

# Week 2

## Perception



**Question:** How does the way our brains perceive information, impact on what we understand? Why does the brain sometimes make mistakes? How might this cause communication breakdowns?

### 3 Perception



We have probably all heard someone passing comments such as: 'he's one-eyed' or 'she's short-sighted'. When we make these statements we do not necessarily mean that anyone has a vision problem, even though this might be the case. More often than not the comments are made because we have perceived a situation differently from the way someone else has.

One place where many people suffer from these perceptual problems is at football grounds at the weekend. People make inferences about the ability of the referee to see anything clearly, and at one time or another during a game supporters of both teams disagree with a ruling, claiming an 'unfair' advantage to the opposing team. We have all heard someone shout from the crowd: 'Hey ref, you need glasses!'

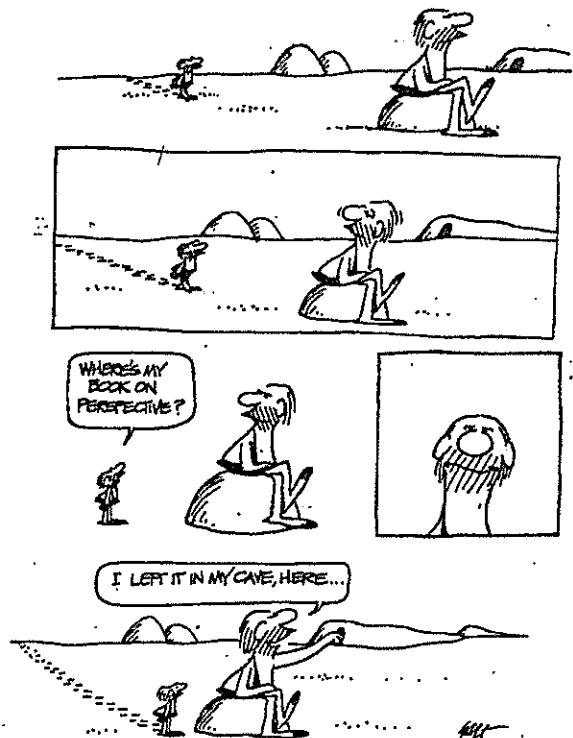
Football grounds are but one place where perceptual problems occur. When perceptual problems occur it is inevitable that the communication will break down. When a person fails to see another person's viewpoint, quite often an impasse is reached. People blame one another or find scapegoats to accept the blame for the breakdown.

From Sadler R K & Tucker K (1981) Common Ground -  
A Course in Communication Macmillan Press, Melbourne  
pp 24-37

# Week 2

## Perception

... the art of being understood or communicating effectively

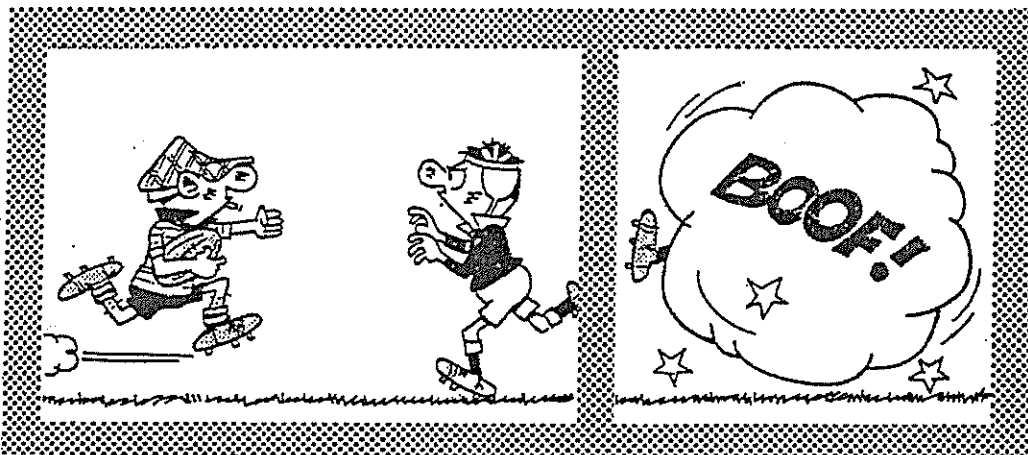


### Activity 3.A What did You See?

Compare these oral reports presented to a football committee after a player had been sent off in a football match.

