cannabis

This is not an ideal time to persuade politicians to talk about legalising drugs. Political parties are not in a mood to take risks. When they want to attract attention, they prefer to do so by offering thrusting new thoughts on the economy and other mainstream subjects. But crime is now as main-stream as you can get, and a great deal of crime is related to drugs. Any politician who talks about crime without confronting the debate on drugs is evading half the issue.

The recent police raid on 'Cannabis Café' in Brighton is only one example of police time being wasted on drugrelated offences. How many houses were burgled and cars stolen in Brighton while the police were busy with the offending café? Yet the police were not to blame. The provocative opening of the café had been so well publicised that to have ignored it would have signalled that drug offences would now be ignored. The police are not entitled to convey such signals. They are supposed to uphold the law as it is, not as it should be.

What is wrong is the law itself. The criminalisation of cannabis derives from a number of prejudices and misconceptions. Although the drug is not entirely harmless, it is less harmful than tobacco. It is not addictive, nor

dangerous in moderate quantities, and it does not provoke violent or antisocial behaviour. It mostly induces nothing worse than a state of rather happy, foolish withdrawal. It was partly this effect that worried orthodox society in the Sixties, because it became associated with the demotivation of an entire generation that was exaggeratedly seen as dropping out of the acquisitive, consumerist society. Cannabis was felt to be subversive.

Since then, successive generations have responded normally to economic stimuli and remained as acquisitive as anyone could wish. But they have continued to take cannabis. Almost all 25-year-olds in London have tried it, according to a recent survey by *Time Out* magazine. Cannabis should therefore have lost its association with drop-outs and have come to be seen as a recreational drug, offering much the same sort of respite from reality as alcohol but with less dangerous side-effects. It is also being found to have a widening variety of valuable medicinal qualities, particularly for the alleviation of multiple sclerosis.

In a period of rising crime, when practically every householder and car-owner feels vulnerable, and when peaceful citizens form vigilante groups because they are insufficiently protected by the proper authorities, it is absurd that the police and the courts should have had to spend valuable time dealing with 47,616 drug offences in 1991, and probably more last year, of which about 85 per cent concerned cannabis. Legalising the drug would save substantial amounts of time and money as well as bringing in tax revenue from legal sales. It would reduce the number of crimes committed to raise money for cannabis by lowering the price, unless heavily taxed, and undermine the power of the criminal underworld.

That world, however, is also deeply involved in hard drugs, which pose more complex problems since they can be dangerous and addictive. Some experts, including Commander John Grieve of the Metropolitan Police, believe the answer is to license and control the supply of all drugs. 'We need to undermine the economic or acquisitive base of drugs crime and the economic base of organised crime', he said at a conference in May.

If the Government wants to be seen to be serious about crime, it must look at the causes, one of which is drugs. A legal market in drugs under tight, selective controls, would not end drug-related crime, and people would still rob in order to raise money for drugs, but much more of the problem would be above ground and therefore more manageable. As suggested by Release, the drugs advisory service, this would be a suitable subject for a Royal Commission.

(Leading article, Independent, 2 October 1993)

- 1 What is this passage trying to persuade us to accept? The main message is that the law on cannabis should be changed. How could we best summarize the case which it makes out for this?

This passage is trying to get us to accept that the use of cannabis should be made legal, on the grounds that, first, cannabis is not very harmful; second, police time is wasted in investigating crimes involving cannabis; and third, fewer crimes of theft would occur if using cannabis were legal.

We need to look in more detail at these three lines of reasoning.

First, how is the claim that cannabis is not very harmful supported? In the third paragraph we are told that it is not addictive, not dangerous in moderate quantities, and does not provoke violent or anti-social behaviour, is less harmful than tobacco and, in the fourth paragraph, that it has less dangerous side-effects than alcohol. We are also told that its use does not turn people into drop-outs, the evidence offered for this being that almost all 25-year-olds in London have tried it, and they continue to conform to the acquisitive behaviour expected of members of the consumerist society. The medicinal value of cannabis is mentioned, particularly its use to alleviate multiple sclerosis.

The second line of reasoning concerns the waste of police time on drug offences, illustrated by the example of the police raid on the 'Cannabis Café'. In the fifth paragraph, figures are offered in support of the claim that the police spend valuable time dealing with drug offences, and especially those which concern the use of cannabis.

The fifth paragraph also contains the third major reason, that making cannabis legal would reduce crimes associated with the crime of using cannabis. It states that crimes are committed in order to raise money for buying cannabis, which could be cheaper if its use were legal. Another reason for legalizing cannabis is offered here,—that not only would it save money spent on police time, but it would also increase tax revenue from legal sales.

It is not clear what the final two paragraphs are meant to contribute to the reasoning, since they seem to change the subject. Instead of focusing on cannabis, they discuss what should be done about hard drugs, and suggest that a legal market in all drugs might lead to a reduction in crimes associated with drugs. We shall have to consider whether a strong enough case is made for the legalization

of cannabis, bearing in mind that it may be weakened by these further comments about drugs in general.

- 2 What assumptions underlie the reasoning? The first line of reasoning makes comparisons between cannabis use and the use of tobacco and alcohol. It assumes that because we accept that the use of tobacco and alcohol should be legal, we should accept that the use of cannabis, which is claimed to be less harmful than either tobacco or alcohol, should also be legal. The facts that 'successive generations' have 'remained acquisitive' and 'almost all 25-year-olds in London have tried [cannabis]' are taken to indicate that taking cannabis is not associated with dropping out, but is merely done for recreational purposes. This seems to assume that the majority of 25-year-olds questioned in the survey have not tried cannabis just once or twice, but make a habit of using it.

The second line of reasoning refers to householders and car-owners feeling that they are insufficiently protected, whilst the police spend so much time on solving crimes concerning cannabis use. There is an assumption here that the time spent by the police on drug crimes reduces the time spent on other crimes. The third line of reasoning assumes that if cannabis use were legal, it would be taxed (hence increasing tax revenue), but not so highly that the price of cannabis would be the same as it is now (otherwise, the claim that legalization 'would reduce the number of crimes committed to raise money for cannabis' would not be supported).

There are no obviously ambiguous or insufficiently defined words, but it is not entirely clear what is being recommended in the final paragraph under the description—'A legal market in drugs under tight, selective controls'. Does this mean that drugs would be available only on prescription, so that you could buy heroin, for example, but only if your doctor said you needed it for medical reasons? This interpretation suggests that the last two paragraphs do not have much to do with the argument about the legalization of cannabis, since what is being recommended in relation to cannabis seems to be that it should be legal to sell it as tobacco and alcohol are sold.

We have already mentioned the comparison with tobacco and alcohol, and there are no explanations of evidence (apart from the explanation of the evidence from the *Time Out* survey); indeed, no evidence is cited to show that cannabis is harmless, non-addictive, not dangerous and not anti-social.

- 3 We now need to assess the truth of the reasons and assumptions. We have to rely on the authority of medical evidence concerning the effects of cannabis, but we can attempt to read about a wide range of medical opinion. One problem with the absence of evidence that cannabis is harmful is that perhaps insufficient research has been done into its effects. The evidence as to how much police time is spent on offences concerning cannabis is presumably a statistic which could be checked, and police records would also, presumably, give some information about the number of thefts which are associated with cannabis use. Is cannabis really so expensive to buy that many people steal in order to buy it?

Now let us consider whether we should accept the assumptions. Should we accept that because the use of tobacco and alcohol is more harmful than cannabis, yet legal, the use of cannabis should also be legal? Why should we not conclude that

the use of tobacco and alcohol should be made illegal? In order for this comparison to give support to the conclusion, more would need to be said about the undesirability of making tobacco and alcohol illegal.

The assumption about the results of the *Time Out* survey seems ill-founded. Even if all 25-year-olds in London have tried cannabis, we cannot assume that its recreational use is widespread amongst a group of ‘normally’ ‘acquisitive’ people, and hence that it is not associated with ‘dropping out’. Moreover, if using cannabis is so common, can it be true that it is so expensive a habit that many people steal in order to buy cannabis?

The assumption that if the police spent less time on drug related crimes they would spend more time on crimes such as burglary and car theft is questionable. Perhaps they already do all that could reasonably be done about such crimes, short of having an unacceptably high level of police presence on the streets and police surveillance of everyone’s lives and activities. However, even if the police were already doing all they could about burglaries and car crime, it might still be claimed to be a good thing to reduce the amount of time they spend on crime relating to cannabis, since this could reduce the costs of policing.

It seems reasonable to assume that the legal use of cannabis would be taxed, and that the taxes would not be set so high as to fail to reduce the incidence of theft to finance cannabis use.

4 Does the reasoning depend upon any unreliable sources? We have already pointed out that it relies on medical opinion, but there is no reason to think that doctors have a vested interest in making people believe that cannabis is relatively harmless. The passage refers to the opinion of Commander John Grieve of the Metropolitan Police that the supply of all drugs should be licensed and controlled. Is there any reason to regard this person as unreliable? It seems unlikely that he would make any personal gain from the legalization of drugs, but it is possible that his official role gives him a vested interest in reducing the amount of police time spent on drug offences.

5 Can we think of any additional information which would strengthen or weaken the conclusion? It is often claimed that using cannabis leads to the use of hard drugs, which are both dangerous and addictive, and that this is why the use of cannabis should be illegal. Suppose we found evidence to support the claim that many of those who use cannabis also go on to use hard drugs, would this weaken the conclusion? Perhaps not, because the temptation to go on to use hard drugs may exist only because cannabis use is illegal.

There is no reason to think that use of tobacco and alcohol lead to the use of hard drugs, so perhaps if cannabis had the same legal status as tobacco and alcohol, its use would have no connection with the use of hard drugs. Possibly this is something which could only be discovered from a trial period of legalization of cannabis. It is sometimes claimed that a tolerant attitude to the use of soft drugs in the Netherlands has led to an increase in drug-related crime and violence there. However, even if it is true that tolerance of the use of soft drugs has been a contributory cause of such problems (a claim which is disputed by the Dutch), there may be differences between Britain and the Netherlands such that the same result would not occur here.

6 We did not identify any explanations in the text.

- 7 We mentioned the comparison between cannabis on the one hand and alcohol and tobacco on the other. This is an appropriate comparison, since all are drugs, and their harmfulness should be the criterion which determines whether or not they ought to be legal. That means of course, that *all* their effects need to be taken into account, so if cannabis use would lead to hard drug use, whether it was legal or not, then perhaps it is harmful in a way in which tobacco and alcohol are not.
- 8 There are no obvious conclusions to draw from the passage, beyond those discussed in relation to assumptions.
- 9 No obvious parallel arguments come to mind.

Summary: Assessing an argument

Analysing	Evaluating
<p>1 Identify conclusion and reasons:</p> <ul style="list-style-type: none"> • look for ‘conclusion indicators’, • look for ‘reason indicators’, • how would you seek further information to help you do this? and/or • ask ‘What is the passage trying to get me to accept or believe?’ whom the reasoning depends. • ask ‘What reasons, evidence is it using in order to get me to believe this?’ 	<p>3 Evaluate truth of reasons/ assumptions.</p> <p>4 Assess the reliability of any authorities on me to accept or believe?’ whom the reasoning depends.</p> <p>5 Is there any additional evidence which strengthens or weakens the conclusion?</p>
<p>2 Identify unstated assumptions:</p> <ul style="list-style-type: none"> • assumptions supporting basic reasons • assumptions functioning as additional reasons, • assumptions functioning as intermediate conclusions, • assumptions concerning the meanings of words, 	<ul style="list-style-type: none"> • anything which may be true? • anything you know to be true? <p>6 Assess the plausibility of any explanation you have identified.</p> <p>7 Assess the appropriateness of any comparisons you have identified.</p>

-
- assumptions about analogous or comparable situations, 8 Can you draw any conclusions from the passage? If so, do they suggest that the reasoning in the passage is faulty?
 - assumptions concerning the appropriateness of a given explanation. 9 Is any of the reasoning in the passage parallel with reasoning which you know to be faulty?
 - 10 Do any of the reasons or assumptions embody a general principle? If so, evaluate it.
 - 11 Is the conclusion well supported by the reasoning? If not, can you state the way in which the move from the reasons to the conclusion is flawed? Use your answers to questions 5 to 10 to help you do this.
-

- 10 We could perhaps regard the passage as relying on the principle that if something is not harmful, it should not be illegal. This seems a reasonable principle. What is at issue is whether cannabis is harmless.
- 11 We have already discussed the weaknesses in some parts of the reasoning. In general, the passage presents a fairly strong case for the legalization of cannabis, the weakest points being the failure to explore whether cannabis use might lead to use of hard drugs, and the questions over the connections between cannabis use and other crimes such as theft.

Exercise 20: Ten longer passages to evaluate

Now you can try your hand on the following passages. Use the same eleven steps shown in the summary that we used in assessing the arguments about science versus theology and about the legalization of cannabis.

1 Cry-babies and colic

Some mothers suffer agony from incessantly crying babies during the first three months of life. Nothing the parents do seems to stem the flood. They usually conclude that there is something radically, physically wrong with the infants and try to treat them accordingly. They are right, of course, there is something physically wrong; but it is probably effect rather than cause. The vital clue comes with the fact that this so-called ‘colic’ crying ceases, as if by magic, around the third or fourth month of life. It vanishes at just the point where the baby is beginning to be able to identify its mother as a known individual.

A comparison of the parental behaviour of mothers with cry-babies and those with quieter infants gives the answer. The former are tentative, nervous and anxious in their

dealings with their offspring. The latter are deliberate, calm and serene. The point is that even at this tender age, the baby is acutely aware of differences in tactile 'security' and 'safety', on the one hand, and tactile 'insecurity' and 'alarm' on the other. An agitated mother cannot avoid signalling her agitation to her new-born infant. It signals back to her in the appropriate manner, demanding protection from the cause of the agitation. This only serves to increase the mother's distress, which in turn increases the baby's crying. Eventually the wretched infant cries itself sick and its physical pains are then added to the sum total of its already considerable misery.

All that is necessary to break the vicious circle is for the mother to accept the situation and become calm herself. Even if she cannot manage this (and it is almost impossible to fool a baby on this score) the problem corrects itself, as I said, in the third or fourth month of life, because at that stage the baby becomes imprinted on the mother and instinctively begins to respond to her as the 'protector'. She is no longer a disembodied series of agitating stimuli, but a familiar face. If she continues to give agitating stimuli, they are no longer so alarming because they are coming from a known source with a friendly identity. The baby's growing bond with its parent then calms the mother and automatically reduces her anxiety. The 'colic' disappears.

*(Desmond Morris, The Naked Ape, New York:
Dell Publishing Co. Inc. 1967, pp. 98–9)*

2 School team sports turn children into idle adults

Tom Wilkie

Encouraging competitive sport in schools is wrong and risks turning children into adult couch potatoes, a former Newcastle United footballer told the British Association yesterday.

Schools should offer swimming, aerobics and dance as well as competitive team games, Professor Neil Armstrong of Exeter University, said.

The Government emphasis on team games was putting girls off sport, he continued: 'The national curriculum discriminates against girls and promotes inactive lifestyles.' Today's young people are 'the most sedentary generation of children we've ever had,' he warned. In a study of 743 children aged 10 to 16, whose activity levels were monitored continuously for four days at a time, Professor Armstrong found that nearly half the girls and 38 per cent of the boys 'did not even experience the equivalent of a 10-minute brisk walk.'

'All studies show that active children are likely to become active adults,' he said. Today's children were not less fit than previous generations but that was because 'they haven't been around long enough... The problems will be in adult life.'

John Major, the Prime Minister, told the Tory party conference last year the national curriculum would 'put competitive games back at the heart of school life. More time must be devoted to team games.'

Professor Armstrong stressed that, as a former professional footballer, he was not antiteam games, but warned that the Government has got the balance wrong. 'We want children to adopt an active lifestyle which will be sustained when they move into adulthood,' he said, and team games were not the way to achieve that.

In many schools the PE curriculum for girls was dominated by netball and hockey, yet these were not activities which could be sustained after the girls left school nor was it what they did out of school hours: if they were physically active at all they would find a partner for badminton, or go swimming or even enrol in an aerobics class.

Boys entering secondary school tend to have an aerobic fitness level about 18 per cent greater than girls (as measured by peak oxygen consumption during exercise). But the difference in their fitness increases with age, so that boys are on average about 37 per cent fitter by the end of compulsory secondary schooling than girls.

'We have to get across the message that exercise and physical activity can be fun,' Professor Armstrong said. Getting girls to take more exercise was vital because the most important role model for children was their mother, so if today's girls were directed into a sedentary lifestyle it would set the model for their own children.

For boys, competitive sport was not doing much more than favouring those who matured early and were stronger and taller, he said.

(*Independent, 15 September 1995*)

3 Moralists

Richard D.North

The International Fund for Animal Welfare's (IFAW) full-page advertisements in the broadsheet newspapers are stiff-armming Sir Ian MacLaurin, the chairman of Tesco, because that firm sells Canadian salmon. The argument goes that if he boycotts the salmon, the Canadian government will stop the seal-bashing on its ice-floes.

However, it so happens that the seals in question are thousands of miles from the salmon we are asked to resist eating. It is also probable that a salmon's death from 'drowning' in air is more horrible than a seal's having its brain stove in. Not one in a thousand of the T-shirt moralists who respond to IFAW's shock tactics will know or care about such fine-tuned matters.

And yet it is not on those grounds alone that I loathe this campaign. Nor is it merely that consumer boycotts are (forgive me) usually a rather blunt instrument. It may be right to call for a boycott of a nation's products in order to stop some horror in that country. Conceivably one should not buy Nike shoes because they are made by cheap labour in Asia (though I fear the cheap labourers might not agree).

Possibly it is right to try to halt the French nuclear testing by refusing to buy the country's claret (though the French claret industry has enough problems with competition from heroically moral countries such as Australia and Chile). It may even be right to try to

change the regime in Nigeria by boycotting Shell (though one fancies a Shell withdrawal would lead to worse environmental damage in the Niger delta).

