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Social Perception and Attribution

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KEY CONCEPTS

actor–observer difference
analysis of non-common effects
attributional bias
augmenting principle
causal power
causal schema
central trait
cognitive algebra
configural model
consensus information
consistency information
correspondence bias
correspondent inference theory
covariation theory
depressive realism
discounting principle
distinctiveness information
false consensus bias
implicit personality theory
learned helplessness theory
naïve scientist model
peripheral trait
primacy effect
salience
self-fulfilling prophecy
self-serving biases



CHAPTER OUTLINE

How can we tell what other people are like? How do we explain their actions and experiences (and our own)? This chapter introduces research intended to answer these questions. Studies of *social perception* show that impressions of others depend on what information is presented, how it is presented, and on prior assumptions about how it fits together. Research into *attribution* demonstrates that perceivers consistently favour certain kinds of explanation over others. Our impressions and explanations are also shaped by our specific reasons for constructing them. In particular, we present social events in different ways to different people under different circumstances. Both social perception and attribution therefore involve communication in combination with private interpretation.

Introduction

Can you remember when you first met your closest friend? How quickly did you get a sense of what he or she was like, and of how well you would get on together? Did your impression turn out to be correct, and if not, where and why did you go wrong?

Now imagine that instead of meeting another person face to face, you are told about them by someone else. When we describe other people, we often refer to their traits (relatively consistent personality characteristics or abilities) or dispositions. Peculiar as it might seem, let's suppose that the only information you are given is the following list of traits:

intelligent – skilful – industrious – warm – determined – practical – cautious

How easily did you form an impression this time? Did you reach your conclusions in the same way as when you first met your friend? Are you as certain that your judgement is correct?

It is unusual to meet someone without knowing anything about them. Even if you haven't been told what to expect, the specific location for your meeting (a bar, concert or supermarket) can be revealing. You can already tell that they must be the sort of person who goes to a place like this, and this *category information* may provide sufficient evidence for your purposes (see Chapter 4, this volume, and Fiske & Neuberg, 1990). However, we sometimes start with very few clues and need to construct impressions from scratch. And we often make up our minds about whom we like and dislike before any conversation begins.

But people we dislike at first can later turn out to be excellent company, and people we think we will like may ultimately prove less congenial. In any extended relationship, we get to see how the other person acts in different situations and use these observations to draw conclusions about their feelings and personality. It is rare indeed that all this subsequent information perfectly matches first impressions.

This chapter is about how we make sense of other people. Because we draw inferences about someone else's personality so readily and usually have little trouble understanding the meaning of their actions, it may seem that our social perceptions are straightforward and direct. However, the fact that we often have to correct initial impressions suggests that things may be more complicated. Most social psychologists believe that we piece together and weigh up available information before arriving at any conclusion, even when we are not explicitly aware of going through the various stages of such a process. And each additional stage brings another opportunity for bias to creep in.

The next section of this chapter will review research into social perception, focusing on how information is combined when

forming impressions of others, and on how the nature of the presented information may also make a difference. The rest of the chapter concerns attribution theory – the study of people's causal explanations. We present two general models of how information is processed in order to infer the causes of behaviour. We then consider how attributions can influence our motivations and emotions, and examine evidence for various biases in attribution. Next we consider the role of language and conversation in determining attributions and apparent attributional biases. Finally, we raise the question of how basic data-driven perceptual processes might combine with conversational processes in social perception and attribution.

SOCIAL PERCEPTION

How do we form impressions of people?

The contemporary approach to social perception derives from pioneering research conducted by Asch (1946). What struck Asch was how rapidly we seem to arrive at impressions, despite the diversity of information that has to be combined. How, then, do we construct a unified picture of someone's personality from different pieces of information?

To investigate this process, Asch read out personality adjectives to students and asked them to form an impression of the person (*target*) described by these words (just as you were asked to do at the beginning of this chapter). Participants wrote a brief description of the target and then ticked any relevant traits on a personality checklist (e.g., they had to say whether the target was generous or ungenerous, humorous or humourless, and so on).

One of Asch's first studies compared two lists of adjectives that were identical except for a single word. The first list contained the same words that you read earlier (intelligent, skilful, industrious, warm, determined, practical, cautious). Think about these words again. Which do you think had the greatest influence on your impression?

The second list simply replaced the word 'warm' with the word 'cold'. Asch found that this single change made a big difference. Participants hearing the 'warm' list were far more likely to describe the target as generous, wise, good-natured, etc. (see Figure 3.1). A typical description was: 'A person who believes certain things to be right, wants others to see his point, would be sincere in an argument and would like to see his point won' (Asch, 1946, p. 263). By contrast, a typical description of the 'cold personality' was: 'A rather snobbish person who feels that his success and intelligence set him apart from the run-of-the-mill individual. Calculating and unsympathetic' (p. 263).

In the next experiment, Asch replaced 'polite' with 'blunt' instead of 'warm' with 'cold' and found that this change made much less difference. This suggests that warmth is seen as a

central trait that reconfigures the meaning of the target's whole personality, whereas politeness is a more **peripheral trait** that has only specific and delimited effects. However, Asch found that trait centrality also depends on what other words are presented, and that no word is central across all possible contexts (see Zanna & Hamilton, 1972).

Other experiments showed that the order in which adjectives are presented also made a difference. In particular, earlier information seemed to exert a disproportionate impact on impressions. For example, a target described as intelligent, industrious, impulsive, critical, stubborn and envious was seen as competent and ambitious, but when exactly the same words were presented in reverse order (so that 'envious' came first), the target was thought to be overly emotional and socially maladjusted. This greater influence of initial information is generally known as a **primacy effect**. Evidently, people do not wait until all evidence is in before starting to integrate it.

Kelley (1950) found similar effects on judgements of someone with whom participants actually had direct contact. A guest lecturer was introduced to students either as 'cold' or 'warm' and students rated him only after he had taught them. Not only was the lecturer rated less positively when he had been described as 'cold' but also students interacted with him less and asked fewer questions. Since the first thing that students learned about this lecturer was that he was either warm or cold, these effects could depend on either primacy or trait centrality. Further, because most introductions focus on a speaker's positive rather than negative qualities, describing a lecturer as 'cold' may have had more impact on ratings and behaviour than under other circumstances.

The results presented so far suggest that people do not simply add together the bits of information they receive about a target,

central trait a dispositional characteristic viewed by social perceivers as integral to the organization of personality

peripheral trait within impression formation, a trait whose perceived presence does not significantly change the overall interpretation of a person's personality

primacy effect the tendency for information presented earlier to be more influential in social perception and interpretation

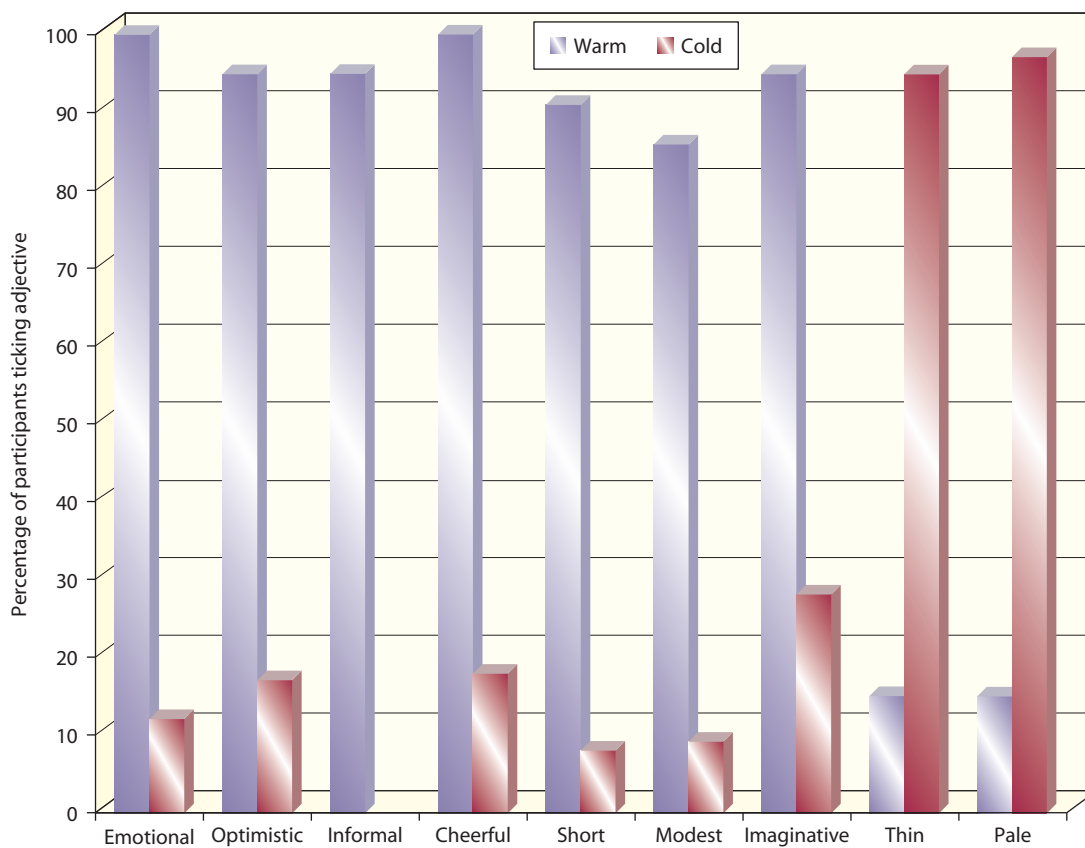


Figure 3.1 Impressions of 'warm' and 'cold' targets (Asch, 1946).

but rather actively construct meaning based on their ideas about how different personality characteristics tend to go together. As later theorists concluded, people have their own *implicit personality theories* that help to make sense of other people (e.g., Bruner

& Tagiuri, 1954). More generally, people seem to integrate social information by trying to infer its holistic pattern (*configural model*).

The alternative *cognitive algebra* model suggests that separate pieces of information are simply added together or averaged (e.g., Anderson, 1981). For example, if a person is described as 'warm' but 'boring', the overall impression would be less positive

than if she were described as 'warm' but 'interesting', but more positive than if she were described as 'cold' and 'boring'. According to this view, the disproportionate effect of 'central' adjectives depends on them conveying comparatively more evaluative information than the other words that are presented. Further, the impact of a word may depend on its relevance to the judgement being made. For example, we care more about whether someone is 'warm' when selecting a potential friend than a plumber, and

therefore attach more weight to its connotations. Asch's configural model, by contrast, implies that central adjectives change the meaning of other words rather than simply attracting greater emphasis.

But do social perceivers always make sense of personality information in either of these ways? In Asch's (1946) experiments, participants heard a list of separate personality adjectives and were explicitly told to construct an impression based on these words (as in the task at the start of this chapter). As Asch acknowledged, this is unlike what normally happens when we meet someone face to face (e.g., getting to know your best friend for the first time). How then might this particular way of presenting information have affected the process of impression formation?

Some people get acquainted by email before ever physically meeting (see Chapter 10, this volume). It may take months or even years before they so much as exchange photographs (not necessarily genuine ones: see Ben-Ze'ev, 2004), assuming that they ever do (see Joinson, 2003). What happens when these people finally confront one another in the flesh? Are they surprised by what they see?

