1 Introduction to applied social psychology

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Introduction: social problems, human cognition, and behaviour

Many, if not most, societal problems are rooted in behaviour or human cognitions. For example, integration problems may result from conflicts between groups and the inherent human tendency to favour one's own group, and traffic accidents are to a large extent caused by unsafe driving styles and the unrealistic perception that one is a better driver than most others. Moreover, health problems are related to unhealthy eating habits and a sense of not being able to control one's appetite, and environmental problems result in part from growing consumption levels and a tendency to prioritize one's immediate self interests above collective interests. Consequently, solutions and prevention of such problems require changes in attitudes, values, norms, behaviour, and lifestyles (Zimbardo, 2002). Social psychologists can play an important role in this respect, by applying their theories, methods, and interventions to these problems.

Social psychology is the scientific field that seeks to understand the nature and causes of human behaviour and thought in social situations, and the motivations, cognitions, and emotions related to such behaviours. This includes behaviour and thoughts related to helping, attraction, conflict, prejudice, self-esteem, group processes, and social exclusion (Baron and Byrne, 2004). Box 1.1 illustrates how social psychologists may help resolve social problems by encouraging behaviour changes, and highlights several issues that enhance the social utility of applied social psychological studies. First, in order to design effective solutions for social problems, we have to understand which behaviour causes the given problem. Applied scientists can best focus on behaviour that significantly contributes to a social problem and where interventions would have the most impact in resolving these problems. In our example, speeding by moped riders was studied because moped riders are relatively often involved in traffic accidents, while, in turn, these traffic accidents appeared to be strongly related to speeding. Second, it is important to examine which factors influence

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Box 1.1 Solving social problems via changing cognitions and behaviour

Social problem

The Province of Drenthe (in the north of the Netherlands) was concerned about traffic safety in the region. Researchers analyzed the local traffic statistics, and found that moped riders are twenty-two times more likely to be involved in traffic accidents than average road users (including pedestrians), and forty times more likely than average car users. On the basis of this, they decided to develop a traffic safety programme aimed to increase the safety of moped riders. They first decided to commission a study to examine which factors underlie the high accident involvement of moped riders (Steg and Van Brussel, 2009).

Which behaviour causes accidents?

The research team first examined which behaviour causes accident involvement of moped riders. It appeared that traffic accidents were particularly related to traffic violations (e.g., speeding), and not to errors (e.g., by accident not giving priority) or lapses (e.g., not noticing a traffic light) made by moped riders. Therefore, the research team decided to focus on factors affecting traffic violations. More specifically, they decided to focus on speeding, because the questionnaire study revealed that moped riders generally do not obey speed limits, and they are quite often fined for speeding. The research team assumed that speeding typically results from conscious decision-making. Therefore, they based their study on a theoretical model that aims to explain planned behaviour that is under volitional control: the Theory of Planned Behaviour (TPB) (Ajzen, 1991; see Chapter 2).

Factors influencing traffic violations

Following the TPB, the research team examined to what extent speeding was related to *attitudes* towards speeding (i.e., the degree to which a person has a favourable or an unfavourable evaluation or appraisal of speeding), *social norms* (i.e., the individual's perception of the extent to which important others would approve or disapprove of speeding), and *perceived behavioural control* (i.e., the perceived ease or difficulty of (not) speeding). It appeared that moped riders having positive attitudes towards and strong social norms in favour of speeding were more likely to violate speed limits than those with negative attitudes and weak social norms. Perceived behaviour control was not significantly related to speeding.