**Player One:** It had been a long hard game and I think everyone's temper was frayed. The incident occurred only about five minutes before the end of the match, when I tackled the other player. I suppose I tackled him fairly hard but that's the only way to keep 'em down. I didn't put my knee in, though. The next minute he got up and smashed me in the face, so I just lost my block and flew into him. Then I was sent off!

**Player Two:** He (player one) had it in for me right from the word go. Everytime he came anywhere near me he'd either kick me or try to maim me with his knees or elbows. Even in the last round when we played their team it was 'on'. They haven't got one player who tackles without trying to kill you. It was only a couple of minutes before the end of the match when he tackled me. The referee had acknowledged the tackle and he wouldn't get off me. So I flew into him. Then before I knew where I was, half the other teams were into it.



Now, answer the following questions.

1. The reporting of the incident by the respective players varies. Compare the players' descriptions of the specific events that comprised the total incident. How do the reports differ?
2. What 'generalizations' did both players make? How do these generalizations alter the perception of the incident from both sides?
3. Do you think any details are omitted from either report? If so, what are they? Why have the players chosen to ignore these details?
4. It is obvious that both players while being involved in the one incident, perceived it differently: what are the main reasons for this differing perspective?
5. How do you think the referee 'saw' the incident? What events may have led up to the incident?

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6. Both players were involved in the incident. In the heat of the moment, tempers flared, but neither player thinks he is to blame. Because of their involvement, the player's reports are subjective. The man who is supposed to have an unbiased or objective report is the referee. Write his report to the committee. Then have several members of the class read their reports to the class.

Perception is the mental process by which we make sense of the stimuli we receive through our senses. The *Concise Oxford Dictionary* defines 'perception' as 'intuitive recognition' or 'the action by which the mind refers its sensations to external objects as cause'.

In the section that follows we will explore some of the devices we use when we process information mentally, in the act of perceiving. But before we do, try this quick test.

### Activity 3.B Perception Test

1. Arrange the letters O W D E N A R W to spell a new word—but not a proper name, nor anything 'foreign' or unnatural.
2. Allow 30 seconds for this question: If one face of a cube measures 3 cm x 5 cm, what is the area of each of the faces, and what is the total area of all eight faces?
3. Quickly now, how many animals of each species did Adam take aboard the Ark with him? (Note, the answer is not how many pairs but how many *animals*.)
4. Figure out this problem in diplomatic relations: If an international airliner crashed exactly on the French–West German border, where would they be required by international law to *bury* the survivors? (If you cannot work this out in 30 seconds go onto the next question.)
5. If a doctor gave you three pills, and told you to take one every half hour, how long would it require for you to take all of them?
6. Two men played chess. They played five games, and each man won three. How do you explain this?
7. A man living in Wodonga, Victoria, cannot be buried over the border in New South Wales, nor in the Australian Capital Territory, even by the special intervention of the Prime Minister. Why is this?
8. The strange pronunciation of British names: Well you probably wouldn't be caught on C-H-O-L-M-O-N-D-E-L-E-Y or even S-I-D-E-B-O-T-H-A-M, but how about M-A-C-H-I-N-E-R-Y?
9. A farmer had 26 sheep. All but eleven died. How many did he have left?
10. An archaeologist reported finding two gold coins dated 56 BC. Later, at a dinner in his honour, he was thoroughly and openly discredited by a disgruntled fellow archaeologist. Why?
11. If you have only one match, and entered a room to start up a kerosene lamp, an oil heater and a woodburning stove, which would you light first—and why?
12. Quickly now: Divide 60 by  $\frac{1}{2}$  and add ten.

Check your answers at the back of the book.

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In checking your answers, one of the first things you may have noticed is that not all of the questions have only one answer. Yet when you are answering the questions, we find *an* answer, and then move on to the next question.

### Activity 3.C Follow Up

Discuss the following questions that relate to your performance in the test.

1. On completing the test and marking it, how many students counted up their total out of twelve? Why do we find a need to tally our results?
2. Even if you have seen this test before, why might it still be possible to make a number of errors in the test?
3. What has the test revealed about your reading skill?
4. What does the test reveal about our 'rigidity'; 'capacity to generalize'; 'creativity'; and 'awareness'?
5. Why is the test included in this section on perception?
6. Has the test told you anything about yourself?

