One of the uncharted territories in applied social psychology is the systematic examination of the role that language plays in applied contexts. This is surprising if one considers the centrality of language in communication, which is at the heart of most of the issues in applied social psychology. This can be exemplified in abundance. Take, for instance, the patient–doctor communication in health-related contexts (cf. Chapter 5); the courtroom which constitutes the battleground for the skilful use of words in the pursuit of innocence or guilt (cf. Chapter 10); the mass media in which words are used to convey messages with an impact (cf. Chapter 12); political contexts of persuasion or conflict, negotiation or bargaining (cf. Chapter 11); close personal relationships where the expression of tenderness or distance is mediated by words; the use of language in expressing our attitudes (cf. Chapter 1); in therapy, in diagnoses, and so on. The list is endless. Language and language use is central to most if not all subjects that one can think of in an applied context and the surprising fact is that language receives so little systematic treatment within any of the multiple areas in which applied social psychology can be visualized.

Essentially, language can be treated as a tool (Semin, 1995), much like a chisel or a hammer, that is used to give shape to an intention, goal or desire. Such intentions, goals or desires have to be expressed in a communicative context such as an interview, a courtroom, an argument, a negotiation, or in order to convey an ailment or passion. The goal of this chapter is to provide an overview of how we deploy verbal tools strategically in the pursuit of such goals, intentions and desires, in a variety of contexts that are highly relevant to our daily lives.
One reason for the elusive nature of language research in applied contexts is that the diverse linguistic strategies that we employ are often too subtle and escape our conscious attention. Language use is a habitualized activity. For instance, men are generally not aware of the fact that they employ a sexist language style (for an overview, see Todd & Fisher, 1988). Defence attorneys would be hard pressed if they were asked to identify the differences between their style of language use and that of prosecutors, despite the fact that both are talking about the same defendant’s behaviour in the same court case (Catellani, Pajardi, Galardi, & Semin, 1995; Schmid & Fiedler, 1996). And the same typically holds of politicians, therapists, and even advertising experts who may employ specific strategies consistently and often successfully without any meta-knowledge about the rules underlying their linguistic skills.

These observations become all the more important if one considers that the plasticity of language enables the same intention to be communicated in a variety of different ways. It therefore becomes interesting to consider why particular performers resort to one strategic expression or communication style in specific situations rather than another – consciously or unconsciously. Furthermore, it seems that, in order for a particular strategic use of language to be effective, it is critical that the linguistic strategy remain undetected or unconscious. The explicit and conscious availability of knowledge of such verbal strategies may in fact hinder their skillful performance. One reason is that the availability of such knowledge may hamper its spontaneous production, since the conscious monitoring of verbal performance may interfere with the production process. The other reason is that the conscious discovery of a linguistic strategy undermines its effectiveness by immunizing the receiver to its impact.

For instance, imagine that linguists or psychologists discover a highly effective verbal strategy for persuasion, ingratiation or deception. The strategy loses its effectiveness as soon as it is explicitly formulated. Once such knowledge is available explicitly and publicly, then people become immunized to it and the strategy loses its power. Consequently, language users would have to develop and learn new strategies that preserve their power until such time as they are unmasked again. As this example shows, there is always something creative and inventive in adaptive verbal communication. However paradoxical it sounds, while strategic language use is only possible as a convention, it nevertheless has to remain unconscious and implicit in order to preserve its power. One should not be surprised that even people who are highly skilled in rhetoric may not be fully aware of the verbal strategies they use regularly.

This chapter is devoted to a body of research that illustrates, explains and measures a number of subtle language tools that are often used unconsciously. We shall present the strategic use of these linguistic tools with reference to their characteristic fields of application or use. The chapter will cover a range of applied areas, each of which serves to illustrate specific principles of language use. Although the pertinent research has often developed in the psychological laboratory, a number of recent studies have extrapolated the empirical evidence to investigate the uses of linguistic tools in real settings.
Table 4.1  Summary of topics and concepts covered in this chapter

<table>
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<th>Field of application</th>
<th>Specific issues</th>
<th>Theories and methods</th>
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<td>Interpersonal behaviour and personal health</td>
<td>Partner satisfaction</td>
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<td>Intergroup relations</td>
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<td>Social influence</td>
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<td></td>
<td>Lie detection</td>
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</tbody>
</table>

Table 4.1 provides an overview of the topics that are covered in this chapter. The four broader fields of application in the left column are split into finer topics in the middle column. Column 3 indicates some of the associated theoretical and methodological concepts. As is evident from the table, this chapter has been organized along pragmatical lines. That is, it is structured in terms of the different fields of application rather than by theoretical principles or levels of analysis, such as the lexical, propositional or discourse levels.

**Language and well-being**

One of the interesting indications that language plays an important role in health-related issues comes from the field of traumatic experiences and health. Numerous investigations have demonstrated that the linguistic representation of a traumatic, strong or novel emotional experience leads to improved health. Thus if people who have experienced a powerful emotional experience are asked to write an essay about it, they exhibit superior health as a consequence when compared to persons who write essays about nonemotional events. The measures that have been utilized to assess health improvement include reduction in subsequent visits to physicians (e.g. Pennebaker, Kiecolt-Glaser, & Glaser, 1988) and response to latent Epstein-Barr virus reactivation (Esterling, Antoni, Fletcher, Marguiles, & Schneiderman, 1994).