Examples such as this suggest that transmitting information in words rather than raw sensory data (sights, sounds and smells) can make a difference to the content of our impressions. Indeed, sensory information can carry direct implications about personality. For example, people with large, round eyes, short noses, high

implicit personality theory an integrated set of ideas held by social perceivers about how different traits tend to be organized within a person

configural model a holistic approach to impression formation, implying that social perceivers actively construct deeper meanings out of the bits of information that they receive about other people

cognitive algebra a proposed process for averaging or summing trait information when forming impressions of other people



Plate 3.1 People with large, round eyes, short noses, high foreheads and/or small chins are typically perceived as less dominant, more naïve and warmer than people with mature-seeming features.

foreheads and/or small chins (*baby-faced* individuals) are typically perceived as less dominant, more naïve and warmer than people with mature-seeming features (e.g., Berry & McArthur, 1986), and people with louder or higher-pitched voices are often perceived as more extraverted (e.g., Scherer & Scherer, 1981). The way that patterns of sensory information change over time can also carry important information. For example, we are quite accurate at judging which of two people is older by observing the way that they both walk, even when all other evidence is removed. Adults with a younger-seeming gait are also perceived as more energetic (Montepare & Zebrowitz-McArthur, 1988).

Asch's procedure also differs from most everyday interactions because it provides no opportunity for the other person to respond to participants' judgements of them (or for participants to respond to these responses). Interactivity of this kind may make a big difference to the process of impression formation. For example, when you meet someone, you don't simply draw a conclusion about

them and keep it to yourself. Instead, you adjust how you behave to what you think they are like, and they correspondingly adjust their conduct to their impression of you (which is partly based on how you are responding to them, and so on). For example, if you think someone is friendly, you may be more friendly back, leading them in turn to reciprocate your friendly response (and so on). Thus, our impressions of others can lead to *self-fulfilling prophecies* (e.g., Snyder, 1984). However, people are also able to adjust their impressions when expectations are disconfirmed. Indeed, if you know that someone has the wrong idea about you, you may deliberately act in ways that show them that they are mistaken (a *self-verification effect*, Swann, 1984).

self-fulfilling prophecy when an originally false social belief leads to its own fulfilment. Social belief refers to people's expectations regarding another group of people. When a self-fulfilling prophecy occurs, the perceiver's initially false beliefs cause targets to act in ways that objectively confirm those beliefs

SUMMARY

The study of social perception focuses on how we as social perceivers form impressions of other people, and how we combine information about them into a coherent overall picture. Pioneering studies showed how important the nature and order of presented information are, and how perceivers actively construct meaning, rather than simply sum information. But how specific pieces of information are weighted, integrated and used depends on a variety of factors including the situation we find ourselves in, and how much we care about making the right judgement.

ATTRIBUTION THEORY

What are the main theories of causal attribution, and how do they envisage that lay perceivers process causal information?

In one of Pixar™ animation studio's earliest short films, the movements of two anglepoise desk lamps – one large, one small – are accompanied by voice-like sounds. Although items of office furniture do not usually have social relationships, viewers quickly conclude that the larger lamp is the smaller lamp's parent, and that the smaller lamp is a rather boisterous child. The lamps' contractions and extensions soon appear to be actions, and the noises start sounding like communications or expressions of emotion. A little drama of conflicting desires and thwarted impulses seems to unfold on the screen, even though we know that every movement has been computer-generated. How is this impression of human personality and intention achieved? Part of the answer is that our tendency to see motives and dispositions behind human actions may be so automatic that we sometimes find it hard to override it even in situations where motives and dispositions don't really

apply. Attribution theory (e.g., Försterling, 2001; Heider, 1958; Kelley, 1972) provides a set of ideas about how these kinds of inferences about the causes of action are made in the more usual situation of observing or hearing about a human being's actions (rather than those of a desk lamp). It addresses our explanations of our own as well as other people's behaviour.

Most of the phenomena investigated by attribution researchers involve an *observer* explaining an *actor's* behaviour towards a human or non-human object (or *entity*), but sometimes the actor and observer can be the same person (*self-attribution*). Unlike much of psychology, attribution research is not directly concerned with why actors do what they do, but focuses instead on what observers conclude about why actors do what they do (e.g., whether they *attribute* behaviour to an actor's or object's characteristics or 'attributes'). In the parlance of the theory, to make an *attribution* is to assign causality to some person, object or situation. According to attribution theory, we are all amateur psychologists trying to explain each other's behaviour and our own.

For example, imagine a friend (*actor*) has just spent a substantial proportion of her student loan on an expensive digital camera with all the latest features (*entity*). This might lead you (as *observer*) to think about what provoked such a purchase. Was it an 'impulse buy' reflecting a failure of your friend's self-control? Was she talked into it by a canny sales assistant? Or did her deep-seated interest in photography motivate her spending? Was the camera so special that she just had to have it? Or had other friends persuaded her that she couldn't do without it? Our answers to these questions shape our reactions and our expectations about her future behaviour.

Heider (1958) is usually credited with inventing attribution theory. He argued that people are most concerned with identifying the personal *dispositions* (enduring characteristics such as ability and personality traits) that account for other people's behaviour. In other words, observers want to know what it is about actors that leads them to act the way they do. Drawing dispositional inferences carries two basic advantages. First, it

allows us to integrate a variety of otherwise disorganized information about others, just as knowing that a larger lamp has a maternal attitude to a smaller lamp makes sense of an otherwise baffling piece of animation (see also Heider & Simmel, 1944). Second, it permits prediction (and, to some extent, control) of future behaviour. For example, knowing that you are a friendly person means that I can expect a friendly reaction from you when we meet again.

Correspondent inference theory


How do perceivers decide why one action, rather than others, is performed?

Jones and Davis (1965) tried to make Heider's ideas about dispositional attribution more systematic. Like Heider, they argued that observers learn most from actors' behaviour when it provided information concerning their personal characteristics. For example, you would probably attribute your friend's camera purchase to her specific intention (buying the camera did not just happen to your friend, she decided to do it), and may in turn attribute this intention to an underlying disposition, such as enthusiasm for photography. Jones and Davis called this process of inferring dispositions from behaviour *correspondent inference* because observers infer intentions and dispositions that *correspond* to the behaviour's characteristics.

correspondent inference theory proposes that observers infer correspondent intentions and dispositions for observed intentional behaviour under certain circumstances

Correspondent inference theory proposes that observers consider the range of behaviours available at the time of making a decision in order to work out the actor's intention. Each of these behaviours would have brought a number of different effects if selected. Some of these effects are desirable (your friend's camera has lots of useful features) and some undesirable (the camera cost a great deal of money). According to Jones and Davis, observers work out *why* actions are performed by comparing the effects of the selected action with those of alternative unselected actions (taking into account their perceived desirability). In particular, actors are assumed to have selected their action on the basis of the effects that this action alone produced (effects that would not have happened if another action had been selected).

For example, think back to when you chose to go to the particular university or college where you are currently studying instead of a different one. The theory suggests that we could infer your original intention by comparing the features of these two universities and working out what distinguishes them. For example, the chosen university might be located in a large city and the other one in a quieter, more rural setting. If the rejected university also had several advantages over the one you chose (e.g., a higher reputation, a stronger psychology department, better accommodation), then we might well conclude that living in a city is important enough to you to outweigh all these other considerations. More generally, correspondent inference theory argues that people try to work out what it was about a chosen course of action that made it seem preferable to alternative courses of action. Jones and Davis call this



PIONEER

Fritz Heider (1896–1988), the 'founding father' of attribution theory, was born in Vienna, Austria. He was invited to the USA in 1930 to join the Gestalt psychologist Koffka's laboratory at Smith College, then worked at the University of Kansas from 1947, where his most influential work on attribution was conducted. Heider is famous for two theories in different areas of social psychology: attribution theory and 'balance theory' (a consistency theory about how relationships between more than two people are kept in equilibrium). He was awarded the American Psychological Association's Distinguished Scientific Contribution Award in 1965.




Table 3.1 Analysis of non-common effects after observed selection of University X

Features of University X (chosen)	Features of University Y (not chosen)	Are features common or non-common?	Implication about intention
Comfortable accommodation	Comfortable accommodation	Common	None
Sports facilities	Sports facilities	Common	None
Good reputation	Good reputation	Common	None
Friends applying	Friends applying	Common	None
Urban location	Rural location	Non-common	University X chosen because candidate wanted to live in an urban location

analysis of non-common effects

observers infer intentions behind actions by comparing the consequences of the behavioural options that were open to the actor and identifying distinctive outcomes

process the *analysis of non-common effects* (see Table 3.1).

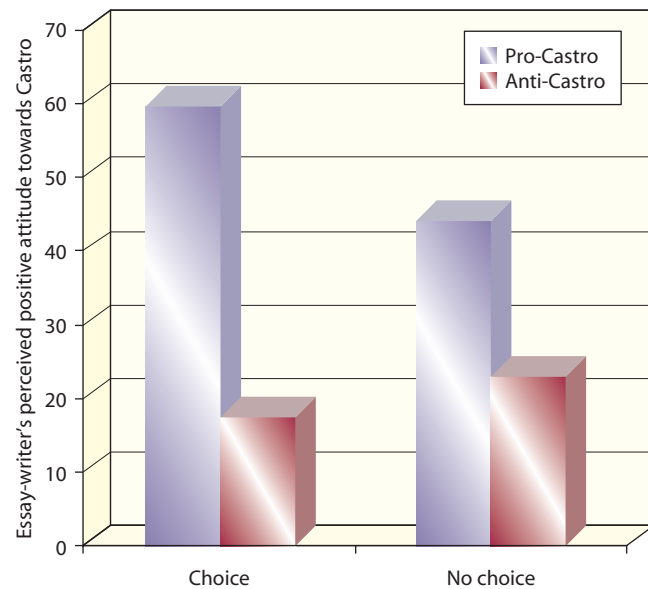
In reality, our analysis may be more complex than implied by this example. For instance, we might focus on why you

chose to go to university at all rather than why you selected this particular one. How then do observers know what alternatives to compare when trying to explain a course of action? Research suggests that people are more interested in explaining unusual than predictable events, and that they explain them by comparing what actually happened with what they think would *normally* have happened (Hilton & Slugoski, 1986, and p. 51 below). For example, if a close friend walks past us in the street without saying hello, we think about what is different this time from the usual times when she stops to chat. Perhaps she forgot to put on her glasses this morning, or perhaps you have had such a radical change of hairstyle that you are now almost unrecognizable.

Although correspondent inference theory was only intended to apply when actors are free to *choose* their behaviour, an experiment conducted by Jones and Harris (1967) casts doubt on this assumption. Students at an American university were asked to assess another student's opinion about Fidel Castro's communist regime in Cuba after reading a pro-Castro essay that the other student had supposedly written (see Figure 3.2). One group of participants was told that the writer had *freely chosen* what position to adopt in the essay, whereas another group was told that the essay title had *explicitly requested* pro-Castro arguments. According to correspondent inference theory, participants in the latter condition should have ignored the essay's content when estimating the writer's attitudes. However, participants tended to conclude that the essay-writer had pro-Castro attitudes even when the situational constraint was evident. Given that most American students were strongly anti-Castro when the study was conducted, this conclusion seemed an unlikely one. The investigators concluded that people tend to

overestimate personal causes of behaviour but underestimate situational ones, an important phenomenon later termed the *correspondence bias* (see p. 55 below).

correspondence bias the proposed tendency to infer a personal disposition corresponding to observed behaviour even when the behaviour was determined by the situation

**Figure 3.2** Correspondent inferences of essay-writers' attitudes (Jones & Harris, 1967).

Covariation theory

How do perceivers weigh up different possible causes of behaviour and decide on an explanation?

