I'm not a robot

The Bobo doll experiment was conducted by Albert Bandura in 1961 [1] and studied patterns of behavior associated with aggression. Additional studies of this type were conducted by Bandura in 1963 [2] and 1965. A Bobo doll is an inflatable toy that is approximately the same size as a prepubescent child. The aim of Bandura's experiment was to demonstrate that if children were witnesses to an aggressive display by an adult they would imitate this aggressive behavior when given the opportunity. Bandura et al. tested 36 boys and 36 girls from a Stanford nursery school – aged between 37 and 69 months (mean = 4 years and 4 months). Their role models were one male adult and one female adult. The children were matched on the basis of their pre-existing aggressiveness. They did this by observing the children in the nursery school and judged their aggressive behavior on four 5-point rating scales. It was then possible to match the children in each group so that they had similar levels... Institutional subscriptions Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggressions through imitation of aggressive models. Journal of Abnormal and Social Psychology, 63(3), 575–582.PubMed Google Scholar Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. Journal of Abnormal and Social Psychology, 66, 3–11.PubMed Google Scholar Download references Our licensed therapists and psychiatric providers offer personalized care for nearly a hundred mental health issues and treatment approaches. As a library, NLM provides access to scientific literature. Inclusion in an NLM database does not imply endorsement of, or agreement with, the contents by NLM or the National Institutes of Health. Learn more: PMC Disclaimer | PMC Copyright Notice . 2022 Nov 25;13:988877. doi: 10.3389/fpsyg.2022.988877 In a series of innovative experiments, Bandura (1925–2021), renowned Psychology Professor at Stanford University, USA, and his collaborators (e.g., Bandura and Huston, 1961; Bandura et al., 1961, 1963; Bandura, 1965, 1969) showed that young children exposed to adults' aggression tend to behave aggressively. In these experiments, children observed adults, in vivo or in vitro, as well as cartoons, behaving aggressively toward a large, inflated doll (clown) named "Bobo doll", for about 10 min. The findings of these studies are considered to support modeling, observational learning, or learning by imitation and provide evidence for Bandura's social learning theory, which belongs to the behaviorism paradigm. In this paper, we offer a psychoanalytic critique of these experiments with the aim of shedding light on the unconscious processes of children's imitation of aggression. Although Bandura (1986) later formulated the so-called social cognitive theory and focused on less observable processes (e.g., self-regulation, self-efficacy, beliefs, expectations), in presenting these early experiments he clearly opposed the existing psychoanalytic interpretations of aggression. The key findings of Bandura's experiments on aggression in children (Bandura and Huston, 1961; Bandura et al., 1961, 1963; Bandura, 1965, 1969) are summarized below. Observation of an aggressive model is sufficient to elicit aggressive behavior in the young child. The model does not need to be a familiar or nurturant person. Moreover, there is no need to positively reinforce the aggression of either the adult model or the child. Because punishment does not follow the model's aggressive acts, the child receives the message that aggression is acceptable. The virtual world has great power. Children who watch a film showing aggressive people or cartoons tend to imitate this behavior. Imitation is inferred by the fact that children show verbal and/or physical aggressive acts that are very similar to those of the model. Children not only accurately imitate the observed behaviors but also show ingenuity, manifesting different, novice acts of aggression. Children transfer, by means of generalization, aggression into new, different contexts, even when the aggressive model is no longer present (delayed imitation). If the adult model is punished for his/her aggressive behavior, the probability that the child will show aggressive behavior is reduced. In contrast, positive reinforcement or no reinforcement of the model leads to increased aggression on the part of the child (vicarious/indirect learning). After observing the aggressive model, boys tend to exhibit more physical aggression than girls, whereas no gender difference is found for verbal aggression. Independent of gender, children are more likely to imitate a male physically aggressive model. According to gender stereotypes, this form of aggression is more acceptable for men than for women. In contrast, verbal aggression is more likely to be imitated when manifested by a same-sex model. Taken together, these results imply that children's aggression can be caused—and probably eliminated—by external manipulations. However, are there interpretations other than this omnipotent behavioristic view? In the Bobo doll experiments, after presenting the aggressive model and before placing the child in the room with Bobo doll and other toys with the aim of recording the likelihood of imitation, the experimenters instigated the children's aggression. Specifically, an experimenter led children to another room, where she allowed them to enjoy some attractive toys. After a while, she told them that all toys were hers, that she would no longer let anyone play with them, and that she intended to give them to other children. After experiencing this frustration, the children were accompanied to the room where Bobo doll was. Bandura (Bandura and Huston, 1961; Bandura et al., 1961) stated that he was seeking a more concise and parsimonious theoretical explanation than the one provided by identification with the aggressor, that is, the ego defense mechanism described by Anna Freud (1946), and attempted to outline alternative explanations (Bandura, 1969). However, if we look closely at specific aspects and manipulations of these experiments, we may discover that this mechanism may have more explanatory power for what happened in the laboratory than Bandura believed. At first, it is reasonable to hypothesize that, in the eyes of the children, the experimenters were omnipotent adult figures with authority, prestige, and power. The strange laboratory setting may have elicited in children excessive arousal, associated with tension and anxiety. This overflow of excitation, that needed to be released, is likely to have resulted from the unprecedented experience, and, more specifically, from the following: separation from parents; presence in an unknown place with strange adults; alternation of unfamiliar rooms and buildings; many overwhelming stimuli, such as physical and verbal aggression exhibited by adults, in vivo or in vitro (i.e., film), or