IFAW's campaign goes beyond these ploys by asserting that Tesco (as opposed to the Tesco consumer) ought to make a moral choice about where to buy salmon. Worse, it also stigmatises the hapless Sir Ian. This latter problem looks partly to be his own fault: the advertisements quote him as saying in 1984 that the company should stand up and be counted (on what was actually a different issue), and so IFAW now appears to be asking for a degree of consistency from him.

Both practically and ethically, I am afraid that firms should never claim to be capable of being a force for good. And they certainly should not offer to censor products on behalf of consumers. That way lies the closure of almost all business and also an unwarranted control of customer choice.

Firms cannot pay the kind of wages some moralists might argue for; they cannot be as green as Greenpeace would like; they cannot be as virtuous in picking their trading partners overseas as civil rights campaigners would like. Firms operate in a morally and ecologically dubious world. Not merely are they often ill-placed to make the required judgements: provided they do not hide what they do, and where, it is someone else's business altogether to decide whether they should be allowed to trade in a particular way.

Firms can only hope to be decent citizens, and in their case that comes down to obeying the law. Firms make profits, governments make rules: that is a respectable ordering of things. What stinks about this advertisement is not that it may be a wrongheaded call for a consumer boycott. The creepiness much more consists in making a pariah of an individual who, were he to obey every exhortation of every pressure group, would have empty shelves, from which it follows that we would probably have empty larders.

I hope that Sir Ian enjoys his knighthood, and will heed a warning that going for a halo as well would be dangerous. More widely, the boss class in firms ought to think carefully before allowing their public relations people to fashion caring, goody-goody images for their enterprises: virtue is not something to be traded in.

(Independent, 20 November 1995)

4 Time to consent to change

Edwina Currie says homosexual law is unjust and counterproductive

If politicians have learnt anything recently it is not to moralise about other people's behaviour. No doubt many colleagues, along with the public, deplore the whole idea of homosexuality. That doesn't mean we should ban it. We cannot simply write our personal moral attitudes into a law which applies blindly to everybody. It doesn't work anyway, and that sets the worst example of all for our young people. They soon get the idea that they can ignore great chunks of other law, too.

The argument for changing the law to reduce the age of consent for gay men from the present age of 21 can be put in a more pragmatic way. In a free society, the onus is on those who discriminate to explain its practical benefits. For example, we all want to shield

youngsters—boys and girls—from predatory adults. Yet if a boy wished, today, to make a complaint about an unwanted homosexual approach, he would think twice about telling the authorities—for it would be *he* who was questioned, and he might well face charges himself. So the current law acts not to protect, but to enforce silence. Who would seek help in these circumstances?

We faced a dilemma in Department of Health in the mid-1980s when we needed to warn young gay men of the mortal dangers of promiscuity. Talking to them about safe sex, we realized, meant asking health workers to seek out boys who were seriously breaking the law. We decided to go ahead anyway, for safety's sake: if our Aids death figures are now lower than everyone predicted, that wise decision takes the credit. How much easier, and more effective, if criminality was not at issue.

We should be clear that 'consent' means exactly that. If consent is withheld, then sex is illegal. In recent years, to my relief, it has been accepted that when a woman says no, she is entitled to be taken at her word. The same applies to young men too. Then there is the pressure that can come from an older person or one in a position of authority. That happens when young girls are involved as well; homosexuals have no monopoly on unpleasant behaviour. But it's against the law, and will rightly stay that way.

The House of Commons might prefer to reduce the age of consent to 18 rather than 16. This has a neat air of compromise and would reduce the discrimination against many gay men: a substantial net gain. But it would not be just, and it would not stick. The position is illogical. How could anyone accept that a young man of 17 is capable of giving informed consent if he falls for a girl—to the point where he can marry—but not if his inclinations are the other way? By the time I was 16, I knew that I liked boys, and nothing whatever has dissuaded me since. My gay friends say the same. All the medical evidence suggests that sexuality is settled quite young, certainly before 18.

Some people will never accept that for many people homosexuality is a way of life. Isn't it a disease which should be wiped out? Shouldn't we be taking every step to avoid further infection, particularly of the young? That is the assumption underlying all our institutions, including the criminal law, which forbids all homosexual acts under the age of 21, even though both parties—long since old enough to vote, or join the forces, or sleep with a girl—have given informed consent.

I was astonished to discover that the Commons had never seriously debated change since the Sexual Offences Act of 1967 made homosexuality legal in England and Wales. Scotland did not follow until 1980, and it was banned in Ulster until 1982.

Here is an outmoded law which touches, at the most conservative estimate, a million of our fellow citizens who are gay. Such men pay their taxes and hold down jobs; their ranks have included distinguished actors, composers, writers and artists, soldiers and politicians. They run banks and businesses at the highest level. Yet on this one topic, their personal judgement is regarded as dangerous: the State decides who they may and may not love. Surely this is, and always has been, absolute nonsense.

Most countries have equal ages of consent, often lower than ours. In Italy it is 14; in Holland, Greece, France, Poland and Sweden it is 15; in Norway, Belgium, Portugal and Switzerland, 16. The German government has announced that it will introduce equal age legislation, and the Irish government did so successfully last spring, at 17. In none of these sober, intelligent countries did the dire events transpire which have been predicted for Britain.

Parliament is at its best when it faces a clear issue of conscience. The welfare and human rights of a large group of our voters are at stake. I have always sought equality and respect in my own life. I will now vote for equality for others, and hope for a clear result to carry this country forward.

(*The Times, 13 January 1994*)

5 Gasping for breath

Geoffrey Lean investigates the causes of the asthma epidemic

[Emissions from car exhausts have been blamed for the childhood asthma epidemic sweeping the country. One in seven children now suffers from the disease, with 100,000 people admitted to hospital each year.]

Asthma is a modern disease. Records at the Westminster Hospital show that it admitted its first asthmatic child in 1910, and that the disease was rare until after the First World War. But then it began its rapid rise.

It is also a disease of civilisation—or, rather, of what passes for it in an increasingly Westernised world. Asthma is ten times as common, for example, in Australia as in China. It seems to occur more frequently in the developed parts of Israel than in the poor areas, to be rare in rural Africa, but to increase as Africans migrate to cities.

So scientists are looking for causes hidden in more affluent lifestyles. It is not easy, because asthma is a complex disease. For a start it often runs in families, so there seems to be a genetic component predisposing people to developing it. Nevertheless, many people with no family history of asthma still get it. People with asthma also have more sensitive airways, and scientists believe that these remain inflamed even when the victim feels well. What originally causes the inflammation remains a mystery, but it seems that attacks are triggered when something irritates them, releasing a cascade of chemicals which brings on the crisis. The airways constrict and the attack is under way.

There are several suspect triggers in the modern lifestyle. Passive smoking is perhaps the best established. Mothers who smoke are much more likely to have asthmatic children. But Dr Martin Partridge, the chief medical adviser to the National Asthma Campaign, says: 'If you stopped all smoking, this would have a relatively small effect on the disease.' Something—or some things—even bigger is to blame.

Fur from pet animals and pollen may trigger attacks, but the prime suspects are now comfort and cars. Comfort comes into it because it suits house dust mites, which can also provoke asthma: fitted carpets and soft furnishings provide homes for mites, and central heating and double glazing supply a congenial atmosphere.

Increasingly, however, research is implicating two pollutants from car exhausts: ozone and nitrogen dioxide. Ozone, a blue-tinged form of oxygen, may be a life-saver up in the stratosphere where it forms the layer that screens out the harmful ultra-violet rays of the sun. But it is a dangerous pollutant nearer ground level; tiny concentrations of it crack stretched rubber and, not surprisingly, harm delicate human tissue. Nitrogen dioxide has a similar effect; a government report suggested earlier this year that it caused the 'greatest concern' of any air pollutant.

The two combine to cover much of the country with damaging levels of pollution. Nitrogen dioxide levels build up in towns because of the traffic. Emissions from car exhausts have increased by 73 per cent since 1981, and last year a government study reported that 19 million Britons were exposed to pollution that exceeded EC guidelines. Ozone, which is also increasing, takes longer to form and drifts on the winds out to the countryside in the process: Britain's highest levels are often recorded at East Sussex's idyllic Lullingstone Heath.

Studies in the United States have linked ozone with lung damage and asthma, while research in Canada, Switzerland and Sweden has implicated nitrogen dioxide. Recent work at the East Birmingham Hospital has shown that when levels of either pollutant rise, more people have to be admitted with asthma attacks. The study shows that 'acute respiratory admissions' increase at pollution levels 'well within the current EC daily guidelines' adding that 'significant' numbers of people have become sick 'at these presumed safe levels.'

This month, Professor Robert Davies of St Bartholomew's Hospital has published new research which shows that both ozone and nitrogen dioxide damage the lining of the respiratory system (allowing triggering substances to penetrate), impair the cilia (the tiny hairs that clear infection from cells) and help the chemical cascade that brings on asthma attacks.

He says that evidence has built up so strongly over the past few months that 'there is now no doubt that air pollution exacerbates asthma.'

Dr Malcolm Green, chairman of the British Lung Foundation, said yesterday that 4,000 top chest specialists meeting this month reached a 'consensus' that air pollution made asthmatics worse. It is not yet agreed that pollution can cause asthma in people who have not already had the disease, but, says Dr Green, this is 'almost a matter of semantics.'

He explains: 'If pollution is making people with bad asthma worse, and makes those with a little suffer more attacks, it is quite likely that those on the threshold of asthma may be tripped over it.'

The pollution hits children hardest because they are much more vulnerable. Children under three breathe in twice as much air as adults for each pound of their body weight. Kids exercise more, and so take in more air—and more pollution. Their airways are narrower, and so more vulnerable to constriction. And, as their lungs are still maturing, pollution can affect them permanently, leading to a lifetime of breathing difficulties.

At St Catherine's School in Bletchingley, Surrey, a quarter of the children have asthma. Most parents blame the nearby M25 motorway and say the situation has got dramatically worse in the past five years.

Can cars be made cleaner? From January all new cars will have to be fitted with catalytic converters, honeycombs which fit on car exhausts to trap pollution. Once it was thought that they might solve the problem, but they are both too late and too little.

They are too late because Britain held up agreement on introducing them in the EC for five years. They are too little because, although they reduce pollution massively in ideal laboratory conditions, the real world is much more complicated.

Nearly two thirds of all pollutants are emitted in the first few minutes of each journey, when the car is started from cold—and the catalysts do not work until after this, when they have been warmed up. They will only be introduced gradually as new cars come on the road, and the effect will soon be overtaken by the increase in traffic. The best that civil servants hope for is a brief breathing space—a cut of perhaps 5 per cent in emissions—before the pollutants rise again, but even this is optimistic. A government report earlier this year concluded that levels of nitrogen dioxide might well not decrease at all in some built-up areas.

Any serious attempt to tackle the pollution will have to be much bolder. It would help if the Government induced manufacturers to market the cars that they have already designed which do twice as many miles to the gallon as the ones they put in the showrooms.

But a real solution will have to go further, and consciously turn away from what Mrs Thatcher once lauded as 'the great car economy'. Thirty years ago Professor Colin Buchanan warned that the growth of car ownership threatened 'a national emergency'. Since his warning, the number of cars on Britain's roads has more than doubled, from 8 million to 18 million. Over the next 30 years, ministers predict, it will more than double again.

If they are to get to grips with the asthma epidemic, ministers will have to curb the car and promote public transport, use planning restrictions to curtail out-of-town developments that draw traffic, and start to redesign cities so that people have to travel less to shop, play or work.

Grouse as we may about traffic jams and pollution, we seem quite prepared to put up with them to enjoy the car's convenience. We seem ready to sacrifice our trees, killed by acid rain. We seem ready to destroy our countryside and our cities. We even seem prepared to accept more than 4,000 deaths and nearly 50,000 serious injuries in traffic accidents each year. Will we, if the link with asthma is proved, be prepared also to sacrifice our children's health?

(Independent on Sunday, 10 October 1993)

6 Judges who believe in therapy instead of punishment are undermining the basis of law

Janet Daley

Patrick Weighell assaulted his infant son regularly. During the first six weeks of the baby's life, Weighell inflicted 23 fractures which were finally discovered by a doctor. Left to look after his son for six hours a day, Weighell often became very angry. If the baby was difficult to change or feed, Weighell would deliberately squeeze or shake him in a way likely to cause pain and injury.

As the trial judge, Robert Pryor QC, said to Weighell rather superfluously, 'I am sure you lost your temper occasionally.' While few would disagree with this statement of the obvious, most of us part company with Judge Pryor on the appropriate legal response to such behaviour.

What the judge recommended was a course of 'anger management' therapy to be attended by Weighell while on 18 months probation. He is to receive no punishment as such; no custodial sentence, not even community service. What he will get is treatment for what is seen as an unacceptable personality trait. One of the reasons given by Judge Pryor for this lenient sentence is that Weighell had shown remorse. This remorse was principally manifested in the form of a letter to the court in which Weighell expressed a hope that the family might be reunited.

Given that the assaults on his son were inflicted repeatedly over the entire span of the baby's life until the law intervened, you may question how much remorse Weighell felt before being apprehended. If he did feel spontaneous regret for his appalling actions on each and every occasion, you may wonder why he did not then recognize himself to be an unfit person to care for a baby and take steps to remove the child from his own dangerous impulses.

But let us err on the side of charity and assume that Weighell's protestations of remorse are quite genuine. Should being sorry excuse you from punishment? True, it may mean you are less likely to repeat this particular offence—remorse suggests that you are already on the road to reform—but to eliminate punishment altogether suggests that the law is paying less attention to the quality of the act than to the emotions of the offender.

This theory is given credence by Judge Pryor's apparent assumption that Weighell was not so much a criminal as a victim of his own lack of self-control. His crime had no ulterior motive; it was not done premeditatedly for illicit gain like a robbery. It simply *consisted* of losing his temper. Therefore, treating his flawed personality was more to the point than any of the things which punishment is traditionally supposed to be about: retribution, deterrence or character reform.

In fact, there are many people who see virtually all crime in these terms: burglary, mugging and car theft—being symptoms of emotional or social deprivation—are also signs that the perpetrators are incapable of self-control. Any anti-social behaviour is a species of acting out one's frustrations—a favourite notion of those therapists to whom Judge Pryor has entrusted Patrick Weighell. But I do not wish to pursue the wider debate about whether individuals, as opposed to the social conditions which formed them, are responsible for their acts.

The Weighell sentence raises a more specialised argument. If people committing unquestionably criminal acts—such as assaulting a baby—regularly become cases for treatment rather than punishment, then the basis of our system of criminal law is fundamentally changed.

As it stands, the purpose of the law is to prohibit certain acts, not to evaluate and reconstruct personalities. Of course, punishment may be reduced by mitigating factors. Stealing food when you are hungry is an obvious example.

But to refrain from punishment because the criminal is of a particular temperament, or has a certain susceptibility, is to remove the idea of guilt as the basis of criminal prosecution. Of course, the crime of baby-battering is likely to be committed by the short tempered. How many baby-batterers are not, by definition, out of control when they act? Should none of them be punished?

Is ‘baby-battering’ not a crime at all but the symptom of a parent who needs treatment? There are those who would say so, but their view is not usually associated with free societies. If crime is defined not as wrong-doing, but as personality disorder or social problem, then the object of the law is to diagnose rather than to punish. And this is, in fact, the practice of modern totalitarian societies who regard mind-control techniques, such as enforced ‘re-education’ as the appropriate way to deal with any deviation from socially accepted behaviour.

Psychological treatment may look like a benign alternative to imprisonment, but in a democracy the law exists to enforce an agreed set of rules, not to reshape people’s temperaments. The courts are supposed to assume that we all have free-will, and confine themselves to judging our actions. This assumption may sometimes be wrong, but it is less dangerous than presuming to rearrange our minds.

(Copyright © The Times, 3 February 1994)

7 When the men came home

Gerald de Groot

In the sixties, British social historians were inclined to agree with Lenin that war is the great locomotive of history. The changes wrought by the Great War, it was argued, were tremendous. Nowadays, though, the idea seems more suited to its era—the decade of hope, progress and flared trousers. In the subdued Nineties, it is Britain’s resistance to change that seems more striking.

Change did occur during the Great War. But countervailing forces were also at work. War was seen as an extraordinary event that brought a temporary tolerance for disruption and the armistice was accompanied by a widespread desire, among all classes, to return to normal. The extent to which normality was restored became the gauge of how worthwhile the sacrifices had been. After all, war is seldom fought to change society, but more often to preserve it.

The strength of resistance to change in Britain becomes clear from the subsequent fortunes of the two groups that supposedly benefited most from the Great War: the working

class and women. According to conventional myth, both gained a sense of identity that was eventually converted into political power. Thus, in the trenches, millions of British workers mixed with middle-class officers who learnt to appreciate their worth. They were rewarded with a larger piece of the political pie.

But the belief in the great camaraderie of the trenches comes from reading too much Wilfred Owen. The Army took great pains to ensure that social barriers, deemed essential for discipline, did not fall. Trench officers had servants, better food and medical care, more frequent leave and their own brothels. If there was harmony in the trenches it was because subservient working-class soldiers did what they were told.

On the home front, workers derived some benefit from the scarcity of labour. Because skill differentials were relaxed, unskilled workers enjoyed the greatest improvement in their standard of living. This meant that the working class became more homogenous. But that is not the same as political solidarity. Nor did the rise of working-class consciousness automatically imply support for the Labour Party. The success of the Conservatives since 1918 might even suggest that increased consciousness could incline a worker towards the Tories.

Historians have too often imposed their own preconceptions on the workers they have studied. They have tended to assume, for instance, that the strikes on Clydeside and elsewhere were attempts to derive political advantage from the scarcity of labour, when they were in fact motivated by simple bread-and-butter issues. Inflation had outstripped wage increases. When the situation became intolerable, workers downed tools. When the Government made mild concessions, they went obediently back to work.

The most important consideration motivating the workers during the war was not socialist solidarity, but patriotism. There has been a massive—and futile—effort to prove that the 1914 rush to volunteer was inspired by gross militarism, widespread unemployment, or anything but patriotism. That the workers were patriotic is demonstrated by the virtual cessation of strikes from March to July 1918, when the German army was threatening to overrun the British. Clearly, the country's safety came before the workers' self-interest.