Imagine that you know a very conscientious student (Hermione) who always goes through everything on reading lists well in advance of classes. Before you had a chance to look at this chapter, she already told you what it was about and expressed the opinion that attribution theory was a really boring topic. Clearly, you want to know why she said this. Is it because attribution theory actually is tedious? Is it because Hermione is rarely excited by anything? Or is it because her showy lack of enthusiasm was designed to impress your jaundiced room-mate (Ron) who happened to be listening in on this particular conversation? Jones and Davis's

model would say that you need to compare the consequences of saying that the material was boring with the consequences of saying or doing something else. However, even if we knew about all the relevant alternatives, this would only allow us to narrow down Hermione's possible intentions, not to say which aspects of the event exerted causal influence. Further, even though analysis of non-common effects might have some use in this particular example, it cannot easily be applied to attributions about non-deliberate behaviours or feelings.

covariation theory proposes that observers work out the causes of behaviour by collecting data about comparison cases. Causality is attributed to the person, entity or situation depending on which of these factors covaries with the observed effect

Kelley's (1967) **covariation theory** provides a more general account of how people weigh up different possible causes of an observed action or experience. Its assumption is that an actor (e.g., Hermione) has responded in

some way to an object (e.g., attribution theory) in a particular situation (e.g., while Ron was listening). The observer then wants to know whether what happened was caused by something about the actor, something about the object, or something about the situation (or some combination of these three factors). According to Kelley, observers work this out by systematically collecting and processing additional data. The aim is to discover what factors need to be in place for the effect to happen.

As its name suggests, Kelley's covariation theory argues that observers make their judgements on the basis of covariations or correlations between effects and their possible causes. In other words, 'the effect is attributed to that condition which is present when the effect is present and which is absent when the effect is absent' (Kelley, 1967, p. 194). Inferences of causality thus depend on finding out that the effect's occurrence relates to the presence of one or more of the possible causal factors, but not to the presence of other factors.



PIONEER

Along with Bernard Weiner, **Harold Kelley** (1921–2003) was one of two pioneering attribution theorists working at the University of California at Los Angeles. His covariation theory of attribution stands as the most influential general approach to lay causation, although from the start he acknowledged that it did not apply across all possible situations. His second, causal schema theory was specifically intended to explain how people arrive at causal explanations when they are unable to carry out the systematic collection of data implied by covariation theory. In addition to these two influential theories, Kelley also worked on person perception, attitude change and relationships.



Why then did Hermione say that attribution theory was boring? Kelley argues that you need to consider three kinds of evidence, each corresponding to one of the possible causes (the object, situation or person). First, you need to know whether Hermione expresses boredom only about attribution theory (high distinctiveness) or whether she says that a lot of things are boring (low distinctiveness). In other words, you collect **distinctiveness information** by sampling across objects. Second, you need to know whether your friend only says attribution theory is boring in front of Ron (low consistency) or makes similar comments across a range of situations regardless of who might be listening (high consistency). In other words, you collect **consistency information** by sampling across situations. Third, you need to know whether it is only Hermione who finds attribution theory boring (low consensus) or if other students on your course say the same thing (high consensus). In other words, you collect **consensus information** by sampling across actors.

distinctiveness information evidence relating to how an actor responds to different entities under similar circumstances

consistency information evidence relating to how an actor's behaviour towards an entity varies across different situations

consensus information evidence relating to how different actors behave towards the same entity

Having collected all the relevant data, you are now in a position to make your attribution. For example, if Hermione says lots of things are boring (low distinctiveness), says that attribution theory is boring regardless of circumstances (high consistency) and none of your other friends says it is boring (low consensus), you may conclude that it is something about Hermione that makes her bored (a 'person attribution'). You infer this from the close correlation between the presence of Hermione and statements that something is boring (whenever she is included in a sampled episode, something is described as boring, but whenever she is absent, nothing is described as boring). The causal implications of some other possible combinations of consensus, consistency and distinctiveness (CCD) information are presented in Table 3.2.

One limitation of the covariation model is that the pattern of information supposed to indicate various attributions is incomplete (see Försterling, 2001; Hilton, 1988). For example, knowing that Hermione only says attribution theory is boring in front of Ron does not definitively establish the causal role of this situation because you have not collected data about how different people react to Ron's presence. In fact, there is good evidence that people can *infer* many of the predicted implications of other patterns of CCD information when evidence is provided in this particular form (e.g., McArthur, 1972; see Hewstone, 1989, and Kassin, 1979, for reviews).

Although Kelley's theory provides a logical basis for attribution, it is difficult to imagine that people collect evidence so systematically and engage in such detached processes of analysis every time they make sense of an event's causes. *That certainly would get boring.* Many subsequent developments in attribution theory have therefore involved correcting this limitation of the covariation approach.

Table 3.2 Four patterns of consensus, consistency and distinctiveness information, and their perceived implications (after Kelley, 1967)

<i>Consensus (across persons)</i>	<i>Consistency (across situations)</i>	<i>Distinctiveness (across objects)</i>	<i>Attribution</i>
Low (No one else says that attribution theory is boring)	High (Hermione says attribution theory is boring in many different contexts)	Low (Hermione says that lots of things are boring)	Person attribution Effect covaries with person: something about Hermione causes her to say that attribution theory is boring
Low (No one else says that attribution theory is boring)	Low (Hermione only says attribution theory is boring in front of Ron)	High (Hermione doesn't say that other things are boring)	Context attribution Effect covaries with situation: something about the presence of Ron causes Hermione to say that attribution theory is boring
High (Everyone else says attribution theory is boring)	High (Hermione says attribution theory is boring in many different contexts)	High (Hermione doesn't say that other things are boring)	Entity attribution Effect covaries with object: something about attribution theory makes Hermione say that it is boring
Low (No one else says that attribution theory is boring)	High (Hermione says attribution theory is boring in many different contexts)	High (Hermione doesn't say that other things are boring)	Person–entity interaction Effect covaries with Hermione together with attribution theory: something about their combination causes her to say attribution theory is boring

Access to covariation information

How do we make causal attributions when information is incomplete?

One obvious problem for the covariation approach was soon recognized by Kelley (1972) himself: often we want to make causal inferences about events under circumstances when CCD information is either unavailable or too time-consuming to collect.

causal schema a knowledge structure shaping attributions. Causal schemas may be either abstract representations of general causal principles (e.g., multiple necessary and multiple sufficient causes schemas) or domain-specific ideas about how particular causes determine particular effects

On these occasions, Kelley argued that we fill in missing information by reference to our existing ideas about how effects are produced (*causal schemas*). For example, when Hermione says that attribution theory is boring in front of someone else she knows will be impressed by such talk, this already tells you about an important factor potentially causing this behaviour (i.e., a desire to impress this person). Her statement need not reflect a strong personal dislike for attribution theory since this situational factor already partly explains what she said. More generally, Kelley argued that observers discount possible causes when they know of other factors working towards an observed effect (the *discounting principle*) as long as

discounting principle the presence of a causal factor working towards an observed effect implies that other potential factors are less influential. The converse of the augmenting principle

this effect can be produced by a range of alternative factors (*multiple sufficient causes schema*). In other cases, more than one condition must be present for the effect to occur (*multiple*

necessary causes schema).

Knowledge of factors working *against* an effect leads people to conclude that plausible causes must be stronger than otherwise (the *augmentation principle*). For example, if Hermione wanted to impress someone who was enthusiastic about attribution theory, but *still* told them it was boring, then you would probably conclude that she had a sufficiently strong negative opinion to override her desire to please.

augmentation principle the assumption that causal factors need to be stronger if an inhibitory influence on an observed effect is present. The converse of the discounting principle

Knowledge, expectation and covariation

How do we use our general knowledge to guide our attributions?

Kelley's causal schema theory implies that people take shortcuts to inferential conclusions when information or resources are limited (as in other contemporary dual-process models of social cognition: see Chapter 4). However, Kelley still believed that observers engaged in more systematic analysis of covariation whenever possible. In fact, there is little evidence that people spontaneously collect CCD information even when it is readily available. Lalljee, Lamb, Furnham, and Jaspars (1984) presented participants with descriptions of events that required explanation (e.g., 'John did well on his history essay'). Participants were asked to write down the questions that they wanted to ask in order to explain these events. Fewer than 20 per cent of their questions were specifically related to CCD. Instead, most were designed to evaluate participants' specific hypotheses about why the

events had occurred (e.g., ‘Did John try especially hard on this occasion?’).

On reflection, this is not particularly surprising. A problem with CCD information is that it only tells us whether the actor, object or situation (or some combination of these) caused the event, but not what it is about the actor, object or situation that caused it. As Lalljee and Abelson (1983) point out, knowing that John lied to Mary because of something about Mary begs the question of what this something might be that makes people want to lie to her. To work this out, we would need to refer to our prior knowledge about why people might deceive one another. But then why not just start by consulting this useful knowledge instead of first conducting a time-consuming covariation analysis? If we need to rely on ready-made explanations anyway, and these can tell us what we really want to know, then there is little point in going through the preliminary step of collecting and sifting through all possible combinations of CCD information.

It is now generally accepted that people don’t usually engage in a thorough data-driven process every time they make an attribution. Because we already have expectations that events will unfold in a certain way, these can be used as a reference point for our attributions. Indeed, Hilton and Slugoski (1986) argue that people rarely need to ask themselves the causal question implied by covariation theory: ‘why did this happen instead of not happening?’ (a question that would lead them to weigh up all possible factors that might have led to the event). Instead, they usually want to know ‘why did this happen *instead of what usually happens* (under these circumstances)?’ Thus, people look for causes among the differences between actual and anticipated event sequences (*abnormal condition focus*) rather than exhaustively sifting through all available evidence. Observers know where to look for relevant causes not only because they understand general principles of causality (as implied by Kelley’s causal schema model), but also because they have access to cognitive scripts telling them how particular kinds of event (e.g., conversations, parties, restaurant visits) ordinarily unfold in the social world (e.g., Cheng & Novick, 1990; Read, 1987).

Covariation and causal power

How do we use more specific causal knowledge to guide our causal explanations?

A final limitation of covariation theory is captured by a slogan familiar from statistics classes: ‘correlation is not causation’. Establishing that factor X covaries with effect Y can never prove that X caused Y, because a correlated third variable may have exerted the real influence (or indeed Y might have caused X). For example, a covariation between revision and fine weather does not mean that studying hard can make the sun shine.

Again, prior knowledge can help us untangle causal relations of this kind. Because we are already aware of what kinds of factor are possible causes of particular effects, we can reject certain factors as irrelevant and focus down our causal search. We know, for instance, that energy is required to induce movement, pressure to produce deformation of objects, that people sometimes say

things in order to impress others, and that people’s actions don’t immediately change the weather. However, because much of this specific knowledge needs to be learned from observation, knowledge-based theories of attribution still need to explain how people acquire their knowledge about what typically causes what in the first place.

According to Cheng (1997), covariation information alone cannot answer this question because it is insufficient to imply causation. Perceivers typically supplement covariation analysis with their own innate implicit theory that certain events carry unobservable *causal powers*

(see also White, 1989). For example, the fact that a magnet consistently attracts or is attracted to metal objects

leads us to conclude it has an invisible quality (‘magnetism’) that brings about these effects. Because our predisposition is to uncover causal powers rather than to record observable regularities for their own sake, our sampling of covariation data can be more principled and focused. In particular, covariations between competing potential causes and the observed effect are *compared (probabilistic contrast)* in order to determine the nature of the underlying causal process. For example, a child might find out that audible distress brings about parental attention by repeatedly crying in similar situations (so that all other plausible causes remain constant) and registering any consistent effects on Mum or Dad. The child might also compare this strategy with throwing toys around. Thus, even small infants may conduct informal experiments based on an innate theory that effects are caused by events with intrinsic causal powers. Cheng argues that the more specific causal knowledge guiding our subsequent attributions is originally acquired by making probabilistic contrasts of this kind.

causal power an intrinsic property of an object or event that enables it to exert influence on some other object or event

Attributions for success and failure

What are the implications of attributing success and failure in different ways?