by cartoons within a colorful frame, full of imaginary stimuli; presence of new and exciting toys; and frustration and anger caused by adults who deliberately disrupted children's pleasurable play activity with the aim of provoking their aggressiveness. All these conditions imply that the experiments were not only about "observation of cues produced by the behavior of others" (Bandura et al., 1961; our emphasis). If only "cues" were given to children, then why it was assumed in another paper (Bandura et al., 1963) that vicarious learning had such a "cathartic function"? Indeed, Bandura may have aptly used this expression because catharsis implies release of tension caused by overwhelming vicarious experience such as in ancient Greek tragedy. Second, identification with the aggressor is a defense mechanism that is typical of 3- to 6-year-old children—the participants' age in Bandura's experiments. Anna Freud (1946, p. 113) argued that "by impersonating the aggressor, assuming his attributes or imitating his aggression, the child transforms himself from the person threatened into the person who makes the threat". Children may have unconsciously experienced the aggressiveness of adults (quasi parental figures) toward a familiar playful object as a threat of punishment, possibly a threat of castration by proxy, for their own oedipal/incestuous and autoerotic/masturbatory phantasies, which usually prevail in this age period—the phallic phase of libidinal development (Freud, 1953). This explanation is further supported by the finding that males were more influential models regarding physical aggression. According to Anna Freud (1946), identification with the aggressor is the preliminary stage of superego formation, during which the aggressive drive is not yet directed against the subject but against the outer world. Projection of guilt, thus, supplements the immature superego and may interpret, at least partly, children's sadomasochistic relation with the doll. Third, we contend that a seduction process of both caretakers and their children had taken place in the university laboratory. With their caretakers' consent, children were brought into an unknown adult place, where they were captivated by adults' passion, namely overt violence against a doll. The violent acts were exhibited in a ritualistic and self-reinforcing manner and in the context of symbolic play. According to Ferenczi (1949), who was not mentioned by Bandura but whose ideas on this issue inspired Anna Freud, when an adult becomes sexually seductive or violent against a child, a confusion of tongues between the two emerges, in other words, a confusion between child tenderness and adult passion. In these experiments, children experienced an indirect attack with a mild traumatic character: certain adults intruded and impinged on the territory of children's "innocent" play, and then coerced them to observe other adults having little control over their own instinctual (aggressive) drives toward an attractive object. Therefore, it was very likely that children reacted not just with imitation but with anxious identification with the adult. This introjection of the aggressor resulted in children exhibiting the same violent behavior. They seemed to "subordinate themselves like automata to the will of the aggressor" and "could only react in an autoplastic way by a kind of mimicry" (Ferenczi, 1949, p. 228, our emphasis), possibly introjecting the adults' unconscious guilt for their abusive behavior. It is important to note that, contrary to identification with the aggressor, introjection of the aggressor is initially an automatic, organismic reaction to trauma—a mixture of rage, contempt and omnipotence—and only later becomes a defensive, agentic and purposeful process (Howell, 2014). In these experiments, children seemed to exhibit this automatic, procedural identification and mimicry. It has also been argued (Frankel, 2002) that identification with the aggressor is a universal and very common tactic used by people in mild traumatic situations and, generally, on several occasions where they are in a weak position relative to more powerful others. Although benign, this power may become a real threat: "If the adult got out of control and attacked the doll, could she attack me too?" Identification with the aggressor, then, serves an evolutionary function: survival is ensured if individuals conform to what others expect of them. In the laboratory setting, children confronted what Lacan (1977) has called the enigma of the adults' desire: "Why are they behaving this way?"; "What do they want from me?"; "Why are they doing this to me?". The laboratory setting and the adults' aggression toward the doll can be conceptualized as enigmatic signifiers, the Lacanian notion further elaborated by Laplanche (1999). These signifiers were verbal and non-verbal messages, doubly compromised and non-transparent to both sides of the communication because of the existence of the unconscious. The young participants found themselves in an asymmetrical relationship while their developmental abilities to metabolize what adults communicated to them were inadequate. They were somewhat helpless. Aggressive behavior was the way with which children attempted to translate adults' "alien" messages and derive meaning from the enigmatic situation. The ingenuity and novelty—"creative embellishment" as Bandura said when describing the experiment in a short film1—which children showed in the aggressive use of toys may be regarded as proof of the playful character of the imitation. Children attempted to transform passivity into activity, to acquire mastery of new and challenging objects and experience pleasure in this play activity, as Freud (1955) argued, rather than be the subjects of uncanny, mildly traumatic experimental conditions and the spectators of adults' violence. Therefore, children seemed to compulsively repeat the activity in a ritualistic fashion. This view is in line with the emphasis given on transformation in Freud's (1946) definition of identification with the aggressor. The aggression modeling experiments were conducted at a time when Psychology was striving, by "objective" measurements and laboratory experiments, to establish itself as a discipline. They have received criticism because they certainly raise the ethical issue of children's exposure to violence, with unknown short- and long-term consequences. Ethical concerns have also been expressed for other groundbreaking, or even notorious, experiments in the history of Psychology (e.g., Watson's Baby Albert experiment, Milgram's experiments on obedience to authority). Despite the ethical and methodological flaws, these aggression experiments and the short films that depict them continue to have a great allure to the scientific community and the society at large. Besides, a degree of seduction, namely