When we perceive we select, organize and interpret stimuli or information until it has meaning for us. This does not mean that it has the same meaning for other people.



## The Perception Process

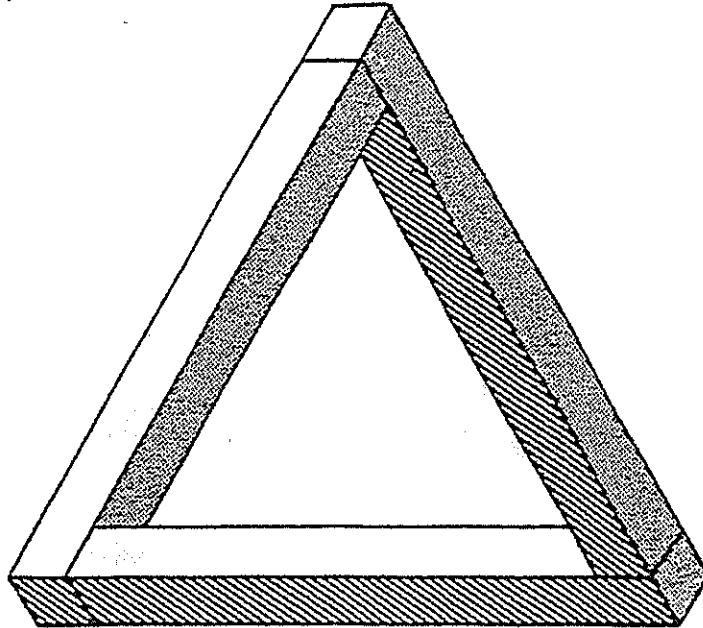
In Chapter 1 we looked at the process by which we interact with others. In the second chapter on information theory we examined the messages we construct and send. In this chapter we are examining the third component of the communication network, perception. A study of perception enables us to examine the cognitive structures that we use when we are selecting, organizing and interpreting stimuli. Basically, we are examining how people process information and ideas, and how they derive their meanings. This perceptive process forms the basis for our communication and understanding.

### Activity 3.D Optical Illusions

On the following pages are a number of illustrations that involve optical illusions. Examine them carefully, then read the text that accompanies each figure.

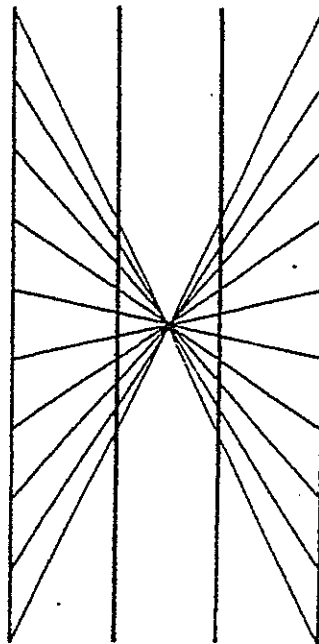
1. Figure 1 can only be drawn. It is impossible to construct. Examine each corner. Now try to take in the whole object.

Fig. 1



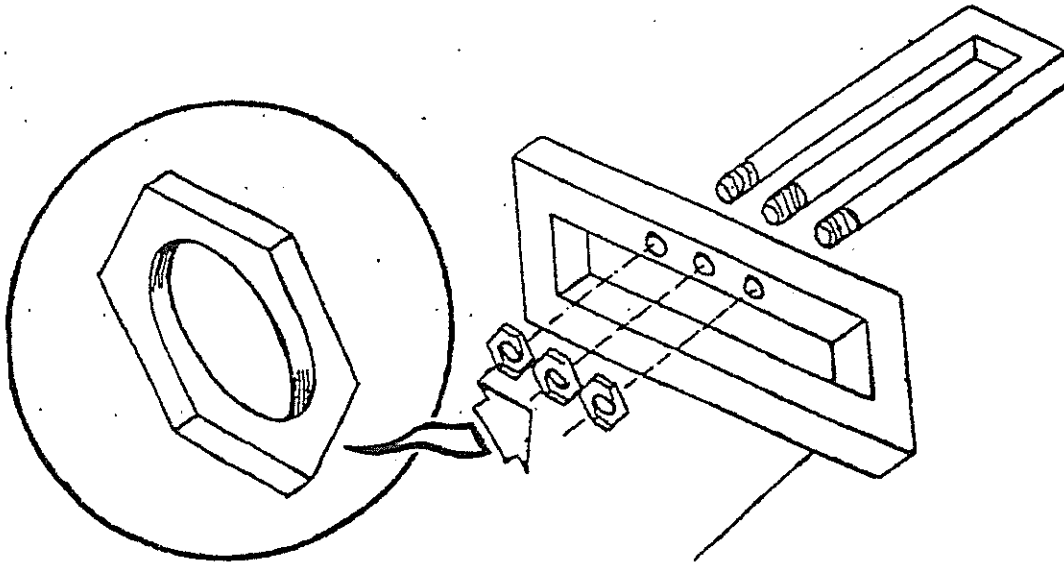
2. In Figure 2, knowledge that the four vertical lines are parallel does not help with the perception of this figure. The lines radiating out from the centre bend the centre lines.