Some of the events that we are most motivated to explain are successes and failures. For example, if you get a better than usual grade in an exam, you may wonder whether this was due to your particular affinity for the topics covered, your thorough exam revision or the fact that exactly the right questions happened to come up. Your conclusion will help you work out how likely it is that you will be able to maintain this level of performance and how you might go about achieving this.

The most influential theory of achievement-related attribution was developed by Weiner (1979, 1985), who argued that our conclusions about the causes of success and failure directly affect future expectations, motivations and emotions. One of Weiner’s main contributions was his classification of the perceived causes of success and failure (see Table 3.3). According to this classification, perceived causal factors may be: (1) internal or external

(*locus*); (2) stable or variable (*stability*); and (3) controllable or uncontrollable (*controllability*).

Attributing your exam success to an internal factor means that you believe that something relating to you as a person determined

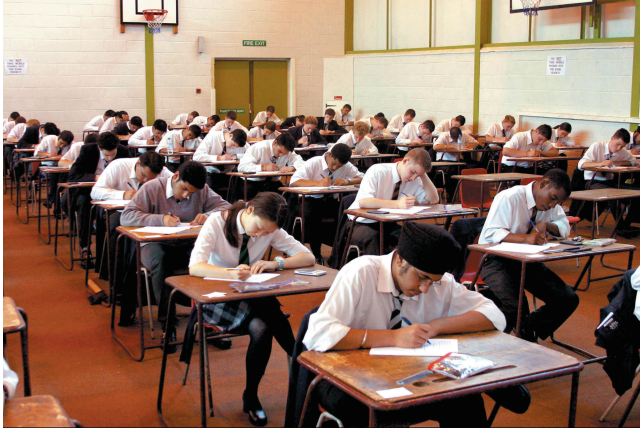
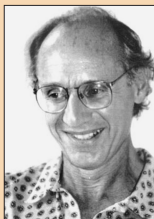


Plate 3.2 Do our conclusions about the causes of success and failure, e.g. in an exam, directly affect future expectations, motivations and emotions?



Bernard Weiner (b. 1935) is currently Professor of Psychology at the University of California, Los Angeles, where he has worked since 1965. He received his undergraduate degree from the University of Chicago and his doctorate from the University of Michigan in 1963. In 1965, following two years at the University of Minnesota, he went to UCLA. He is most famous for his influential research into attributions for success and failure, identifying the main types of attribution, their underlying dimensions and their effects on motivation and emotion. His classification of perceived causes of behaviour has had an even greater impact.



the outcome, whereas attributing performance to an external factor means that something to do with the situation was responsible. Both internal and external factors can be either variable or stable. For example, attributing your performance to intelligence means that you think something internal and relatively unchanging about you led you to do well.

Weiner also argued that causal factors are perceived as either controllable or uncontrollable, and that this distinction too makes a difference to your reaction to achievement outcomes. For example, if you believe that your exam success was due to an internal, stable and uncontrollable factor (your innate aptitude for this kind of material), then you may feel that there is no need to try hard in order to repeat your success. On the other hand, if you think that your good grade was due to an internal, variable and controllable factor (e.g., effort), you will probably conclude that you need to stay motivated in order to succeed in future. Thus, attributions about success and failure are not simply intellectual conclusions about performance, they also make a real difference to our expectations and motivation.

Attributional reformulation of learned helplessness theory

Are certain patterns of attribution symptoms, or causes, of depression?

Weiner's conclusions about the motivational consequences of attributions for success and failure have broader implications for understanding clinical disorders. One influential application has been the attributional reformulation of *learned helplessness theory* of depression. Learned helplessness theory (Seligman, 1975) originally argued that depression results from learning that nothing you do makes any difference to outcomes. The idea was that if rewards and punishments have no relation to your actions, you soon learn to give up trying to attain the former and avoid the latter. However, there are many uncontrollable situations in everyday life that don't make people depressed. For example, many people enjoy betting on games of chance, where the outcomes are

learned helplessness theory the proposal that depression results from learning that outcomes are not contingent on one's behaviour

Table 3.3 Possible causes of success and failure (after Weiner, 1979, 1985)

	<i>Internal</i>		<i>External</i>	
	<i>Stable</i>	<i>Unstable</i>	<i>Stable</i>	<i>Unstable</i>
Controllable	Mastery (e.g., knowledge, skill)	Effort	Enduring situational and social resources (e.g., contacts, wealth)	Temporarily available situational and social resources (e.g., advice, assistance)
Uncontrollable	Aptitude (e.g., intelligence, coordination)	Energy	Task ease or difficulty	Luck/chance

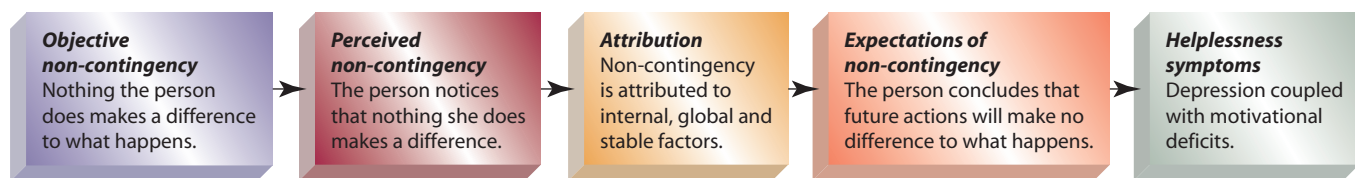


Figure 3.3 Five steps to depression: the attributional reformulation of learned helplessness theory (Abramson et al., 1978).

completely beyond their influence. Gambling does not always make people depressed even if money is lost.

This observation suggests that helplessness alone does not automatically lead to depression; other factors must also be present. One clue to what these other factors might be comes from another key clinical feature of depression that learned helplessness theory cannot explain, namely an exaggerated sense of personal responsibility for negative outcomes. If uncontrollable events cause depression, why should depressed people think that they have caused these events to happen? Abramson, Seligman and Teasdale's (1978) answer is that helplessness only makes people feel chronically depressed if it is attributed to intrinsic features of the self. In other words, a specific pattern of attribution for uncontrollability may determine clinical depression (see Figure 3.3).

In defining this pattern, Abramson and colleagues extended Weiner's classification to include another distinction between specific and global causes. Global causes apply to a wide variety of situations, whereas specific factors relate only to the particular situation at hand. The quality and persistence of depression depends on whether the cause of uncontrollability is perceived as internal or external, stable or variable, and global or specific.

To illustrate this classification, Abramson and colleagues used the example of a woman who has been rejected by a man in whom she is romantically interested. Nothing she does makes any difference to the way he feels about her. According to the model, the way this woman reacts to this experience of helplessness depends on what she thinks the causes of rejection might be (see Table 3.4).

The least-threatening interpretation would be that her rejection was caused by something external, unstable and specific. This man in particular was not attracted to her at this moment and in this particular situation (e.g., he may simply not have been in the mood for romance at the time). The consequences of this conclusion are not too serious for the woman, because she is still able to anticipate greater success with this man or other men in future.

Consider, however, the contrasting attribution to internal, stable and global causes: the man finds her unattractive not out of any passing whim but because of the kind of person she is. His dislike is permanent and applies across all situations. Because being disliked is seen as reflecting something about her, other men will probably dislike her too and her future chances of romantic happiness are slim indeed. Further, because the factors are global they apply not only to romantic attraction but to other areas of her life as well. She can only look forward to consistent and universal bad outcomes which she can do nothing about. These negative expectations unsurprisingly lead to depression.

The theory thus argues that people who have developed a tendency to attribute uncontrollable events to internal, stable and global attributions have a greater risk of subsequently developing chronic depression. However, there is little evidence that attributions made prior to the onset of depression are distorted in this way (Lewinsohn, Steinmetz, Larson & Franklin, 1981), so it seems equally plausible that self-focused explanations are symptoms rather than causes of depression (but see Rude, Valdez, Odom & Ebrahimi, 2003).

Although depressed and non-depressed people evidently interpret negative events in different ways, who is more accurate? Some theorists have argued that it is not depressed people who are unduly pessimistic and unable to see the glass as half-full rather than half-empty, but rather non-depressed people who protect themselves from unpleasant realities by seeing everything in an unrealistically positive light (the 'illusory glow', Taylor & Brown, 1988). According to this view, termed *depressive realism*, depressed people are 'sadder but wiser'. In support of this idea, Lewinsohn and colleagues (1980) found that depressed participants' ratings of their social functioning during a

depressive realism the idea that depressed people's interpretations of reality are more accurate than those of non-depressed people

Table 3.4 Possible causes of romantic rejection (from Abramson et al., 1978)

	<i>Internal</i>		<i>External</i>	
	<i>Stable</i>	<i>Unstable</i>	<i>Stable</i>	<i>Unstable</i>
<i>Global</i>	I'm unattractive to men	My conversation sometimes bores men	Men are overly competitive with intelligent women	Men get into rejecting moods
<i>Specific</i>	I'm unattractive to him	My conversation sometimes bores him	He's overly competitive with intelligent women	He was in a rejecting mood

group discussion were closer to those of observers than were non-depressed participants' ratings. Although observers rated the performance of non-depressed participants more positively than that of depressed participants, they did not rate it as positively as the non-depressed participants themselves did.

However, Campbell and Fehr (1990) found that participants with low self-esteem (a typical feature of depression) were more accurate only when their judgements were compared against those of an observer who did not participate in the interaction. Indeed, evidence suggests that outside observers may be unduly harsh judges because they think that their task is to be critical. When participants' own ratings were compared with those of the person they were having the conversation with, participants with *high* rather than low self-esteem came out as more accurate. It seems then that depressives' judgements are probably only more accurate when circumstances match their negative outlook. However, it is also worth bearing in mind that depressives' negative judgements can easily turn into self-fulfilling prophecies. If someone doesn't even try because they are sure they will fail regardless of effort, this makes it more likely that they will in fact fail.


Whether the attributional pattern associated with depression is a symptom or cause of depression, and whether it is realistic or unrealistic, reformulated learned helplessness theory suggests that therapy should focus on changing it in order to alleviate the symptoms of depression. In practice, current cognitive and psychodynamic therapies for depression attempt to modify a wide range of negative interpretations, but correcting maladaptive attributions for failure may explain part of their apparent effectiveness (e.g., Barber et al., 2005).

Misattribution of arousal

How do we ascertain what we are feeling and why?

The attributional reformulation of learned helplessness theory suggests that we feel more depressed about unpleasant events if we conclude that their causes are internal, stable and global. But how do we recognize our reaction to this attributional pattern as depression rather than something else? This may sound a silly question because it usually seems that the nature of our current emotional state is self-evident. By contrast, misattribution theories imply that we sometimes need to work out what it is we are feeling and that this inference process is susceptible to social influence.

One of the earliest psychological theories of emotion was devised by William James (1884). He argued that each emotion has its own distinctive profile of bodily changes and that we can directly sense our emotion by registering these changes. However, Cannon (1927) pointed out that the patterns of internal physiological activity associated with very different emotions are actually rather similar. For example, both fear and anger involve increases in heart rate, blood pressure and other kinds of metabolic activity (physiological arousal in the autonomic nervous system, ANS) designed to release energy to the muscles in preparation for vigorous activity. This means that we cannot tell these emotions apart simply by checking what is happening inside our bodies.