If the war radicalised the workers, why did the Conservatives dominate government for all but three of the inter-war years? Why did the workers tolerate a land unfit for heroes? Because the British working class was the most patriotic, subservient and apolitical in Europe, and this was unaltered by the Great War. Even if the working class emerged from the war a little more combative, workers derive power from scarcity of labour—and from 1918 to 1939 labour was anything but scarce.

The gains made by women during the Great War have also been exaggerated. According to myth, women left demeaning jobs in domestic service to take up employment in munitions factories. Their important work gave them independence, a sense of self-worth, improved status, and eventually political power—the right to vote.

The reality was quite different. A munitions factory was hardly the place to encourage self-belief. The work was unskilled, repetitive and dangerous. Women lost hair, their skin

turned yellow and many were killed in factory explosions. They were paid better than they had been before the war, but they were not universally appreciated. Little effort was made to cater to their needs with separate washrooms or creches.

After the war, women workers were told to make way for returning soldiers. As one newspaper editorial remarked: 'The idea that, because the state called for women to help the nation, the state must continue to employ them is too absurd to entertain [...] women formerly in domestic service should have no difficulty finding vacancies'. Placements in domestic occupations increased by 40 per cent in 1919 over the year before. Nor did the war have any significant long-term effect upon the number of women in work. In 1921, 30.8 per cent of women were employed, down from 32.3 per cent 10 years earlier.

As the war demonstrated, a woman gains status when she performs a task previously reserved for men. But after the war that status disappeared if a woman surrendered her job to a returning soldier. Two areas of employment to which men did not return were those of shop assistants and office clerks. When these became predominantly female professions, they lost their status. War, because it is essentially masculine, can result in a step backward for women. Moreover, negative images of women abound in wartime: gossip-mongers whose loose lips sink ships, prostitutes who spread venereal disease, adulterers who cheat on soldier husbands.

Perhaps the most important effect of the Great War upon women was the massive increase in the marriage and birth rate after 1918. One would hesitate to conclude that women had an entirely free choice in the matter, but many may have welcomed the change from munitions worker to mother. Whether willingly or under duress, however, women returned to the status quo,

They did get the vote. But it is dangerous to assume that they would not have done so with equal despatch had there not been a war. Besides, the women who were enfranchised—property owners over 30—were generally not the ones who filled the shells. And the clause giving votes to women was designed in part to limit the political effect of the 1918 voting act that removed most of the restrictions on male enfranchisement. Since the newly enfranchised men were mostly working class, and so expected to vote Labour, it was felt that granting the vote to middle-class women over 30 would be a counterweight.

One could cite many similar examples of war-induced social change being channelled, cushioned and blocked. Who is to blame? The idea of a great conservative conspiracy by a monolithic 'establishment' is too hard to swallow. Probably it has to be accepted that people generally harbour a preference for stability and tradition. Victory may in fact have encouraged a dangerous assumption that all was well at home and allowed antiquated social patterns to persist. If war is indeed the locomotive of history, the rolling stock in this case proved true to its British type—prone to delay and cancellations.

(*Independent, 12 November 1993*)

8 Five reasons for a life of less crime

Hamish McRae

Crime. We all worry about it. President Bill Clinton used his State of the Union address this week to pledge an attack on it. Here in Britain both political parties realize that they must respond to public fears of it. The fear in America is that the very fabric of society is under siege. The fear here, where crime is lower, is that we might go down the American route.

Yet it is perfectly possible—indeed highly probable—that in Britain at least we are at one of those great turning points that occur every couple of generations: that crime, having risen inexorably since the Fifties, is now about to start a long period of decline, similar to the period from the 1830s onwards through most of the last century. Here are five reasons why this might be so.

The first is demography. Most crime is committed by young men. In 1986 there were more than 2.4 million men aged 20 to 24 in the UK, a figure which had risen from less than 2 million in 1976. This figure is now falling fast. By 1991 it was less than 2.3 million and it is projected to fall to just over 1.9 million by 1996 and slightly above 1.8 million by 2001. This is a big swing: 1.8 million will have to work roughly one-third harder to commit as many offences as 2.4 million did in the mid-Eighties.

That is a tall order. Even if these young men are even more criminally inclined than the mid-Eighties batch, and commit 10 or 15 per cent more offences per person, the crime rate will still come down.

Next, there is the trend in unemployment. Of course some of the most spectacular crimes, giant frauds for example, are committed by people in work. But there is undoubtedly some relationship between unemployment and crime, if only because people working 40 hours a week have 40 fewer hours to do anything else. The likely trend of unemployment deserves a column itself, but the demographic change ought to reduce unemployment among the young.

In any case, looked at from a long historical viewpoint the high unemployment rates of the Eighties throughout Europe are unusual. The very low rates of the Fifties are also unusual, but a return to the 5 to 8 per cent range by the end of this decade is quite possible.

Third: technology. We are only just beginning to realize the full implications of devices such as the video camera, which could be as important in cutting crime as the invention of street lighting in the last century. The pioneering work here has been done in the Scottish town of Airdrie, which introduced cameras in November 1992. A dramatic drop in crime resulted. Since then a number of cities and towns have introduced surveillance schemes or are about to. A set of cameras in Bournemouth cut vandalism to such an extent that the system paid for itself in little more than a year. The biggest such experiment is in Glasgow, and if that achieves similar results, it will show that video cameras are as effective in giant cities as in small and medium-sized ones.

Naturally there are many other technologies that will help further: technologies as varied as a national DNA register, car immobilisers and the etching of photos on credit cards. But video cameras are the big success story of the past couple of years.

Fourth: policing. It is monstrously unfair to say so, but during the Eighties the police seemed almost to boast about rising crime. They behaved like a data collection agency; the more crime they could record, the more they needed more people, higher pay and faster cars to fight it. Instead of being ashamed of their failure, they blustered on about failures of society.

It is hard to generalise, but attitudes really seem to have changed. In some specific areas, like football matches, policing has visibly improved. My colleagues on the sports desk point out that the hooting and singing by some fans during the one-minute silence for Sir Matt Busby seemed shocking because it contrasted with generally better behaviour at football matches in recent years. This they attributed not to any change in the fans but in the policing of them. Pressure on the police is probably improving performance in other areas too.

Finally: change in social attitudes, in culture, in what we all expect of people. It is hard to pin this down, but something is clearly happening. People are not only more worried; they are more angry and they are becoming more organized. In Scotland, where crime fell quite sharply last year and clear-up rates have risen, the shift is attributed by police to a number of factors, including neighbourhood watch schemes and generally better cooperation with the public.

Individually, these five points might not be sufficient to turn round what has been a steady and alarming rise in crime. There are offsetting negative forces that I have not discussed, including the greater availability of firearms which are now flooding out of the old Soviet empire; greater freedom of movement within Europe and between Britain and the rest of the world; probably still rising levels of drug abuse; the danger that better job prospects for young qualified people will leave the unqualified even more excluded and alienated.

But taken together, the five factors cutting crime ought to have greater impact than each would have individually. Once it is clear that crime really is coming down, the word gets around and a virtuous circle is established. Police and public become more confident: detection rates rise; it becomes harder to dispose of stolen goods, so the returns fall. The risk-reward ratio is thus tilted against the aspiring criminal, and crime simply becomes an unattractive proposition.

All this, please note, has nothing to do with politicians and nothing to do with the law.

The reaction of most people to this argument would probably be that, if it proves true, it should be warmly welcomed: crime is bad. It may sound odd, then, to end with a warning.

There will be costs to falling crime. The sort of changes outlined above will involve some restriction of individual liberties. It is not just that we will have to become used to being watched as we shop, or simply walk up the street. We may, a generation from now, find ourselves in a more censorious society: one which imposes greater social control on our behaviour and which becomes much more hostile to people who do not conform to what other people regard as normal and proper. Our society may become safer, but it may also become less exuberant, less interesting, and in some senses, less free.

(Independent, 27 January 1994) 9 Warning: some statistics can drive you mad

Peter Popham

After an absence of nearly a year, the mad cow is back in the headlines. ‘Experts fear 1.5 million “mad cows” eaten’, brays the *Sunday Times*. ‘New fear of mad cow link’ declared Monday’s *Daily Mail*.

The good news is that these sensational stories are erected on statistical matchwood. BSE, popularly known as ‘mad cow disease’, continues to afflict herds of British cows—9,602 diseased cows have so far been slaughtered this year—despite the drastic efforts of the Ministry of Agriculture, Food and Fisheries to uproot it. But that is a problem for the farmer and the taxpayer who compensates him, and a declining one at that: BSE numbers have been falling since 1992, when 36,681 British cows were affected. It is not directly a problem for the consumer.

The consumer’s anxiety is focused not on these figures but on the human equivalent of BSE, the terrible degenerative brain ailment which culminates in death, Creutzfeldt-Jakob Disease (CJD). If these figures were to show a steep rise, there would be good reason for public alarm. But last year in Britain only 54 people died from the disease, a figure comparable to Germany (58) and France (47) where BSE is practically unknown. Deaths in Britain have increased substantially in the past few years, but it is plausibly argued that this is because the National CJD Surveillance Unit in Edinburgh, galvanised by public concern, has intensified its efforts and thereby detected more cases.

The real reason for the mad cow’s return to the headlines is that scourge of the age, the misdirected fax. Doctors and scientists on the government Spongiform Encephalopathy Advisory Committee mis-faxed a secret report, which was obtained by the *Daily Mail*, on recent cases of CJD, noting that a fourth farmer had apparently contracted the disease and ‘the Committee concluded that it was difficult to explain this as simply a chance phenomenon. There is a statistical excess of cases in cattle farmers compared to the general population...’. Yet even this could reasonably be dismissed as scholarly excess of scruple: the incidence of CJD among farmers, after all, is no more than two per million. And, statistically, the group most at risk from the disease is not farmers but vicars, with 11.8 cases per million. This says more about statistics than it does about the Church of England.

But the success of the government last year in reversing the German ban on imports of British beef, and the persistently low incidence of CJD, should not deflect attention from the fact that certain urgent questions remain unanswered.

Most importantly, if, as has been proved, BSE can spread to cats, ostriches, antelopes, pumas and cheetahs—in all cases, it appears, through the use of infected feed in zoos—how can anybody declare with certainty that it will not cross, or has not already crossed, the species line to humans too?

Headlines such as the *Sunday Times*’s may invite mockery, but the incubation period for kuru, a similar brain disease to CJD found among a particular cannibalistic tribe in Papua New Guinea, [is] about 30 years. We cannot with absolute certainty rule out the possibility of a very nasty epidemic of CJD in Britain sometime around 2015.

Secondly, why has the disease continued to ravage the British herds five, six and seven years after the ban on infected feeds and the wholesale slaughter of infected animals?

Thirdly, why should prudent people continue to give credence to the reassurances of the MAFF—a ministry which has presided over a succession of agribusiness disasters, all brought about by its own policies? When a government department is, like MAFF, under intense pressure to shore up an important industry, would not the consumer be safer off just saying no to beef?

As part of the fever for deregulation that gripped Whitehall in the early Eighties, producers of cattlecake—which routinely included minced-up bits of sheep and cattle carcasses as well as grain—were enabled to cut out a couple of key steps in the manufacturing process. As a result, tissue of brains of sheep which were infected with the long-established sheep disease scrapie managed to survive into the finished feed, and thereby made their way into the stomachs of cows.

[BSE in cows] was first identified in 1986 and decimated herds all over the country before, in the summer of 1988, the Secretary of State for Agriculture, John MacGregor, decided on drastic action and instructed all affected animals to be slaughtered. But it didn't work. The disease continued unabated.

The spate of sensationalising stories of the past few days has done the useful service of reminding us that the mad cow problem had stubbornly refused to go away. Most alarming of all was the fact that, as the continuing deaths served to rub in, the cause of the epidemic had not necessarily been isolated. The ministry insisted that infected feed must be at the root of the problem. But when an organic farmer from Somerset called Mark Purdey asserted that BSE was caused by something quite different—by the use of organo-phosphorous treatments for other animal ailments—the ministry's leading scientists paid him the compliment of listening to his case. They reject his thesis. But nobody has yet succeeded in isolating the positive agent of the virus. A great deal of mystery and ignorance continues to surround it.

Whether infected sheep or organo-phosphorous treatments are to blame, it is beyond doubt that the cause of the problem, seen in the larger context, is the industrialisation of farming.

Without much fanfare, a number of People Who Know in the medical profession have given up eating beef; the latest was Sir Bernard Tomlinson, architect of the NHS reforms, who recently admitted he was less sure than previously that BSE could not jump the species barrier. Those who value their lives would do well to study their example.

(Independent, 25 October 1995)

10 A social divide based on merit

Peter Saunders

Is there a relationship between intelligence and social class? This is the delicate question addressed by the American right-wing policy analyst, Charles Murray, in his new book, *The Bell Curve*. Predictably, reaction has been fierce and mostly hostile.

For the past 10 years, Mr Murray has been warning of the emergence of an illeducated, dependent and disaffected 'underclass' in America and Britain. Now he has gone one step further, suggesting IQ tests show that the American underclass is on average less intelligent than other people, and that this difference is reproduced from generation to generation.

In one sense there is nothing new about Mr Murray's findings, for we have known for a long time that IQ scores vary on average between social classes. When Britain still had the 11-plus examination, children of professional and managerial parents recorded average IQ scores of 113, compared with an average of around 96 for the children of unskilled manual workers. Similar differences have been recorded in the US and elsewhere.

Many people, however, do not accept IQ scores as a valid measure of intelligence. They claim that lower-class children are not less intelligent; they simply perform worse in tests which are biased towards those from middle-class backgrounds.

Since the argument has never been resolved between people who accept IQ tests as valid and people who do not, there seems little point in Mr Murray using such tests to investigate differences in intelligence; the validity of the results will always be disputed.

There is, however, another way of analysing the link between social class and intelligence which does not rely on measuring IQs. Instead, we begin by comparing the proportion of working-class children who make it into the middle class with the proportion of middle-class children who manage to stay there.

A survey of 10,000 men carried out by researchers at Nuffield College, Oxford in the 1970s found substantial movement between the classes in Britain, but also revealed a clear link between social background and occupational success. Nearly six out of every 10 boys born to middle-class fathers made it into the middle class themselves, but this was true for fewer than two in 10 boys from the working class. Middle-class children are thus three to four times more likely to succeed.

The Nuffield team believed that such a large disparity must be due to the influence of social background. This was, however, never demonstrated, for the study did not attempt to investigate the intelligence of the people it surveyed. We must therefore consider whether a difference in success as great as 4:1 in favour of middle-class children could be explained by middle-class parents producing more intelligent offspring.

Unless we are willing to assume that we are all born with exactly the same intellectual capacity (in which case any of us could have written the plays of Shakespeare or discovered the theory of relativity), we have to accept that innate differences of intelligence exist, and that such differences will tend to be passed on from parents to their children. Of course, just as tall parents can sometimes produce short children, bright parents can sometimes produce dull ones. The point, however, is that on average, intelligent parents are more likely to produce bright offspring.

This has a crucial implication. Imagine a society where competition for jobs was genuinely open, and where the brightest children were recruited to the top jobs irrespective of their social origins. In such a society, not only would the middle class be more intelligent than the working class, but it would tend to produce more than its fair share of bright

children who would themselves be eligible for middle-class positions. In a truly meritocratic society, we would thus *expect* to find some association between class origins and occupational success.

How strong would this link be? Could it produce differences in the order of three or four to one?

Fifty years ago, the professional middle class in Britain was quite small—about one in seven of the workforce. Had entry to the middle class depended solely on intelligence, it would have required an IQ of around 116, for about one-seventh of the population has an IQ this high.

One generation later, the middle class has expanded to around one-quarter of the employed population. This next generation would therefore have required an IQ of 109 or thereabouts to secure a middle-class position based on intelligence.

What is the likelihood of parents with an IQ of at least 116 producing children with an IQ as high as 109? The answer is that about six out of every 10 of their children would score this high. So if class recruitment in these two generations had been based entirely on intelligence, about six out of every 10 middle-class children would have been bright enough to qualify for middle-class entry.

How many working-class children would qualify? Based on the same calculations, working-class parents would have an IQ no higher than 102, and fewer than two out of 10 of their children could be expected to have an IQ as high as the 109 required for middleclass entry.

Remarkably, these figures correspond almost exactly to the findings of the Nuffield team. The survey found that middle-class children were three or four times more likely to succeed than working-class children, but this is exactly what would happen if intelligence alone determined class membership.

Two important conclusions follow from this. First, Britain looks surprisingly like a society divided into classes on the basis of talent. The pattern of social mobility is broadly consistent with what should happen in a perfectly open society with recruitment based solely on intelligence.

The second conclusion is that we do not need to do IQ tests to find evidence supporting the link between social class and intelligence. The close approximation between what would happen under open competition and what does happen in Britain indicates that ability probably does coincide to a large extent with class positions. This lends strong support to Mr Murray's claim of a link between low average intelligence and low class position.

What it does *not* do is support Mr Murray's additional claim that intelligence is also linked to race. Social classes are recruited through competition and therefore change their membership over time, but racial groups are fixed at birth. The class system can sift each generation by intelligence, but there is no comparable process through which a link between race and intelligence could be sustained.

(Independent, 25 October 1994) Answers to Exercise 20 are given on p. 159.

Exercise 21: Topics for constructing your own arguments

Now that you have worked through the analysis and evaluation of other people's reasoning, you should be confident that you can construct good arguments of your own. Here are some suggestions of topics on which you can put your well-developed skills into practice.

- 1 Write an argument either in favour of or against single-sex schools.
- 2 Write an argument in favour of improving and extending rail services in Britain.
- 3 Write an argument either in favour of or against legalizing soft drugs.
- 4 Write a passage about the benefits and disadvantages of our widespread use of the motor car. Come to a conclusion as to whether the motor car is a good thing or a bad thing.
- 5 Write an argument about the role, if any, that families could play in reducing crime.
- 6 Write an argument either in favour of or against restrictions of the freedom of the press to write about the lives of individuals.
- 7 Write an argument about whether the monarchy in Britain is a good thing.
- 8 Write an argument about whether capital punishment should be reintroduced in Britain.