Policies to increase traffic safety

On the basis of these results, the research team concluded that traffic safety programmes could best focus on changing attitudes and social norms

towards speeding. Among other things, they suggested stressing the risks associated with speeding, so as to make prevalent attitudes more negative. Although the study revealed that moped riders do acknowledge these risks, it appeared that these risks did not outweigh the advantages of speeding, such as feelings of freedom and the 'kick' out of not respecting the law. Also, the research team suggested presenting examples of youngsters who disapprove of speeding in information campaigns, so as to weaken social norms in favour of speeding.

the particular behaviour. Behaviour-change programmes will be more effective when they target important antecedents of behaviour. Thus, we need to understand which factors cause behaviour. Third, it is important to understand which intervention techniques are available to change behaviour, taking into account which behavioural antecedents are typically targeted by various intervention techniques. In our example, speeding appeared to be strongly related to moped drivers' attitudes and social norms. Thus, interventions should best focus on changing attitudes and social norms related to speeding, for example, by designing information campaigns that stress the risks associated with speeding, or emphasize that important others would disapprove of speeding. The involvement of applied social psychologists does not need to stop here. Applied social psychologists can also play an important role in evaluating the effects of interventions, by examining to what extent interventions indeed change behaviour and the underlying determinants, and whether social problems are indeed resolved. This will not only reveal whether intervention programmes are successful, but also how they may be improved to enhance success. Moreover, evaluation studies provide unique opportunities to test social psychological theories in real-life settings.

In sum, applied scientists should focus their efforts on aspects of a social problem where they would have the most impact in improving the relevant problems. This basic principle should be taken into account when deciding which problem to study (in our example: traffic safety of moped riders), which variables to concentrate on (in our example: attitudes and norms, which appeared to be the main causes of traffic violations), and the decision on what kind of interventions to use in managing the problem (in our example: changing attitudes and norms).

This book aims to provide an introduction to the contribution of social psychology to the understanding and management of various social problems, and the methods used to achieve this. The book gives an overview of a wide range of social psychological theories, intervention techniques, and research designs that can be applied to better understand and manage social problems. We will discuss the role of human behaviour in various social problems, factors influencing such behaviour, and effective ways to change the particular behaviour and its antecedents.

Definition of applied social psychology

Before elaborating on how social psychologists can contribute to resolving social problems, we will define applied social psychology, and explain how it differs from basic social psychology. **Applied social psychology** is the systematic application of social psychological constructs, principles, theories, intervention techniques, research methods, and research findings to understand or ameliorate social problems (Oskamp and Schultz, 1998). Constructs are the building blocks of psychological principles and theories. A **construct** refers to a clearly defined individual (psychological) characteristic that is generally latent and thus not directly observable, although it can be assessed through interviews or questionnaires. Examples are attitudes (i.e., whether one evaluates a topic positively or negatively), values (i.e., general desirable goals that serve as guiding principles in people's lives), or injunctive norms (i.e., whether one's social group disapproves or approves of a particular behaviour).

A **principle** is a statement of how a psychological process works. Principles describe basic processes by which humans think, feel, and act. Examples are:

- The *foot-in-the-door technique*, which involves making a small initial request, followed by a larger related request within a short period (Figure 1.1); generally, those who agreed to the small request are much more likely to comply with the larger request as well, as compared with those who were not asked to agree with a small request, or with those who did not agree to the small request.
- *Cognitive dissonance*, which refers to the uncomfortable tension that can result from having two conflicting thoughts at the same time, or from engaging in behaviour that conflicts with one's values, beliefs, or attitudes (Figure 1.2). When two cognitions