PIONEER

Stanley Schachter (1922–1997) is best known for his two-factor theory which inspired the cognitive approach to emotion, and for his clever experiment with Jerome Singer which remains a classic despite the apparent inconclusiveness of its results. His earlier work on affiliation also provided a forerunner of contemporary interpersonal approaches to emotion, showing that people seek out other people in order to make sense of their own feelings. Throughout his career, Schachter pursued the important idea that external cues (including social cues) can shape the interpretation of supposedly internal states such as emotions and feelings of pain and hunger. Such an approach provides a valuable counterargument to the more usual assumption that emotion, sensation and motivation are primarily biological and individual processes.


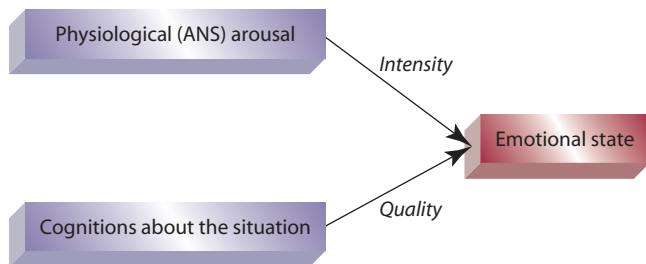



Figure 3.4 Schachter's two-factor theory of emotion.

Schachter (1964) therefore argued that emotions depend upon the attributions we make for our internal feelings, rather than directly reflecting these feelings themselves. Thus, perceptions of arousal (the physiological factor) tell us *that* we may be experiencing an emotion, but not *what* emotion it is. We therefore try to work out why our bodies are aroused (the cognitive factor) in order to answer this second question (see Figure 3.4). If we conclude that our arousal is caused by the attractive person we are having coffee with, we may interpret it as a symptom of love (or at least lust: see Chapter 10, this volume). However, if we think our arousal is due to the fact that someone else keeps butting into our private conversation, we may conclude that it reflects anger. Finally, if we attribute our symptoms to the caffeine in the strong cup of coffee we are drinking, we may conclude that our arousal is non-emotional.

In a famous experiment, Schachter and Singer (1962) tried to determine whether an identical physiological state could be perceived as anger, euphoria or non-emotionally depending on participants' interpretations of its causes. Autonomic arousal was manipulated by administering an adrenaline injection to one group of participants and a placebo injection to others under the guise

that the syringe contained a new vitamin compound (*Suproxin*) that the experimenters were testing.

Adrenaline-injected participants in one group were told that *Suproxin* might lead them to experience side effects such as a pounding heart and shaking hands (genuine arousal symptoms). These participants were therefore able to interpret their bodily symptoms correctly as non-emotional responses to the injection. However, participants in another group were given incorrect information about the adrenaline injection's effects (i.e., that there would be no side effects or arousal-irrelevant side effects). Participants in this condition should therefore experience arousal symptoms without knowing their cause, and consequently seek an emotional explanation.

Schachter and Singer stage-managed the situation to encourage specific attributions for any unexplained arousal. Each participant was left in a waiting room with an accomplice of the experimenter posing as another participant who behaved in one of two ways. In one condition, the accomplice improvised a basketball game using scrap paper and a wastebasket, and encouraged the other participant to join in. In the other condition, the accomplice became progressively more irate while working through an increasingly insulting questionnaire that the participant also had to complete. Its final item read: 'With how many men (other than your father) has your mother had extra-marital relationships?' The only response alternatives provided were: '10 and over', '5-9' and '4 and under'.

According to Schachter's theory, emotion should only occur when autonomic arousal is attributed to an emotional cause. In other words, emotion should not have been experienced by either placebo-injected participants (because they were not aroused) or participants who had been correctly informed about the adrenaline injection's effects (because they did not attribute their arousal to the emotional situation). However, adrenaline-injected participants who were unaware that their symptoms were caused by this injection should have explained their arousal in terms of the plausibly euphoric situation when with the playful confederate, but in terms of the plausibly irritating situation when completing the insulting questionnaire. These two groups, therefore, should have experienced widely divergent emotional reactions of euphoria and anger, respectively.

In fact, results were less clear-cut (see Reisenzein, 1983). For example, placebo-injected participants did not report significantly less emotion than participants who were injected with adrenaline but not informed about the injection's genuine side effects. Further, emotion reports of misinformed adrenaline-injected participants did not differ substantially between euphoria and anger conditions (participants reported themselves to be mildly happy in both conditions; see Zimbardo, Ebbesen & Maslach, 1977).

One significant result obtained by Schachter and Singer clearly did accord with predictions, however. Participants injected with adrenaline and correctly warned of the effects consistently reported less positive emotion in the euphoria condition, and less negative emotion in the anger condition than participants misled about side effects. Schachter's explanation was that the informed group correctly *attributed* their arousal to the injection and labelled it in non-emotional terms.

Subsequent experiments have suggested that genuinely emotional arousal may also be misattributed to non-emotional sources,

allowing clinicians to minimize otherwise maladaptive reactions (e.g., Ross, Rodin & Zimbardo, 1969). For example, Storms and Nisbett (1970) reported that students with mild insomnia fell asleep more quickly after being told that they had taken an arousal-inducing pill (*reverse placebo effect*). The investigators argued that misattribution of arousal symptoms to the pill neutralized the mild-insomniac participants' usual interpretation in terms of anxiety. However, Calvert-Boyansky and Leventhal (1975) demonstrated that such effects may be explained by the correct anticipations set up by symptom warnings rather than misattribution per se. For example, knowing what is about to happen to your body means that symptoms are less surprising and less emotionally upsetting when they arrive. However, it is less clear whether this explanation can explain the reduced happiness of participants in Schachter and Singer's informed euphoria condition.

In sum, Schachter and Singer's clever experiment does not offer conclusive support for all aspects of two-factor theory. This may be partly because it is difficult to manipulate arousal and emotional cognitions independently when the two usually go hand in hand. Subsequent studies have been similarly inconclusive (e.g., Erdmann & Janke, 1978; Marshall & Zimbardo, 1979; Maslach, 1979), and many theorists now believe that Schachter overstated how easy it was to influence emotional interpretations. Because our attributions about, and appraisals of, emotional situations usually determine our autonomic as well as emotional reactions in the first place (e.g., Lazarus, 1991), we often know in advance what we are going to feel.

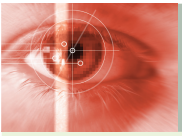
Attributional bias

What are the main types of attributional bias, and how can they be explained?

Covariation theory and the correspondent inference model both tended to view attribution as a data-driven process wherein all potentially relevant information is systematically processed. However, as we have seen, subsequent research suggests that causal inferences are shaped by prior knowledge and expectations (e.g., Hilton & Slugoski, 1986; Read, 1987), or by learned attributional styles (e.g., Abramson et al., 1978), and that they may be extraneously influenced by contextual variables (e.g., Schachter & Singer, 1962). Thus, people seem to attach more weight to some causes at the expense of others when drawing causal conclusions. Precisely what kinds of causes are typically favoured under different circumstances has been the focus of research into various **attributional biases**.

attributional bias systematic distortions in the sampling or processing of information about the causes of behaviour

The correspondence bias In their professional lives, psychologists of different persuasions sometimes disagree about whether internal or external explanations of human behaviour deserve more emphasis. For example, most experimental social psychologists focus on situational influences and often ignore people's characteristic dispositions. By contrast, personality psychologists attach more weight to personal traits, usually without giving much



RESEARCH CLOSE-UP 3.1

The correspondence bias in attributing knowledge to the quiz master or the contestant

Ross, L.D., Amabile, T.M. & Steinmetz, J.L. (1977). Social roles, social control, and biases in social-perception processes. *Journal of Personality and Social Psychology*, 35, 483–494.

Introduction

People's social roles shape the way that they interact with one another. These influences are most obvious in situations when one person has relatively greater control over an interaction. An oral examination, for example, permits examiners to decide what topics should be discussed while the examinee has relatively less influence. One consequence is that examiners have greater opportunity to display their specialized knowledge. In accordance with the correspondence bias, Ross and colleagues argue that people take insufficient account of these role-conferred advantages when arriving at attributions for behaviour. As a consequence, people with relatively greater social control appear wiser and more able than they really are (and their social position therefore seems more justified). To test this hypothesis, the investigators simulated a quiz game in which participants were allocated the role of either questioner or contestant. Questioners were given the opportunity to devise their own questions, thereby permitting an unrepresentative demonstration of their idiosyncratic expertise. The prediction was that questioners would be viewed as higher in general knowledge.

Method

Participants

Eighteen pairs of male students and 18 pairs of female students from an introductory psychology class were recruited for a study into processes whereby 'people form impressions about general knowledge'. Twelve pairs of participants of each gender were assigned to the experimental condition and six pairs of each gender were assigned to the control condition. For the observer condition, another 24 pairs of participants subsequently watched individual simulations of the quizzes originally conducted by female pairs.

Design and procedure

In the experimental condition, the role of questioner or contestant was allocated to one person in each pair using an explicitly random procedure. Questioners were told to devise 10 'challenging but not impossible' general knowledge questions, which they then asked contestants in a quiz. For example, one question was: 'What is the longest glacier in the world?' In the control condition, contestants were asked questions devised by earlier participants from the experimental condition. In the observer condition, the quizzes conducted by female

participants from the experimental condition were individually simulated by confederates posing as participants. Each simulated quiz was watched by a pair of observer participants who did not know that it was a simulation. As soon as the quiz was over, questioners, contestants and observers all separately rated the general knowledge of the questioner and contestant compared to the average student at the same university, using a 100-point scale.

Results

On average, contestants got only 4 out of 10 questions right in the quiz. General knowledge ratings of questioners and contestants were analysed. Contestants in the experimental condition rated their own general knowledge as significantly worse than that of questioners, and observer participants also rated contestants' general knowledge as significantly inferior. However, questioners did not rate their own general knowledge as higher than that of contestants (see Figure 3.5 for the mean ratings for these conditions). Further, control participants showed significantly smaller differences between their ratings of questioners and participants than did experimental participants. Although no integrated analysis of the results was presented by the investigators, the pattern of findings clearly accords with predictions.

Discussion

The findings demonstrate that the situational advantage conferred by being allowed to devise your own questions led to higher general knowledge ratings from both contestants and observers (who probably attempted to answer the questions

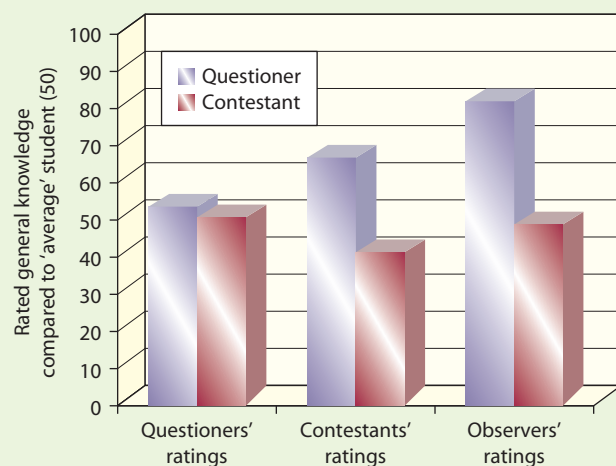


Figure 3.5 Mean ratings of general knowledge after quiz game (adapted from Ross et al., 1977).

privately to themselves too). This seems to provide a clear example of the correspondence bias. Because participants' roles were allocated randomly in this study, it is statistically unlikely that one group (the questioners) should happen to be genuinely higher in general knowledge. Indeed, Ross and colleagues administered brief tests of general knowledge to all participants after the quiz and found no differences in performance.

The study also carries implications about the limits of the correspondence bias. Questioners in the experimental condition did not conclude that contestants' inability to answer

their questions meant that they must be inferior in general knowledge, presumably because their own role-conferred advantage was extremely salient to them. Thus questioners apparently recognized their own relatively advantaged position, and were able to correct any attributional bias.