optimal seduction (Potamianou, 2001), is needed to awaken desire for scientific exploration and facilitate openness to the unknown. They inspired research and interventions and raised public awareness about the effects of children's exposure to violence (e.g., through media). These experiments are still regarded to provide indisputable evidence, by means of a "rigorous experimental design", for young children's vulnerability to adults' violence. They also illustrate that, from early on, humans are capable of abusive acts, and that these acts can be easily provoked. Therefore, the work of civilization is to undertake every action to protect children from the transmission of violence. However, the fact that scientists' reservations were not strong enough to prevent them from "using" children in such laboratory experiments, implies, paradoxically, that they believed in children's resilience to violence or trauma. Only a few years after World War II, Psychology seemed to engage in an unconscious attempt at reparation (Klein, 1975), perhaps on behalf of the whole humanity, through handling—at last!—violence within a controlled and protected but regressed-to-the-infantile laboratory setting. This study aimed to approach Bandura's experiments on aggression modeling in children from the psychoanalytic perspective. A variety of psychoanalytic formulations were used to conceptualize the underlying processes and the phenomenology of children's imitation of aggressive acts. These formulations are not supported by research data, a fact that may be regarded also as a limitation of this study. However, they are based on the multitude and richness of clinical observations in the field of Psychoanalysis, which has an undeniably remarkable contribution to the understanding and treatment of human aggression. EG conceived the idea and drafted the manuscript. KM reviewed key findings of Bandura's experiments and systematically edited the manuscript. All authors contributed to the article and approved the submitted version. The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest. All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher. Bandura A. (1965). Influence of model's reinforcement contingencies on the acquisition of imitative responses. J. Pers. Soc. Psychol. 1, 589–595. 10.1037/h0022070 [DOI] [PubMed] [Google Scholar] Bandura A. (1969). 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Ferenczi's concept of identification with the aggressor: understanding dissociative structure with interacting victim and abuser self-states. Am. J. Psychoanal. 74, 48–59. 10.1057/ajp.2013.40 [DOI] [PubMed] [Google Scholar] Klein M. (1975). "Love, guilt and reparation," in Envy and Gratitude and Other Works 1921-1945. The Writings of Melanie Klein, Vol. I, ed M. Klein (New York, NY: Free Press;) (Original article published 1937), 306–443. [Google Scholar] Lacan J. (1977). The Four Fundamental Concepts of Psycho-analysis. London: Hogarth. [Google Scholar] Laplanche J. (1999). Essays on Otherness. New York, NY: Routledge. [Google Scholar] Potamianou A. (2001). Le Traumatique: Répétition et Élaboration. Paris: Dunod. [Google Scholar] Articles from Frontiers in Psychology are provided here courtesy of Frontiers Media SA The Bobo doll experiment was a study by Albert Bandura that showed children can learn aggressive behavior by watching others. Kids who saw an adult hitting a Bobo doll were more likely to imitate that aggression, proving that behavior can be learned through observation. Aim: Bandura aimed to investigate whether children learn aggressive behaviors through observing adults, and whether gender impacts imitation. Method: Children watched either an aggressive adult, a calm adult, or no adult, and were later observed to see if they imitated aggression. Results: Children who observed aggression were significantly more aggressive, especially boys who copied male adults the most. Conclusion: Children can learn aggressive behavior simply by watching others, emphasizing the importance of role models in shaping behavior. By the early 1960s, people were becoming increasingly worried about violence in society, especially how watching violence on TV might affect children. Researchers wondered if seeing aggressive behaviors could teach children to act aggressively themselves. Before this time, scientists had different ideas about how aggression was learned: Behaviorists like Skinner believed children learned through rewards and punishments from their own actions. Psychoanalysts, inspired by Freud, suggested that watching aggression could actually help reduce aggressive feelings by providing a safe outlet, a known as catharsis. Albert Bandura challenged these theories with his famous experiment, exploring whether children might copy aggressive actions simply by observing others, without any direct reward or punishment. Bandura and Walters in 1959 found that children with aggressive parents often behaved aggressively themselves, suggesting that imitation and modeling played key roles in how aggression develops. Bandura's Bobo doll experiment was set up specifically to test this idea. He created a controlled situation where children watched adults acting aggressively towards a doll to clearly see if observing such behavior influenced the children's own actions. Bandura's experiment aimed to resolve the debate about whether aggression is learned through personal experiences or through observing others. During the 1960s, Albert Bandura conducted a series of experiments on observational learning, collectively known as the Bobo doll experiments. Two of the experiments are described below: Bandura (1961) conducted a controlled experiment study to investigate if social behaviors (i.e., aggression) can be acquired by observation and imitation. The study also aimed to examine if children were more likely to imitate a same-sex model and whether boys would display more aggression than girls if exposed to aggressive modeling. Sample The experiment involved 72 children (36 boys and 36 girls), ages roughly 3 to 6 years old, enrolled at the Stanford University Nursery School The researchers pre-tested the children for how aggressive they were by observing the children in the nursery and judged their aggressive behavior on four 5-point rating scales. It was then possible to match the children in each group so that they had similar levels of aggression in their everyday behavior. The experiment is, therefore, an example of a matched pairs design. To test the inter-rater reliability of the observers, 51 of the children were rated by two observers independently, and their ratings were compared. These ratings showed a very high-reliability correlation (r = 0.89), which suggested that the observers had a good agreement about the behavior of the children. Method Design The Bobo doll experiment was a laboratory experiment with an independent