Fig. 2



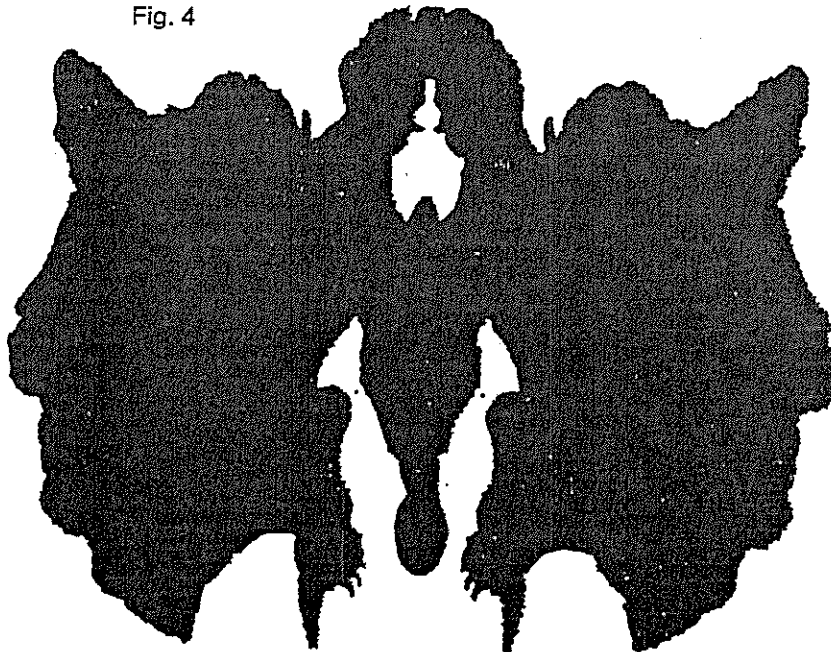
3. Three impossible objects are included in Figure 3 to form an engineer's nightmare.

Fig. 3



4. Figure 4 is one inkblot . . . but what can you find in it?

Fig. 4



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5. In Figure 5, Danish psychologist Edgar Rubin developed this 'reversible pattern' in 1915. Can you see both patterns at once?

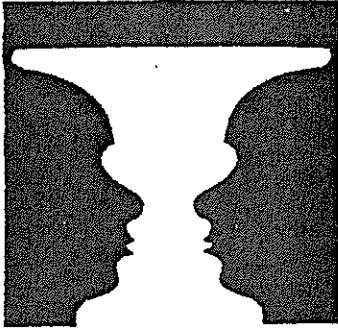


Fig. 5

6. A cartoonist, W. E. Hill, originally published this illustration (Figure 6) in 1915 as 'My Wife and my Mother-in-law'.



Fig. 6

## Aspects of Perception

The nine sections that follow will help you understand why perception is so important to communication.

1. Our ability to receive stimuli or information through our senses is limited.

Rubin's 'reversible pattern' in Figure 5 and Hill's 'Wife and Mother-in-law' in Figure 6 provide useful illustrations of this point. Rubin maintained that you cannot see both the twin boys (the black pattern on white) and the goblet (the white pattern on black) at the same time. You virtually switch off one image, then

switch on the other image. Two distinct fixations or stops are made with the eye. The same holds for Hill's illustration. You have to switch from the young woman to the old woman and back again.

### Activity 3.E How Much Information can you Absorb?

The teacher or a student collects a series of five photographs from newspapers or magazines. They can be photos of people, actions or even scenes. Do not show them to the class.