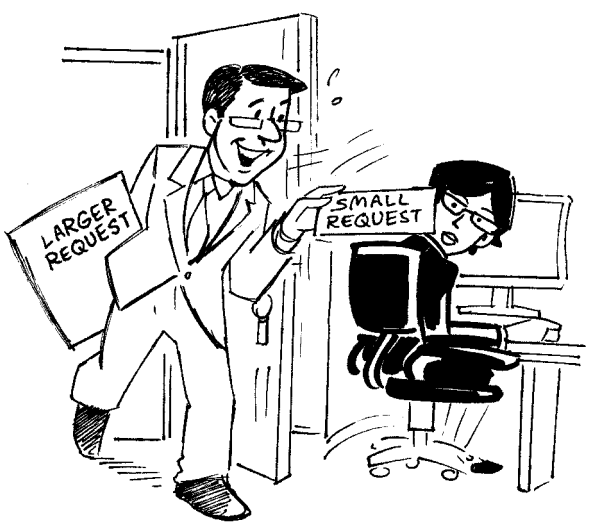

Figure 1.1 *Foot-in-the-door technique*

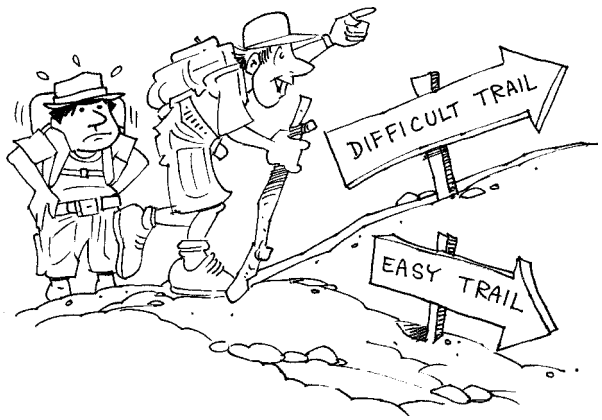

Figure 1.2 *Cognitive dissonance reduction*

(such as beliefs or attitudes), or cognitions and behaviour are incompatible, individuals try to reduce this dissonance by coming up with new thoughts or beliefs, or by modifying existing beliefs or behaviour.

- The *availability heuristic*, which refers to the tendency to judge the likelihood or frequency of an event by the ease with which relevant instances come to mind.

A **theory** is an integrated set of principles that describes, explains, and predicts observed events. Theories provide explanations for our observations, and enable us to predict future events. A theory integrates various principles. An example is the Theory of Planned Behaviour, described in Box 1.1. Theories are not facts or laws; the tenability of theories should be tested in practice. We elaborate on relevant theories, intervention techniques and research designs in Chapters 2, 3, and 4, respectively.

Basic and applied social psychology differ in two important respects. First, basic social psychologists are particularly interested in developing and testing theories, while applied social psychologists focus on understanding and resolving practical problems. Basic social psychologists may conduct studies merely out of scientific curiosity about some phenomenon, while applied social psychologists are specifically trying to contribute towards solving social problems. In the end, applied social psychologists will focus their efforts on the improvement of people's quality of life. They do not necessarily have to conduct studies themselves to learn more about phenomena causing the problems at hand. In some cases, available knowledge may be sufficient to plan interventions or social programmes that would ameliorate these problems. Does this imply that applied social psychologists do not contribute to the development of theories at all? No, it does not. Rather, theory development is not the primary reason that they do research.

Second, basic social psychologists tend to follow a **deductive approach**. They start with a particular theory, and examine to what extent the theory may be helpful in understanding various types of social behaviour. In contrast, applied social psychologists tend to follow an **inductive approach**. They start from a specific social problem, and examine to what extent various theories may help to understand this specific problem,

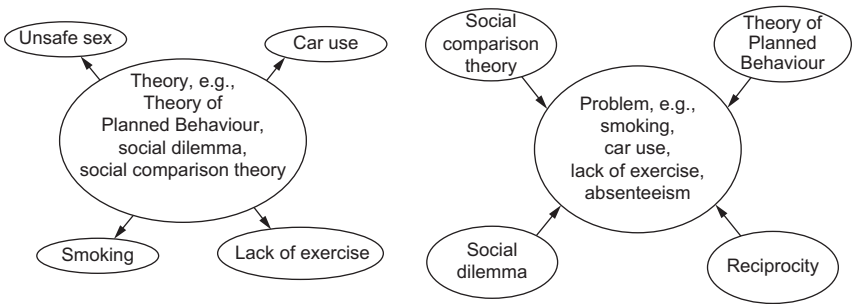

Figure 1.3 *Deductive (left) and inductive (right) approach*

and which theory provides the best explanation of the particular behaviour causing the problems. This difference is illustrated in Figure 1.3.