groups design (each child experienced one of the conditions: aggressive model, non-aggressive model, or control). The independent variable (IV) was the type of model behavior the child observed (aggressive, non-aggressive, or none), with sub-variations of the model's gender. Aggressive model is shown to 24 children Non-aggressive model is shown to 24 children No model is shown (control condition) – 24 children The dependent variable (DV) was the amount of aggressive behavior shown by the child in the subsequent test situation, measured through observational counts of specific actions and remarks. Stage 1: Modeling In the experimental conditions, children were individually shown into a room containing toys and played with some potato prints and pictures in a corner for 10 mindutes. Children were randomly assigned to one of three experimental groups (24 children per condition): 1. Aggressive Model Condition: Each child individually observed an adult model (either a man or a woman) behave aggressively toward a large inflatable Bobo doll. In a room set up for play, the model first played quietly with tinker toys for about a minute, then proceeded to physically and verbally attack the Bobo doll for the remaining time. The model's aggressive repertoire included novel actions like punching the doll, hitting it with a mallet, tossing it, and kicking it, accompanied by distinctive aggressive phrases (e.g., "Sock him in the nose," "Hit him down," "Kick him," and "Pow!") which were not common playground behavior This modeling session lasted about 10 minutes Each child observed an adult model in the same playroom who did not display aggression. The model simply sat quietly and assembled the tinker toy set, ignoring the Bobo doll entirely, for the 10-minute period. No aggressive physical or verbal acts were demonstrated in this condition. The child had no adult model to observe. There was no pre-play modeling session in this group – the child did not see any adult behavior with the Bobo doll (thus providing a baseline for typical behavior without modeling). Stage 2: Aggression Arousal After the modeling phase (or equivalent time in control), each child was subjected to a mild frustration intended to provoke arousal. Each child was (separately) taken to a room with relatively attractive toys, e.g. a fire engine, doll set. As soon as the child started to play with the toys, the experimenter told the child that these were the experimenter's very best toys and she had decided to reserve them for the other children. This step was included to make sure even typically calm children had some reason to feel frustrated. Earlier research had shown that if children weren't frustrated at all, simply watching aggression might not lead them to act aggressively themselves. Stage 3: Test for Delayed Imitation Finally, the child was taken into a third room that contained a variety of both aggressive and non-aggressive toys Aggressive toys included the Bobo doll (identical to the one the model used), a mallet, and even a toy gun; non-aggressive toys included dolls, tea sets, crayons, three bears and plastic farm animals. The child was then left to play freely for 20 minutes in this room. During this period, researchers observed the child's behavior through a one-way mirror, making systematic records. Observations were made at 5-second intervals, therefore, giving 240 response units for each child. The experimenter remained in the room during the play period but occupied themselves in a corner, avoiding interaction with the child, to ensure the child felt free to behave naturally Results Imitative Aggression: Children who watched an aggressive adult were significantly more likely to imitate aggressive behavior (both physically and verbally). Children who saw a calm adult or no adult showed almost no aggressive imitation. About 70% of children in the non-aggressive or control groups showed no imitative aggression at all, while many who observed aggression copied specific actions like hitting the doll and repeating aggressive phrases (e.g., "Sock him!"). General Aggression Levels: Exposure to aggressive models didn't just encourage copying; it increased overall aggression, including new aggressive acts not shown by the model. Children who saw aggressive adults were less inhibited and more likely to show creative forms of aggression (e.g., pretending to shoot the doll with a toy gun). Example: Girls who watched the aggressive adult averaged 18 aggressive acts (like hitting with a mallet), compared to almost none (0.5 average) for those who saw a calm adult. Gender Differences: Boys were generally more likely to imitate physical aggression than girls, especially when the model was male. Girls showed more physical aggression when watching a male model but were more verbally aggressive after watching a female model. Boys and girls were both more strongly influenced by male models overall, likely due to societal views of aggression as a "masculine" behavior at the time. Qualitative Observations: Children closely copied the language used by aggressive adults (e.g., shouting "Pow!" and "Sock him!"). Children's comments revealed that they actively processed what they saw. For example: Aggression by a female adult was criticized by children as inappropriate ("Ladies shouldn't behave that way"). Aggression by a male adult was often praised ("He's strong like Daddy!"). These observations show that social expectations (such as gender norms) played a significant role in how children interpreted and copied aggression. Conclusion Bobo doll experiment demonstrated that children are able to learn social behavior such as aggression through the process of observation learning, through watching the behavior of another person. The researchers noted that this directly challenges the strict behaviorist view that behavior must be reinforced to be learned. Instead, the human capacity for observational learning means new responses (like novel aggressive acts) can be learned in the absence of reinforcements to the child. A further implication of the study's conclusion is a refutation of the catharsis hypothesis. Rather than reducing aggression, watching violence tended to increase aggressive behavior in children. This suggested that exposure to aggression (in real life or possibly in media) is not a harmless outlet but can serve as a positive model that children incorporate into their own actions. The experiment highlighted the important influence of role models, such as parents, peers, and TV characters, who can significantly shape children's behaviors and attitudes. Bandura used these conclusions to advocate that aggression (and other social behaviors) can be learned observationally, laying the groundwork for his broader Social Learning Theory. Strengths 1. Experimental Control: One significant strength of Bandura's Bobo doll study was its high level of experimental control. The study was a controlled laboratory experiment with a standardized procedure. Each child experienced exactly the same environment, toys, timing, and scripted behaviors from the adult model, differing only in whether the model showed aggressive or non-aggressive behavior. Researchers also matched children beforehand on their existing levels of aggression, reducing differences between the groups that could have skewed the results. Because of this rigorous control, we can confidently say that differences in aggression were due specifically to whether the children observed aggressive or non-aggressive behavior. This clearly supports a cause-and-effect relationship, strengthening the validity of Bandura's conclusion that observing aggression leads to increased aggression. 