Answers to exercises

Exercise 1: Identifying arguments and conclusions

1 This is an argument, and the conclusion is the final sentence of the passage. The passage contains the ‘conclusion indicator’ word ‘should’ in two places—in the second sentence and in the final sentence. However, the second sentence is not a conclusion, because no evidence or reasons are given for believing that parents should be capable of teaching the skills—it is simply taken for granted that they should. The final sentence is making a recommendation to spend money on training parents rather than spending it on nursery education, *based on the reasons that* children will need these skills before starting school, and parents should be capable of teaching them. To rewrite the passage, simply insert ‘So’ or ‘Therefore’ before the last sentence.

2 This is not an argument. It makes three unconnected statements about children aged under five—that they learn more at this time than at any other time in their lives, that many receive pre-school education, and that some attend school. None of these statements gives any reason to believe either of the others.

3 This is not an argument. It simply gives information about differences between the diets of red squirrels and the diets of grey squirrels. Note that the word ‘cannot’ appears in the passage, but it is not being used to indicate a conclusion—it simply reports a fact.

4 This is an argument, and the conclusion is the second sentence. The word ‘should’ in this sentence indicates that a recommendation is being made to compensate farmers for taking riverside farmland out of production. The rest of the passage provides the reasons for this—that it would save money and benefit the environment. The passage can be rewritten as follows:

Millions of pounds of public money are spent defending riverside farmland from flooding. Some of this money could be given to farmers to compensate them for taking such land out of production. This would save money and would benefit the environment, since if rivers were allowed to flood, their natural flood plains would provide wetland meadows and woodland rich in wildlife. So some of the money spent on defending riverside farmland from flooding should be given to farmers to compensate them for taking such land out of production.

5 This is not an argument. It simply reports some items of information about the weather.

6 This is an argument, and the conclusion is the final sentence. Notice that this sentence begins with the phrase ‘This indicates’, suggesting that a conclusion is being drawn from the evidence about increases in sightings of bald eagles. The conclusion also relies on the assumption (not explicitly stated) that if there has been an increase in sightings, there must be more eagles. To rewrite the passage, simply insert ‘So’ before the last sentence.

7 This is not an argument. It simply gives three different items of information about people who have computer skills—that the demand for them is growing, that their numbers are increasing, and that sometimes they need further training. None of these statements gives any reason to believe the others.

8 This is an argument. It may be more difficult to see this than with other examples, because the conclusion is not set out in a simple sentence. Yet there clearly is some reasoning going on, and a recommendation is being made that we should not lower speed limits in order to deal with the problem of unsafe drivers. The reason given for this is that to do so would inconvenience the majority who drive safely. The passage could be rewritten as follows:

Although we could reduce road accidents by lowering speed limits, and making greater efforts to ensure that such limits are enforced, this would inconvenience the majority who drive safely. Therefore, it would be an unacceptable solution to the problem of careless drivers who are unsafe at current speed limits.

9 This is an argument, and the conclusion is the first sentence. The word ‘should’ in this sentence tells us that a recommendation is being made. The rest of the passage gives the reasons for this recommendation. The word ‘therefore’ appears in the last sentence, but it is not introducing a main conclusion here. You can see that the passage makes sense as an argument if rewritten in the following way:

A dollar to a poor man means more than a dollar to a rich man—in that it meets more urgent needs and, therefore, produces more happiness. So the same amount of wealth will yield more happiness if it is distributed widely than if it is divided with great inequality. The purpose of distributing wealth must be to produce more happiness. Therefore wealth should be distributed more evenly.

10 This is an argument, and the conclusion is the second sentence. It may seem odd that the conclusion is simply the sentence ‘But this is not so.’ However, it is clear that most of the passage gives information which tells us why we should accept that the risk of getting lung cancer is *not* the greatest risk to health from smoking. Here is a rewritten version which sets out the conclusion more clearly:

Government campaigns against smoking are always based on the assumption that the greatest risk to health from smoking is the risk of getting lung cancer. It is true that heavy smoking roughly doubles a

person's chance of dying of heart disease, whereas it increases the chance of dying from lung cancer by about ten times. But we have to take into account the fact that there is a much higher incidence of heart disease than of lung cancer in the general population. This means that for every smoker who develops lung cancer, there will be about three who die of self-induced heart disease. So it is not true that the greatest risk to health from smoking is the risk of getting lung cancer.

Exercise 3: Identifying reasons

1 The answer is (c).

- (c) supports the recommendation to pay blood donors by mentioning an advantage of doing so—that it would remedy or reduce the shortage of blood donors by encouraging more people to become donors.
- (a) does not support the conclusion, because it suggests that the Blood Donor service may not be able to afford to pay donors.
- (b) may look tempting, but it does not support the conclusion, unless we assume that people should always be paid for helping others. It suggests that for many people, there is no need to pay them in order to motivate them to give blood.

2 The answer is (b).

- (b) supports the conclusion since if employers ignore the importance of applicants' personalities, they may appoint someone with an unsuitable personality which cannot be changed. If, however, they appoint someone with a suitable personality, they can easily teach this person the necessary skills.
- (a) does not support the conclusion, because if both personalities and vital skills are subject to change, then neither provides a good basis for choosing someone for a job.
- (c) counts against the conclusion, because it suggests that personality differences between candidates are not very important (since everyone can develop a good personality), and also that for some jobs, those which involve skills which not everyone can acquire, differences between candidates in terms of their skills are very important.

3 The answer is (a).

- (a) supports the conclusion by mentioning a disastrous possible consequence for light-skinned people of exposure to the sun—the likelihood of getting skin cancer.
- (b) is not relevant to the conclusion, since it mentions the effect of exposure to the sun only for dark-skinned people, and the conclusion concerns only the effect for light-skinned people.

(c) does not support the conclusion. It mentions a way in which light-skinned people can avoid some exposure to the sun—by using sun creams. But it does not say anything about why they should avoid exposure.

4 The answer is (a).

- (a) supports the conclusion by pointing out an economic benefit of installing insulation—reducing fuel costs. So even if it is expensive to install insulation, in the long run you may save money by doing so.
- (b) does not support the conclusion, since it does not mention an economic benefit of installing insulation. It simply refers to the benefit in terms of comfort.
- (c) does not support the conclusion, because it mentions a disadvantage of some types of insulation—that they can cause damp. This gives no reason to think that installing insulation is economical. In fact it suggests that it may lead to extra costs, for treatment of damp.

5 The answer is (c).

- (c) supports the conclusion by showing that imprisonment of young offenders leads to an increase in crime, since it makes them more likely to re-offend.
- (a) does not support the conclusion that young offenders should not be imprisoned. It simply suggests a way of using their time in prison constructively—to teach them job skills.
- (b) does not support the conclusion, because it focuses only on over-crowding in prisons and the expense of building new ones, whereas the conclusion focuses on the reduction of crime as a reason for not using imprisonment for young offenders.

6 The answer is (c).

- (c) supports the conclusion by showing that it was physically impossible for Sam to have committed the murder.
- (a) does not support the conclusion, because even if Sally both wanted to commit the murder and could have done it, this does not show that Sam could not have done it.
- (b) does not support the conclusion, since Sam could have committed the murder even if he had nothing to gain by doing so.

7 The answer is (b).

- (b) supports the conclusion by showing that those who have a vegetarian diet avoid eating something which can be bad for health—the animal fats which can cause heart disease.
- (a) does not support the conclusion, because it mentions only a deficiency of vegetarian diet—the lack of certain vitamins—which might suggest that a vegetarian diet could be bad for health.
- (c) does not support the conclusion because it mentions something which is beneficial to health, but which is absent from vegetarian diets.

8 The answer is (b).

- (b) supports the conclusion by showing that something undesirable would happen if many parents did not have their children vaccinated against polio—that there would be outbreaks of the disease every few years.
- (a) does not support the conclusion, because it simply tells us what some parents think about the risk of side effects from the vaccine. This gives us no information about the benefits of vaccination.
- (c) on its own does not support the conclusion. It might suggest that there is little need to have children vaccinated against polio, since the risk of becoming infected is very low. However, the reason why the risk is low may be because there has been a high level of vaccination amongst the population. If this information were added to (c), (c) could function as part of the reasoning to support the conclusion.

9 The answer is (a).

- (a) supports the conclusion because if non-swimmers avoid activities in which there is a high risk of drowning, and swimmers engage in these activities, then this could explain why amongst those who drown there are more swimmers than nonswimmers.
- (b) does not support the conclusion, because it does not say whether most of those who fail to wear life-jackets are swimmers.
- (c) does not support the conclusion, because it says nothing about non-swimmers. It explains why even those who can swim may drown, but this gives us no reason to think that amongst those who drown there will be more swimmers than nonswimmers.

10 The answer is (c).

- (c) supports the conclusion by showing that some chewing gums cause tooth decay.
- (a) does not support the conclusion, because it simply tells us about the chewing gums which can be good for the teeth.
- (b) does not support the conclusion, because it suggests chewing any type of gum can have some good effect on the teeth.

Exercise 4: Identifying parts of an argument

In these answers, the reasons are numbered, ‘reason 1, reason 2’ and so on. It does not matter which number you give to which reason, so don’t worry if you have numbered them differently. What matters is the relationship between reasons and intermediate conclusions, and between reasons and main conclusions.

1 The main conclusion in this argument is the last sentence, clearly signalled by the word ‘So.’ The rest of the argument is a little vague, but we could regard the first and second sentences as two reasons offered jointly in support of the conclusion, which would give the following structure:

Reason 1: The odds that a dangerous leak from a nuclear power plant could occur are so small as to be almost impossible to calculate.

Reason 2: I have as much chance of being seriously injured backing out of my drive as I would living next to a nuclear power plant for a year.

These two reasons taken together are intended to support:

Conclusion: So someone living next door to a nuclear power plant should feel 100 per cent safe.

However, this structure is debatable. Reason 1 may not be saying any more than Reason 2 says.

2 The main conclusion is the last sentence, signalled by the phrase ‘That is why.’ Notice the word ‘because’ in the second sentence, indicating a reason. The argument has the following structure:

Reason 1: Passive smoking causes cancer.

This is offered in support of:

Intermediate conclusion: Smokers are putting our health at risk.

This intermediate conclusion, taken together with:

Reason 2: The one third of people who smoke in public places are subjecting the rest of us to discomfort.

is offered in support of:

Main conclusion: That is why it is time to ban smoking in public places.

The intermediate conclusion and reason 2 *could* be regarded as supporting the main conclusion independently, but the argument is stronger if they are taken as joint reasons for the conclusion.

3 The main conclusion is the last sentence, introduced by the conclusion indicator ‘Hence.’ We also find ‘so’ in the second sentence, indicating an intermediate conclusion. The argument has the following structure:

Reason 1: From every effect the existence of the cause can be clearly demonstrated,

This is intended to support:

Intermediate conclusion: So we can demonstrate the existence of God from His effects.

This, taken together with:

Reason 2: The existence of God is not self-evident to us.

is intended to support:

Main conclusion: Hence the existence of God, insofar as it is not self-evident to us, can be demonstrated from those of His effects which are known to us.

4 The passage is trying to convince us that matter has not always existed. This is evident from the phrase ‘is scientific proof that.’ The word ‘So’ which introduces the second sentence indicates that an intermediate conclusion is being drawn. The structure of the argument is as follows:

Reason 1: Radioactive elements disintegrate and eventually turn into lead. This

is intended to support:

Intermediate conclusion: So if matter has always existed there should be no radioactive elements left.

This is intended to support:

Main conclusion: The presence of uranium and other radioactive elements is scientific proof that matter has not always existed.

You could if you wished split up the final sentence as follows:

Reason 2: Uranium and other radioactive elements are present.

Then take this together with the intermediate conclusion to support:

Main conclusion: This is scientific proof that matter has not always existed.

5 In this example there are no conclusion indicators, so you have to consider what is the main point of which it is trying to convince you. This appears in the last sentence, and the rest of the passage is offered in support of this point, as follows:

Reason 1: A foetus’s heart is beating by 25 days after fertilization.

Reason 2: Abortions are typically done 7 to 10 weeks after fertilization.

These two reasons are taken together to support:

Intermediate conclusion: Even if there were any doubt about the fact that the life of each individual begins at fertilization, abortion clearly destroys a living human being with a beating heart and a functioning brain.

This intermediate conclusion is intended to support:

Main conclusion: If the first right of a human being is the right to his or her life, the direct killing of an unborn child is a manifest violation of that right.

Note that the conclusion is hypothetical. You may have been tempted to think that the conclusion was simply that abortion is a violation of the right to life. But the passage does not definitely state that human beings have a right to life. It says that *if* they do, abortion (since it kills the foetus) violates that right.

6 The main conclusion, clearly signalled by ‘Therefore’, is the final sentence. The argument can be regarded as having the following structure:

Reason 1: It has always been the case in the past that new discoveries of mineral reserves have kept pace with demand.

Reason 2: At no time have the known reserves of minerals been as great as the total mineral resources of the world.

These two reasons, taken together, are intended to support:

Main conclusion: Therefore, even though at any given time we know of only a limited supply of any mineral, there is no reason for us to be concerned about running out of mineral resources.

Note that the example presented in the second sentence is being used to give some support to reason 1. But we have not shown this as a reason from which reason 1 follows, because one example could not be sufficient to establish a general claim such as reason 1, nor is it likely that the author of the argument thinks that the example does establish the general claim. It is being used in an illustrative way. You could include the second sentence in the argument structure by simply treating it as a part of reason 1.

7 The main conclusion is the first sentence, in which the word ‘should’ tells us that a recommendation is being made. The second and third sentences are straightforward reasons, but the fourth sentence is more complex. It contains a reason and an intermediate conclusion, and the reason is introduced by the word ‘because.’ We have to repeat some of the wording in order to make the structure complete, as follows:

Reason 1: If sentences are as heavy for those who plead guilty to the charge of rape as for those who plead not guilty, there is nothing to lose by pleading guilty.

This is intended to support:

Intermediate conclusion: If sentences are as heavy for those who plead guilty as for those who plead not guilty, all defendants will plead not guilty.

This intermediate conclusion is taken together with the following two reasons:

Reason 2: For a victim of rape, appearing in court is a very distressing experience.

Reason 3: If the defendant pleads guilty, the victim does not have to appear in court.

to give support to:

Main conclusion: In rape cases, sentences should be lighter for those who plead guilty than for those who plead not guilty.

8 The main conclusion is the final sentence, and is clearly indicated by the word 'Thus.' The argument has the following structure:

Reason 1: If imprisonment worked as a deterrent to potential criminals, the more people we had in prison to serve as examples, the more would their lesson be conveyed to those outside prison.

Reason 2: But today we have record numbers of people in prison, and a crime rate which is growing, not decreasing.

These two reasons, taken together, are intended to support:

Main conclusion: Thus, imprisonment is not an effective deterrent.

9 The main conclusion is the first sentence. You have to work this out by asking what is the main message which the passage is trying to convey. The only conclusion indicator in the passage—the word 'thus' in the fourth sentence—signals an intermediate conclusion. The structure of the argument is as follows:

Reason 1: Experience shows that kidnap victims are less likely to be killed by their captors if the kidnapping is not reported.

This is intended to support:

Intermediate conclusion: To report a kidnap can thus endanger a victim's life.

This intermediate conclusion is taken together with:

Reason 2: If we do not pass legislation against publishing in these circumstances, some newspapers will continue to be irresponsible and will publish details of the kidnapping before the victim is released or rescued.

in order to support:

Main conclusion: Those who oppose any and all restrictions on freedom of the press are wrong.

10 The main conclusion appears in the final sentence, introduced by the words ‘I conclude that.’ Here is one way in which the structure of this argument can be set out.

Reason 1: [If killing an animal infringes its rights, then] never may we destroy, for our convenience, some of a litter of puppies, or open a score of oysters when nineteen would have sufficed, or light a candle in a summer evening for mere pleasure, lest some hapless moth should rush to an untimely end.

Reason 2: Nay, we must not even take a walk, with the certainty of crushing many an insect in our path, unless for really important business!

Reason 3: Surely all this is childish.

These three reasons can be regarded as being intended to support:

Intermediate conclusion: It is absolutely hopeless to draw a line anywhere.

This intermediate conclusion is intended to support:

Main conclusion: I conclude that man has an absolute right to inflict death on animals, without assigning any reason, provided that it be a painless death, but that any infliction of pain needs its special justification.

Exercise 7: Identifying assumptions in arguments

1 This passage concludes that there must be some innate differences between males and females in ‘target-directed motor skills’, on the grounds that even at the age of three, boys perform better than girls at these skills. The passage is clearly rejecting the other possible explanation which it mentions—that ‘upbringing gives boys more opportunities to practise these skills.’ The conclusion thus relies on the assumption that by the age of three boys cannot have had sufficient practice at these skills to account for their better performance.

The assumption can be stated as follows:

Before the age of three, boys cannot have had sufficient practice at target-directed motor skills to account for the fact that they perform better at these skills than girls of the same age.

The assumption functions as an additional reason.

2 This passage concludes that allowing parents to choose the sex of their children could have serious social costs. The two reasons given for this are that it would result in more males who could not find female partners, and it would lead to an increase in violent crime (since most violent crimes are committed by males). However, these two results would occur only if there was an increase in the male to female ratio in the population. So these two reasons rely on the assumption that if parents were allowed to choose the sex of their children, there would be a greater tendency to choose male offspring than to choose female offspring.

The assumption can be stated as follows:

If parents were able to choose the sex of their children, there would be more parents who chose to have boys than parents who chose to have girls.

This is an assumption which underlies the two basic reasons in the argument.

3 This argument concludes that the continued fall in house prices may have a beneficial effect. The reason given for this is that the middle classes will become enthusiastic campaigners for improvements in their environment. This reason is itself an intermediate conclusion, supported by the claim that when people live in a house for a long period of time, they develop a strong commitment to the local neighbourhood. This reason would not fully support the intermediate conclusion, without the assumption that if house prices continue to fall, the middle classes are likely to move house less frequently.

The assumption can be stated as follows:

The continued fall in house prices is likely to lead to the typical middle-class home owner occupying a house for a long period of time.

The assumption functions as an additional reason.