One of the explanatory models was that not talking about the emotional experience, or not confronting it, was in itself stressful. This inhibition model (Pennebaker, 1989) has not been supported by empirical evidence. More recent research has focused on the role that representing an emotional experience in language plays in inducing cognitive changes (e.g. Murray, Lamnin, & Carver, 1989). It is undoubtedly the case that there is a link between representing a new and powerful emotional event in language and its health...
consequences. What future research in this field has yet to clarify is the precise nature of the relationship between the linguistic representation of such events in writing or talking and its health consequences.

**Attribution and partner satisfaction**

No other topic has attracted so much interest in social psychology as attribution research, and it is no wonder that attribution is also of central importance to applied psychology. However, as several authors have acknowledged (Antaki, 1981; Fiedler & Semin, 1992; Hilton, 1990), attribution is to a large extent conveyed through language, even though language users are rarely aware of their implicit attributions. In Fritz Heider’s (1958) seminal writings, it was clearly recognized that ability or effort attributions have to do with the subtle implications of linguistic terms, such as ‘can’ and ‘try’. When Heider introduced the concept of attribution as everyday thinking about the origins and causes of behaviour, he was well aware of the central role of language.

Although this part of Heider’s message was almost forgotten for two decades, it is now being rediscovered and the fact that attributional styles and strategies are built into language is being recognized. For example, consider the vast body of evidence on the factors that discriminate between distressed and non-distressed couples (Fincham, 1985; Weary, Stanley, & Harvey, 1989). A reliable predictor of dissatisfaction, and even divorce, is a global attributional style that highlights stable, internal, uncontrollable causes within the persons themselves, as opposed to external circumstances or stressors. Quite analogous to the role of attribution in the genesis of depression and learned helplessness (Abramson, Seligman, & Teasdale, 1978), marital distress and partnership conflicts are fostered by the attribution of stress and failure to global and stable causes within the partner’s personality. A particularly distress-prone attribution pattern involves global, dispositional attributions of negative partner behaviours and positive own behaviours, as compared with local, external attributions of positive partner behaviours and negative behaviours of oneself. For instance, the typically dissatisfied spouse would not simply blame the partner for the cold emotional climate, constant arguments and lack of delightful leisure activities. He or she would attribute these negative experiences to stable personality factors that promise little change over time. Moreover, the asymmetric tendency to attribute more stable negative characteristics to one’s partner rather than one’s self affords a permanent source of conflict that serves to perpetuate problems that already exist.

Translated into language behaviour, this unfortunate attribution syndrome amounts to a tendency to use abstract, dispositional trait terms in describing one’s partner’s negative and one’s own positive behaviours, and to use much more specific terms and many adverbial qualifications and references to the situation in descriptions of one’s own negative and one’s partner’s positive behaviours. Thus, using words like arrogant or selfish to blame one’s partner (while interpreting the same behaviour in oneself as simply laughing and
continuing talking) will inhibit conflict resolution, because trait adjectives do not clearly specify a behavioural prescription that could help to overcome the undesirable situation. Imperatives like ‘Don’t be so selfish!’ or ‘Stop being so arrogant!’ are difficult to comply with, even when the partner is willing to comply, simply because the behavioural references are too diffuse. A study by Fiedler, Semin and Koppetsch (1991) suggests that, regardless of valence, there is a general tendency to describe one’s partner in more abstract terms than oneself. This tendency can account for the joint occurrence of two opposing attribution biases, the so-called actor observer bias (i.e. more internal, dispositional attributions to others than to the self; Jones & Davis, 1965; Watson, 1982) at the level of abstract adjectives, and an egocentric bias (i.e. more internal attributions of responsibility to the self than others; Ross & Sicyol, 1979) at the level of concrete behaviour descriptions. Thus, regardless of valence, there is a tendency to attribute dispositions like arrogant or helpful to the partner, while at the same time claiming to contribute more than one’s partner to various activities, like organizing leisure time, or starting discussion. The latter, egocentric bias has been shown to correlate with dissatisfaction in personal relationships (Fiedler et al., 1991; Thompson & Kelley, 1981).

One might wonder if the differential language styles that characterize distressed and non-distressed couples are merely a reflection of different attributions, rather than linguistic phenomena in their own right. However, self-other differences in language use have been shown to generalize far beyond the specific attribution effects. Thus, even when subjects are simply asked to describe others, with no explanation or attribution involved, they exhibit the same differential language use. Moreover, as will be seen in the next section, virtually equivalent language differences can be found in descriptions of ingroup versus outgroup behaviours, suggesting a basic perspective bias in verbal behaviour that is not merely a symptom but may be an essential determinant of pathogenic attribution. Granting the central role of attributions, and that attributions are mainly manifested in language, it seems worth basing therapeutic efforts on a modification of language style.

Action identification theory (Vallacher, Wegner, & Frederick, 1987) provides an interesting theoretical framework for the ‘healthy’ attributional biases that govern satisfied social relationships. In free verbalizations, people normally describe success at a higher level of behaviour identification (e.g. ‘saving the drowning person’, ‘creating art’) than failure (e.g. ‘jumping into the water’, ‘drawing on paper’). High action identification of successful behaviours fosters the inference of positive internal personality attributes (courage, creativity). Departure from this self-serving tendency in attributional language affords a diagnostic symptom of pathogenic development.