Subsequent studies have shown that observers are aware of limitations to the apparent superiority of the questioners (Johnson, Jemmott & Pettigrew, 1984; Sumpton & Gregson, 1981), and that bias in this setting depends partly on what questions are asked (e.g., Schwarz, 1994).

attention to the impact of the environment (see Chapter 1, this volume). The correspondence bias suggests that the naïve psychology practised by laypeople is closer to personality psychology than to experimental social psychology. Behaviour is often seen as a reflection of an actor's corresponding internal disposition (e.g., aggressive behaviour reflects aggressive personality) even when it was actually caused by situational factors (e.g., severe provocation). Research close-up 3.1 presents a famous example of this effect (see also Jones & Harris, 1967, described earlier).

Why do people underestimate situational influences? According to Gilbert and Malone (1995), a number of different processes may be involved. First, some situational forces are subtle and difficult to detect. If observers are not aware of these influences in the first place, they can hardly be expected to factor them into their explanations. Second, our *expectations* about how other people will behave may distort our interpretations. For example, we may mistakenly assume that the prospect of public speaking terrifies others just as much as it terrifies us (an example of the *false consensus bias*). Therefore, when someone appears calm before

their turn to speak, we may conclude that their confident personality must be overriding an otherwise anxiety-provoking situation.

false consensus bias the assumption that other people generally share one's own personal attitudes and opinions

Finally, Gilbert and Malone suggest that people sometimes fail to correct their initial inferences about the causes of behaviour, especially when processing demands are high. The idea here is that people's automatic reaction to observed behaviour is to conclude that it reflects an actor's disposition. Any relevant situational influences are then factored in using a more deliberate reasoning process. Because the initial dispositional inference is effortless,

it happens regardless of current circumstances. However, other demands on cognitive resources may interfere with the situational correction process, leading us to underestimate the power of external factors. (The different stages at which these sources of bias may intrude are shown in Figure 3.6.)

An experiment conducted by Gilbert, Pelham and Krull (1988) provides support for this last explanation. Participants observed a silent videotape of a woman talking nervously to a stranger and then rated how anxious she was as a person. Subtitles indicating current conversation topics informed some participants that the woman was discussing her sexual fantasies (offering a situational explanation for her nervousness) but told others that she was talking about gardening. Further, some participants were told to memorize the subtitles, imposing an additional cognitive demand that should interfere with any situational correction process. As predicted, participants under higher cognitive demand tended to believe that the woman had an anxious personality regardless of conversation topic, whereas low-demand participants rated her as less dispositionally anxious when they believed she was discussing sex rather than gardening. Presumably the low-demand participants had sufficient cognitive resources remaining to correct for their initial automatic dispositional inference.

Gilbert and colleagues' theory suggests that attribution *always* involves automatic processes but only *sometimes* involves controlled processes as well (e.g., Shiffrin & Schneider, 1977). It is therefore another example of the dual-process models that are currently popular in research on social perception and cognition (see Chapter 4, this volume). The argument that we spontaneously and automatically make inferences about people's traits is supported by research conducted by Smith and Miller (1983). In two studies, these investigators demonstrated that participants

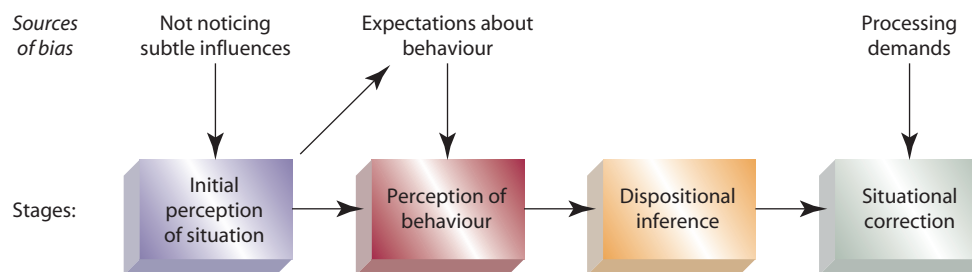


Figure 3.6 Processes leading to correspondence biases (adapted from Gilbert & Malone, 1985).

presented with sentences describing an actor's behaviour (e.g., 'Ted breaks a friend's expensive camera that he borrowed') made judgements about the actor's traits more quickly than they made inferences about the specific causes of the action. Indeed, it may be that we only go to the effort of engaging in a deliberate causal analysis and check the validity of our automatic trait attributions when we are specifically motivated to think about why a particular behaviour occurred (e.g., when the behaviour affects us negatively, or when it is unexpected), and when we have sufficient cognitive resources to engage in the necessary controlled processing.

Variability in correspondence biases The correspondence bias was once believed to be so pervasive and inescapable that it was dubbed 'the fundamental attribution error' (Ross, 1977). However, subsequent research suggests that it is more context-dependent than such a description implies (see Gawronski, 2005, for a review). For example, a study by Krull (1993) showed that asking people to diagnose the situation rather than the person led them to make automatic situational rather than dispositional inferences. Participants were again exposed to a silent videotape showing a woman talking, and were told that she was discussing sensitive topics with her therapist. Those whose task was to assess how anxiety-provoking the conversation was rated the woman as less dispositionally anxious, but the situation as more anxiety-provoking, when cognitive load was high than when it was low. By contrast, those whose task was to assess how dispositionally anxious the woman was rated the woman as more dispositionally anxious, but the situation as less anxiety-provoking, when cognitive load was high. It therefore seems that automatic dispositional inferences only occur if the inferential goal is to understand the person rather than the situation that person is in.

Many attribution studies have implicitly encouraged such inferential goals by orienting participants to actors rather than circumstances. For example, like all other sentences presented in Smith and Miller's (1983) study, 'Ted breaks a friend's expensive camera that he borrowed' begins with, and uses as subject of the sentence, the name of the actor performing the behaviour. Perhaps such sentences convey trait information more directly than they convey situational information (see also Brown & Fish, 1983, discussed below).

Operation of the correspondence bias also varies across cultures. For example, Miller (1984) compared explanations offered for deviant and prosocial behaviours by children (aged 8, 11 and 15) and adults from the USA and Southern India. She found that US adults attributed events to dispositional causes significantly more than Indian adults or children from either country, suggesting that North Americans but not Indian Hindus learn over the course of development to favour dispositional explanations (see Figure 3.7).

Why should members of some societies develop a stronger preference for dispositional explanations? Many western societies such as the USA and many European countries are said to be characterized by a culture of *individualism* in which personal effort and ability combine to produce deserved outcomes. People socialized into such cultures may learn to adopt the inferential goal of understanding actors rather than their circumstances in most contexts. However, in some other societies (e.g., India, Japan),

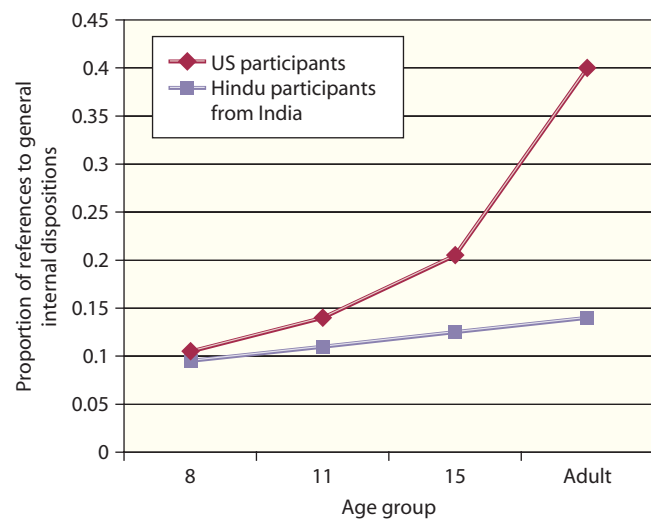


Figure 3.7 Dispositional attributions in two cultural settings across four age groups (Miller, 1984).



Plate 3.3 Members of collectivistic cultures are more sensitive than members of individualistic cultures to the power of situations.

children are socialized to see themselves more as part of groups that must work together to attain valued goals (*collectivistic culture*). This cultural emphasis is likely to lead to more frequent applicability of inferential goals directed at situations (especially social situations) rather than individual actors.

Despite their relatively higher preference for situational explanations, even collectivists frequently assume that actors have dispositions corresponding to their behaviour. For example, Korean participants (like US participants) assumed that a controversial essay reflected the writer's opinions even when they believed that the writer had been told what point of view to defend (Choi & Nisbett, 1998). However, when the situational constraint was made more *salient*, Korean participants were better able to take its influence into account. Choi and colleagues (1999) argue that members of

salience a property of stimuli in relation to perceivers that causes them to attract attention

collectivistic cultures are more sensitive to the power of situations than are members of individualistic cultures, enabling them to correct their initial dispositional inferences under some circumstances.

The actor–observer difference The *actor-observer difference* compares attributions people make about others with those that

actor–observer difference general tendency for people to explain their own behaviour in more situational terms but other people’s behaviour in more dispositional terms

they make about themselves. Although westerners’ default assumption is often that other people’s behaviour reflects a corresponding disposition, it seems that we tend to emphasize external, situational

factors when explaining our own behaviour. This difference was first identified by Jones and Nisbett (1972) and has received qualified support since then (e.g., see Watson, 1982).

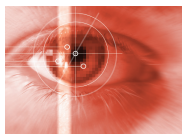
Why don’t explanations of our own conduct follow identical principles to our explanation of other people’s conduct? Two main explanations have been proposed, and both probably play some role in accounting for actor–observer differences. First, actors have access to a wider range of information about the factors leading to their own actions (Jones & Nisbett, 1972). For example, when explaining your liveliness at a party, you are able to consider other situations in which you have acted in a less extroverted manner (e.g., when meeting someone for the first time, or being interviewed), and may therefore conclude that you are not a consistently lively person. By contrast, most other people only know



Plate 3.4 Your behaviour, e.g. being lively at a party, may appear more consistent to others than it really is.

how you have acted in a restricted set of contexts. Thus, your behaviour may appear more consistent to them than it really is.

The second factor contributing to actor–observer differences concerns direction of attention. When observing someone else’s behaviour, we tend to focus on that person rather than their situation. Conversely, when we ourselves are acting, our attention tends to be directed outwards. Perhaps then we simply assume that whatever is occupying our attention is exerting the most causal influence (e.g., Taylor & Fiske, 1978; see Research close-up 3.2 on Storms, 1973).



RESEARCH CLOSE-UP 3.2

Reversing the actor–observer effect by manipulating perspective

Storms, M.D. (1973). Videotape and the attribution process: Reversing actors’ and observers’ points of view. *Journal of Personality and Social Psychology*, 27, 165–175.

Introduction

Storms (1973) proposed that differences between actors’ and observers’ attribution depend partly on their different physical points of view: actors’ attention is typically directed outwards towards the situation (including other actors), whereas observers’ attention focuses on the observed person (i.e., the actor). Indeed, one explanation for the correspondence bias is that actors are often the most dynamic and interesting objects in the environment and therefore attract observers’ attention (and deflect it from other aspects of the situation; see Heider, 1958; Taylor & Fiske, 1978). The increasing availability of video technology in the early 1970s allowed Storms to manipulate actors’ and observers’ perspectives in order to assess the influence of this factor on situational and dispositional attributions.

Method

Participants

Thirty groups of four male students took part in this study. Two members of each group were randomly assigned the role of observer and the other two were assigned the role of actor.

Design and procedure

Stage 1. Actors were told to have a conversation to get to know each other, while facing each other across a table. Each observer was seated next to one of the actors and told to observe the actor across the table from him. Two video cameras were also set up, each trained on one of the actors (see Figure 3.8, Stage 1).