4 There are a number of unstated moves in this argument. The following outline of the structure of the argument identifies them.

Assumption 1: The alarm did not wake me.

Reason 1: The alarm easily wakes me if it goes off.

These two are taken together to support an unstated:

Intermediate conclusion 1 (Assumption 2): The alarm did not go off.

This in turn supports:

Intermediate conclusion 2: If the money has been stolen, someone must have disabled the alarm system.

This, taken together with another unstated assumption:

Assumption 3: Only a member of the security firm which installed the alarm could have disabled it.

supports the:

Main conclusion: So the culprit must have been a member of the security firm which installed the alarm.

Assumptions 1 and 3 function as additional reasons. Assumption 2 functions as an intermediate conclusion.

5 The conclusion of this argument is that the few people who get measles are in greater danger than they would have been when measles was more common. Two reasons are offered as jointly supporting this claim—that many doctors have never seen a case of measles, and that the disease is difficult to diagnose without previous experience. It would not follow that measles sufferers were in *greater* danger in these circumstances if there were no effective treatments for measles.

The assumption can be stated as follows:

The complications caused by measles can be treated (with some success) if measles is diagnosed.

The assumption functions as an additional reason.

6 The argument concludes that it is carbon monoxide, rather than nicotine, which causes the higher incidence of atherosclerotic disease amongst smokers than amongst non-smokers. The evidence it gives for this is that animals exposed to carbon monoxide for several months have shown symptoms of the disease. Two assumptions are needed in order for this evidence to support the conclusion—that smoking exposes one to carbon monoxide, and that carbon monoxide affects humans and animals in the same way. The assumptions can be stated as follows:

- (a) Smokers experience higher exposure to carbon monoxide than do non-smokers.
- (b) Exposure to carbon monoxide has the same effect on humans as it does on animals.

Both (a) and (b) function as additional reasons.

7 The conclusion of this argument is that reports of ‘near-death’ experiences are evidence that there is life after death. The reason given for this is that most of the patients who have reported experiences of this nature were neither drugged nor suffering from brain disease. This reason is offered as a rejection of the explanation by sceptics that the experiences are caused by changes in the brain which precede death, and which are similar to changes produced by drugs or brain disease. The argument relies on the assumption that

these changes could occur only as a result of drugs or brain disease (which, of course, the sceptics would deny). The assumption can be stated as follows:

The changes in the brain which produce altered states of consciousness could not occur in the absence of drugs or brain disease.

The assumption functions as an additional reason.

8 The argument concludes that the farm population in the USA has lost political power. The reason for this is that the growth of the urban population has increased the demand for food, resulting in the introduction of labour-saving technology on farms, and thus a reduction of numbers of workers engaged in farm labour and an accompanying further increase of people living and working in cities. Such changes would result in a loss of political power for the farm population only if such power depended upon the relative size of the farm population, so this must be assumed by the argument. The assumption can be stated as follows:

The political power of the farm population is dependent upon its size relative to the rest of the population.

The assumption functions as an additional reason.

9 This argument concludes that it is important for the future of medicine to preserve wild plant species. It uses evidence from the past in order to draw this conclusion—that the progress of medicine over the past fifty years has depended upon the discovery of wonder drugs derived from wild plants. In order to draw the conclusion, it must be assumed that there are more discoveries of this kind yet to be made. The assumption can be stated as follows:

The development of wonder drugs from wild plants is very likely to continue in the future.

Perhaps the most natural way to fit this assumption into the argument is as an intermediate conclusion, supported by the evidence that wonder drugs have been developed from wild plants in the past.

10 This passage argues from two facts—that much larger numbers of British people are travelling abroad for holidays now than thirty years ago, and that foreign travel is expensive—to the conclusion that British people had on average less money to spend thirty years ago. This conclusion follows only if it is assumed that thirty years ago foreign travel was limited mainly or solely by the average Briton's disposable income. The assumption can be stated as follows:

The expense of foreign travel was the reason why the number of British people who travelled abroad for holidays was much smaller thirty years ago than it is now.

The assumption functions as an additional reason.

Exercise 8: Re-working

Exercise 5

You first looked at this passage in Exercise 5, where you were asked to identify its main conclusion, and to write down a list of assumptions which you thought it made. Since this was before you read the section on identifying assumptions, you may have included some things which are not implicit reasons or implicit intermediate conclusions. You may also have missed some things which are assumptions of this kind. By comparing your answers to both Exercise 5 and Exercise 8 with the answer below, you will be able to see how much the section on identifying assumptions has helped you to understand the passage.

The first step is to identify the conclusion, which is to be found, conveniently, at the end of the passage, clearly signalled by the word ‘So’:

So we must tell the snipers not to fire at Bill Clinton [because of his sex life].

Next we must look for the reasons. Each of the first three paragraphs presents a major reason, and these, taken together, are intended to support the conclusion. These reasons are quite difficult to identify, because they are wrapped up in an entertaining journalistic style. The best way to tackle this is to remember that the article is trying to convince us that there is no justification for criticizing Bill Clinton because of his sex life, and then to ask yourself, ‘What major point is each paragraph attempting to make?’

The first two paragraphs aim to show that the two justifications which are usually given for examining a politician’s sex life do not in fact justify criticizing Bill Clinton.

The first paragraph deals with the first justification, and aims to show that this supposed justification can never be a good reason for criticizing a politician. The supposed justification is, ‘if a man would cheat on his wife, he would cheat on his country.’ Two lines of reasoning are offered to support the idea that this is not true—first, some examples of good husbands who were bad presidents and second, the claim that many very skilled politicians also have a high sex drive.

The second paragraph aims to show that the second justification for examining a politician’s sex life does not hold good in the case of Bill Clinton. The supposed justification is that, since leaders provide examples to the nation, they are hypocritical if they ‘slip from grace.’ It is claimed that Bill Clinton cannot be criticized on these grounds because he has never claimed to lead an entirely decent life.

In the third paragraph, the argument tries to show that it is inconsistent to criticize Bill Clinton on the grounds of his sexual misdemeanours, whilst at the same time regarding former president John F. Kennedy, who behaved in the same way, as a great president of whom the country was robbed by his assassination.

Let's summarize what we have identified so far. The passage argues that we should not criticize Bill Clinton because of his sex life, on the grounds that:

- (a) it is not true that someone who would cheat on his wife would be dishonest in his capacity as a politician,
- (b) Bill Clinton does not set a bad example to the nation,
- (c) it is inconsistent to criticize Bill Clinton because of his sex life whilst at the same time admiring former president John F.Kennedy.

Let us look in more detail at how these three claims are supposed to be established. The reasoning behind (a) above is as follows:

Reason 1: Gerry Ford and Jimmy Carter were, by most accounts, strong husbands but weak presidents.

Reason 2: Pat Nixon knew where Dick was every night. The problem was that the American people could not be sure where he was during the day.

These two pieces of evidence are intended to support an unstated:

Intermediate conclusion 1: Someone can be a good husband but a bad president.

There seems to be another strand of reasoning, leading from:

Reason 3: it is a sad but obvious fact that, to many of those men to whom he gave unusual political nous, God handed out too much testosterone as well.

This can be seen as meant to support an unstated:

Intermediate conclusion 2: We should expect some highly talented politicians to ‘cheat on their wives.’

Intermediate conclusion 1 and Intermediate conclusion 2, taken together, are intended to support (a) above, which is also not explicitly stated. In this more detailed analysis, we shall label (a) as

Intermediate conclusion 3: It is not true that ‘if a man would cheat on his wife, he would cheat on his country.’

The reasoning behind (b) above is as follows:

Reason 4: Bill Clinton, unlike many senior US politicians, has never publicly claimed that he has led an entirely decent life.

This is intended to support an unstated:

Intermediate conclusion 4: Bill Clinton is not hypocritical about sexual morality.

This, taken together with :

Reason 5: The second excuse for prudence towards rulers is that leaders, tacitly or explicitly, set examples to the nation and thus their own slips from grace are hypocritical.

is intended to support (b), which is also unstated. In this more detailed analysis, we shall label (b) as

Intermediate conclusion 5: Bill Clinton does not set a bad example to the nation.

The final paragraph describes the way in which people honour the memory of JFK, and also alludes to the stories which circulate about his sex life, which were not given publicity during his lifetime. Two claims underlie this paragraph, but are not explicitly stated. They are:

Reason 6 (unstated): Former president John F.Kennedy is widely regarded as having been a potentially great president.

Reason 7 (unstated): John F.Kennedy was guilty of sexual misdemeanours.

These two, taken together, are intended to support (c), which is also unstated. In this more detailed analysis, we shall label (c) as

Intermediate conclusion 6: It is inconsistent to criticize Bill Clinton because of his sex life whilst at the same time admiring former president John F. Kennedy.

Now let's list the unstated assumptions which this analysis identifies:

- 1 Someone can be a good husband but a bad president.
- 2 We should expect some highly talented politicians to 'cheat on their wives.'
- 3 It is not true that 'if a man would cheat on his wife, he would cheat on his country.' 4
Bill Clinton is not hypocritical about sexual morality.
- 5 Bill Clinton does not set a bad example to the nation.
- 6 Former president John F.Kennedy is widely regarded as having been a potentially great president.
- 7 Former president John F.Kennedy was guilty of sexual misdemeanours.
- 8 It is inconsistent to condemn Bill Clinton for his sexual misdemeanours, whilst regarding John F.Kennedy as a potentially great president.

If you have identified some of these assumptions, you may find yourself questioning the truth of them, or wondering whether they do indeed support the main conclusion. If so, you are ready to move on to the next section—Evaluating Reasoning. You may wish to look at this passage again later, and attempt to evaluate it for yourself.

Exercise 9: Identifying flaws

1 This passage asserts that a fantastic basketball team could be created, and concludes from this that the game would thereby become exciting for fans everywhere. We may doubt whether it is true that a fantastic basketball team could be created if the best player from each of the best teams formed a new club. All these ‘best players’ might have identical rather than complementary skills. However, we are not concerned with evaluating the truth of reasons in this exercise, so we should ask ‘If it is true that a fantastic basketball team could be created if the best player from each of the best teams formed a new club, does it follow that basketball would then become an exciting game for fans everywhere? No—the evidence that a basketball team composed of extremely talented players could be created is insufficient to show that this would produce an exciting game for spectators. Perhaps it would not be exciting to watch one super-team playing against weaker opposition, and perhaps the excitement of basketball for fans depends upon seeing one’s home team as having a chance of winning.

2 This is an example of the flaw of assuming that because two things have occurred together, one has caused the other. The fact that crimes have been committed when the moon is full is not a good reason to believe that the full moon causes people to commit crimes.

3 This argument draws a conclusion about one individual from evidence about what is generally true of members of the group to which that individual belongs. If we took the first sentence to mean that *every* young person today has more formal education than their grandparents had, then the conclusion about Wilma would follow. But it is more reasonable to construe the first sentence as meaning that *in general* young people today have more formal education than their grandparents had. If that is the claim, then there may be exceptions and Wilma may be one of those exceptions. Perhaps her grand-parents were unusual in their generation in having a university education, and perhaps Wilma dropped out of education at an early stage.

4 The conclusion is that neither marijuana nor LSD can be harmful. The reason given for this is that doctors use them as painkillers for cancer patients. The conclusion does not follow, since doctors may have to use drugs which are harmful when the alternative—leaving the patient to suffer severe pain—is worse.

5 This passage tells us that adolescents have a higher requirement for iron than that of the rest of the population. It concludes from this that the reason why adolescents often suffer from anaemia is not that they have insufficient iron in their diets. However, if their requirement for iron is greater than normal, it is much more reasonable to conclude that their anaemia *could* be caused by insufficient iron in their diets. There is a question about the meaning of ‘insufficient’ in the conclusion. Adolescents suffering from anaemia may have an amount of iron in their diets which would be sufficient for all other people. But if their requirement for iron is greater, then this amount will be insufficient for them.

6 This argument concludes that if people in the West switched to a Japanese diet, then instead of dying from heart attacks, they would die from the diseases which are the most common causes of death in Japan. It bases this conclusion on two claims—that diet is an important cause of disease, and that heart attacks in the West are caused by diet. However, the evidence is insufficient to establish the conclusion, since diet may be an

important cause of disease without being the only cause of disease. Hence the diseases common in Japan may be caused not by diet, but by genetic factors, or by environmental conditions. The passage does not settle the question as to what causes strokes and cancers of the stomach amongst the Japanese. So we can-not be confident that changing to a Japanese diet would increase the incidence of these diseases amongst Westerners.

7 This passage concludes that cooking must have been invented 400,000 years ago, based on the evidence that fires, which would have been necessary for cooking, were being used at that time. But the passage establishes only that fire was *necessary* in order for cooking to be invented, not that it was *sufficient*. Perhaps the first use of fire was for warmth or to deter predators, and maybe cooking was not invented until some time later. This is an example of a common flaw—that of treating a necessary condition as if it were a sufficient condition.

8 This passage argues from the unreliability of a witness to the conclusion that what the witness said must have been false. But the evidence is insufficient for us to draw this conclusion. The most we can conclude is that Fred may not have been in the vicinity of the shop when the fire was started. Without further evidence we cannot conclude that he *must* have been somewhere else.

9 The conclusion of this argument is that most people could be musical geniuses if they practised hard enough. The evidence offered for this is that a number of composers (presumably musical geniuses) wrote their masterpieces only after a long period of training in composition. Two questionable moves have to be made in order for this evidence to be taken to support the conclusion. First it must be assumed that the practice which these composers had was *necessary* in order for them to write masterpieces. Maybe this is not too wild an assumption, but it is just possible that it was not practice, but maturity, which was required in order for them to write masterpieces. The more serious flaw is to conclude that because some people could write masterpieces as a result of practising hard, anyone could do so if they practised hard. This is to treat the necessary condition of practising or training in composition (if we concede that it is a necessary condition) as a sufficient condition for composing masterpieces. Perhaps what is also needed is a certain talent which not everyone possesses.

10 This argument concludes that there cannot be any link between being poor and committing crimes. The evidence it produces for this is that many poor people never commit a crime. But this evidence is insufficient to establish the conclusion. Even if many poor people never commit a crime, it may be true that some poor people who do commit crimes would not have done so if they had not been poor. So there could be a link between poverty and crime such that poverty makes *some* people more likely to commit crimes.

Exercise 10: Evaluating further evidence

1 The answer is (e).

- (e) weakens the conclusion by giving an alternative explanation as to why those children who participate in school sports activities are less likely to fight. This alternative explanation is that those with a tendency to fight are not allowed to participate in school sports activities.
- (a) has no impact on the conclusion. The supervision by adults of sports activities at school may explain why there was little fighting during sports. But the conclusion is about why those who participate in sports are less likely to fight at any time during school hours, and not just during sports activities.
- (b) does not weaken the conclusion, since even if the participants in school sports activities are discouraged from being extremely aggressive, the physical activity of sport may be such as to channel aggressive energy into non-aggressive competition.
- (c) at first sight looks as if it is contradicting the statement that children who do not participate in sports fight more than those who do. So you may have been tempted to pick (c). But ‘tend to be more aggressive physically’ does not mean ‘tend to fight more.’ It means ‘have a greater underlying tendency towards aggression.’ If this were true, and it were also true that these children fight less, this would strengthen the conclusion that participation in sport is channelling physical aggression which might otherwise be released through fighting.
- (d) is irrelevant to the conclusion. The time during the school day at which fights usually occur makes no difference to the explanation as to why those who do not participate in school sports activities are more likely to fight.

2 The answer is (d).

- (d) weakens the argument by showing that if businesses did what is recommended—that is, reduced salaries for employees without advanced engineering degrees—this could eventually be to the disadvantage of engineering businesses. Although it might have the desirable effect of persuading more engineering graduates to take PhDs (and thereby increase the numbers of engineering teachers), it might also result in fewer enrolments of students on undergraduate engineering courses. In the long term this could lead to a shortage of good applicants for jobs in engineering, which would be against the interests of businesses.
- (a) is irrelevant to the conclusion. If ‘the sciences’ do not include engineering, then (a) is not even on the same topic as the argument. If ‘the sciences’ do include engineering, then (a) adds nothing to the information in the passage that enrolment in engineering courses has increased.
- (b) does not weaken the argument. It simply emphasizes the problem—the need to attract more engineers into teaching—to which the argument offers a solution.
- (c) has no impact on the argument. The high salaries paid by businesses to those with advanced engineering degrees are likely to tempt these people away from teaching. This makes no difference to the recommendation to solve the problem of the shortage of engineering teachers by reducing salaries for those without advanced degrees.
- (e) has no impact on the argument. The argument is about a way of increasing the incentive for engineering graduates to pursue postgraduate studies. The funding of research programmes would not increase this incentive, unless it made generous awards to potential students. (e) makes no claim that businesses fund generous awards to students.

3 The answer is (e).

- (e) strengthens Joan's claim by providing evidence that some heroin addicts are likely to commit serious crimes in order to get supplies of the drug. This supports the claim that the amount of serious crime might be reduced if heroin addicts were given free supplies of the drug.
- (a) does not strengthen Joan's claim, it weakens it. If heroin addicts were more likely to be violent when under the influence of heroin, they might commit crimes at such times. Providing them with free heroin would not reduce the amount of crime, if any, committed by heroin addicts.
- (b) does not strengthen Joan's claim, because she is not trying to show that supplying heroin to addicts would make economic sense. She is claiming simply that it would reduce crime.
- (c) does not strengthen Joan's claim, for the same reason that (b) does not strengthen it.
- (d) does not strengthen Joan's claim because it concerns crime which is not related to the use of heroin. This tells us nothing about the effectiveness of Joan's proposed method of reducing drug-related crime.

4 The answer is (a).

If (a) is true, then there is a good reason for the automobile association to continue testing direction indicators, since if they do not, the numbers of defective direction indicators may increase. Hence (a) weakens the case for stopping inspection of direction indicators.