Deductive perspective. A researcher may also be particularly interested in examining the extent to which a specific theory is successful in explaining various types of social behaviour. For example, the Theory of Planned Behaviour (TPB; Ajzen, 1991) has been applied to understand a wide range of behaviours, including consuming a low-fat diet, drug and alcohol use, smoking, safe sex, recycling, travel mode choice, and driving violations. A meta-analytic review revealed that TPB was rather successful in explaining this wide range of social behaviour, although the TPB is less successful in predicting observed behaviour compared with self-reported behaviour (see Armitage and Conner, 2001).

Inductive perspective. An example of an inductive approach might be understanding why in a particular organization many people are often absent from work. We might examine this using the Theory of Planned Behaviour, which would suggest that such behaviour reflects the lack of a negative attitude towards being absent, a perceived lack of social disapproval of such behaviour, and a feeling of not being able to go to work when one is not feeling well (Hopstaken, 1994). A social comparison perspective might suggest that people may often be absent from work because they think that they do so less often than others, or because they feel that they are treated worse than their colleagues (Geurts, Buunk, and Schaufeli, 1994). A social dilemma perspective may suggest that people are absent from work because they do not feel responsible for their work, and feel their contribution to the organizational goals is negligible. Reciprocity theory would suggest that people are absent from work more frequently when they feel they invest more in their work than they obtain in return. These explanations are not necessarily mutually exclusive, and may all contribute to the understanding of this or any other social problem.

Many scientists and many studies may be categorized as both basic and applied. Combining basic and applied work is very valuable, since it demonstrates to what extent theories tested in experimental settings are valid in real-life situations as well. Thus, studies may be both theory-oriented and problem-oriented. Indeed, so-called applied studies may sometimes lead to major theoretical breakthroughs. Also, so-called basic studies may be

conducted in applied settings and make a major contribution to the insight into and management of a social problem. By combining basic and applied studies, researchers learn how social problems may be solved while at the same time contributing to theory building and testing.

Theoretical breakthroughs in applied research. A nice example is the work by Shelley Taylor and her colleagues on social comparison among women with breast cancer (Wood, Taylor, and Lichtman, 1985). This research was undertaken in order to examine the psychological aspects of the strategies these women were using in coping with their disease. Unexpectedly, when asked how well they were coping with their problems compared with other women with breast cancer, 80 per cent of the women interviewed reported they were doing 'somewhat' or 'much' better than other women. Perhaps more importantly, an analysis of the comments that were made spontaneously by these women during the interview indicated that no matter how serious these women's problems were, they believed that there were others who were worse off. In case they did not know of any specific person who had been more seriously afflicted, they imagined others, or even fabricated a target; that is, they cognitively constructed a comparison target themselves. This study was of major theoretical importance because it suggested: (1) that so-called *downward comparisons* (comparisons with others who were worse off) were very prevalent among people facing a threat; (2) that such comparisons did not necessarily involve contact with others, but could take the form of cognitively constructing others; and (3) that these comparisons seemed to help women with breast cancer cope with their disease by allowing them to feel better about themselves and their own situation (Buunk and Gibbons, 1997). It is also possible that, for these women, expressing these downward comparisons was a way of maintaining a positive view of themselves towards their environment to prevent being seen as a complainer.