Stage 2. Participants in the video condition were told that they would now see the videotape of the interaction played back, but because only one camera had worked they would only see the tape of one of the actors. Thus, one actor and one observer from each group saw a replay of the conversation from the same perspective as before, while the other actor and observer saw a video replay from the reversed perspective (i.e., the actor now

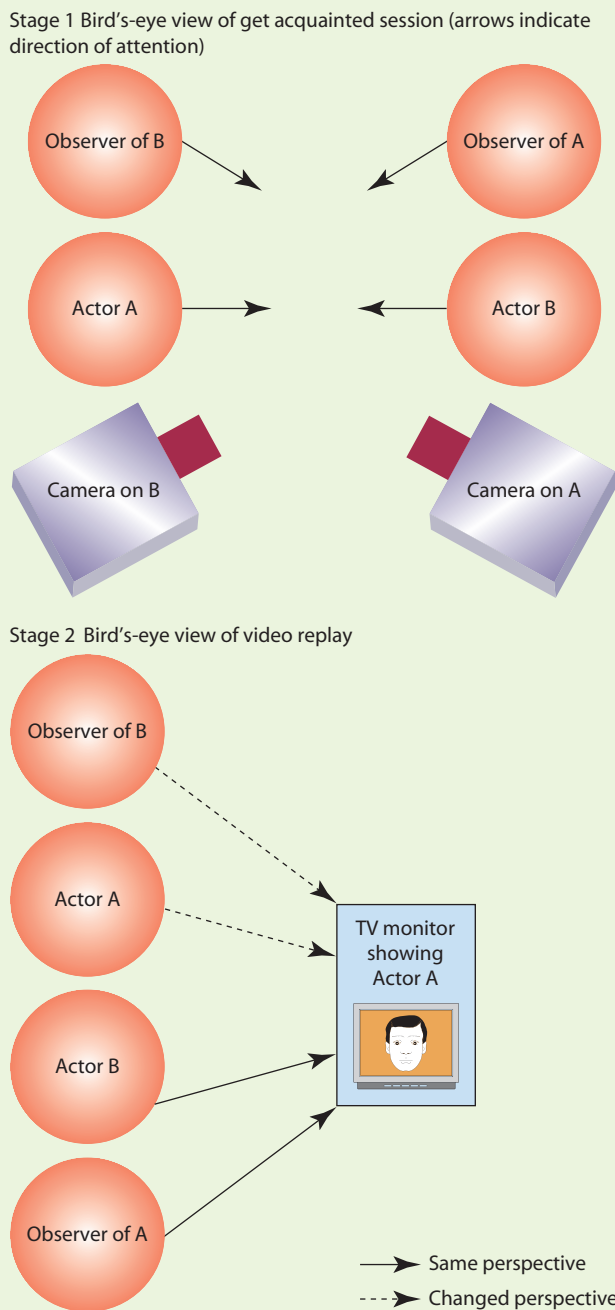


Figure 3.8 The two stages of Storms's (1973) procedure.

saw his own face, and the observer saw the face of the actor that he had not originally observed; see Figure 3.8, Stage 2). In the no-video condition, participants were told that none of the video equipment had worked and that the planned video replay would therefore not take place.

Measures

After Stage 2, actors rated their own friendliness, nervousness, talkativeness and dominance during the conversation, then rated the extent to which each of these behaviours had been caused

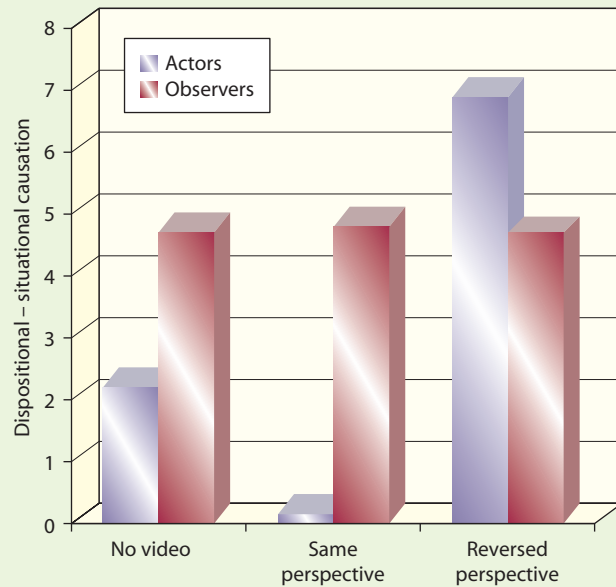


Figure 3.9 Reversing the actor–observer difference following video replay (adapted from Storms, 1973).

by personal characteristics and by characteristics of the situation. Observers rated their respective actors from Stage 1.

Results

Storms calculated difference scores by subtracting summed ratings of situational attribution for the four key behaviours from summed ratings of dispositional attribution. These difference scores were then analysed. In the no-video and same-perspective conditions, actors' attributions were less dispositional (more situational) than observers' (see Figure 3.9). But in the reversed-perspective condition, observers' attributions were less dispositional (more situational) than actors'.

Discussion

This study demonstrates that actor–observer differences can be reversed by showing actors their own behaviour and showing observers the situation that actors are responding to (in this case, the other actor). A more general conclusion may also be possible: that actors and observers tend to attribute greater causality wherever they pay attention. Indeed, later studies (e.g., Taylor & Fiske, 1978) have shown that salient (attention-grabbing) factors tend to be seen as exerting more causal influence than non-salient factors.

One criticism of this study is that the usual actor–observer difference was not demonstrated (e.g., Gilbert & Malone, 1995). For example, analysis of direct ratings rather than difference scores shows that actors were rated in equally dispositional terms by themselves and their observers across all conditions. However, the reported effect on situational attribution is theoretically interesting even if dispositional attribution is unaffected. The general implication is that we can correct for inattention to situational factors by manipulating attention.

Of course, direction of attention can only explain preferences for dispositional explanations of other people's behaviour when the other person is physically present. However, observers also tend to say that the actor was the cause of behaviour when it is described to them in words. For example, when told that 'John went to the cinema', most people will tend to think that this reflects something about John rather than something about the cinema. According to Brown and Fish (1983), the reason is that the English language implies that subjects of action verbs are responsible for the action described. By contrast, the *objects of experience* verbs are usually seen as causal (e.g., we tend to interpret the sentence *John liked Angela* as John's liking for Angela being caused by something about Angela).

Self-serving attributional biases What pushes or pulls our attributions in particular directions? The examples presented so far suggest either that we are drawn towards salient factors or that we are following generally valid rules of explanation (e.g., persons cause effects) in circumstances where they happen to be less appropriate (see Nisbett & Ross, 1980). The basic idea is that people's attributions are occasionally imperfect approximations of the causal structure of reality, but at least aim to represent that reality accurately. However, some kinds of bias are harder to explain in these terms. *Self-serving attributional biases* are those that seem to

self-serving biases motivated distortions of attributional conclusions that function to preserve or increase self-esteem

represent a *motivated* distortion of what has happened in order to serve personal interests. Instead of being neutral observers of social events, we

may sometimes interpret them in ways that suit us (or ways that suit our ingroup more generally; Islam & Hewstone, 1993, and see Chapter 14, this volume), allowing us to feel better about what has happened.

Let's assume that you have just done well in an exam. Your tendency may be to conclude that this reflects your innate ability (*self-enhancing bias*). However, if you do badly, perhaps you will decide that the questions were unfair or unusually difficult, or that the person sitting next to you in the examination hall was distracting you by sharpening his pencils so noisily (*self-protective bias*). More generally, you may be inclined to arrive at conclusions that maintain your positive self-image.

One of the earliest demonstrations of self-serving bias was an experiment by Johnson, Feigenbaum and Weiby (1964). Participants were educational psychology students and their task was to teach two children how to multiply numbers via a one-way intercom system, which meant that they never actually saw or heard the children. The first phase involved explaining how to multiply by 10 and the second phase involved explaining how to multiply by 20. After each phase, the pupils' worksheets were returned to participants, allowing them to assess how successfully the concepts had been conveyed. In fact, the worksheets were concocted by the experimenters to manipulate whether or not the answers were correct. In both conditions, pupil A answered the questions on both worksheets correctly. However, pupil B either did badly on both tasks or did badly on the first but improved on the second. In other words, the students either failed or succeeded in teaching pupil B how to multiply. In the condition where pupil



Plate 3.5 Teacher's explanations of pupils' success and failure can show self-serving bias.

B's performance improved, the students explained this improvement in terms of their own abilities as a teacher. But when pupil B failed to improve, they attributed this to his lack of ability rather than their ineffective teaching methods.

Zuckerman (1979) reviewed a number of apparent demonstrations of self-serving bias, and concluded that the effect depends on a desire to maintain self-esteem. The extent to which the current context makes self-esteem concerns salient should therefore determine the strength of the reported effect. However, competing motivations such as self-presentation can also reduce self-serving attributions. For example, we may be less inclined to take credit for positive outcomes in public settings, either because we don't want to be seen to show off, or in order to avoid any embarrassment at failing to live up to the unduly favourable image that this would imply (e.g., Weary et al., 1982).

Abramson and colleagues' (1978) attributional reformulation of learned helplessness theory (see above) implies that depressed people adopt an attributional style that is the precise opposite of the self-serving pattern (they take rather than disown responsibility for failure). Indeed, research suggests that simply being in a bad mood can reverse self-serving biases (e.g., Forgas, Bower & Moylan, 1990), perhaps by removing the illusory glow that ordinarily preserves our sense of well-being in happier states (Taylor & Brown, 1988, and see above).

Motivational or cognitive effect? In the 1970s, a debate arose about whether self-serving biases were genuinely self-serving. Miller and Ross (1975) proposed that some personally advantageous attributions were entirely rational, while others simply reflected the application of principles of explanation that would normally be valid. According to this view, people do not distort their thinking to protect self-esteem (*motivational* explanation) but rather use rules of thumb that happen to lead to faulty conclusions on some occasions (*cognitive* explanation). Take the educational psychology students in Johnson and colleagues' research. It would be illogical for them to attribute pupil B's improvement on

the second exercise to the pupil's abilities, because the pupil had done badly on the first sheet. Further, improvement followed the teacher's careful attempt to explain 20 times multiplication after the pupil had done badly in 10 times multiplication. Under these circumstances, it makes perfect sense to conclude that the application of the participant's teaching skills led to success. In the failure condition, by contrast, the pupil did not improve *despite* renewed efforts at explanation, and was consistently worse than pupil A on both exercise sheets. Thus, failure covaries with pupil B but not with pupil A, or with the person doing the teaching. According to Kelley's covariation principle, even a detached observer should attribute bad performance to pupil B rather than the teacher when these conditions hold.

More generally, Miller and Ross argued that apparently self-serving biases arise because effort covaries with success but not with failure. If trying harder does not improve performance, then it is reasonable to conclude that something about the task is presenting an obstacle. However, if trying harder does improve performance, then success is logically attributable to your trying.

Although these are valid points, few contemporary psychologists would deny that thinking can also be distorted by motivations and emotions. Indeed, the idea that we adjust our inferences to match existing positive expectations already sounds rather like an acknowledgement that we want to make ourselves look good under certain circumstances (Tetlock & Levi, 1982). Thus, many apparently cognitive explanations can be translated into motivational terms, and many apparently motivational explanations can be translated into cognitive terms. Under these circumstances, trying to tease apart cognitive and motivational processes is practically impossible.

The naïve scientist metaphor

Do lay perceivers behave as scientists when making causal attributions, or do they have more practical concerns?