2. Reliability and Replicability: Bandura's procedures were highly replicable. The study was designed in a structured way, clearly outlining procedures and behaviors to be observed. Multiple researchers independently observed and scored the children's behavior, achieving high inter-observer reliability, indicating consistent measurement. Because the experiment was carefully documented and structured, other researchers have been able to repeat aspects of it. Bandura himself repeated similar studies in 1963 and 1965, finding consistent results each time. 3. Rich Data (Quantitative and Qualitative): Bandura's study benefited from collecting rich, detailed data – both quantitative and qualitative. The study gathered quantitative data (counts of aggressive acts) that allowed for statistical comparison between groups. Such data provided objective evidence for the hypotheses. Bandura recorded qualitative observations (children's remarks and nuanced behaviors), which enriched the findings by illustrating the children's thought processes and social understanding (e.g., comments on the female model). This combination of structured numerical data with anecdotal evidence gave a more comprehensive picture of the phenomena. The quantitative results showed clear patterns and significance, while the qualitative notes helped interpret those patterns (for instance, explaining why girls might not imitate a female aggressor). 4. Novelty and Theoretical Impact: A particularly strong point of Bandura's research is its groundbreaking nature and theoretical significance. Before this experiment, psychologists widely believed behaviors needed direct reinforcement—such as rewards or punishments – to be learned. Bandura's study challenged this assumption, clearly showing that children could learn aggressive behaviors simply by observing others, with no direct reinforcement involved. This had major theoretical and practical implications, fundamentally changing how psychologists understood learning and aggression. It laid the foundation for Social Learning Theory, influencing parenting, education, and discussions about media violence, thus demonstrating how significant and broadly relevant Bandura's findings are to psychology and society. 5. Usefulness of Research (Practical Applications) A significant strength of Bandura's Bobo doll experiment is its practical usefulness, with extensive real-world applications. Bandura's findings highlight the powerful role adults and media figures play as role models for children. Advice to parents often includes behaving in the way you want your child to behave (since children are watching and learning). In education, teachers and mentoring programs use the power of modeling to encourage prosocial behavior. The study's usefulness is also seen in therapy and interventions: for example, techniques in behavior therapy use modeling (called participant modeling) to help children overcome fears or build social skills, proving that observational learning can be harnessed for positive outcomes as well. Additionally, Bandura's research significantly shaped public understanding of media violence, sparking ongoing debates and leading to regulatory policies, such as content ratings and parental guidance warnings. Limitations 1. Artificial Setting (Ecological Validity) A common criticism is that the study's lab environment was quite artificial, as it may not represent how children learn and act in more natural social contexts. The scenario of a child watching a strange adult behave violently toward a toy is not a typical real-life situation. Also, the model and the child are strangers. This, of course, is quite unlike normal modeling, which often takes place within the family. Furthermore, children do not often see adults attacking dolls, so the setup may have encouraged demand characteristics. For example, the Bobo doll itself is a toy designed to be hit (it bounces back up when knocked over). Children might have inferred that they were supposed to play aggressively with it, especially after seeing the model do so. This could mean some of the aggressive behavior was influenced by cues in the environment (the presence of the mallet and Bobo doll) and the children's desire to please the experimenter, rather than genuine aggression they'd display elsewhere. Because of such factors, the external validity is in question: we must be cautious in generalizing the findings to real-world aggression (e.g., how a child would behave toward a real peer or in a non-lab environment). Another weakness is that Bandura's sample was not diverse enough, limiting how widely the results apply. The participants were all young children from one nursery school at Stanford University, primarily from middle-class and white backgrounds. Because of this narrow demographic, the findings might not reflect how children from different cultures, socio-economic backgrounds, or age groups would respond to observing aggression. For example, children raised in environments where aggression is handled differently or where modeling from adults follows other norms might react differently. The experiment also only looked at ages 3–6; it cannot tell us directly about older children, teenagers, or adults. This lack of diversity weakens population validity, making it uncertain whether similar results would be found among children raised differently or in different cultural contexts. Thus, while insightful, Bandura's conclusions about aggression and observational learning may not fully represent all children's experiences or behaviors. 