Five people leave the room. The first person to come in studies each photo carefully. He can take as long as he likes. It is his responsibility to invite the next person in and give that person a description of the five photos orally. Now, the second person gives an oral description to the third person, and so on. It is useful if you tape record the proceedings to see how the information is reduced in subsequent rounds.

When you have finished, play the tape back, show the photos to the participants and discuss these questions.

1. How much information was lost?
2. What type of detail was remembered and passed on?
3. What details survived to the last person? Why do you think they remembered those details?

There is a limit to how much you can see when you go to the movies; there is a limit to how much you can hear when you go to a concert.

*Concertgoer:* It's a pity the cellist was off-key.

*Friend:* I didn't know there was a cello in the group!

If we ever have the opportunity to see a movie a second time, there always seems to be things we 'missed' on the initial viewing.

### 2. Everyone has a different capacity to take in stimuli or information.

Our ability to use our senses effectively and with acuity is determined by the amount of exercise we give each of our senses. Most sighted people do not use their hands and ears as efficiently as they would if they were partially sighted or blind.

### Activity 3.F Making the Most of Our Senses

1. Close your eyes (without falling asleep) and listen for all the different sounds both inside and outside the room. Do this for two minutes. List the sounds. Compare your results with a person near you.
2. Blindfold one person and stand him/her at the front of the room. Five people should now come out and stand in a line across the front of the room. Remove all rings and watches from your hands and wrists. The blindfolded person should move along the line feeling the hands of the five people, trying to identify them. The 'five' should now sit down. Can the blindfolded person find the 'five'? Why? Why not?

Magicians capitalize on speed of movement and distraction to create visual illusions. 'Now you see it, now you don't.'

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**3. We select or filter stimuli or information from around us.**

Most of the time we only see what we want to see and hear what we want to hear.

*Car driver:* Did you see what that clown in front of us did?

*Passenger:* No, but I saw the red light you just drove through!

They say that beauty is in the eye of the beholder.



**Activity 3.G Filtering Information**

Collect six real-estate advertisements from the press and examine the language that is used. When you have collected and examined the advertisement, answer the following questions.

1. What features of the homes are described?
2. Why do you think this information has been selected for publication?
3. How has the information been filtered? What expressions have been used to describe features of the house?
4. How can this filtering affect your perception of the house?

**4. We organize and interpret stimuli and information according to both our past experiences or 'frame or reference' and the situation or environment in which they occur.**

'I don't eat meat, so therefore the family suffers. When John and I go out he usually orders a pepper steak or a T-bone to compensate. The other night we were visiting friends and we took the kids along with us. We were invited to stay for dinner. When my eldest boy who is six years was asked if he would like a chop to eat, he turned to me and said "Mum, what's a chop?"'

At times it is not only what we say but the way we say it that affects the perception others may have of us. We do not know whether grocery items are expensive or not unless we check the price in another store, in a newspaper or with a friend.

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- How wet is a 'wet' season? To someone living in a hot desert compared to someone living in the tropics.
- How hot is a 'hot' day? To someone living in London compared to someone living in Sydney.
- How fast is 'fast'? To a camel driver compared to a race-car driver.

The perceptions that we have are relative to the situations in which they occur. When we find ourselves in foreign countries or unfamiliar surroundings we no longer have the referents on which to base our perception. The judgements we make have little basis for comparison. We may have to establish new behaviours to comply with the behaviours of those around us. Sometimes we may need to have 'behaviours' interpreted for us. The inquisitive tourist when overseas may continually ask questions about what he/she hears and sees. The tourist is creating a 'frame of reference' in order to try to understand what would otherwise be regarded as strange behaviours to that person.

**5. We tend to generalize from our previous experiences, no matter how specific or isolated these experiences were.**

Sometimes we pinpoint certain features of a person's speech, dress, posture and so on, and only attend to these specific attributes, but in so doing, make sweeping generalizations about that person. Often we view events out of context, and in so doing obtain an unrealistic perspective of what has happened.

When we generalize about the behaviour of certain groups of people we are 'stereotyping' them. In order to see how this occurs, complete the following exercise.