Medical decisions

Effective communication and subtle linguistic factors play an influential part in medical decisions, too. A number of investigators have pointed out the importance of clear, empathic and patient-oriented language in medical
treatment (Hinckley, Craig, & Anderson, 1990; Roter, 1984) and its impact on the patient’s satisfaction and cooperation in the therapeutic process. In a typical investigation by Stiles (1979), medical interviews were analysed in terms of eight discourse categories: disclosure, question, edification, acknowledgement, advisement, interpretation, confirmation and reflection. Patient satisfaction was correlated, for example, with an exposition exchange pattern in which patients can start with their own stories while physicians encourage them with empathic responses (i.e. patient edifications and disclosures followed by physician acknowledgements).

While the method advanced by Stiles is based on the interpretation of discourse units or speech acts, other researchers have relied on simpler observation techniques requiring less subjective interpretation. For instance, Roter (1984) has modified the well-known Bales (1968) interaction analysis to meet the special requirements of the physician–patient interaction. In essence, the patient’s as well as the physician’s behaviour is observed and coded for categories of affectively positive communication (e.g. shows approval, agreement, personal remarks), negative communication (e.g. shows disagreement), and neutral items (e.g. gives information or opinion, gives instruction, requests medication, asks direct questions). Using this method, active patient participation is shown to be positively related to satisfaction. This general finding suggests that verbal communication provides an important component of medical success. Even when a somewhat extended medical interview increases the momentary treatment costs, it may actually help to reduce the costs of health care in the long run.

The necessity to communicate effectively about the patient’s health situation and the causes and consequences of his or her disease is highlighted in a study by McNeil, Pauker and Tversky (1988), who were concerned with the impact of verbal framing on existential decisions. In one study, they confronted American medical students in a radiology course and students of medical and natural sciences in Israel with (fictitious) decisions about how to treat lung cancer. After they were informed about the two therapeutic alternatives – radiation and operation – the participants received statistical information on the lethal risk associated with these alternatives. The crucial manipulation pertained to the verbal framing of the risk information.

In the survival condition, the statistical information was framed in terms of positive survival outcomes. Participants learned that of 100 patients whose lung cancer is treated by surgery, 90 survive the operation, 68 are still alive after one year, and 34 have overcome the disease after five years. For comparison, if treated by radiation, all 100 people survive the treatment, 77 are still living after one year, and 22 survive the katamnestic test after five years. Given such a verbal focus on positive outcomes, the vast majority of respondents (88 per cent) favour surgery over radiation.

In contrast, when the same risk data are reframed in terms of mortality, or the complementary negative outcomes, the preferences change dramatically. Thus, when participants learn that mortality rates (out of 100) after surgery are 10 (immediately), 32 (after one year), and 66 (after five years), whereas mortality after radiation amounts to 0 (immediately), 23 (one year), and 78
(five years), only 53 per cent of the respondents favour surgery, while the preference for conservative therapy raises from 18 per cent to 47 per cent, even though the statistical data are exactly the same. These findings, like many related phenomena that highlight the importance of verbal framing in decision and choice, can be explained by the assumption of an S-shaped subjective value function as specified in prospect theory (cf. Kahneman & Tversky, 1984; see also Chapter 2). Such a function implies that with increasing gains or losses, the increments in positive or negative value become smaller and smaller; that is, the function is negatively accelerated. Therefore, the difference in the five-year survival rate after surgery and radiation appears much more significant in the survival condition (34 per cent vs. 22 per cent) than the complementary difference in the mortality condition (66 per cent vs. 78 per cent), simply because the same 12 per cent gains or losses are worth less in the range above 60 per cent than in the lower range around 30 per cent.

Although the explanations derived from prospect theory refer to a subjective value function in the first place, it is important to note that the psychologically significant implications of such modern decision theories draw heavily on the role of language and symbolic representations of decision alternatives. Many violations of rational norms in decision making, like the above preference reversal, would hardly occur if we had an unambiguous communication code for risks and probabilities, and if the translation of statistical data into ordinary language had not become an essential part of politics, decisions and public discussions.

For an even more striking illustration (taken from Gigerenzer & Hoffrage, 1995), consider the following two modes of conversing about the risk of breast cancer. In terms of the common probability format, you may be told that the base rate that a woman aged about 40 has breast cancer is 1 per cent, the hit rate of the common diagnostic instrument (i.e. the probability of a positive mammography if a woman really has breast cancer) is 80 per cent and the false-alarm rate (i.e. the probability of a positive mammography if the woman has no breast cancer) is 9.6 per cent. What is the probability that a woman whose mammography in a (non-selective) screening test happens to be positive actually has breast cancer?