- (b) on its own does not weaken the argument. It seems to offer a reason for making sure that direction indicators are in good working order. But this does not weaken the recommendation to stop inspecting them, unless—as (a) suggests—stopping the inspections would result in more faulty indicators.
- (c) does not weaken the recommendation, unless there is reason to believe that the inspection procedures need to be as thorough as those in neighbouring states. (c) does not provide such a reason.
- (d) does not weaken the recommendation to stop testing direction indicators. It appears to be offering a reason in support of the recommendation, but in fact it makes no difference either way. Even if automobiles fail the inspection on the grounds of other safety defects, there may still be automobiles with defective indicators on the roads.
- (e) does not weaken the argument, although it may look as if it is offering a reason for retaining inspection of indicators. Inspecting them would not bring to light other defects not covered by the safety inspection system. So (e) is irrelevant to the question as to whether direction indicators should be inspected.

5 The answer is (d).

The researchers concluded that if parents monitored (presumably meaning 'controlled') the amount of time which their children spent watching television, the children's performance in school would benefit. So the researchers were assuming that the relationship they found between the hours the children spent watching television and their

level of performance in school was evidence that watching for longer periods *caused* poorer performance. The researchers had discovered a correlation, but a correlation between two things does not necessarily mean that one thing causes the other (see the discussion on pp. 47–8). Statement (d) strengthens the idea that there is a causal connection. If differences in performance are less when hours watching television are roughly the same for all children, then it is likely that differences in time spent watching television cause differences in performance.

- (a) gives more detail about the figures upon which the claim in the first sentence is based, so it strengthens the statement that if children watched between two and three hours of television per day, they were likely to perform less well in school. This is stronger evidence that there is a correlation, but gives no extra evidence of a causal connection. So it does not strengthen the conclusion, which relies on the assumption that there is a causal connection.

Provided we assume that there is a causal connection between amount of television viewing and school performance, (b) could be regarded as giving an additional reason why school performance might improve if parents monitored their children's television viewing. But since (b) does nothing to strengthen the idea that there is a causal connection, it does not strengthen the conclusion of the researchers.

- (c) does not strengthen the idea that watching television for two or more hours per day causes poorer performance in school. Instead it introduces a new factor—the amount of time spent reading—which may have an effect on school performance.
- (e) does not strengthen the idea of a causal connection, because although it suggests that some children replaced their television watching with reading, it does not comment upon how this affected their performance in school.

6 The answer is (a).

- (a) weakens the argument by showing that even if ex-prisoners do not pursue the occupation for which they have prepared whilst in prison, the skills they have learnt during training in prison may nevertheless be of use in whatever occupation they take up.
- (b) provides an *objection* to scrapping career training programmes in prison. But this is not the same as weakening the argument, because it has no impact on the claim that it is *unwise* to continue such programmes since they do not achieve their aims.
- (c) mentions an advantage of prison career training programmes, thereby to some extent weakening the claim that it is unwise to continue them. But this does not weaken the argument as much as (a), which shows that the claim upon which the conclusion of the argument is based—that the programmes do not achieve their aim (which we can assume is to provide skills which will be useful in future employment)—is not true.
- (d) does not weaken the argument, because it simply emphasizes that training programmes have the goal which the argument claims they do not achieve. (d) tells us nothing about whether they achieve that goal, hence has no impact on the conclusion that these programmes should be scrapped.
- (e) does not weaken the argument, because the argument relies on the claim that prisoners choose not to pursue the occupation for which they have trained whilst in

prison. This does not imply that they have no choice whilst in prison, nor does (e) imply that they will not change their choice of occupation after leaving prison.

7 The answer is (e).

- (e) weakens the argument by providing evidence that the physiological changes recorded by a lie detector may result from stress other than the stress caused by lying. This suggests that, contrary to what the conclusion claims, reliable lie detection is not possible.
- (a) has no impact on the argument, because reliable lie detection may be possible, even if the machines are expensive and require careful maintenance.
- (b) suggests that for some people who are lying, lie detectors will indicate symptoms of only moderate stress. But this does not weaken the claim that reliable lie detection is possible.
- (c) does not weaken the argument, because it does not suggest that it is impossible to find and train the personnel who can use lie detection instruments effectively.
- (d) does not weaken the argument, because reliable lie detection may be possible even if some people misuse or abuse lie detecting equipment.

Exercise 11: Offering alternative explanations

These answers identify the fact and the explanation offered in each passage. They then give one or more possible alternative explanations. You may be able to think of other possible explanations.

- 1 • **Fact:** Public confidence in the police force is declining at the same time as fear of crime is growing.
 - **Explanation:** Fear of crime is caused by lack of confidence in the police.
 - **Alternative explanation:** Fear of crime is caused by people's belief that the incidence of crime is increasing.
- 2 • **Fact:** The divorce rate has increased greatly over the last thirty years.
 - **Explanation:** There are more unhappy marriages than there used to be.
 - **Alternative explanation:** It is now easier to obtain a divorce, and the stigma associated with divorce has gone. (Hence there may have been just the same percentage of unhappy marriages in the past, but people did not divorce because it was difficult or because others would disapprove.)
- 3 • **Fact:** The human race has never received a well-authenticated communication from beings elsewhere in the universe.
 - **Explanation:** The only intelligent life in the universe is on our planet.

- *Alternative explanations:* There is intelligent life elsewhere in the universe and
- they don't want to communicate with us, or
- they don't know we are here, or
- we have failed to recognize their communications.

4 • *Fact:* Whenever a new road is built, the density of traffic in that area increases.

- *Explanation:* The number of cars per head of population is increasing.

- *Alternative explanation:* When new roads are built, the average number of journeys per motorist increases (i.e. when roads are better, people have more incentive to drive).

5 • *Fact:* The number of people taking holidays in British resorts declined last summer.

- *Explanation:* The weather was bad in Britain last summer.

- *Alternative explanations:*

- For financial reasons fewer people took holidays.

- Prices for holidays abroad were reduced.

- There was bad publicity about pollution on British beaches.

Exercise 12: Identifying and evaluating explanations

Each of these answers identifies the fact or facts for which explanations are offered, identifies the possible explanations offered in the text, and suggests some other possible explanations. You may have thought up different possible explanations. We leave you to draw your own conclusions as to which explanation is the most plausible.

1 (a) *Fact:* Girls perform better than boys in GCSE exams.

(b) *Explanations in text:*

- Girls have clearer goals and are more focused—boys have no idea what they want to do after GCSE.

- Boys do not want to appear swotty—study is not seen as bad for girls' image.

- Boys get less attention from teachers than girls do.

(c) *Other possible explanations* (some suggested by comments in text):

- Teachers' lower expectations of boys' abilities cause boys to perform less well than they could.

- Boys are unable to concentrate or organize themselves, and lack motivation.

- Girls are cleverer than boys.

- Girls work harder than boys.

- Girls reach intellectual maturity earlier than boys.

2 In this example there are several facts for which explanations are offered.

(a) *Fact:* Fewer people were killed on Britain's roads last year than in any year since 1926.

(b) *Explanations in text:*

- There is better paramedic treatment at the roadside and better medical care.
- The figures are misleading because deaths which occur as a result of road accidents are counted as road deaths only if the death occurs within 30 days of the accident, and now people are kept alive longer by modern medical techniques.
- There has been a decline in the numbers of vulnerable road users such as pedestrians and cyclists.

(c) *Other possible explanations:*

- Roads are safer, due to better road construction, and/or safer driving.
- Cars are safer for their occupants, due to seat-belts, air-bags, crumple zones, side-impact bars, better brakes and so on.

(a) *Fact:* Child casualties are proportionally higher in Britain than in other European countries.

(b) *Explanation in text:* Children in Britain have to walk home from school in the dark in winter.

(c) *Other possible explanation:* There are more child pedestrians in areas of heavy traffic in Britain than in other European countries.

(a) *Fact:* The number of children killed on the roads and the number of serious injuries on the roads have both increased.

(b) *Explanations in text:*

- Roads are more dangerous.
 - Drivers make mistakes because they feel too insulated in modern cars.
- (c) *Other possible explanation:* There is more traffic on the roads.

3 (a) *Fact:* A statue of the Virgin Mary has been observed to appear to shed tears.

(b) *Explanation in text:* It is likely that the statue is made of permeable material with an impermeable glaze, and that it has a hollow centre. If the glaze over the eyes is scratched, droplets of water appear, and it looks as if the statue is weeping.

(c) *Other possible explanation:* The statue is weeping, and this is a miracle. With this example you may find it impossible to think up any further possible explanations, but you should have a lively discussion as to which of these is more plausible, and how you might find out.

Exercise 13: Practising the skills

1

I *Conclusions:* Although it is clear that reasoning is going on in this passage, it is difficult to identify a firm main conclusion. It is examining the case for a recommendation to allow drivers on British motorways to pass other cars on the left as well as on the right, but does not come out with a firm decision about this. The conclusion on this topic, though not directly stated, seems to be that we should not yet allow ‘undertaking’ on British

motorways. In the last paragraph there is a recommendation as to what should be done whilst further evidence is being sought. So we could say that the passage offers a second conclusion that ‘in the meantime, safety would be improved by a change to the Highway Code obliging drivers not only to indicate before changing lanes, but also to leave their indicators on while they are in the over-taking lane.’

2 *Reasons/assumptions:* The reason for the first conclusion is that ‘there is little evidence either way’ as to whether it would be a good thing to allow ‘undertaking.’ The reasons offered in support of this intermediate conclusion are that overtaking on both sides works well in the USA, and British traffic conditions have come more and more to resemble those of the USA; but British conditions are different in some respects which may be important (higher speeds and narrower roads), and British drivers may not adjust well to the change.

The reason offered in support of the second conclusion is that ‘the flashing indicator would serve as an unaggressive signal to drivers in front to pull over to the left as quickly as they safely can; and it would remind the overtaker to do the same immediately afterwards.’ The second conclusion relies also on an assumption that a change to the Highway Code obliging drivers to leave their indicators flashing whilst they are in the overtaking lane would be generally observed.

3 *Assessing reasons/assumptions:* The truth of the claim that the system of overtaking on both sides works well in the USA could be established by examining accident statistics in the USA—checking whether accidents on freeways are frequently caused by lane changing. The comments about British conditions are very tentative—in fact they are posed as questions, rather than stated as truths. So we merely have to accept that traffic conditions might be so different in Britain as to cause problems.

It is difficult to assess the truth of the claim that a flashing indicator whilst in the overtaking lane would be an unaggressive reminder to other drivers, and would remind the overtaker to pull over. We can each think about what our own reactions would be to such a signal, but the decisive test would be whether such signals, if widely used, changed drivers’ behaviour.

The assumption that drivers would observe the directive—to keep their indicator flashing is very dubious, especially in view of the fact which causes the whole problem—that many drivers ignore the directive to return after overtaking to the lane from which they came.

4 *Authorities cited:* No specific sources of evidence are mentioned. The passage recommends consultation with experts, but does not say who these experts are (though it clearly doesn’t regard the Automobile Association as ‘expert’!).

5 *Further evidence:* For this question, you have to think about any knowledge which you have which strengthens or weakens the conclusion.

6 *Explanations:* The passage does not contain any obvious explanations.

7 *flawed reasoning:* The intermediate conclusion, that there is little evidence either way, is not firmly established by the reasons. We need to know whether there are any countries with traffic conditions similar to Britain in which over-taking on both sides works well. We need to know whether traffic experts in Britain have attempted to simulate the conditions for overtaking on both sides. If it is true that there is as yet little evidence either way, then perhaps it is sensible not to make a change until further evidence is

available. We should have reservations about accepting the second conclusion, since, as stated above, the assumption that drivers would observe the directive to leave their indicators on whilst overtaking is questionable.

2

1 Conclusion: The main message of the passage is that lowering the price of a product can not only persuade people to buy your brand as opposed to another brand, but can actually increase consumption of the type of product. For example, lowering the price of *The Times*, it is suggested, not only persuaded some people to buy *The Times* as opposed to other newspapers, but also persuaded some people who would not otherwise have bought a newspaper to buy *The Times*, and some people to buy *The Times* in addition to their regular newspaper.

The conclusion is stated in a number of places:

If you lower your prices, it is very likely that you will *enlarge* the market for your sort of product. (*paragraph one*) lowering prices by cutting profit margins to the bone can do more than merely redistribute a fixed amount of custom, by actually enticing more people into a market they might otherwise not enter at all. (*paragraph two*) cut prices as low as you can and people will buy more (*paragraph four*)

Although not explicitly stated as a conclusion, there is a hint that it is possible to lower prices *and maintain the same level of profit*, by increasing the volume of sales though lowering the amount of profit per item sold.

2 Reasons/assumptions: The immediate reasons for the conclusion are that ‘people’s tastes and preferences are not immutable’ and ‘they will exercise their freedom to choose when given half an economic chance.’ Some support is given for the claim that people will exercise freedom to choose by offering examples of people choosing to buy less of a product (cigarettes, and meals in restaurants) when prices go up.

Further support is offered by the example of increased sales of *The Times*, by the prevailing philosophy in the United States of running on low profit margins, and by Tesco’s report that both sales and profits were up as a result of a lower pricing policy.

3 Assessing reasons/assumptions: It seems reasonable to accept that people can change their tastes and habits of consumption, and that price changes—both up and down—can influence their inclination to buy a certain type of product.

4 Authorities cited: There is no reason to doubt the reliability of the report from Tesco.

5 Further evidence: You have to consider whether you have any knowledge which strengthens or weakens the conclusion.

6 Explanations: There are no obvious explanations in the passage.

7 Flawed reasoning: There are three problems with this argument, all concerned with exactly what the scope of the conclusion is. The conclusion seems to be a very general claim that, *whatever your product*, lowering prices is likely to enlarge the market for your sort of product. If the claims about increased sales of *The Times* are true—that more people started buying newspapers as a result of the reduction in price—then this shows that at

least for some products a reduction in price can enlarge the market. But perhaps this is not true for all products. There must, for example, be a limit to the amount of food people consume, regardless of how low prices drop. Some of the examples do not really give support to the general claim that lower prices will enlarge markets. One example tells us that when cigarette prices increase, the number of people smoking drops. It does not follow from this that if cigarette prices fell more people would start smoking. The example of Tesco shows only that lowering prices can increase *one* supermarket's sales. It does not follow that there was an increase in the market for supermarket merchandise. Perhaps the new customers at Tesco had defected from other supermarkets.

The second problem concerns whether we are intended to conclude that a producer or a retailer can *at any given time* increase sales by lowering prices. But this would have an absurd implication. Taken to its logical conclusion, it would mean that one could go on and on and on reducing prices and increasing sales. A point would come at which the product cost nothing, and the retailer was not making sales at all, but was giving the product away. However, since the author appears to be recommending 'lowering prices by cutting profit margins to the bone', it seems that she is not recommending that it is always sensible to lower prices in order to increase sales. She would not regard it as sensible to do so if this would result in no profit at all.

The final problem concerns whether we are intended to conclude that it is possible for all businesses in an economy to lower prices and increase profit. The example of supermarkets in the United States seems to suggest that it is possible to have very low profit margins, and still run a profitable business. But perhaps this is possible only with very large scale businesses. And perhaps it is possible only if competitors frequently go out of business. Neither the United States example nor the Tesco example shows that you can enlarge the market by lowering prices; thus, although they show that some businesses can increase profits whilst lowering prices, they do not show that all businesses can do this.

3

1 Conclusion: The conclusion appears in the last paragraph, where we can see that the main point is being made, summing up what can (or cannot) be concluded from the evidence previously presented. The conclusion is that the evidence does not support the assumption that the incidence of violent and serious crimes has increased greatly over the past forty to fifty years.

2 Reasons/assumptions: The reasons offered are, in the first paragraph, that only 5 per cent of crimes are violent, and that in some categories where there has been an increase in figures, much of the crime is trivial and to do with increased opportunity for theft and vandalism; in the second paragraph, that people are more inclined to report crime now than they used to be, which accounts for the rise in reported crime; in the third paragraph that theft and violence were commonplace in the Thirties in London. In the second paragraph, there is an assumption that in the past, both domestic physical violence and rape by intimates and acquaintances happened, but tended not to be reported.

3 Assessing reasons/assumptions: In order to know the truth of some of the reasons, for example, whether much of the crime in categories where reported crime has increased is trivial, we would have to check statistics on crime. But for those reasons which concern

the level of criminal activity in the past which did not get reported, establishing truth or falsity seems difficult. We could read historical accounts of life in the Thirties. But it is quite possible that the assumption that there used to be much domestic physical violence which was never reported is true, even if there is no evidence of it in historical records.

4 *Authorities cited:* Sources of evidence are not given in the passage. Presumably the figures quoted come from official statistics on crime.

5 *Further Evidence:* This is a question about any knowledge of your own which strengthens or weakens the conclusion.

6 *Explanations:* The passage gives two explanations to account for at least some of the rise in crime figures. First, some of the increase in burglaries and vandalism is claimed to be attributable to the fact that there are more things to steal and vandalize. Second, the increase in reported crime is attributed to an increasing tendency to report crimes, rather than an increase in crimes committed. These are being presented as alternatives to the assumption that the rise in recorded crime is attributable to an increasing tendency amongst some of the population to commit violent and serious crimes. In the absence of further evidence, the explanations offered in the passage are as plausible as is the assumption which they seek to overturn.

7 *Flawed reasoning:* The conclusion is that the evidence available does not support the assumption that the incidence of violent and serious crimes has increased greatly over the past forty to fifty years. By offering another plausible explanation for the increase in *reported* crime, the argument supports this conclusion quite well. Of course, if the author wanted to conclude that violent and serious crime definitely has not increased, more evidence would be needed.

Exercise 14: Drawing conclusions

- 1 The temperature must have dropped to below freezing point overnight.
- 2 It is likely that Gitta has 'flu.
- 3 The daffodils will probably flower late this year.
- 4 Jane's car must have travelled faster than Jim's.
- 5 If Ms Brown killed the murder victim, she must have poisoned him.

Exercise 15: Assessing implications

- 1 (a) *Probably false:* The passage states that the incidence of skin cancer is higher amongst professionals than amongst manual workers, which suggests that there are some cases amongst manual workers.

(b) *Insufficient information:* If 20 per cent of cases occur amongst those aged 20 to 39, and 80 per cent amongst over-forties (though it may be less than 80 per cent, because some cases may occur amongst under-twenties), it looks more likely that the risk is greater for over-forties. But we do not have enough information to conclude that (b) is false, first because it makes a general claim, and we have figures only about the incidence in Sweden, and second because we do not know about any differences in lifestyles of the two age groups in Sweden which may account for the greater percentage of cases amongst the over-forties.