**Activity 3.H Stereotyping**

1. Write down your impressions of descriptions of the following people:
  - (a) a grandfather
  - (b) a customs officer
  - (c) a mother-in-law
  - (d) a movie star
  - (e) a union boss
  - (f) a leader of a country
  - (g) a public servant
  - (h) a mother
  - (i) a television news reader
  - (j) a greengrocer
  - (k) a car salesman
  - (l) a policeman
2. Compare your impressions with the impressions of a friend. Then answer the following questions.
  - (a) How similar were your impressions or descriptions?
  - (b) To what details did each of you attend?
  - (c) How did these details form the basis for your overall impression of that person?
  - (d) How much access have you had to each of the people listed? How did this access or lack of it affect your perception of each person?

3. Now compare the stereotypes with those of other members of the class.
  - (a) Of the people in the above list, which person was most easily stereotyped? Why do you think this occurred?
  - (b) How are the generalizations that we make about mothers and grandfathers different from those that we make about movie stars and union bosses?

**6. We perceive things as whole units; we pattern information.**

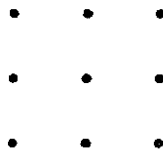
This idea has already been developed to some extent in Chapter Two, when we were examining redundancy and repetition. In that section of Chapter Two there are a number of exercises where patterning is needed to be able to complete verbal statements. (See page 17) The way to complete the statements is to identify the pattern. In some sentences vowels were left out; in other sentences whole words were left out; but because of the patterning of our language, you could still read the sentences.

Surrealist painters cause some people to have nightmares. Claims are made that surrealistic paintings are 'not really art' or that they are 'just silly'. One possible reason for these claims is that viewers of the painters cannot find patterns emerging, as is the case with realistic painting. Images appear in random arrays; objects are associated that we do not normally 'see' together.

Musical notes have no form until they are heard as part of a 'piece' or 'score'.

If you turn back to the figures presented earlier in this chapter, particularly Figures 1, 3 and 6, you can best appreciate this point about patterning and viewing whole units of information. With the impossible triangle, try to distance yourself sufficiently to take in the whole shape. What happens when you do this? What happens with Figure 3 under the same conditions? You have to take in the whole of Figure 6 in order to be able to see either the 'wife' or the 'mother-in-law'.

**Activity 3.1 Seeing and Perceiving**



1. Join the nine dots using four straight lines, without lifting the pen from the page. How does this exercise provide an example of the above point?
2. C O S      What is the key to the patterning  
X L N      for each of the three lines?  
B D G

There are two further ways in which you can test this 'patterning' concept. When you are listening to the radio, see how long it takes to identify a piece of music (preferably when they do not announce it!). Take a newspaper photo and examine it with a magnifying glass. You will see that it is made up of a series of dots. Now move back from the photo to see the dots merge to form the picture.



**7. Our feelings, emotions, attitudes and aspirations flavour our perceptions.**

The first exercise in this chapter gives a graphic illustration of this point. Two footballers were both convinced that they were right. Not being at the football ground at the time of the match, we are not in a good position to judge who was right and who was wrong. Even if we had been at the ground I doubt whether or not we could have provided a totally objective view of the situation. Even the referee was in a dubious position. I wonder how many of the altercations between the two players the referee saw leading up to the 'final showdown'?

Quite often in work situations people come into conflict because of their attitude towards work and the conflicting attitudes of the people with whom they have to work.

Jack Collins had a 'bad' work report filed against him by his foreman. The report was directed to the supervisor of the section. In retaliation Jack submitted a report about the behaviour of the foreman.

Jack was overheard in the corridor last Friday saying to a friend that everything he had said about his boss in the report was true.

The foreman too maintained that everything that he had written about Jack was true.

We seek support from our friends, colleagues and family in reinforcing the perceptions that we have of others. This is the case particularly when we have come into conflict with others, when people do not share our view.

**8. We become defensive when other people seem to be unable to acknowledge our point of view or interpretation of a situation.**

Jack Collins became defensive because of the implications of what was written in the report. In the foreman's eyes everything that had been written was true. This is where so many problems occur in communication. Not in the sending of a message, or the selection of a medium through which to send the message, but in the heads of the people communicating. Both Jack and the foreman had a right to maintain that there was *truth* in their respective statements.

In Chapter 17 we develop further this theme of self perception and attitude formation.

**9. We need to be able to develop an 'empathic relationship' in order to be able to fully understand the other person's point of view.**

Some people, like the King from 'The Wizard of Id' fail with their interpersonal communication because they place barriers between themselves and others.