A large majority of people who converse about this statistical problem dramatically overestimate the conditional probability of breast cancer. The normatively appropriate answer, according to Bayesian statistics, is 7.8 per cent. While this may be surprising, it is no less surprising that many people reach a much better understanding of the underlying statistics and arrive at accurate estimates if the same problem is phrased in a frequency format rather than the impairing probability format. For example, imagine you are told that there are 1,000 women altogether, of whom 10 (1 per cent) have breast cancer. Moreover, 8 of these 10 women get a positive mammography (80 per cent hit rate), but 95 of the 990 women who have no breast cancer will also get a positive mammography (9.6 per cent false-alarm rate). Given this framing, you will easily acknowledge that you only have to estimate the ratio of the eight people who have breast cancer and a positive mammography to all 8+95 people with a positive mammography.
Under realistic conditions, the conditional probability after positive diagnostic tests may be much higher if the patient sample is selective (e.g. because the patients already feel symptoms or pain). Moreover, the difference between hit and false-alarm rates can be sharply enhanced by conducting several parallel tests of the same patient. Remarkably, however, the fact remains that talking about frequencies regularly activates different routines of thinking (cf. Gigerenzer, 1991b) than talking about probabilities which are rarely given a frequentist interpretation in ordinary language. The term ‘probability’ refers to degrees of subjective confidence and beliefs in singular events as opposed to relative frequencies of repeated events. In contrast, the term ‘frequency’ primes people into extensional thinking about statistical samples and distributions of events.

Language and intergroup relations

Just as interpersonal conflicts may be due to conflict-prone language styles, as illustrated with reference to distressed couples, conflicts on the intergroup level are also manifested in, and supported by, characteristic language styles and language repertoires. After all, many ethnic prejudices or group stereotypes are often communicated by and socialized through language, without direct contact with the target group. Moreover, many language games (jokes about Jews, women, handicapped people; linguistic repertoires for discriminating against gypsies or immigrants, or for insulting members of political parties or soccer clubs) serve the purpose of keeping discrimination and hostility alive, often in an ironic, playful manner.

Group stereotypes and discrimination

There is a long tradition of studies showing that language styles and dialects can influence impressions of, and prejudice against, social groups (Bradac, 1990). In Giles’s speech accommodation theory a tendency is postulated that members of ingroups react favourably to outgroup members who linguistically converge with them (Giles, 1973; Giles, Mulac, Bradac, & Johnson, 1987). However, people's natural reaction to like those who talk like themselves is moderated by other factors. For instance, the ultimate reaction to speech convergence may depend on the intention attributed to the speaker (e.g. ingratiation or authentic sympathy). Language divergence or a distinctive language style may also be maintained to assert a positive ingroup identity (Tajfel & Turner, 1979).

Empirical research on the role of language in diagnosing, creating and maintaining group distinctions relies heavily on the development of appropriate methods and research instruments. One particularly ambitious instrument is discourse analysis, as proposed by Edwards and Potter (1992). The aim of this approach is to analyse language in its natural, discursive context, in order to capture the interests and intentions that underlie all
everyday communication, with special attention given to the speech acts of blame, denial, excuse and mitigation (Edwards & Potter, 1993). Since there is no simple algorithm to extract speaker intentions and motives, this approach relies strongly on the researcher’s intuition and participation.

In contrast to discourse analysis, which attempts to assess illocutions and perlocutions rather than only words or linguistic forms, a different approach is advanced by the Linguistic Category Model (LCM) that was developed by Semin and Fiedler (1988, 1991). This approach leads to a simpler and more reliable coding procedure at the lexical level that is much less dependent the researchers’ subjective judgements and intuitive insights. The LCM is a linguistically based classification of the four major word classes in text or discourse about interpersonal events and persons. The main objective of this model is the identification of the diverse inferences that these four classes of interpersonal terms can channel when used in a variety of discursive contexts. The four categories in this model are: descriptive action verbs (DAV), interpretative action verbs (IAV), state verbs (SV) and adjectives (ADJ). Examples of these four categories, their defining features, and their most important cognitive implications are given in Table 4.2.

The same behaviour can be often described at different linguistic levels, and this freedom of choice provides the potential for linguistic strategies, manipulations and self-deceptions. For instance, the same aggressive episode may be downplayed and localized as ‘pushing’ or ‘shouting’ (DAV) when oneself or one’s group is the actor, but raised to the IAV level (‘hurting’, ‘insulting’) or ADJ level (‘brutal’, ‘mean’) when the behaviour refers to others or to an outgroup. Note that this tactical (self-serving or group-serving) choice of linguistic abstractness corresponds closely to the conflict-prone attribution styles in distressed couples already mentioned.

In several applications of LCM analyses to intergroup language, Maass and her colleagues (Maass & Arcuri, 1992; Maass, Arcuri, Salvi, & Semin, 1989; Maass, Milesi, Zabbini and Stahlberg, 1995) have demonstrated the so-called linguistic intergroup bias. This bias originates in the systematic utilization of the aforementioned strategy, namely, to use abstract language (ADJ, SV) for negative outgroup behaviours and positive ingroup behaviours, but to use more concrete terms (DAV, IAV) for positive outgroup and negative ingroup behaviours. Abstract terms imply temporal stability and trait-like dispositions within the sentence subject, whereas concrete terms imply less stability but emphasize the external, situational causes of behaviour. Therefore, the linguistic intergroup bias often serves to internalize ingroup assets and outgroup deficits, and to externalize ingroup deficits and outgroup assets.