(c) *False:* The increased incidence of skin cancer in Sweden could be caused by exposure to sunlight, since more people from Sweden may be taking holidays in sunny countries. Of course, it may be true that exposure to sunlight is not the only cause of skin cancer, but it is false that the figures from Sweden indicate this.

(d) *Insufficient information:* Although we are told that only 20 per cent of cases occur in the 20 to 39 age group, and that exposure to sunlight is a significant cause of skin cancer, we do not know whether the higher number of cases amongst over-forties is attributable to greater exposure to sunlight for this group, or to a greater tendency for older people to succumb to skin cancer, even given equal exposure to that of younger people.

(e) *True:* We can conclude that the increased incidence of skin cancer in Sweden *may* be due to an increase in numbers holidaying in sunny countries. In answering ‘true’ to (e), we are not concluding that this is the cause. (e) merely states tentatively that it may be.

2 (a) *Insufficient information:* We are told only about the sample of 600 drivers. Even if most of them had an inflated sense of their own safety as car drivers, this information cannot support the claim that most drivers have an inflated sense of their safety. The drivers in this sample may not have been representative of drivers in general. They may have been chosen because of their unusual attitudes.

(b) *Probably true:* If most of the group overestimate their driving skills, then some of the 50 per cent who said they would drive at over 80 mph on a motorway must also overestimate their driving skills. Assuming that 80 mph is too fast, and that the drivers do as they say, then these drivers tend to drive too fast on motorways. Since these assumptions are not unreasonable, it is probably true that some drivers who overestimate their skills tend to drive too fast.

(c) *Probably false:* We are told that those most likely to overestimate their driving skills are young men. Since young men are likely to have had only a few years’ driving experience, it is probably false that those with only a few years’ driving experience do not overestimate their driving skills.

(d) *True:* The study demonstrated that forcing drivers to imagine that they had caused a serious accident made some of them change their judgement about the speed at which they would be prepared to drive. Assuming that the effect on their attitudes is long-term, and that they act in accordance with this changed judgement, some of them will drive more responsibly, with respect to speed, in the future. So it is true that imagining the accident may make them drive more responsibly in the future.

(e) *Insufficient information:* We are told that the drivers were asked to *imagine* the lack of confidence they might experience if they caused a serious accident. But this does not imply that they actually lost confidence in their driving as a result.

3 (a) *False:* because although a change in personality may be a symptom of a brain tumour, there may be other causes of a change in personality.

(b) *Insufficient information:* We are told that a brain scan can diagnose a tumour, but we are not told whether there are or are not any adverse effects of a brain scan.

(c) *Probably false:* We are told that neurologists think that a headache which has persisted for a year with no other symptoms is unlikely to be due to a tumour. But since it is also stated that headaches are amongst the symptoms of brain tumours, then it is very probable that neurologists, who are experts in brain diseases, believe that headaches are sometimes symptoms of tumours.

(d) *True:* The earliest symptoms of a brain tumour are headaches, vomiting and failing vision. If someone has these symptoms, then it would be sensible to find out as soon as possible whether there is a brain tumour, since the earlier a diagnosis is made, the better the chances that treatment will be successful. Since a brain scan can diagnose a tumour, it would be a good idea to have a brain scan.

(e) *True:* All the symptoms mentioned here have, we are told, other possible causes. So someone could have all these symptoms without having a brain tumour.

4 (a) *Probably true:* Although the passage refers to a ewe forming a bond with 'its own lamb', this use of the singular noun does not suggest that a ewe can form a bond with only one of its own lambs. The statement that the ewe 'rejects all others' is best understood as meaning that she rejects all except her own lambs.

(b) *Insufficient information, or Probably false?* Strictly speaking we do not have enough information in this passage to conclude either that a ewe will or that she will not reject her own lamb if she is introduced to another lamb. However, given a few assumptions, we can conclude that (b) is probably false. First, if the ewe really believes she has given birth to another lamb, then presumably she can form bonds with both her own and the orphaned lamb in the same way that she could (we have assumed above) form bonds with both her own twin lambs. Second, unless the farmers are using this technique only with ewes whose own lambs have died shortly after birth, there would be no point in using the technique at all if it resulted in an orphaned lamb being accepted by the foster mother, whilst her own lamb was rejected.

(c) *True:* We are told that lack of maternal contact can cause behaviour abnormalities.

(d) *False:* We are told that farmers do rear orphaned lambs themselves. Such lambs may have behaviour abnormalities, but can nevertheless grow to adulthood.

(e) *True:* There is an 80 per cent chance of a ewe accepting, and thus of forming a bond with, an orphaned lamb, if the farmer uses the technique of fooling the ewe into thinking she has given birth to another lamb.

5 (a) *Insufficient information:* The passage makes it clear that scab and blowfly attacks cause damage to sheepskins. This may be sufficient reason for farmers to want to use sheep dip. Without further information, we cannot tell whether these parasites cause distress to sheep.

(b) *False:* There is some evidence of a possible link in 58 of the cases examined.

(c) *Insufficient information:* Three of the people whose symptoms may have been caused by using sheep dip were wearing protective clothing. If these three people's symptoms were definitely caused by using sheep dip, then we could conclude that the clothing does not prevent damage to health when using sheep dip, and thus that (c) is false. But we do not know whether their symptoms were definitely caused by the use of the sheep dip.

(d) *False:* We are told that it is not known what the effects of exposure to sheep dip are. Even though we must conclude that (d) is false, this is not the same as saying that there is no justification for banning the use of sheep dip. Some people might argue that if there is any potential risk to health, its use should be banned.

(e) *Probably true:* There is some evidence of a potential risk, and the Ministry of Agriculture is sufficiently concerned to ensure that sheep dips are handled only by those with a certificate of competence.

Exercise 16: Identifying parallel arguments

1 The answer is (d). They both have the following structure:

Because Xs usually have characteristic Y, and because Z has characteristic Y, it follows that

Z is probably an X.

In the original argument,

X=heroin addict

Y=needle marks on their arms

Z=Robert

In (d),

X=students

Y=age of less than 25 years

Z=Harold

The structure of (a) is:

Because Xs usually have Y, and
because Z is an X, Z probably
has Y.

The structure of (b) is:

Because patients with X usually have Y, X
probably causes Y.

The structure of (c) is:

Because Xs have Y, and
because people with Y do Z,
Xs probably do Z.

The structure of (e) is:

Because Xs usually have characteristic Y, most
Xs probably do Z.

2 The answer is (b). The last sentence and (b) both reason as follows:
X did (does) not cause Y, Y caused (causes) X.

In the original passage,

X=high infant mortality

Y=the indifference of parents towards their children

In (b),

X=lack of qualified workers in the poor sectors of an economy

Y=low wages

The structure of (a) is: It was
not X which caused Y, it was
Z which caused Y.

The structure of (c) is:

X does not cause Y,

Y happens whether X happens or not.

The structure of (d) is:

If X does Z, it harms X and Y.

The structure of (e) is:

It was not considered worthy for Xs to do Y, but many Xs did Y.

3 The answer is (a). (a) and the passage both have the following underlying structure:
In one case (or in some cases), the absence of X has not prevented the occurrence of
disastrous result Y.

Therefore, X does not have the disastrous results which it is supposed to have.

In the original passage,

X=rapid population growth

Y=political and economic decline

In (a),

X=smoking cigarettes

Y=chronic respiratory illnesses

(b) starts with a statement which could be seen as similar in structure to the first
statement of the original passage:

Using expensive paint (the absence of cheap paint) did not remove the need
to apply two coats (did not prevent the disastrous result of having to apply
two coats).

But the conclusion of (b) makes no reference to cheap paint not having the disastrous
results it is supposed to have.

(c) could also be seen as starting off in a similar way to the passage: Using less
energy (the absence of high energy consumption) will not prevent an increase in

oil imports. But there is no suggestion that using less energy has been claimed to have disastrous results.

Neither (d) nor (e) even begins with a similar structure to the original passage. (d) begins with:

X causes Y for some Z.

(e) begins with:

Some X are Y and Z.

Exercise 17: Applying and evaluating principles

Here are some suggested applications of the principles. You may have thought of different applications, so don't regard these suggestions as the only 'right' answers.

- 1 People who never travel by public transport should not have to pay that portion of taxes which subsidizes public transport.
- 2 We should not have laws which prevent people from engaging in dangerous sports, or which require people to take safety precautions when they take part in dangerous activities. (There is a problem in applying this principle, because of vagueness in the phrase 'harm others.' It is quite difficult to think of harm to one person which would have no impact on others—for example serious injury to a mountaineer is likely to cause some suffering to their family.)
- 3 Newspapers should be allowed to publish views which are insulting and offensive to particular groups or individuals.
- 4 Doctors should tell patients the truth about the seriousness of their illnesses, or about the risks involved in operations.
- 5 Suppose a friend has confessed to you that they were involved in a crime, and you have promised to tell no-one. You then find out that someone else is likely to go to prison for this crime, and that, apart from your friend, you are the only person who knows they are the culprit. This principle tells you that you should tell no one else the truth.

Exercise 18: Clarifying words or phrases

1 This argument concludes that in order to be beautiful, you only have to be *average*, rather than unusual. The evidence for this claim comes from an experiment in which pictures of faces which had been made up of parts of a number of individual faces were generally judged to be more attractive than any genuine individual face.

The word which needs clarification here is *average*. The composite faces in the experiment could be said to be average in the sense of being a sum of little bits of different people's faces (for example, the length of a nose might have been determined by adding up the lengths of 16 different noses and dividing by 16). But the conclusion contrasts being average with being unusual, which suggests that here 'average' is being taken to mean 'typical.' Someone whose face has the 'average' dimensions of the composite faces in the experiment may not be 'average' in the sense of being typical. Such a person may be very unusual.

2 This passage concludes that *empathy* is a necessary but not a sufficient characteristic for being a good citizen. The example used to show that empathy is necessary in order to be a good citizen is of people who lack empathy in the sense of lacking concern about the suffering of others.

But the example used to show that empathy is insufficient for being a good citizen (the businessman who understands the feelings of others, and uses this understanding to exploit them) appears to *define* empathy as understanding the feelings of others, rather than caring about the suffering of others. If empathy means merely understanding the feelings of others, then empathy is not sufficient for being a good citizen. But if empathy means both understanding and caring about the feelings and sufferings of others, then empathy is a good basis for being a good citizen.

3 This passage recommends that doctors should be *honest* with their patients, for two reasons:

- telling lies can lead to a breakdown of trust, and
- patients have a right to know everything about their medical condition.

This second reason is also used to support the claim that those patients who ask about their condition should be given truthful answers to their questions. This could be taken to suggest both that patients who do not ask about their condition do not need to be told, and that those who do ask do not need to be given more information than is included in truthful answers to their direct questions.

But being *honest* could be construed not just as 'not telling lies', but as 'giving all the information one has.' The second reason itself—that patients have a right to know everything about their medical condition—seems to support this second interpretation of 'being honest.' If doctors are to be told to 'be honest' with their patients, it has to be clear

whether this means simply ‘never tell lies to patients’ or ‘give full information to patients, whether they ask or not.’

Exercise 19: Writing a summary

In each of these answers a brief summary is given with which your summary can be compared. However, your summary can be a good one even if it does not exactly match the example, since you were asked to express the summary in your own words.

1 This passage is trying to convince me that awarding more generous damages to victims of medical negligence will not result in doctors giving treatment which is not tailored to the needs of patients, on the grounds that:

- doctors are more likely to avoid litigation if they tailor treatment to the needs of patients,
- doctors themselves do not pay the compensation,
- knowing that patients can sue for negligence may make doctors more careful.

The first of these three reasons is supported by the information that the decision as to whether medical negligence has occurred is judged against the standard of a ‘reasonably competent doctor’—a standard set by the medical profession, which must, therefore, be primarily concerned with whether the doctor has tailored treatment to the needs of the patient.

The second of the above reasons is supported by the claim that most medical accidents occur in hospitals, and payment of damages for such cases is the responsibility of health authorities, not of doctors.

2 This passage is trying to get me to accept that the results of IQ tests taken at an early age cannot be used to indicate future success in life, on the grounds that:

- measures of ability are not reliable unless they are collected at different points in an individual’s life,
- IQ tests cannot distinguish between the top few per cent,
- there are other influences on success in addition to intelligence (such as opportunity, the will to strive, socioeconomic status, gender).

Support is offered for the first of these reasons from the examples of Freud, Einstein and Picasso. Some evidence is offered to support the third of these reasons from the Terman studies, and the example of young Asians in America.

3 This passage is trying to persuade me that teenagers should be provided with the sex education and contraception they need to take control of their reproductive health, on the grounds that the next generation of children will be healthier if mothers can choose not to become pregnant until they are mature.

This reason is supported by the claim that, even for teenagers who are well nourished and have good quality medical care during pregnancy, their babies are much more likely to be premature and undersized than the babies of older mothers. The explanation offered for this is that teenagers have not finished growing, and thus the mother and the foetus may be competing for nutrients.

Exercise 20: Ten longer passages to evaluate

For this exercise, answers are provided for only three passages—numbers 1, 8, and 9. Each answer gives one possible analysis of the passage—your analysis may differ and yet be a good analysis. Your evaluation of the passage may also differ, because some of these issues are topical, and when you do your evaluation, you may be aware of new evidence which has come to light.

Passage 1

1 *Conclusion and reasons:* The passage is trying to get us to accept that the incessant crying of some babies during the first three months of life is not due to ‘colic’, but is due to distress caused by nervousness and anxiety in the mother. The reasons given for this are:

- ‘colic’ crying ceases, as if by magic, around the third or fourth month of life...at just the point where the baby is beginning to be able to identify its mother as a known individual;
- mothers with cry-babies are tentative, nervous and anxious in their dealings with their offspring, whereas mothers with quieter infants are deliberate, calm and serene; and
- babies are acutely aware of differences in tactile ‘security’ and ‘safety’, on the one hand, and tactile ‘insecurity’ and ‘alarm’ on the other.

2 *Assumptions:* There are two assumptions relating to explanations. The assumption which must be added to the first reason above is that the correct explanation of the baby’s ceasing to cry at three months is that a bond has been formed with the mother. The assumption which must be added to the second reason above is that the correct explanation of the connection between babies’ crying on the one hand and mothers’ nervousness and anxiety on the other is that the anxiety of the mother causes the baby to cry.

3 *Assessing reasons/assumptions:* Is it true that so-called ‘colic’ crying ceases at three months? Many mothers with ‘cry-babies’ would confirm this. Is it true that three months is the age at which babies form a bond with the mother? Since the baby cannot be asked about its feelings, we have to judge this from the baby’s behaviour. Psychologists observe behaviour such as eye contact, smiling at a familiar face, distress when a familiar

person goes away. Many psychologists accept that the process of forming attachments to mothers is gradual, but there is some evidence of it as early as three months.

Is it true that mothers with babies who cry a lot are anxious, whereas those with quieter babies are calm? Although the passage does not explicitly say that observations of a sample of mothers have been done, it seems to suggest that this is so. If such studies have not been done, they could be done and, provided a large and representative sample of mothers were chosen, they could provide strong evidence for or against this claim.

Is it true that babies are aware of differences in tactile ‘security’ and ‘safety’, on the one hand, and tactile ‘insecurity’ and ‘alarm’ on the other? Again, this can only be concluded from observation of their behaviour, and in order to evaluate the truth of the claim, we should look at any evidence which psychologists have produced. Both the assumptions we identified were to do with explanations, so we will consider their plausibility under 6 below.

4 Authorities cited: The passage does not refer to any authorities, but in order to evaluate the truth of the reasons, we would perhaps have to rely on the authority of psychologists who had observed the behaviour of babies.

5 Further evidence: Did you think of any additional information which would strengthen or weaken the conclusion?

6 Explanations: We identified two explanations. The first was that the cessation of the baby’s crying at three months is due to the formation of a bond between mother and infant. Even if we found good evidence of the formation of such a bond, it would not follow that the bond caused the cessation of crying. Another possible explanation for the cessation of crying is that some young babies do indeed have a physical problem, and that they cry because they are in pain. This is what is usually assumed by those who refer to the problem as ‘colic.’ They assume that the digestive system of some very young babies may produce a great deal of wind which can cause pain, but that such problems disappear as the baby grows.

The second explanation was of the fact that mothers with cry-babies are tentative, nervous and anxious in their dealings with their offspring, whereas mothers with quieter infants are deliberate, calm and serene. The explanation taken for granted was that the mother’s anxiety caused the baby’s crying. Another possible explanation is that the baby’s crying causes the mother’s anxiety. Perhaps one way to test which explanation is correct would be to take a sample of babies who were assumed to have ‘colic’, and to see if they cried less when looked after by someone who was calm and serene. One could in principle get additional evidence by taking a sample of quiet babies and seeing if their crying increased when they were looked after by someone who was anxious and nervous, but perhaps it would be ethically less acceptable to do this.

7 Comparisons: No comparisons are made in the passage.

8 Legitimate conclusions: No firm conclusions can be drawn from the passage.

9 Parallel reasoning: Perhaps you noticed that the reasoning relied on the assumption that because X and Y occur together, X causes Y. You can probably think of an example which shows that this conclusion does not necessarily follow.

10 General principles: The passage does not use any general principles.

11 Flawed reasoning: The chief weakness of the reasoning is that no evidence is offered as to why the explanations upon which the conclusion relies are the correct explanations. Perhaps the author knows that there is good evidence for such a view, but it is not presented in this passage.

Passage 8

1 Conclusion and reasons: This passage is trying to convince us of two things, that crime is likely to decrease, and that this decrease in crime will have disadvantages as well as benefits. It presents reasoning for two separate conclusions:

It is perfectly possible—indeed highly probable—that in Britain crime is now about to start a long period of decline.

and

There will be costs to falling crime.