'Empathy' implies more than simply acknowledging someone else's view point. Empathy involves the projection of one's 'self' into the feelings of others in order to comprehend completely how they feel, or to comprehend why they are behaving as they are. Empathy implies a psychological involvement; the relationship must go beyond the superficial. Quite often because of this, people avoid situations that involve emotional contact with others.

## The Mind's Eye

The following extracts from Edmund Carpenter's book *Oh, What a Blow That Phantom Gave Me* (Paladin, London, 1976) further illustrate how the perceptive process operates.

All peoples have the same senses, though not all use them alike. Eskimos have the same eyes as I do, but, though my vision is 20/20, they spotted seals long before I did and continued to watch them long after the seals had disappeared from my sight.

Any sensory experience is partly a skill and any skill can be cultivated.

Charlie, blind since the age of two, spoke with a West Virginia drawl: 'Well, my daddy and me enjoyed deer huntin' every fall. I got to know the sound—twigs breaking—even the weight, just be the way it sounded. My daddy sure was surprised when I got the deer first. He hadn't seen . . .'

Charlie had worked hard to learn to shoot accurately by sound. He used a can with a few pebbles for a target, swinging it just enough to hear.

Wilfred Thesiger, in *Arabian Sands*, tells of a desert Bedouin reading camel tracks: A few days later we passed some tracks. I was not even certain they were made by camels, for they were much blurred by the wind. Sultan turned to a grey-bearded man who was noted as a tracker and asked him whose tracks these were, and the man turned aside and followed them for a short distance. Then he jumped off his camel, looked at the tracks where they crossed some hard ground, broke some camel-droppings between his fingers and rode back to join us. Sultan asked, 'Who were they?' and the man answered, 'They were Awamir. There were six of them. They have raided the Junuba on the southern coast and taken three of their camels. They have come here from Sahma and watered at Maghshin. They passed here ten days ago.'

It's simply a question of training, though that training isn't simple. Reading tracks involves far more than just knowing where to look. Everything smelled, tasted, felt, heard, can be as relevant as anything seen. I recall being out with trackers once and when I stooped to scrutinize the train, they stepped back, taking in the whole. Interpenetration and interplay of the senses are the heart of this problem.

No sense exists in total isolation. Run water into the bath while switching the light on and off—the sound appears louder in darkness and its location is easier to determine. Teach a soldier to strip and reassemble his rifle, then ask him to do it blindfolded and you will find he almost always does it faster without sight. Taste and smell seem stronger in the dark, which may be why

*EB*

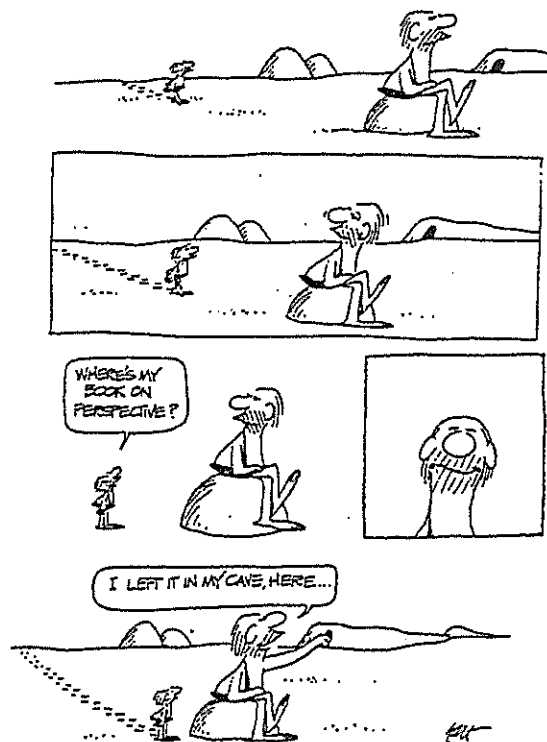
good restaurants are candle-lit. Darkness certainly makes love-making more interesting.

All peoples control their senses, though not always consciously. In our culture, librarians post signs reading SILENCE; concertgoers close their eyes; museum guards warn, 'Don't touch!' Most of us know someone who puts on his glasses before talking on the phone.

How do you think you would react to the following event that Carpenter observed at Mingende Catholic Mission in New Guinea in 1969?