Applied breakthroughs from basic research. Various experimental studies demonstrated that losses loom larger than gains (see Kahneman and Tversky, 1979). That is, individual preferences change when the same outcomes are framed as losses instead of gains. For example, subjects are likely to pay less to obtain a certain good (for instance, a mug) than when the demand for parting with the same good is at stake. The initial endowment (owning or not owning the good) serves as the reference point from which subjects value prospects. Buyers perceive the purchase of the good as a gain, while sellers perceive selling the same good as a loss. This phenomenon is called loss aversion: people dislike losses more than they like gains of the same size. Whether outcomes are considered as a loss or a gain depends on the reference point used. This finding is very important for practitioners. For example, it explains why consumers buying insurance dislike deductibles, even though insurances with high deductibles can offer considerable savings. Consumers probably frame deductibles as an extra loss. That is, consumers consider the costs of the insurance premium and the additional out-of-pocket costs of the deductible as two separate costs, and thus segregated losses. They pay the premium, but still have to cover part of the costs when they claim their expenses. To take another example, health messages can focus on the benefits of performing particular behaviour (a gain-framed appeal) or the costs of failing to perform this behaviour (a loss-framed appeal). Both appeals are likely to have different effects on behaviour, as will be illustrated in Chapter 10.

Correspondence between basic and applied social psychology

Despite the differences discussed in the previous section, basic and applied psychology are similar in many ways. Both are interested in developing and testing theories, both use scientific methods, both are motivated by the same goals of science, and both include similar factors predicting cognitions and behaviour in their studies. These common characteristics are discussed below.

Developing and testing theories

Basic as well as applied social psychologists are interested in testing theories, although it is generally not the primary interest of applied social psychologists. In fact, valid theories are very useful in solving social problems, as stressed in a famous quotation by Kurt Lewin: "There is nothing so practical as a good theory" (Lewin, 1951, p. 169). Theories provide explanations for human behaviour. Theories are very useful for understanding causes of social problems, and may suggest techniques by which such problems can be solved, as is illustrated by the example in Box 1.1. More specifically, theories provide coherent frameworks for understanding behaviour that causes social problems. They help us to structure problem situations, and to find critical factors (such as attitudes or values) causing behaviour or cognitions. As such, theories provide ideas that guide our research and provide a direction that may yield solutions for social problems. Theories are very helpful in understanding and interpreting results of research. They help us to understand why and how things are related, and to identify where further research is needed. Theories help us to develop interventions as well, by specifying variables or conditions that must be controlled or changed in order to reach our goals. This is illustrated in Box 1.1: the Theory of Planned Behaviour was used to examine why moped riders violate traffic rules. It appeared that traffic violations were especially related to attitudes and social norms, which suggests that traffic safety among moped riders may be improved by highlighting the risks associated with speeding (and thus by making attitudes towards speeding less positive), or by targeting social norms, for example, by presenting examples of youngsters who disapprove of speeding in the media. Similarly, the study by Taylor and colleagues described earlier used social comparison theory to understand how women cope with breast cancer. Their study revealed that downward comparison, that is, comparisons with those who are worse off, seemed to help women with breast cancer by allowing them to feel better about themselves and their own situation. This suggests that coping behaviour among women with breast cancer can be improved by providing breast cancer patients with examples of women who are worse off compared with themselves.

Theories do not only help applied social psychologists in carrying out their work. Applied social psychology can also contribute fruitfully to basic psychological principles, theories, and intervention techniques, because studies in field settings provide the ultimate test of the validity of theories. Results of applied research may necessitate adjustment of theories, or the development of new theories. For example, Chapter 7 describes that people

tend to discount consequences that occur in the long term. People demand a high compensation for a delay in receiving money, and this compensation is typically higher than the interest rate. However, applied studies on environmental risk perception revealed that not all future consequences are discounted. In fact, environmental risks are not always considered to be more serious when they occur in the short term rather than in the distant future, and many people do not appear to discount future environmental risks at all (Gattig and Hendrickx, 2007). This suggests that discounting especially occurs in particular domains (for example, economic behaviour), and that people do not have a general tendency to value future consequences less.

Basic and applied social psychology as science

Both basic and applied social psychology are sciences. The term science refers to: (1) reliance on scientific methods; and (2) guidance by the core values of science.