Most of the theory and research considered above assumes that people seek to understand the social world in a detached, scientific manner, but sometimes get it wrong. This assumption is generally

naïve scientist model a metaphor for how social information is processed that likens social perceivers to academic researchers who attempt to develop theories and explanations for the purposes of prediction and control of behaviour

known as the **naïve scientist model** (e.g., Fiske & Taylor, 1991), and, like all metaphors, it has its limits. Perhaps some of our explanations are not designed to provide a neutral characterization of reality in the first place. In this case,

evaluating attributions against abstract rules of inference such as Kelley's covariation principle is rather like complaining that someone playing draughts is not correctly following the rules of chess.

If people are not trying to be scientific when making attributions, what are they trying to do? One possibility is that explanations are generated to solve specific practical problems (White, 1989). For example, if you have to explain why you have done well in an examination, you probably don't weigh up all possible

contributory factors. Instead, you look specifically for those causes that will further your ends in the current situation. If the explanation is formulated while talking with a friend who is disappointed by her own performance, you might search your memory for any bits of good luck that aided your success. If, on the other hand, you are trying to score a point against the other person, you might try to think of some particularly clever things that you wrote.

Hilton (1990) argues that the explanations we provide in conversations are specifically designed to meet the information requirements of the person we are talking to. For example, when discussing with my local greengrocer how I got sick after trying kiwi fruit for the first time, I will tend to attribute the sickness to the fruit, because I assume that she is interested in possible reactions to different fruits. However, when explaining my kiwi-induced sickness to the doctor, her focus will be on what distinguishes me from other patients and what my particular complaint may be. In this context, therefore, I am more likely to attribute the sickness to my own apparent allergy to kiwi fruit.

Note that these two explanations are mutually compatible and may both be true, despite the fact that one refers to an external cause (the kiwi fruit) and the other to an internal cause (my allergy). Typically, a number of factors need to be in place to cause a given event, and attribution involves selecting which of these factors to emphasize in a particular context. To look at this another way, a number of changes in prior events could have averted the effect of getting sick (I could have eaten a different fruit, not had a kiwi fruit allergy, not liked the taste and refused to eat the fruit, and so on) and each of these possible changes reflects one of the causes contributing to my sickness (the fruit, my allergy, my liking of the taste, etc.). Deciding which of these causes to emphasize depends on what you think the person to whom you are explaining the event already knows about its causes, and what you think they expected to happen.

On some occasions, of course, another person's expectations about what would normally happen are not entirely obvious, leading to ambiguity about how to approach the explanatory task. However, the precise phrasing of the causal question often helps to clarify matters. For example, if someone asks you 'Does kiwi fruit make you sick?' the question's implicit emphasis (i.e., kiwi fruit as the subject of the action verb) may suggest that the questioner wants to know about the fruit's effects. According to Hilton (1990), some apparent cases of bias can be explained by applying these conversational principles. For example, Nisbett and colleagues (1973) found that students explained their own choice of course in more situational terms than their best friend's choice of course, consistent with the actor–observer difference. However, the emphasis of the question 'why did you choose this university course?' naturally falls on the course as the topic about which information is required. By contrast, the question 'why did your best friend choose this course?' implies that the investigators want to know about the friend rather than the course (otherwise, why not directly ask for the participant's own reasons?). In this study, then, the reported actor–observer difference may simply reflect a rationally motivated attempt to provide the kind of information that was implicitly requested.

An experiment by McGill (1989) supports this reasoning. She found that a simple change in wording reversed the effect found

by Nisbett et al. When participants were asked ‘why did you *in particular* choose this course?’ they tended to offer less situational explanations than when they were asked ‘why did your friend choose this course *in particular*?’

More generally, attribution experiments may be viewed as conversations taking place between experimenters and participants in which the participants are trying to work out what information the experimenter is seeking (Schwarz, 1994). Making sense of questionnaire items often depends on thinking about who is asking these questions and for what purposes. Adopting this kind of conversational approach also allows a reinterpretation of other supposed illustrations of attributional bias. For example, in Jones and Harris’s (1967) original demonstration of the correspondence bias (discussed earlier), participants were told to work out another student’s attitudes towards Castro. In order to do this, they were provided with an excerpt from an essay that this other student had (supposedly) written. Should participants simply ignore this essay if its writer had been told what position to take on this issue? Surely the experimenter wouldn’t have gone to the trouble of showing it to them if it provided no information about the writer’s opinions. Participants probably assume, therefore, that the experimenter believes that the essay is relevant and conclude that they are meant to infer the writer’s opinion on the basis of its content. Indeed, when participants are explicitly warned that some of the material they will see may not be relevant, the correspondence bias is reduced (Wright & Wells, 1988).

Attributions as discourse

Do attributions always function as part of a cooperative process between people?

Hilton’s working assumption is that people try to provide other people with information that helps to complete their understanding of events (Grice, 1975). However, conversations are not always cooperative processes in which information is generously exchanged. Often, our aim is not to help someone else understand what has happened, but rather to argue against them or defend our own point of view against their attack. According to Edwards and Potter (1993), attributions may be formulated rather differently in these more antagonistic contexts. For example, they present a transcript of a court case in which an allegation of rape is being contested. The defence barrister is questioning the victim of the alleged rape and apparently trying to suggest that she is partly culpable. The interchange ran as follows:

Barrister: (referring to a club where the defendant and the victim met) It’s where girls and fellas meet isn’t it?

Victim: People go there. (Edwards & Potter, 1993, p. 30)

Note that the way the barrister describes what happened on the night in question implies certain motives and intentions on the part of the victim, i.e., that she had gone to this place specifically to meet with members of the opposite sex. Her response in turn is designed specifically to neutralize this inference. Although neither party to this exchange is explicitly presenting explanations, the



Plate 3.6 *Attributions do not always function as part of a cooperative process between people.*

way that events are formulated already carries implications for what caused what and who is to blame. Clearly, this isn’t a cooperative process, but rather one in which attributions are actively contested.

Like White (1984), Edwards and Potter (1993) believe that attributions are formulated for particular purposes, but these purposes specifically reflect conversational goals such as persuading, undermining, blaming or accusing. Conversational maxims are often explicitly flouted when explanations are presented. Further, a range of alternative tactics and strategies may be improvised on-line in response to the other person’s formulations. In this view, attributions do not function as attempts to explain a separately existing social reality, but instead to *construct* a version of reality suited to the current conversational business. Attributions are not descriptive representations but rhetorical moves in an ongoing dialogue.

SUMMARY

In this central part of the chapter we have covered a huge amount of ground. We reviewed the major theories of attribution and identified some of their limitations, including the need to explain how general and specific knowledge is used as part of the attribution process. We also considered applications of attribution theory, notably to clinical depression. Next we considered the key role of attributions in emotion and the misattribution of arousal, and summarized the evidence for the main types of attributional bias and their underlying causes. Finally, we evaluated whether lay perceivers do, in fact, function as naïve scientists, and the role of causal attributions within the study of conversations and everyday discourse.

SOCIAL PERCEPTION AND SOCIAL REALITY

What are the main constraints on how social perceivers understand other people and explain their actions?

Conversational and discursive models of attribution take us some distance from Asch's and Heider's project of finding out how people privately make sense of other people and what they do. More generally, they unsettle the notion that people are simply naïve scientists trying to uncover the structure of an independent social reality. Subsequent models have seen social perceivers as lawyers (Hamilton, 1980), pragmatists (White, 1984), tacticians (Fiske & Taylor, 1991) or politicians (Tetlock, 2002). Although there is some truth in all of these characterizations, the bottom line seems to be that a variety of strategies are available for dealing with social information, which may be deployed selectively depending on circumstances.

But does this mean that social perceivers are free to construct whatever formulation suits their current purposes? There are three reasons why this is not the case. The first is that biology and culture do not equip people with infinitely flexible conceptual resources for understanding other people. On the one hand, we are innately attuned to certain kinds of social information at the expense of others (e.g., Fantz, 1963; Johnson & Morton, 1991). On the other hand, we are socialized into particular ways of thinking about the social world (e.g., social representations; Farr & Moscovici, 1984). Attribution and social perception always take place against the backdrop of norms of understanding that make some inferences more likely than others.

A second and related point is that other people will contest any formulation of social reality that doesn't match their own (just as their own formulation may be contested in turn). The upshot is that some consensus tends to emerge among people who have regular contact with one another. However, social reality may also be influenced by the representations that are applied to it. For example, our judgements about others can lead us to behave in ways that bring out the very characteristics that we expected (via self-fulfilling prophecies; see Snyder, 1984, and Chapter 10, this volume).

The final constraint on representations is the content of the social information itself. Although social perception research tends to focus on the interpretation of verbally represented information or static, sensory stimuli, when people confront each other in everyday life they often have access to a dynamic multimodal presentation that is responsive to their own conduct. Some characteristics of others can be read directly from the available information (Baron & Boudreau, 1987; Gibson, 1979). For example, we register where someone else's attention is focused from the orientation of their sensory organs. It seems therefore that some kinds of social perception and attribution are not explicit verbally mediated processes but instead involve direct registration of sensory information. The challenge facing future research is to specify

how these two kinds of process – verbal representation as shaped by conversational pragmatics and rhetoric, and direct perception determined by active pick-up of social information – might relate to one another.



SUMMARY AND CONCLUSIONS

- *Person perception* is influenced by the form as well as the content of information, and not all information is equally weighted.
- Some kinds of information (e.g., facial configuration) are perceived as direct indicators of personality, and some kinds of information are weighted highly (e.g., first-presented information and 'central' traits) but rarely in all situations.
- *Causal attribution* is shaped by prior general knowledge, as in correspondent inference theory and covariation theory. But we do not always have access to this information and specific knowledge is also used.
- Inferences about the causes of achievement influence motivation and, relatedly, internal, stable and global attributions for helplessness may exacerbate depression.
- Attributions for internal symptoms may alter interpretations of emotional experience.
- As with person perception, not all information is equally weighted when making attributions about the causes of behaviour; causal information that is salient is especially influential.
- Various biases have been identified, which qualify the general theories and bring them more into line with how attributions operate in everyday life.
- People in individualistic societies tend to overestimate personal causes of behaviour (the correspondence bias), but this correspondence bias is neither inevitable nor uncontrollable.
- Differences in actors' and observers' attributions depend partly, but not entirely, on their different perceptual perspectives.
- Motivational factors are implicated in some instances of self-serving bias.
- Attribution typically operates within a conversational context and is responsive to conversational demands.
- Although people sometimes act like naïve scientists, they make attributions in ways that are strategic for the goals of social interaction, serving a variety of rhetorical purposes.

Suggestions for further reading

- Fiske, S.T. & Taylor, S.E. (1991). *Social cognition* (2nd edn). New York: McGraw-Hill. Includes treatment of attribution theory (Chapters 2 and 3) within an overarching perspective on social cognition.
- Försterling, F. (2001). *Attribution: An introduction to theories, research, and applications*. Hove: Psychology Press. An accessible overview of attribution models and findings from Heider to the early twenty-first century.
- Hewstone, M. (1989). *Causal attribution: From cognitive processes to collective beliefs*. Oxford: Blackwell. A wide-ranging view of

the field, including intrapersonal, interpersonal, intergroup and societal aspects of attribution.

- Ross, L. & Nisbett, R.E. (1991). *The person and the situation: Perspectives of social psychology*. Boston: McGraw-Hill. Highly readable introduction to the cognitive perspective on attributional bias and other aspects of social perception and inference.
- Zebrowitz, L.A. (1990). *Social perception*. Buckingham: Open University Press. A thorough review of research into social perception that attempts to integrate ecological and cognitive approaches.