Over a thousand worshippers came to Mass this Sunday, many decked with flowers and feathers, their faces painted, their bodies covered with clay. A few old men were armed, for display, not defence. One woman nursed a baby on one breast, a puppy on the other. Marvellous singing filled the high, old church with its earth floor and log pews. Men with large shells hanging from their noses had to lift these to take Communion. Between services, several clawing, mud-rolling brawls broke out between jealous women, egged on by whooping spectators, but a calm priest slowly drove an ancient truck into each crowd, breaking up the fights, then returned to perform the next Mass. One man wore a photograph of himself on his forehead, in front of his feathers; friends greeted him by examining his photograph.

If we can develop a better understanding of how the perceptual process operates, then hopefully we have a better chance of communicating effectively with others.



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# ANSWERS

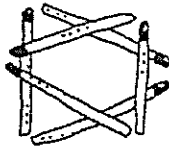
## Activity 3.B Perception Test

- 'A new word'.
- (a) A cube has regular or square sides, e.g. 3 cm × 3 cm.  
(b) A cube has six faces.
- If Adam was on the Ark, who was in the Garden of Eden with Eve?
- You do not bury survivors.
- One hour.
- The men were not playing one another.
- The man is living.
- (a) This is not a question.  
(b) Machinery is not a British name.  
(c) Syllabification does not help with the pronunciation of these names: Cholmondeley is pronounced 'chum-ley' and Sidebotham is pronounced 'Side-baum'.
- Eleven.
- You could not date coins BC.
- The match.
- $(60 + \frac{1}{2}) + 10 = 130$  not  $30 + 10 = 40$ . The question is asking 'how many  $\frac{1}{2}$ 's are there in 60, then add 10.'

## Activity 10.G Brain Teasers

- Say the soldiers are on side X of the river and the boys and boat are on side Y. One boy rows the boat from Y to X, gets out and one soldier rows back to side Y. The soldier gets out at Y, the second boy gets in the boat and rows to X. Both boys now row back to side Y. These four steps have to be repeated for every soldier carried from side X to side Y.
- Call the slices of toast A, B and C. Toast A and B on one side for 30 seconds. Remove A, turn B and add C to the pan. Toast B on the second side, C on the first side for 30 seconds. Remove B, add A and toast A and C on the second side for 30 seconds. Thus it takes one and a half minutes to toast all three slices of toast on both sides.
- Using a trial and error approach, you will be able to establish that the Japanese owns the zebra and the Norwegian drinks water.
- He piled the earth in a mound until he reached the skylight.
- Put the trousers on backwards.
- Three of diamonds, four of diamonds, four of hearts.
- Twelve.
- Ten centimetres. Since it is the record that turns and not the stylus that travels round the record, the number of grooves is irrelevant to the problem. From the outer margin, the stylus travels 10 centimetres towards the centre of the disc—half the diameter, less the sum of the outer blank and half the inner blank.
- She had been waiting inside a building.
- \$15. The horse cost \$70 and the pig \$15, a total of \$85.
- As easily demonstrated, this is a physical impossibility.
- Pick up the coin at the top of the longer leg and place it on top of the coin where the two legs meet. You now have five coins in each leg.
- Drop the egg from a height of 2.1 metres. It will not break until after its 2-metre fall.
- Fold the note in half lengthwise, then fold each half again, lengthwise, giving the note an accordion look. Now it is strong enough to support the coin.

15. Voilà!

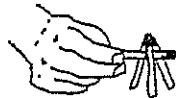


16. As soon as he begins taking off his shoes, you do the same with your own. Get it?

17. Using two hands, carefully roll up one end of the dollar. When the rolled portion reaches the bottle, keep rolling—gently—to nudge the bottle off the note without touching it.

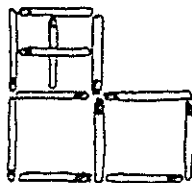


18. Arrange the three matches in a tripod, Indian-tepee style. (Wooden matches work best.) Set their heads afire with the fourth match. Blow the flame out. The three matches will be fused, so you can lift them with the fourth.

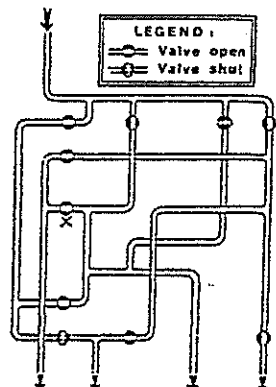


20. The two mothers and two daughters consisted of a grandmother, a mother and a daughter.

19.



21.



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