In a series of studies, Maass et al. (1989) investigated the manner in which North Italian palio teams (palio is a competitive horse-riding game) described desirable and undesirable behaviours of members of their own team or of an opponent team. As expected, positive ingroup and negative outgroup statements were expressed at a higher level of linguistic abstractness than negative ingroup and positive outgroup statements. More recently, however, Maass et al. (1995) refined this linguistic-intergroup bias, demonstrating that the crucial factors underlying this bias are differential expectancies rather than
Table 4.2. The classification of linguistic terms in the interpersonal domain and their classification criteria: the Linguistic Category Model

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
<th>Characteristic features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Descriptive action verbs (DADV)</td>
<td>to call to kick (to kiss)</td>
<td>Reference to single behavioural event; reference to specific object and situation; context essential for sentence comprehension; objective description of observable events</td>
</tr>
<tr>
<td>Interpretive action verbs (IAV)</td>
<td>to cheat to imitate (to help to inhibit)</td>
<td>Reference to single behavioural event; reference to specific object and situation; autonomous sentence comprehension; interpretation beyond description</td>
</tr>
<tr>
<td>State verbs (SV)</td>
<td>to admire to hate to abhor to like</td>
<td>Enduring states, abstracted from single events; reference to a social object, but not situation; no context reference preserved; interpretation beyond mere description</td>
</tr>
<tr>
<td>Adjectives (ADJ)</td>
<td>honest impulsive reliable helpful</td>
<td>Highly abstract person disposition; no object or situation reference; no context reference; highly interpretable; detached from specific behaviours.</td>
</tr>
</tbody>
</table>

*Classification criteria:* refer to one particular activity and to a physically invariant feature of the action; action has clear beginning and end; in general do not have positive or negative semantic valence.

*Classification criteria:* refer to general class of behaviours; have defined action with a clear beginning and end; have positive or negative semantic valence.

*Classification criteria:* refer to mental and emotional states; no clear definition of beginning and end; do not take the progressive form; not freely used in imperatives.

Sources: Semin & Fiedler (1988, 1991)

Ingroup protection. Thus, positive ingroup behaviour is only raised to an abstract language level if it conforms to group-related expectancies. When expectancies suggest more negative ingroup than outgroup attributes, the linguistic intergroup bias will favour the outgroup.

In the context of political attitudes and social influence, a similar bias was demonstrated in the manner in which newspapers with a certain political affiliation report positive or negative events associated with their own group or preferred party, or an outgroup or opponent party (Maass, Corvino, & Arcuri, 1995). For instance, both Jewish and non-Jewish newspapers reported on anti-Semitic aggression in Italy in negative terms, but the non-Jewish newspapers formulated their negative statements in more concrete, less abstract language than their Jewish counterparts.

In general, then, the strategic use of linguistic categories provides a universal means of editing and optimizing one's utterances and public statements, in order to meet group interests and other motivational goals. While it would appear blatant and obtrusive to present one group in obviously more positive terms than the other, the subtle change of linguistic abstractness serves a similar purpose, but much more unobtrusively and presumably more efficiently.
Sexist language

One particularly prominent distinction in the social world is the ubiquitous grouping of people according to sex, or gender. While the term ‘sex’ refers to biological categories, ‘gender’ pertains to the different social roles associated with female and male people. Sex and gender differences have to be taken into account in socialization and education, marketing, television and politics. Two decades after the rise of the feminist movement, people have been sensitized to the disadvantaged and underprivileged status of women that still prevails in many modern societies. This has led to several changes in legislation, education, and has affected the job market, as well as giving rise to rules of non-sexist language, reflecting the insight that discrimination of women is partly due to crystallized language habits. As an illustration, the English language includes 220 terms for a sexually promiscuous female but only 20 for a sexually promiscuous male, although there are more words in the lexicon that refer to males than females (Ng, 1990). Gender differences are also prominent in conversation styles, with males interrupting females at a higher rate than vice versa, or females reacting more emotionally than men to conversation at the personal level.

In spite of, or because of, the enhanced cultural sensitivity to the gender groups issue, the instrument of language is multiplex and creative enough to offer various tools of subtle discrimination between gender groups. Not surprisingly, Fiedler, Semin and Finkenauer (1993) reported evidence of a similar type of linguistic intergroup bias that characterizes hostile or opposing groups. Analyses of free verbalizations provided by male and female speakers about males and females not only revealed a pattern of relative outgroup derogation and ingroup favouritism, but also the familiar tendency to raise stereotype-consistent statements on to a higher level of abstractness.

Closer inspection of verbalizations in different conversational categories (e.g. education of children, equality on the job, contraception, housework, car driving) has shown that the degree of discrimination is not higher in conflict-prone categories (e.g. equality on the job) than conflict-free categories (e.g. contraception). In fact, discrimination was most pronounced in certain unimportant topics (e.g. women as car drivers), which are only of symbolic value for the identification with one’s gender group. It is often in these topics that people have acquired highly sophisticated language skills (words, jokes, material for conversation and small talk), providing efficient vehicles of gender discrimination.

Social influence through language

Modern approaches to persuasion and attitude change distinguish between two routes of communication (cf. Chapter 1): a central and a peripheral route (Petty & Cacioppo, 1986). While the central route is governed by the rules of consistency and argument quality, the peripheral route affords a channel for
suggestive, irrational and emotional forces in social influence. Research has shown that receivers of a verbal message who are not distracted, highly involved and high in a personality trait called need for cognition give more attention to the central route. In contrast, when receivers are distracted, uninvolved or in euphoric mood, they are more amenable to cues conveyed via the peripheral route, such as the attractiveness of the communicator, conditioned associations (fear, erotic appeals), or sympathetic jargon or dialect.