3. Short-Term and Narrow Measure of Aggression The study measured only short-term aggressive behaviors directed at a doll, providing a limited view of aggression. The Bobo doll experiment only measured immediate imitation in the minutes following exposure. It's unclear whether the observed behavior was a transient effect or if the children retained and carried forth these aggressive tendencies long-term, The study did not do any follow-up to see if, say, the next day or week the children who observed aggression were more likely to be aggressive in nursery play. Thus, one limitation is the short-term focus – we cannot be sure if observational learning of aggression has a lasting impact from this study alone. Moreover, the operational definition of "aggression" in this experiment was hitting and verbal assault on a doll. While these are aggressive behaviors, they are relatively low-stakes (no one is actually harmed). It is a leap to assume that children would equally aggress against a real person. Some critics argue that hitting a clown doll might have been perceived as a permissible game, whereas real aggression toward a peer might still be inhibited. Therefore, the construct validity of the aggression measure can be questioned – does Bobo doll play truly indicate a child's aggression, or just playfulness in a novel situation? Bandura attempted to address this by even exploring a scenario (in later research) where a live clown was the target, to show children would hit a live target too, but the core 1961 study's measures remain limited to the doll and toy context. 4. Potential Observer Bias There was potential for observer bias, as the researchers observing the children's behavior knew the studies aims and which condition the child had been in. Observers were aware of which condition each child was in (aggressive or non-aggressive). This could introduce observer bias – observers might (even unconsciously) interpret borderline or unclear actions as aggressive for children who had witnessed aggression. Although Bandura used clear behavioral categories and multiple observers to reduce this risk, the possibility of subtle bias remained. Observer bias could have exaggerated differences between groups, slightly weakening confidence in the results. Ideally, observers should not know participants' conditions to ensure completely unbiased measurements, which is now standard practice in psychological research. 5. Influence of Novelty (Familiarity with the Bobo Doll) Cumberbatch (1990) found that the novelty of the Bobo doll influenced children's likelihood of imitating aggressive behavior, indicating a weakness in Bandura's experiment. Specifically, he observed that children who had never played with a Bobo doll before were five times more likely to imitate aggression than those who were familiar with it. According to Cumberbatch, the doll's novelty increased the children's curiosity, prompting them to mimic the adult's aggressive actions simply because the situation and the object were new and intriguing. This suggests Bandura's findings might be partly due to the novelty of the toy rather than true learned aggression, questioning the validity of his conclusions about observational learning. As a result, the practical relevance of the findings could be limited, as children might not react the same way to aggression in more familiar, everyday contexts. Ethical Issues Conducted in 1961, the study predates modern ethics codes and thus raises several ethical concerns by today's standards. Protection from harm is a major issue: Children in the aggressive-model condition were exposed to quite violent behavior by an adult. Some children were reportedly distressed or confused by witnessing the adult's aggression. There is the risk that learning aggression could have had a lasting negative effect on the children – participants are supposed to leave an experiment in "the same state they entered it," which may not have been the case here. Encouraging children to act aggressively (even toward a doll) could be seen as "normalizing" unhelpful behaviors that might persist beyond the study. Informed consent and assent: The preschool children could not give informed consent themselves. Bandura did obtain informed consent from the nursery school and presumably from parents (known as presumptive consent), but the children themselves had no say in participation. They were not fully informed about the purpose of the study (which might have been beyond their capacity to understand at that age). 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The study did yield important insights about learning and has been influential in understanding and reducing real-world aggression. Nonetheless, by modern ethical standards, exposing children to aggression deliberately and possibly inducing aggressive behavior in them is problematic. Researchers today would likely mitigate these issues – for example, by thorough debriefing (explaining to children with parents that the violence was pretend and not desirable behavior) and ensuring any distressed child could be comforted or removed. Vicarious Reinforcement Bobo Doll Study An observer's behavior can also be affected by the positive or negative consequences of a model's behavior. So we not only watch what people do, but we watch what happens when they do things. This is known as vicarious reinforcement. We are more likely to imitate behavior that is rewarded and refrain from behavior that is punished. Bandura (1965) used a similar experimental set up to the one outlined above to test vicarious reinforcement. The experiment had different consequences for the model's aggression to the three groups of children. One group saw the model's aggression being rewarded (being given sweets and a drink for a "championship performance," another group saw the model being punished for the aggression (scolded), and the third group saw no specific consequences (control condition). When allowed to enter the playroom, children in the reward and control conditions imitated more aggressive actions of the model than did the children in the punishment condition. The children in the model punished group had learned the aggression by observational learning, but did not imitate it because they expected negative consequences. Reinforcement gained by watching another person is known as vicarious reinforcement. Bandura, A., & Walters, R. H. (1959). Adolescent aggression: A study of the influence of child-training practices and family interrelationships. Bandura, A. (1965). Influence of models" reinforcement contingencies on the acquisition of imitative responses. Journal of personality and social psychology, 1(6), 589. Bandura, A., Ross, D. & Ross, S.A. (1961). Transmission of aggression through imitation of aggressive models. Journal of Abnormal and Social Psychology, 63, 575-82. Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. The Journal of Abnormal and Social Psychology, 66(1), 3. Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, NJ: Prentice Hall. Olivia Guy-Evans, MSc BSc (Hons) Psychology, MSc Psychology of Education Associate Editor for Simply Psychology Olivia Guy-Evans is a writer and associate editor for Simply Psychology. She has previously worked in healthcare and educational sectors. Saul McLeod, PhD Editor-in-Chief for Simply Psychology BSc (Hons) Psychology, MRes, PhD, University of Manchester Saul McLeod, PhD., is a qualified psychology teacher with over 18 years of experience in further and higher education. He has been published in peer-reviewed journals, including the Journal of Clinical Psychology. Store and/or access information on a device. Use limited data to select advertising. Create profiles for personalised advertising. Use profiles to select personalised advertising. Create profiles to personalise content. Use profiles to select personalised content. Measure advertising performance. Measure content performance. Understand audiences through statistics or combinations of data from different sources. Develop and improve services. Use limited data to select content. The Bobo doll experiment was a study by Albert Bandura that showed children can learn aggressive behavior by watching others. Kids who saw an adult hitting a Bobo doll were more likely to imitate that aggression, proving that behavior can be learned through observation. Aim: Bandura aimed to investigate whether children learn aggressive behaviors through observing adults, and whether gender impacts imitation. Method: Children watched either an aggressive adult, a calm adult, or no adult, and were later observed to see if they imitated aggression. Results: Children who observed aggression were significantly more aggressive, especially boys who copied male adults the most. Conclusion: Children can learn aggressive behavior simply by watching others, emphasizing the importance of role models in shaping behavior. By the early 1960s, people were becoming increasingly worried about violence in society, especially how watching violence on TV might affect children. Researchers wondered if seeing aggressive behaviors could teach children to act aggressively themselves. Before this time, scientists had different ideas about how aggression was learned: Behaviorists like Skinner believed children learned through rewards and punishments from their own actions. Psychoanalysts, inspired by Freud, suggested that watching aggression could actually help reduce aggressive feelings by providing a safe outlet, an idea known as catharsis. Albert Bandura challenged these theories with his famous experiment, exploring whether children might copy aggressive actions simply by observing adults, without any direct reward or punishment. Bandura and Walters in 1959 found that children with aggressive parents often behaved aggressively themselves, suggesting that imitation and modeling played key roles in how aggression develops. Bandura's Bobo doll experiment was set up specifically to test this idea. He created a controlled situation where children watched adults acting aggressively towards a doll to clearly see if observing such behavior influenced the children's own actions. Bandura's experiment aimed to resolve the debate about whether aggression is learned through personal experiences or through observing others. During the 1960s, Albert Bandura conducted a series of experiments on observational learning, collectively known as the Bobo doll experiments. Two of the experiments are described below: Bandura (1961) conducted a controlled experiment study to investigate if social behaviors (i.e., aggression) can be acquired by observation and imitation. The study also aimed to examine if children were more likely to imitate a same-sex model and whether boys would display more aggression than girls if exposed to aggressive modeling. Sample The experiment involved 72 children (36 boys and 36 girls), ages roughly 3 to 6 years old, enrolled at the Stanford University Nursery School The researchers pre-tested the children for how aggressive they were by observing the children in the nursery and judged their aggressive behavior on four 5-point rating scales. It was then possible to match the children in each group so that they had similar levels of aggression in their everyday behavior. The experiment is, therefore, an example of a matched pairs design. To test the inter-rater reliability of the observers, 51 of the children were rated by two observers independently, and their ratings were compared. These ratings showed a very high-reliability correlation (r = 0.89), which suggested that the observers had a good agreement about the behavior of the children. Method Design The Bobo doll experiment was a laboratory experiment with an independent groups design (each child experienced one of the conditions: aggressive model, non-aggressive model, or control). The independent variable (IV) was the type of model behavior the child observed (aggressive, non-aggressive, or none), with sub-variations of the model's gender. Aggressive model is shown to 24 children Non-aggressive model is shown to 24 children No model is shown (control condition) – 24 children The dependent variable (DV) was the amount of aggressive behavior shown by the child in the subsequent test situation, measured through observational counts of specific actions and remarks. Stage 1: Modeling In the experimental conditions, children were individually shown into a room containing toys and played with some potato prints and pictures in a corner for 10 mindutes. Children were randomly assigned to one of three experimental groups (24 children per condition): 1. Aggressive Model Condition: Each child individually observed an adult model (either a man or a woman) behave aggressively toward a large inflatable Bobo doll. In a room set up for play, the model first played quietly with tinker toys for about a minute, then proceeded to physically and verbally attack the Bobo doll for the remaining time. The model's aggressive repertoire included novel actions like punching the doll, hitting it with a mallet, tossing it, and kicking it, accompanied by distinctive aggressive phrases (e.g., "Sock him in the nose," "Hit him down," "Kick him," and "Pow!") which were not common playground behavior This modeling session lasted about 10 minutes Each child observed an adult model in the same playroom who did not display aggression. The model simply sat quietly and assembled the tinker toy set, ignoring the Bobo doll entirely, for the 10-minute period. No aggressive physical or verbal acts were demonstrated in this condition. The child had no adult model to observ

