

TABLE 9.1 Some ways to operationalize measured variables

Type of Measure	Examples of Techniques or Tools	Examples of Variables Operationalized Using These Techniques/Tools
Self-report	Paper-and-pencil questionnaire Face-to-face interview Online questionnaire	Attitudes about something Intentions to do something A person's values, self-esteem, mood, anxiety, relationship satisfaction, personality traits
Behavioural	Audio or video recorder Eye tracker Electronic activated recorder Weight scale Still camera	Self-control (amount of ice cream eaten, length of persistence on boring task) Creativity (number of ideas generated per minute) Reaction time (speed of detecting a flashing light) Facial expression of emotion (coded photographs) Attention (eye tracker, number of hazards avoided in driving simulator) Liking (distance seated apart from someone) Efficacy of a bulimia intervention (weight gained or lost) Memory (number of items recalled) Generosity (amount of money donated)
Physiological	GSR, EMG, ECG, EEG Blood analysis Saliva analysis Heart rate Breathing rate Blood pressure MRI, fMRI	Stress (sweating from GSR, cortisol in saliva) Genetic marker for mental illness (blood analysis) Physical fitness (heart rate change during exercise) Size of amygdala or damage to hippocampus (MRI) Brain activation when looking at image of romantic partner (fMRI)

operationalizing variables that are measured, starting by outlining three broad categories of measures: self-report, behavioural, and physiological. Table 9.1 provides a summary.

Self-Report Measures

self-report measure

An operationalization of a variable that involves asking people to explicitly indicate something about themselves (e.g., personality, behaviour, attitudes).

A **self-report measure** can be used to measure many different aspects of human thought and behaviour, including explicit attitudes, judgments about someone's personality characteristics, intended behaviours, emotional states, and confidence in one's judgments. Responses are typically made using rating scales with descriptive anchors. For example, in the self-esteem and social acceptance study described earlier in this chapter, participants were asked five questions about perceived social acceptance (e.g., "The other participant probably likes me.") All questions used a 7-point scale, like this one:

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree

When using self-report measures, using a published scale that has been validated is typically preferred (Chapter 5), or you can create your own measure (Chapter 7).

Behavioural Measures

behavioural measure

An operationalization of a variable that involves directly observing and precisely recording behaviour.

A **behavioural measure** is a direct observation of behaviours. As with self-reports, there is an almost endless number of possible behaviours you could choose to observe and record. There are also many different aspects of a behaviour that one can record. For example, a researcher may choose to note whether a given behaviour occurs (e.g., whether someone helps, makes an error on a test, chooses one activity over another). You can also record the number of times a behaviour occurs, often within a given time period: This is known as the *rate* of a