Attempts to use verbal influence in advertising, medical consulting or political campaigns have to take these differences into account. In general, higher weight should be placed on peripheral cues (associated affect, erotic stimuli, mere visibility) when advertising is directed at ill-informed consumers, whereas more weight should be given to the central route (i.e. to arguments about product quality) when the message addresses highly informed expert consumers.

Again, the more subtle, less conscious influences of the peripheral route may appear to be more interesting, from a psychological point of view, than the overt arguments coming along the central route, which is obviously constrained by the actual quality of the arguments available. The peripheral route allows for creativity in suggestion, manipulation and deception, even when the arguments themselves are weak and unconvincing. Let us consider three instances of such linguistically mediated illegitimate or tricky influences via the peripheral route of persuasion: nominalizations, innuendo effects and verbal deception.

**Nominalizations**

One of the most common linguistic strategies for clouding the real nature of arguments or propositions is the use of nominalizations (Bolinger, 1973). The connotations of nominal phrases often evade the careful assessment that critical communication partners apply to propositions that are directly stated in the predicate of a sentence. For example, the nominal term ‘insurance’ mimics security and lack of threatening events, although hardly anybody would believe the direct assertion that an insurance company will actually increase the safety of one’s home or health. It merely affords partial compensation for the insecurity and threat of terrifying, fatal events. Likewise, the term ‘Ministry of Defence’ may be used even when the ministry is more concerned with war and offensive action. Or the notion of ‘innocence’ may be used to evade a critical test of whether female virgin status is of positive valence.

The prominence and effectiveness of nominalizations in marketing strategies or political ideologies is due to the fact that appraisals and evaluations are not conveyed explicitly but hidden in presuppositions. In linguistics, the term presupposition refers to that part of communicated information that is taken for granted, as a given (Clark & Haviland, 1977), before the comprehension process can begin. Thus, the sentence ‘You always find an agent of your insurance company in the neighbourhood’ not only conveys the focused
proposition in the predicate (i.e. that an agency is in the neighbourhood). An implicit statement is hidden in the depth of the nominal term ‘insurance’ (that insurance gives security) but this part of the message is presupposed as a premise and thereby protected from critical tests and objections. Other examples of presuppositions will be given below, in the section on eyewitness testimony.

**Innuendo effects**

Wegner, Wenzlaff, Kerker and Beattie (1981) have studied the phenomenon of incrimination through innuendo. Their studies show that incriminating statements (e.g. in newspaper headlines) may serve to devalue a target person regardless of whether the statement is affirmed, questioned or even denied. Thus, even when the headline reads ‘No evidence for Politician X’s red-light district affair’, subsequent memory-based judgements reveal a negative impact on the impression of Politician X. The theoretical explanation of this phenomenon is related to the notion of constructive memory that will be dealt with in the later context of eyewitness memory. Apparently, the mere comprehension of incriminating statements involves the formation of transitory images, or representations, that may result in memory intrusions and distortions.

**Verbal deception**

Verbal deception is tantamount to lying. Protocol studies of everyday communication elucidate that not telling the plain truth is by no means an exceptional sin or criminal symptom, but quite common, and often serves a prosocial purpose (Turner, Edgley, & Olmstead, 1975). Most attempts to conceal the truth or to suggest invalid information use the peripheral route. Verbal deception strategies involve the avoidance of immediate references (e.g. Mehrabian, 1971), selective reporting, and switching from facts to subjective opinions and emotions.

Brunswick’s (1956) lens model framework provides a useful and powerful research instrument for the empirical study of lying and deception (see Figure 4.1). This research tool is briefly outlined here because it can easily be used to analyse communication processes in many applied contexts. For example, to investigate the credibility of statements delivered by politicians in television during an election campaign, the researcher has to make a basic theoretical decision about a set of relevant cues that are supposed to mediate the credibility of the politician’s statements. Depending on the researcher’s background or hypothesis, these may be verbal, nonverbal or physiological cues, but let us assume the researcher is interested in the following five verbal-behaviour cues: richness of details reported, immediacy of response, emotional involvement, balanced arguments, and social desirability of utterances. (If the purpose is to derive practical recommendations, it is important that the cues
should refer to well-defined, deliberate behaviours that can be controlled voluntarily.)

The entire communication is then segmented into a sequence of singular statements that are scaled on the five cue dimensions, based on the judgements of experts or the television audience. In this way each statement is assigned a numerical value regarding immediacy, emotional involvement, etc. The next step is to obtain truth or credibility judgements from a sample of spectators who serve as lie detectors. Based on the correlations (across all statements) between the communication cues and the truth or credibility judgements, it is then quite easy to correlate the cue values with the judgements and to calculate multiple regression coefficients that reflect the weight each cue receives in the formation of credibility impressions. These empirically obtained weights can be directly transformed into concrete recommendations for communication styles.

