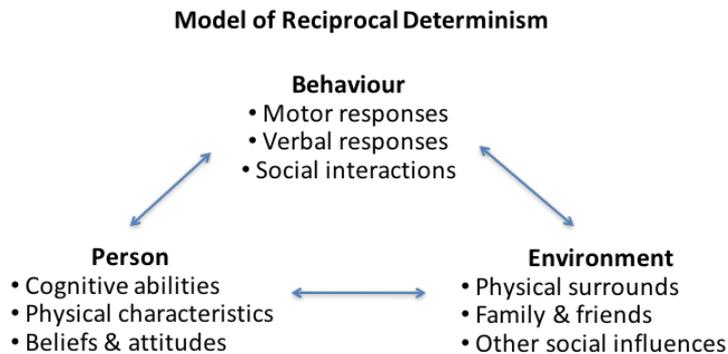


## BANDURA'S SOCIAL LEARNING THEORY

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Bandura believed that social learning theories must take into account social/cognitive variables operating in human development. He argued that most human learning results from experience on a vicarious basis.

Observation or vicarious learning: Learning by observation of consequences for others.



Models that children are likely to imitate:

- People they regard as prestigious
- Models of their own sex
- Models who receive rewards
- Models they perceive as being like themselves

Parents consciously teach moral standards when they 'preach' to their children, but they also teach by 'practicing' their moral standards. With the developing ability of self regulation, people learn to monitor and regular their moral behaviour.

## EARLY PROSOCIAL BEHAVIOUR AND THE DEVELOPMENT OF THE THEORY OF THE MIND

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The Theory of the Mind refers to the ability to attribute mental states (beliefs, intents, desires, pretending, knowledge) to oneself and others and to understand that others have beliefs, desires and intentions that are different from one's own.

From a very young age, infants track others' behaviours and intentions. Mike Tomasello did extensive research on this. For example, imagine if a one-year-old watched an adult with full hands attempting to open a door with their head. In studies, the infant would open the door for the adult, whereas if the task is to imitate, the infant will use their hands. Thus it can be concluded that the infant imitates based on perceived intentions and goals, not specific actions.

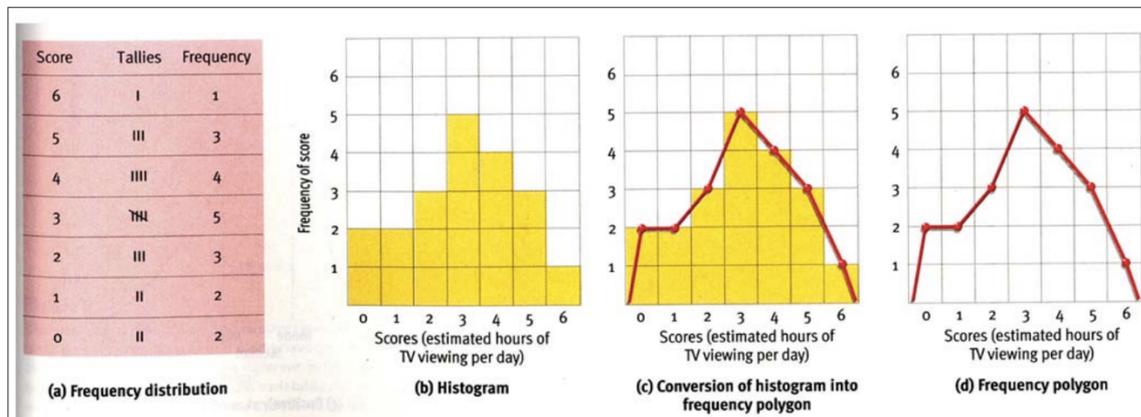
One effect of this understanding of intentionality is prosocial behaviour, which is voluntary behaviour intended to benefit another. A pre-schooler's early prosocial behaviour predicts future pro-social behaviour. Further, there is a tendency for older children to behave more pro-socially than younger children. Among adolescents, moral judgement is often associated with pro-social behaviour.

Despite seemingly understanding others' minds and preferences, it is not until several years later that many theories say children have a Theory of the Mind. This is exemplified in false-belief tasks, where a child needs to show that they understand that other's beliefs determine their behaviour, even if the child themselves has a different, true belief. Three year olds almost always fail classic false-belief tasks, whereas five year olds almost all pass.

## PREDICTIONS AND DESCRIPTIVE STATISTICS

### DESCRIPTIVE STATISTICS

Descriptive statistics are used to summarise a collection of data. A complex collection of numbers can be simply described in a frequency distribution (a graph which shows how many scores of each kind were obtained).



The descriptive statistics most commonly used either measure the central tendency or variability of scores.

### MEASURES OF CENTRAL TENDENCY

The mode is the most common score (the score with the highest frequency). The advantage of modes is that they are real scores that actually occur, but a disadvantage is that modes depend on how the data is grouped. For example, if all cancers are grouped together cancer is the most common way to die, but if separate cancers are considered, road fatalities have a higher rank.

The median is the middle score. The location of the median is  $N+1/2$ , where  $N$  is the number of scores. The main advantage medians have over means is that they are not disproportionately affected by extreme scores.

The mean or average is like the balance point of a distribution of scores. A mean is found by adding up all the scores, and dividing by the number of scores. A mean is the best measure for estimating a population mean from a sample, however they are usually not real scores and they can be easily affected by extreme values.

### VARIABILITY

To understand variability, it is easiest to consider frequency distributions. The distribution of scores can be symmetrical, with the same number of scores above and below the mean. This is usually not the case, as distributions typically have a positive or negative skew.