Scientific methods are those methods that depend on empirical tests, that is, the use of systematic observations to evaluate propositions and ideas. An empirical test of an idea or proposition means, first, that studies are set up in a way that allows support or refutation of the idea or proposition being tested. Second, the study should be conducted and reported in a way that enables other researchers to evaluate and replicate the research. Researchers adopt these scientific methods because 'common sense' is often unreliable and inconsistent. Many potential biases may influence our thoughts and make them unreliable. For example, one may have the impression that a lack of knowledge is the basic reason that many people eat too many fatty foods. However, a survey study in a representative sample of the population may uncover that most people know very well how unhealthy such foods are, and that the major reason people do not refrain from eating them is that they feel they cannot control their appetite.

A core set of values should be adopted to qualify a study as scientific in nature. Four of these values are most important (Baron and Byrne, 2004):

- **Accuracy:** gather and evaluate information that is as carefully examined, precise, and as error free as possible; for example, researchers should develop reliable measures for their main constructs. Unreliable measures can lead to false conclusions of 'no effect'.
- **Objectivity:** minimize bias in obtaining and evaluating data; for example, researchers should make sure that their expectations do not affect the behaviour of subjects.
- **Scepticism:** accept findings as accurate only to the extent that they have been verified over and again by the data. For this purpose, replications are important, as outcomes of a single study may be caused by chance. Results should be replicated in various comparable studies to rule out the possibility of results that occur by chance only.
- **Open-mindedness:** accept evidence as valid, even if the evidence is not consistent with one's initial, and perhaps strongly held, beliefs and theories. For example, researchers should accept evidence refuting their theory, even though they may be very keen to demonstrate the validity of their theory. In fact, unexpected findings may give important insights into the boundary conditions of theories, and may raise important issues for future research.

Basic as well as applied social psychologists are committed to these values. Adherence to these values guarantees that research findings are a valid reflection of the phenomenon under study.

In addition, both basic and applied psychologists respect general ethical guidelines for psychologists, as proposed in the *Ethical principles of psychologists and code of conduct* by the American Psychological Association (APA) (2003). These principles refer to ethical responsibilities of psychologists. Any social psychologist should follow these general ethical standards in his or her work. Various general ethical standards and specific ethical responsibilities are listed, such as respect for people's rights and dignity, compliance with law, concern for others' welfare, avoiding harm, avoiding sexual intimacies, maintaining confidentiality, and integrity. Various other (national) psychological foundations publish their own codes of conduct, most of which are similar to the APA guidelines.

Some ethical precepts specifically concern social scientists, and refer to the way research should be conducted. Some important concerns of precepts are:

- *Deception*: deception of clients or research participants should be avoided whenever possible. Deception should only be used when it serves a higher desirable goal, which should be decided upon by ethics committees.
- *Informed consent*: research participants should be able to give meaningful informed consent to participate in the study. This implies that participants should be informed about the aim of the study and the impact the study may have on them.
- *Invasion of privacy*: the privacy of the participants should be respected. Personal details should be kept confidential.
- *Debriefing*: research participants should be debriefed as soon as possible after the research is completed in order to update them on the research, and deal with any misconceptions.

Goals of science

Another similarity between basic and applied social psychologists is that both are motivated by four main goals of science: description, prediction, causality, and explanation. We define these goals below and illustrate them by considering the possible influence of social relationships on health.

Description refers to identifying and specifying the details and nature of a phenomenon. Often, different types of the phenomenon are distinguished, and the frequency of occurrence of the phenomenon is recorded. In the case of examining the effects of social relationships on health, a researcher may record people's health status, and collect data on both physical and psychical health. The researcher may also record how many relationships people have with others. Accurate descriptions of phenomena provide an important first step towards understanding them, but are not sufficient.

Prediction enhances understanding of phenomena, for example, because it does reveal why people are healthy. Prediction requires knowing what factors are systematically related to the phenomenon of interest. Thus, to what extent the phenomenon being studied is correlated with various factors is examined. In our example, if people who have many