If the truth of the statements is known, the same statistical procedure can be applied to figure out the actual diagnosticities of the cues, that is, the degree to which cues are related to the objective truth criterion. Note that the two sets of regression coefficients (the objective diagnosticities of the cues, and the weights they receive in subjective truth judgements) will usually diverge markedly (cf. Fiedler, 1989; Zuckerman, DePaulo, & Rosenthal, 1981), again reflecting the language users’ lack of insight and the unconscious nature of the communication process. The same twofold multiple regression can be used in
many applied settings to analyse the function of communication cues in mediating credibility, comprehensibility, advertising effects, television impact, or outcomes of interviews, and diagnostic conversations.

Language use in the legal context

Forensic lie detection

One prominent application of lie detection research is the courtroom and the forensic issue of judging the credibility of a defendant’s or witness’s reports. Although a good deal of this research has involved the measurement of physiological (rather than verbal) cues that can be displayed on the polygraph, this method is by no means free of language. While the measurement of blood pressure, skin conductance or respiration (supposed to assess excitation and guilt during lying) is based on purely physiological principles, the polygraph test depends crucially on the selection of questions used for interrogation. Typically, the test involves three types of item: (a) irrelevant questions for accommodation and warming up (e.g. ‘What is your date of birth?’); (b) questions that directly pertain to the crucial issue (e.g. ‘Did you rape the woman?’); and (c) control questions that also raise emotionally arousing issues but are not crucial to the judicial issue (e.g. ‘Do you enjoy violent pornography?’). The decisive question is whether the respondents’ autonomic reactions to crucial items exceed those to control items. It goes without saying that the success and accuracy of this method relies heavily on the selection of appropriate control questions. In any case, the polygraph test is of limited validity (Lykken, 1979; Szucko & Kleinmuntz, 1981) and not permissible in many countries.

Eyewitness testimony

Valid judicial testimony is not only contingent on informants’ willingness to deceive or tell the truth but also on their ability to memorize relevant information. There are many reasons for expecting the less than perfect memory that may result in systematically biased reports, due to extreme fear and arousal, self-presentation concerns, and emotional involvement of witnesses or victims in the courtroom (see Chapter 10). However, aside from emotional and motivational distractions, the research by E. Loftus (1979) and colleagues has repeatedly shown that biased reports are partly due to linguistic suggestion and manipulation.

The notion of a presupposition provides a key concept for understanding the linguistic impact of particular question formulation strategies on eyewitness testimony (see Loftus, 1975). The open question ‘Did the skinhead start the fight?’ places the attentional focus on whether the proposition is true or false. In contrast, the question ‘Why did the skinhead start the fight?’ presupposes, or takes it as a given (Clark & Haviland, 1977), that the skinhead was the instigator, and focuses on the causal explanation of a granted fact. To repeat,
Table 4.3 Variants of presuppositions

<table>
<thead>
<tr>
<th>Variant</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominalization</td>
<td>'Health insurance' suggests guarantee of health.</td>
</tr>
<tr>
<td>Attribute to nominal phrase</td>
<td>'Did the three Japanese tourists pose for a photograph?' The numerical attribute three will be hardly tested.</td>
</tr>
<tr>
<td>Implicit verb causality</td>
<td>'hurt', 'help' imply subject causation; 'admire', 'abhor' imply object causation.</td>
</tr>
<tr>
<td>Definite/indefinite article</td>
<td>'Did you notice the flash of lightning?' suggests that there was one.</td>
</tr>
<tr>
<td>Subordinate clause</td>
<td>'What did the skinhead say when he provoked the gentleman, before the fight started?' The suggested provocation is accepted uncritically.</td>
</tr>
<tr>
<td>Semantic connotations</td>
<td>'How fast were the cars going when they collided?' versus 'How fast were the cars going when they smashed into each other?'</td>
</tr>
<tr>
<td>Linguistic abstraction</td>
<td>'Politician took the present' versus 'Politician is corrupt'.</td>
</tr>
<tr>
<td>Syntagmatic order</td>
<td>'Brian continued to insult Mark before Mark started to fight' versus 'Mark started to fight after Brian continued to insult him'.</td>
</tr>
</tbody>
</table>

Presuppositions afford a suitable means of suggesting the truth of the question content because they distract the conversation partner from critically assessing the truth of the proposition. Moreover, thinking about causal explanations (elicited by the 'why' question) can further increase the subjective truth of a statement (Wells & Gavanski, 1989). Numerous studies of the eyewitness paradigm have demonstrated that presuppositions can lead to memory intrusions and biased judgements. For instance, the use of the definite article in the question ‘Did you see the stop sign?’ in an interrogation about a traffic accident leads to considerably more positive responses than the same question with an indefinite article: ‘Did you see a stop sign?’ (Loftus, 1975). Using the definite article is but one of many different linguistic devices that may be used for presuppositions; a sample of such devices is given in Table 4.3.

Because eyewitness memory is susceptible to so many errors and suggestive influences, there is a strong need for methods to improve it. One such method is the cognitive interview developed by Geiselman, Fisher, MacKinnon and Holland (1986; see also Chapter 10). The cognitive interview is based on specific instructions to reinstate the context of the witnessed scenario, to report everything, to attempt recall in different orders, and to mentally change the perspective of reporting. This technique has been shown to elicit significantly more correct information, without increasing incorrect recall illusions and confabulations.

The strategic use of linguistic tools in interrogative settings

The background to some of the emerging work on the strategic use of language in legal settings finds its origins in some of the properties of interpersonal predicates that were discussed earlier. The stable finding that interpersonal
verbs systematically mediate inferences about who initiates an event (Semin & Marsman, 1994) opens an interesting question. How does verb choice in question formulation influence the causal agency conveyed in the answers to these questions?