You cannot complain in this example that the reasons are difficult to find, since the passage explicitly tells you that there are five reasons for the first conclusion, and obligingly sets them out labelled ‘The first’, ‘Next’, ‘Third.’ ‘Fourth’ and ‘Finally.’ These reasons are summarized below:

- (a) The number of crimes committed by the age group responsible for most crime (young men) is likely to decrease.
- (b) It is possible that unemployment, which has some association with crime, will decrease overall, and it ought to fall amongst the young.
- (c) Effective technological aids to crime detection are being developed.
- (d) Policing is becoming more effective.
- (e) Social attitudes are hardening against criminals—people are becoming more organized against crime.

There is a sixth point:

- (f) Taken together, the five factors cutting crime ought to have greater impact than each would have individually.

Reason (a) is given support by figures showing that the number of men in the age group 20–24 in the UK fell from 2.4 million in 1986 to less than 2.3 million in 1991, and was predicted to fall to 1.9 million by 1996, and slightly above 1.8 million by 2001.

We are not given much to support the claim in reason (b) that unemployment will decrease overall—merely that, looked at from a historical viewpoint, the high unemployment rates of the Eighties are unusual. In order to support the claim that unemployment amongst the young will fall, the passage relies on the idea that lower numbers of people in the age group 20–24 will reduce unemployment for that group.

Reason (c) is supported by examples of the use of video cameras in Airdrie and Bournemouth, which are claimed to have resulted in a drop in crime. Other technologies

which could help further are mentioned—a national DNA register, car immobilizers and the etching of photos on credit cards.

Nothing much is offered in support of reason (d), beyond the observation that the writer's colleagues who report on sport say that policing at football matches has improved.

The only support offered for reason (e) is the mention of neighbourhood watch schemes, and better co-operation between the police and the public.

Reason (f) is supported by the observation that as crime decreases, police and public become more confident, detection rates rise and crime becomes an unattractive proposition.

Now let us consider support for second conclusion—that there will be costs to falling crime. The reasons offered are:

- The changes will involve some restriction of individual liberties—we will have to become used to being watched as we shop, or simply walk up the street.
- Society may become more censorious—more hostile to people who do not conform to what other people regard as normal and proper.

2 Assumptions: What assumptions underlie the reasoning? First, assumptions relating to the first conclusion. There is an assumption—an additional reason—which must be added to reason (a)—that there will probably be no increase in crimes committed by groups other than young men.

It is not immediately clear what assumption goes along with that part of reason (b) which says that ‘the demographic change ought to reduce unemployment among the young’, because we need to clarify what is meant here by a reduction of unemployment amongst the young. Does it mean that the percentage of under-24s who are unemployed will fall? Or does it mean simply that because the total number of under-24s will be lower, the total number of unemployed under-24s will be lower? If it meant the latter, then it would not be adding to the point made by reason (a), so presumably it means that the percentage of under-24s who are unemployed will fall. This depends on an assumption that the number of jobs for people in this age group will remain roughly the same, or may increase.

In reason (c), it is assumed that the installation of video cameras in Airdrie and Bournemouth *caused* the reduction in crime. Reason (e) assumes that neighbourhood watch schemes can contribute to a reduction in crime.

We need to clarify what is meant in reason (f) by saying that the five factors ‘ought to have greater impact than each would have individually.’ Presumably it doesn’t just mean that five (or four, or three, or two) factors will have more impact than one. That would be so obvious as to be hardly worth saying. So what is meant here is that these factors reinforce each other, so that each one of them has greater impact than it would have alone.

There is also an assumption connected with the two reasons for the second conclusion—that being ‘watched’ by video cameras, and living in a more censorious society are ‘costs.’

3 Assessing reasons/assumptions: Let us consider first the truth of reasons relating to the first conclusion. The truth of reason (a) depends on the accuracy of the figures quoted, which could be checked from official sources.

The assumption connected with reason (a)—that there will probably be no increase in crimes committed by groups other than young men—is reasonable if figures generally show that other groups have a fairly low crime rate which has not been rising over recent years.

In relation to reason (b), we might first question whether unemployment rates make a difference to crime. This claim would be reinforced to some extent if figures show that when unemployment rises, so does crime, and that when unemployment falls, so does crime (though this would not necessarily show that there was a causal connection). The remarks made in the passage about unemployment giving a greater amount of time in which to commit crimes give some support to the claim.

The truth of the claim that unemployment could fall is questionable. Perhaps the high unemployment of the 1980s was due to some extent to modern technology reducing the number of workers needed. If so, there is no reason to think that the high unemployment rates in the 1980s, though unusual in relation to the past, will be unusual in the future. The assumption connected with reason (b)—that the number of jobs for people in the under-24 age group will not decrease—is likely to be true, provided there is no overall *increase* in unemployment.

It seems reasonable to accept that reason (c) is true, which involves accepting that video cameras deter people from committing crimes, and also improve detection rates.

Reason (d) is difficult to evaluate. Perhaps it is true that police performance is improving. It is not clear whether the author is claiming that the police are now preventing more crimes, or that they are detecting and solving more crimes, and thus bringing more criminals to justice. The example used in connection with this relates to crime prevention—the improved behaviour of football fans because of improvements in policing. Perhaps police figures could give some indication as to whether it is true that more crimes are being solved. It is clear that the author thinks that solving more crimes could eventually lead to a reduction in crimes committed, since he says that when detection rates rise, ‘crime simply becomes an unattractive proposition.’

To evaluate reason (e), we would need to look for figures which indicate an increase in the numbers of neighbourhood watch schemes. To evaluate the assumption that neighbourhood watch schemes can help to reduce crime, we would need to look at crime figures in comparable areas, some of which have, and some of which do not have, neighbourhood watch schemes; or compare crime rates in one area before the neighbourhood watch scheme was set up with crime rates after it was set up.

Reason (f), and its related assumption, that the five factors reinforce each other is also difficult to evaluate, though it does seem reasonable to claim that if crime comes down as a result of demographic changes, the police will be better able to deal with such crime as there is, and that improvements in detection rates will have a further impact on the amount of crime committed.

Now we must consider the truth of the reasons relating to the second conclusion. The first reason is acceptable. If surveillance cameras are to be used widely in order to deter and catch criminals, then we shall all have to get used to being observed.

The truth of the second reason is less clear. It is not obvious that a greater hostility to crime, and greater organization against it by the public will produce a society which is ‘more hostile to people who do not conform to what other people regard as normal and proper.’ It depends upon whether a clear distinction can be made between crime and nonconforming behaviour.

The truth of the assumption that these developments would be ‘costs’ is also dubious. No doubt it is true that if people who did not break the law, but merely had unusual lifestyles, were to suffer greater hostility, this would be a ‘cost.’ But we have challenged the truth of this reason. As for the other reason, it is not obvious that greater surveillance of, for example, shopping areas would be regarded as a cost by the majority of lawabiding citizens.

4 Authorities cited: No authorities are mentioned in the passage.

5 Further evidence: Additional evidence might be sought concerning the causes of unemployment and the causes of crime. If it were found that the current high rates of unemployment are due to technology making workers redundant, then this would weaken the claim that unemployment is likely to fall—or, at least, that it is likely to fall without government intervention.

The passage says little about what causes crime—beyond the comments about the relationship between unemployment and crime. If it were found that the increase in crime was caused by factors still operating in our society (the author does mention a possible link between drugs and crime), then crime could continue to increase, or remain at its present high level, despite the factors listed in the passage which, it is claimed, will lead to a decrease in crime.

Since this piece was written, a video has been released which is taken from closedcircuit television footage. It shows members of the public, who were unaware they were being filmed, in situations which they could find embarrassing to have publicly shown. This strengthens the claim that there is some danger to the liberty of individuals when surveillance methods are used. But perhaps this can be dealt with in the way recommended by some critics of the release of this video—by legislation to ensure that cameras are used only for security purposes, and to make the use of such material for entertainment a criminal offence.

6 Explanations: A number of explanations are referred to in the passage:

- that the fall in crime in Airdrie and Bournemouth can be explained by the presence of video cameras deterring criminals,
- that better behaviour at football matches is due to better policing,
- that the fall in crime in Scotland can be attributed to, amongst other things, neighbourhood watch schemes and better co-operation between police and public.

None of these explanations is implausible.

7 Comparisons: No comparisons were identified in the text.

8 Legitimate conclusions: No firm conclusions can be drawn from the information in the passage.

9 Parallel reasoning: No parallel arguments come to mind.

10 General principles: The argument does not rely on any general principles.

11 Flawed reasoning: The passage presents quite a strong case for believing that the factors identified could, in the absence of factors which might counteract their influence, lead to a reduction in crime. The weakest areas relate to unemployment and changes in policing. Even if unemployment is linked to high crime rates, no strong reason is given for believing that unemployment will fall. Perhaps it will not fall without direct government action—contrary to the author's claim that the envisaged reduction in crime has 'nothing to do with politicians'. The remarks about improvements in policing are not given support with concrete evidence.

Negative forces which might counteract the influence of these five factors are mentioned, but the author insists that because the five factors will reinforce each other, it is likely that they will turn round the alarming rise in crime. But perhaps these 'offsetting negative forces' will be stronger than the author thinks. Perhaps those who feel 'even more excluded and alienated' will increase their crime rate. Perhaps drug-related crime will increase.

The passage does not make a very strong case for the claim that our society is likely to 'become less exuberant, less interesting, and in some senses, less free' if crime falls. To some extent the strength of the case depends upon how we interpret the word 'free.' It is true that the greater use of surveillance equipment in the attempt to deter criminals will restrict our liberty in one respect—that in many public areas we will not be free to go about our business unobserved by the police. But if it reduces crime, then perhaps we will be more free in another respect.

Passage 9

1 Conclusion and reasons: This passage seems to be presenting reasoning on both sides of an issue, but does not come to very definite conclusions. It aims to get us to accept two tentative conclusions:

The statistical evidence for the claim that the disease BSE in cattle is causing human deaths is weak.

We should be cautious about accepting that BSE in cattle cannot cause human deaths.

The reasons offered for the first conclusion (with supporting basic reasons in brackets) are:

- If deaths from CJD—the human equivalent of BSE—were to show a steep rise, there would be good reason for public alarm.
- Deaths in Britain from CJD were few last year, and no more than those in France and Germany, where BSE is unknown.
- The substantial rise in recorded cases of CJD over the last few years is due to increased efforts to detect cases.
- Vicars are at greater risk from CJD than are farmers. (The incidence of CJD among farmers is no more than two per million; the incidence among vicars is 11.8 per million.)

The reasons offered for the second conclusion are:

- (a) BSE may be able to cross the species line to humans. (It can spread to cats, ostriches, antelopes, pumas and cheetahs—in all cases, it appears, through the use of infected feed in zoos.)
- (b) We cannot with absolute certainty rule out the possibility of a very nasty epidemic of CJD in Britain sometime around 2015. (Kuru, a disease similar to CJD, has an incubation period of thirty years.)
- (c) BSE among cattle has continued up to seven years after the ban on infected feeds and the slaughter of infected animals.
- (d) Reassurances from MAFF are unreliable. (MAFF has presided over a succession of agribusiness disasters, all brought about by its own policies + MAFF is under intense pressure to shore up the beef industry.) (e) The cause of BSE is not yet known.
- (f) A number of ‘People Who Know in the medical profession’ have given up eating beef.

2 Assumptions: Several assumptions lie behind the first conclusion (that statistical evidence is weak):

- Underlying reason (a) is the assumption that CJD in humans could be caused by the same agent which causes BSE in cows.
- Underlying reason (c) is the assumption that the correct explanation of the rise in recorded cases of CJD is not that there are more cases, but that more of the cases get recorded.
- Additional to reason (d) is the assumption that if BSE could cause CJD in humans, we would expect the risk of CJD to be greater for cattle farmers than for vicars.

The second conclusion (that we should not dismiss the threat to humans from BSE) is supported by an assumption underlying reason (a), that if BSE can spread to cats, ostriches, antelopes, pumas and cheetahs, it can also spread to humans.

3 Assessing reasons/assumptions: Most of the basic reasons concern statistics about the incidence of disease, or medical or veterinary facts. Our only means of checking the truth of these reasons is to read the appropriate reports.

4 Authorities cited: The passage itself calls the reliability of MAFF into question—on the grounds both that it is inefficient, and that it has a vested interest in making the public believe that it is safe to eat beef. We may not be able to assess its efficiency, but the point about its vested interest seems sound.

The passage relies to some extent on the authority of ‘People Who Know in the medical profession’ (for example, Sir Bernard Tomlinson). There is no reason to doubt the truthfulness of such people—they do not have a vested interest in making people believe that eating beef is dangerous. However, they may not be in a better position than anyone else to judge whether BSE can cause human deaths, especially if it is true that no one knows what causes BSE and whether it can cross the species barrier to humans. Moreover, if they see cases of degenerative brain disease in the course of their work, this may make them more worried than they need to be about the possibility that eating beef causes such disease.

5 Further evidence: Can we think of any evidence which would strengthen or weaken the conclusions? The passage mentions the sheep disease scrapie, which is similar to BSE and which may have been the initial cause of the BSE outbreak; this disease could be related to the incidence of CJD in humans.

It is sometimes pointed out that in Scotland people have been eating mutton pies containing sheep's brains for years, and yet there have still been very few cases of CJD. However, it is possible that there have been more cases than have been officially recorded.

One thing which is not mentioned in the passage is that all three diseases—BSE, CJD and scrapie—can be positively identified in a victim only by examination of the brain after death. So it is possible that there have been deaths from CJD which have been attributed to other causes, without a post-mortem examination taking place. We cannot be certain, then, that the relatively low number of recorded cases of CJD, together with the prevalence of scrapie, weakens the claim that such diseases can cross the species barrier to humans.

Another piece of evidence which is sometimes mentioned is that in some zoo animals, offspring of mothers which have died of BSE have developed the disease, even though they have never eaten infected feed. If, unlike farm animals, these zoo animals have not been exposed to organo-phosphorous treatments, it seems likely that the disease can be passed from a mother to its offspring. This could explain why the disease has continued after the banning of infected feed, and could suggest that the disease will be difficult to eradicate among cattle, but it does nothing to strengthen the claim that the disease can be passed to humans.

6 Explanations: We identified the explanation for the increase in recorded cases of CJD—that there are more recorded cases, because a greater effort has been made to identify cases. This is a plausible explanation, but no more plausible than that cases have actually increased in number. It is difficult to see how to settle which of these two is the correct explanation.

7 Comparisons: No comparisons were identified in the text.

8 Legitimate conclusions: No very firm conclusions can be drawn from the information in the passage.

9 Parallel reasoning: No parallel reasoning comes to mind.

10 General principles: No general principles can be identified.

11 Flawed reasoning: There appears to be some inconsistency in the case for the first conclusion. Reason (a) tells us that if deaths from CJD—the human equivalent of BSE—were to show a steep rise, there would be good reason for public alarm, and reason (c) tells us that there has been a substantial rise in such deaths, but that this is no good reason for alarm, because the explanation for the rise is that more effort is now being made to record cases. However, if the explanation is correct there is no inconsistency. The problem is that it is difficult to know which is the correct explanation.

Another problem with the evidence for the first conclusion is the claim that the risk of CJD for farmers is less than that for vicars, a claim based on figures showing that the incidence of CJD among farmers is no more than two per million, whereas the incidence among vicars is 11.8 per million. If vicars are a very small group relative to farmers, then just a few cases amongst vicars could produce a higher figure per million, even if there were very many more farmers than vicars who actually died from the disease. It is not clear whether the figure of two cases per million applies to cattle farmers or to farmers in

general. So we cannot draw the conclusion that being a cattle farmer does not put one at greater risk of getting CJD, unless we know more about the size of these groups.

The passage produces some good reasons for its tentative second conclusion—that we should be cautious about accepting that BSE in cattle cannot cause human deaths—but this is partly because the conclusion is so tentative. If a number of species other than humans can get BSE from eating infected feed, it is possible that if humans eat infected animal products, they can get the human form of BSE; and it is possible, since the BSE epidemic continues, that some animal products eaten by humans are infected with BSE.

What we really would like to know on this issue is whether there are good enough reasons for us to stop eating beef. If CJD is more common amongst cattle farmers than amongst the general population then CJD could be caused by something which cattle farmers *do* which the rest of the population do not do. There is no reason to think that cattle farmers eat more beef or drink more milk than the rest of the population. So perhaps organo-phosphorus is a cause of both BSE and CJD, since cattle farmers are likely to handle organo-phosphorus but the rest of the population are not. However, it is also true that cattle farmers are likely to handle animals infected with BSE, and perhaps CJD can be contracted in this way.

However, even if handling organo-phosphorus or handling infected animals causes CJD, this does not mean that eating animal products infected with BSE could not cause CJD. There is some evidence in the passage that BSE can be caused by infected feed—the description of the outbreak first occurring after feed had become infected, and the claim that zoo animals have contracted the disease from infected feed. Suppose BSE *is* caused by eating infected feed, then if humans eat infected food (such as beef or milk), they could get CJD in this way, assuming that CJD and BSE have the same cause.

There is also some evidence that infected feed may not be the only cause of BSE—that the disease continues to affect cattle despite the ban on infected feed. Unless all the cases now occurring are in animals which ate the infected feed before the ban, then, assuming that the ban has been observed, there must be some other cause or causes of BSE. But if there are other causes, we do not know what they are, and organo-phosphorus may not be one of them. It is possible that continuation of the outbreak is due to the transmission of the disease from cows to their calves.

No evidence is presented that organo-phosphorus is the cause of BSE. Suppose it is, then the general population could be at risk of getting CJD by eating animal products, if organo-phosphorus can get into beef or milk, and if it can cause the disease by passing through the digestive system.

There are clearly a number of questions we would want to ask of scientists here:

- Do BSE and CJD have the same cause?
- If BSE is caused by an infective agent in animal feed, could this infective agent get into the meat or the milk which comes from animals which have BSE?
- If BSE is caused by organo-phosphorus, could organo-phosphorus get into the meat or the milk which comes from animals which have been treated with organo-phosphorus?
- Could ingestion of organo-phosphorus by humans cause degeneration of the brain?

The problem is that scientists have not yet discovered the answers to these questions. So anyone wanting to decide whether it is safe to eat food products from cattle has to base the decision on whether it is wise to expose oneself to a potential but unknown risk of getting a fatal disease.