

# Imitating aggression – Transmission of aggression through imitation of aggressive models.

*Journal of Abnormal and Social Psychology, 63, 375-382.*

Bandura, A., Ross, D. & Ross, S. (1961)

## Introduction / Background

Development is the sequence of changes that occur over a person's lifetime. Many of the changes are due to inherited factors and maturation (**nature**). However, a major contribution also comes from the influence of other people and the physical environment (**nurture**).

There was a popular movement in psychology in the early part of this century called **behaviourism**. Behaviourists believed that *all* behaviour could be explained in terms of what people learned and that the process of learning involved no more than associating a stimulus (S) with a response (R) and learning a new response. Critics of behaviourism say that we can't explain all behaviour in this way and that learning involves cognitive activity. Albert Bandura, one of the authors of this study, felt that cognitive activity does contribute to learning. He outlined a **neo-behaviourist** ('new' behaviourist) approach called **Social Learning Theory** (SLT). This combined identification (a Freudian concept) with conditioning. Bandura suggested that animals and humans learn through both direct and indirect experience. Conditioning is direct, but identification is indirect. We observe the behaviour of others and imitate some of these behaviours.

### Research Question:

Bandura *et al.* look at (1) whether aggression can be learned through imitation and (2) at whether observers imitate specific acts they have seen or whether they just become more aggressive.

## Research method

### A field experiment having a matched participant design:

#### Participants

Children from a university nursery school (Stanford), 36 boys and 36 girls aged between 37 and 69 months (approximately 3 to 5 years). The mean age was 52 months (about 4 ½ years). There were two adult 'models', a male and a female, plus a female experimenter.

#### Procedure

The study focused on both imitation of aggression and on the importance of gender – it was thought that children were more likely to imitate a same-sex model.

#### The matching process

In order to ensure that each group contained equally aggressive children, observations were done of the children beforehand by an experimenter who knew the children well and one of the children's teachers. They rated the children, using a 5-point scale, in terms of their physical aggression, verbal aggression, aggression towards inanimate objects and 'aggressive inhibition' (the extent to which a child resisted being aggressive when provoked). Each child had 4 marks which were then added together to give an aggression score.



### Phase 1: The model (exposure to aggression)

Each child was taken on their own to a room where there were lots of toys including, in one corner, a 5 foot inflatable Bobo doll and a mallet. The experimenter invited the 'model' to join them and then left the room for about 10 minutes.

#### There were three conditions (with 24 children in each)

**Non-aggressive condition:** The model played with the toys in a quiet manner.

**Aggressive condition:** The model spent the first minute playing quietly but then turned to the Bobo doll and spent the rest of the time being aggressive towards it. This included specific acts which might later be imitated, namely laying the doll on its side, sitting on it and repeatedly punching it on the nose. Then picking the doll up and striking it on the head with the mallet, throwing the doll in the air and kicking it about the room. This was done three times accompanied by various comments such as 'POW' and 'He sure is a tough fellow'.

### Phase 2

**The children were provoked by taking them to a room with attractive toys and then telling them that they could not play with these.** This was necessary because otherwise the children in the non-aggressive condition would have no reason to behave aggressively.

### Phase 3 – Tests for imitation

The children were taken to another room which contained some aggressive toys (e.g. a mallet, and a dart gun), some non-aggressive toys (e.g. dolls and farm animals) and a 3-foot Bobo doll.

The experimenter stayed with the child while he/she played for 20 minutes, during which time the child was observed through a one-way mirror by the male model and, some of the time, another observer. The observers recorded what the child was doing every 5 seconds, using the following measures:

**Imitation of physical aggression:** Any specific acts which were imitated.

**Imitative verbal aggression:** Any phrases which were imitated, such as 'POW'.

**Imitative non-aggressive verbal responses:**

Such as 'He keeps coming back for more'.

**Non-imitative physical and verbal aggression:** Aggressive acts directed at toys other than Bobo, for example playing with the gun.



## Results

The children imitated the models they saw both in terms of specific acts and in general levels of their behaviour.

**Imitation:** Children in the aggressive condition imitated many of the models' physical and verbal behaviours, both aggressive and non-aggressive behaviours. Children in the non-aggressive condition displayed very few of these behaviours, 70% of them had zero scores.

**Non-imitative aggression:** The aggressive group displayed much more non-imitative aggression than the non-aggressive group.

**Non-aggressive behaviour:** Children in the non-aggression condition spent more time playing non-aggressively with dolls than children in the other groups, and also spent more time just sitting and playing with nothing.

**Gender:** Boys imitated more physical aggression than girls but not verbal aggression. There was some evidence of a 'same-sex effect' between model and children, in other words boys were more aggressive if they watched a male rather than a female model and girls were more affected by a female model.

## Conclusion

Behaviourist explanations suggest that if behaviour is encouraged or rewarded it is more likely to occur again, and that the *consequences* of behaviour (reward or punishment) determine what is learned. Bandura *et al.* found evidence that learning can take place in the absence of either classical or operant conditioning. The children imitated the model's behaviour (learned aggression) in the *absence* of any rewards. Bandura *et al.* suggest that Freud's concept of identification may be useful in explaining how learning took place but they suggested that more investigation was needed to understand the modelling process.