This question was investigated by Semin, Rubini and Fiedler (1995) and by Semin and de Poot (1995). The idea driving this research is simple. If one formulates questions with verbs referring to actions (e.g. ‘Why did you join the Liberal party?’ ‘Why do you read the New York Tribune?’) the choice of such verbs focuses the answer on the subject of the question. The respondents have to explain the event with reference to some properties of themselves. In contrast, if the same question is formulated with a verb of state, such as ‘Why do you like the New York Tribune?’ then the verb in the question focuses the answer on the sentence object, namely the newspaper. Thus, such answers have to explain the preference by reference to the qualities or properties of the newspaper. De Poot and Semin (1995) have shown this finding to hold systematically over a great variety of action verbs and state verbs and under conditions where the equivalence of the meaning between questions formulated by either verb class is ascertained. They have also demonstrated that subjects are not aware of the fact that different questions about the same event elicit different responses which have relatively dramatic implications (Semin and de Poot, 1995).

Finally, these authors have been able to show in a simulated rape interview that subjects whose expectations about the trustworthiness of the rape victim have been manipulated between trustworthy, not trustworthy and no expectations, display a systematic tendency to choose questions which systematically attribute inferred agency to the victim. Subjects who are led to believe that the victim is not trustworthy are more likely to pose a question formulated in the form of ‘Did you dance with him?’ In contrast, subjects who expect the victim to be trustworthy are more likely to choose a formulation that emphasizes the agency of the perpetrator: ‘Did he dance with you?’ Given the fact that they have danced prior to the incident, the answer is yes to both formulations. Furthermore, in a follow-up study it was shown that impressions that third parties form on the basis of listening to the chosen questions are biased accordingly. Cattelani et al. (1995) have shown that defence attorneys and prosecutors utilize precisely the same linguistic strategies when questioning witnesses, victims and defendants.

Subtle suggestive communications and manipulations in the courtroom are not confined to the manner in which witnesses are interrogated. Linguistic tools also play an important role in the manner in which the two opposing parties, prosecution and defence, describe the defendant’s behaviour. This issue was addressed by Schmid and Fiedler (1996) in a language analysis of the protocols of the historical Nuremberg trials in which German Nazi generals had been accused of various crimes, with German defence attorneys and prosecutors from the USA, England, France and Russia. A number of distinct language strategies could be identified that enable attorneys to fulfil their roles without appearing too biased or dishonest. Note that any obvious tendency of defence attorneys to describe the defendant in less negative, more
positive terms than prosecutors would appear to be obtrusive and partial, and would presumably be discounted by judges or jury members. However, lawyers may resort to more sophisticated and subtle strategies that are much less conspicuous.

It is indeed not surprising that defence attorneys use more positive predicates than prosecutors when talking about the defendant but, more subtly and more efficiently, their positive statements are conveyed at a high level of linguistic abstractness (e.g. the adjective level, according to the LCM model in Table 4.2 above). That is, they use the opportunities of positive statements to suggest stable, dispositional characteristics in the defendant’s personality. Moreover, when defence attorneys talk about the defendant in positive terms, the sentence subject often has a clear-cut reference to the individual defendant, whereas (unavoidable) negative statements tend to refer to a larger group or collective, thus suggesting diffusion of responsibility. Moreover, defence attorneys tend to exploit the principle of implicit verb causality (Brown & Fish, 1983) in that they use many emotional state verbs (e.g. fear, like, respect) that express lack of voluntary control and external causation of behaviour. They talk about the defendant’s inner feelings and emotional reactions to external provocations and restrictions. In contrast, prosecutors are not simply much more negative but they seek clear person references to the individual defendant (rather than a group or collective) and they express these negative statements on the concrete as well as the abstract level.

In general, then, research on language in the legal context corroborates the contention we have repeatedly made that the most interesting and impactful use of language tools is via the peripheral route, which is not subject to conscious awareness or control. In the central route, linguistic impact is limited by the actual validity and veridicality of the message. In the peripheral route there is always more latitude for suggestive, deceptive and distorting influences that can be used, and misused, to create an erroneous impression of a witnessed event or a defendant’s personality. Since peripheral processes are less controllable and less conscious than the impact of arguments in the central route, one prominent aim of applied psychology is to sensitize language users to the subtle dangers and strategies of the peripheral route.

Our aim in this chapter has been to provide an overview of a number of linguistic tools that have been investigated in diverse applied settings. There is no coherent body of knowledge in this field that interfaces broadly with applied social contexts. The foremost reason for this is the implicit properties of language and linguistic tools. Nevertheless, it is possible to pull together a range of domains within which the subtle, often unconscious influence of different linguistic devices can be unambiguously demonstrated, including health-related issues, medical decisions, legal contexts, partner relationships and intergroup relationships. The effectiveness of different strategic uses of language in these contexts was reviewed.
Further reading

Giles, H. & Robinson, W.P. (1990). *Handbook of language and social psychology*. Chichester: Wiley. This is an outstanding sourcebook organized into six sections and covering a number of issues that are of relevance to the use of language in applied social contexts: the use of language in social relations, language and the law, amongst others.