demonstrating how significant and broadly relevant Bandura’s findings are to psychology and society. 5. Usefulness of Research (Practical Applications) A significant strength of Bandura’s Bobo doll experiment is its practical usefulness, with extensive real-world applications. Bandura’s findings highlight the powerful role adults and media figures play as role models for children. Advice to parents often includes behaving in the way you want your child to behave (since children are watching and learning). In education, teachers and mentoring programs use the power of modeling to encourage prosocial behavior. The study’s usefulness is also seen in therapy and interventions: for example, techniques in behavior therapy use modeling (called participant modeling) to help children overcome fears or build social skills, proving that observational learning can be harnessed for positive outcomes as well. Additionally, Bandura’s research significantly shaped public understanding of media violence, sparking ongoing debates and leading to regulatory policies, such as content ratings and parental guidance warnings. Limitations 1. Artificial Setting (Ecological Validity) A common criticism is that the study’s lab environment was quite artificial, as it may not represent how children learn and act in more natural social contexts. The scenario of a child watching a strange adult behave violently toward a toy is not a typical real-life situation. Also, the model and the child are strangers. This, of course, is quite unlike normal modeling, which often takes place within the family. Furthermore, children do not often see adults attacking dolls, so the setup may have encouraged demand characteristics. For example, the Bobo doll itself is a toy designed to be hit (it bounces back up when knocked over). Children might have inferred that they were supposed to play aggressively with it, especially after seeing the model do so. This could mean some of the aggressive behavior was influenced by cues in the environment (the presence of the mallet and Bobo doll) and the children’s desire to please the experimenter, rather than genuine aggression they’d display elsewhere. Because of such factors, the external validity is in question: we must be cautious in generalizing the findings to real-world aggression (e.g., how a child would behave toward a real peer or in a non-lab environment). Another weakness is that Bandura’s sample was not diverse enough, limiting how widely the results apply. The participants were all young children from one nursery school at Stanford University, primarily from middle-class and white backgrounds. Because of this narrow demographic, the findings might not reflect how children from different cultures, socio-economic backgrounds, or age groups would respond to observing aggression. For example, children raised in environments where aggression is handled differently or where modeling from adults follows other norms might react differently. The experiment also only looked at ages 3–6; it cannot tell us directly about older children, teenagers, or adults. This lack of diversity weakens population validity, making it uncertain whether similar results would be found among children raised differently or in different cultural contexts. Thus, while insightful, Bandura’s conclusions about aggression and observational learning may not fully represent all children’s experiences or behaviors. 3. Short-Term and Narrow Measure of Aggression The study measured only short-term aggressive behaviors directed at a doll, providing a limited view of aggression. The Bobo doll experiment only measured immediate imitation in the minutes following exposure. It’s unclear whether the observed behavior was a transient effect or if the children retained and carried forth these aggressive tendencies long-term, The study did not do any follow-up to see if, say, the next day or week the children who observed aggression were more likely to be aggressive in nursery play. Thus, one limitation is the short-term focus – we cannot be sure if observational learning of aggression has a lasting impact from this study alone. Moreover, the operational definition of “aggression” in this experiment was hitting and verbal assault on a doll. While these are aggressive behaviors, they are relatively low-stakes (no one is actually harmed). It is a leap to assume that children would equally aggress against a real person. Some critics argue that hitting a clown doll might have been perceived as a permissible game, whereas real aggression toward a peer might still be inhibited. Therefore, the construct validity of the aggression measure can be questioned – does Bobo doll play truly indicate a child’s aggression, or just playfulness in a novel situation? Bandura attempted to address this by even exploring a scenario (in later research) where a live clown was the target, to show children would hit a live target too, but the core 1961 study’s measures remain limited to the doll and toy context. 4. Potential Observer Bias There was potential for observer bias, as the researchers observing the children’s behavior knew the studies aims and which condition the child had been in. Observers were aware of which condition each child was in (aggressive or non-aggressive). This could introduce observer bias – observers might (even unconsciously) interpret borderline or unclear actions as aggressive for children who had witnessed aggression. Although Bandura used clear behavioral categories and multiple observers to reduce this risk, the possibility of subtle bias remained. Observer bias could have exaggerated differences between groups, slightly weakening confidence in the results. Ideally, observers should not know participants’ conditions to ensure completely unbiased measurements, which is now standard practice in psychological research. 5. Influence of Novelty (Familiarity with the Bobo Doll) Cumberbatch (1990) found that the novelty of the Bobo doll influenced children’s likelihood of imitating aggressive behavior, indicating a weakness in Bandura’s experiment. Specifically, he observed that children who had never played with a Bobo doll before were five times more likely to imitate aggression than those who were familiar with it. According to Cumberbatch, the doll’s novelty increased the children’s curiosity, prompting them to mimic the adult’s aggressive actions simply because the situation and the object were new and intriguing. This suggests Bandura’s findings might be partly due to the novelty of the toy rather than true learned aggression, questioning the validity of his conclusions about observational learning. As a result, the practical relevance of the findings could be limited, as children might not react the same way to aggression in more familiar, everyday contexts. Ethical Issues Conducted in 1961, the study predates modern ethics codes and thus raises several ethical concerns by today’s standards. Protection from harm is a major issue: Children in the aggressive-model condition were exposed to quite violent behavior by an adult. Some children were reportedly distressed or confused by witnessing the adult’s aggression. 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Saul McLeod, PhD Editor-in-Chief for Simply Psychology BSc (Hons) Psychology, MRes, PhD, University of Manchester Saul McLeod, PhD., is a qualified psychology teacher with over 18 years of experience in further and higher education. He has been published in peer-reviewed journals, including the Journal of Clinical Psychology.