

Behaviorism and the Shaping of the American Mind (Part 1)

ABSTRACT: Historically founded on animal experimentation, behaviorism made withdrawal of parental attention—or ‘time-out’—one of the instruments of its Parent management training programs. However, the question of the effectiveness, or even harmfulness, of this measure for children’s psycho-affective development is still being debated. The aim of this first article is to take a closer look at the studies that behaviorists claim to justify ‘time-out’, and to clarify its theoretical and methodological foundations. A second article will examine the possible side-effects of ‘time-out’ for children, and the evolution of its social acceptability.

Keywords: behaviorism, operant conditioning, ‘time-out’, Applied behavior analysis, reinforcement, shaping, compliance, Child behavior checklist.

BEHAVIOR MODIFICATION PROGRAMS

For centuries, obedience and discipline were associated with the use of violence. The belief that physical pain inflicted on a child by a person in authority was necessary to make him submit to social rules was widespread. In the 1930s, influenced by behaviorism, North American psychologists began experimenting with isolation and childrearing through consequences as reasonable alternatives to corporal punishment. Director of St George’s School for Child Study in Toronto, an elementary school designed as a pedagogical laboratory, Dr William Blatz wrote:

If the child shows active resistance even in the face of the most enlightened methods, the form of restraint which seems effective with a minimum of undesirable results is to take the child bodily and put him off by himself till his behavior is more amenable. This practice, followed consistently in the nursery school, seldom fails. It is there reinforced by the penalty of absence from the group, which may be a less compelling motive at home. (Blatz and Bott, 1930, p. 212)

Behavior modification programs were developed, and enclosed spaces were created in schools where students were isolated as a punishment. Parents were taught to lock their children in bathrooms or other rooms devoid of stimulation. As children often refused to be humiliated in this way, procedures were prescribed to force them to obey. In the Hanf-Model developed by American psychologist Constance Hanf, for example, a sequence of three consequences was imposed on the recalcitrant child. A warning threatened to put him out of the way if he didn't comply within five seconds; an unspecified 'time-out' period was then imposed; and finally, two firm slaps on his bare bottom were administered if he didn't remain still in his chair (Kaehler, 2016, p. 241).

To enforce seclusion, other authors suggested spanking, erecting barriers, restraining the child in a seat, withdrawing a previously acquired privilege or applying additional deprivations, although their negative repercussions were well documented. Emotional distress, designed to replace physical pain in the behaviorist educator's disciplinary spectrum, could thus be supplemented by the very corporal punishment this approach sought to avoid. Despite this contradiction, the idea that learning processes necessarily involve the imposition of consequences by an authority external to the child received scientific backing and would soon spread throughout the English-speaking world. A national survey carried out in the USA in 2000 by the National Center for Health Statistics showed that 70% of parents frequently used 'time-out' to discipline their children aged between 19 and 35 months (Regalado, 2004).

A PEANUT DISPENSER FOR CHILDREN

The success of the behaviorist movement owes much to the work of its most eminent creator, the American psychologist Burrus F. Skinner (1904-1990). Between the wars, he conducted countless experiments on laboratory animals and their responses to artificial stimuli, using an experimental device that now bears his name: the Skinner box. It was he who coined the concept of 'operant conditioning' to refer to the way in which a behavior could be influenced by its consequences. After starving a pigeon, for example, he placed it in his device and stimulated a certain reaction by dropping a little food each time the bird complied, insisting on the two necessary conditions for the operation: 'deprivation' and 'reinforcement'.

In a seminal work, and not without a certain ingenuity, Skinner wrote: "It is decidedly not true that a horse may be led to water but cannot be made to drink. By arranging a history of severe deprivation, we could be 'absolutely sure' that drinking would occur." (Skinner, 1956, p. 32) Thus conditioned, the horse would move to the trough on its own without a single stroke of

whip. In this case, the reinforcement was described as ‘positive’. But the withdrawal of positive reinforcement could also act as a punishment, eventually causing ‘extinction’ of the unwanted behavior. When transferred to the complexity of human relationships, these concepts were to lay the foundations for a new discipline known as Applied behavior analysis (ABA), particularly in the field of education.

The first ABA experiments with preschool children were conducted in the 1950s at the Institute of Child Development at Seattle University (Bijou, 1957). To test the effectiveness of temporary withdrawal of positive reinforcement—the precursor of ‘time-out’—against conventional punishment, psychologist Donald W. Baer used a device that “generated a great deal of enthusiasm [in the children].” It consisted of a six-meter-long trailer parked in the playground of a local elementary school, with an observation booth for the experimenter and a playroom for a facilitator and a young guinea pig (Baer, 1961). In this little laboratory reminiscent of a Skinner box, each child could watch three Woody Woodpecker cartoons, projected in black and white onto a screen, while pressing a lever that dispensed peanuts—but which could also interrupt the projection at the experimenter’s discretion.

Following an elaborate protocol involving five test sessions spread over three weeks, Baer concluded that the withdrawal of positive reinforcement—in this case, the temporary suspension of the cartoon—did indeed have a punitive effect on the children subjected to the experiment, since the number of lever presses they made on the peanut dispenser diminished. While relativizing the importance of this last incentive for these schoolchildren who had just had a snack, he suggested that experimental studies on the punitive effect of the withdrawal of positive reinforcement in children “should prove of systematic and practical value.” The following year, Baer applied the same device to three thumb-sucking toddlers to extinguish the behavior—with no appreciable result, however.

ADULT ATTENTION AS POSITIVE REINFORCEMENT

Nevertheless, other experiments based on the same theoretical presuppositions were carried out on children suffering from severe psychological distress, giving rise to growing ethical concerns. An emblematic study, carried out in 1961 by Charles B. Ferster of the Institute of Psychiatric Research in Indianapolis, described the giving of reinforcements such as food, candy and trinkets—and their programmed deprivation—to two young autistic inpatients, whose traumatic past was also detailed (Fester, 1961). They were subjected to 261 and 162 one-and-a-half-hour training sessions a day respectively, in an automated room equipped with dispensers, during which they suffered numerous tantrums, urinated on the various devices, screamed,

and banged their heads against the walls. While finally admitting the failure of his device, Ferster suggested a more general plan for developing acceptable social behavior in his subjects: "Social reinforcers would be used instead of candy, and social responses reinforced instead of key presses." In the eyes of behavioral science, child isolation as an operant conditioning technique was about to earn its spurs.

Until then, 'time-out' had been a laboratory practice involving the brief switching-off of a light source as part of conditioning experiments with pigeons. But when Montrose M. Wolf of the Institute of Child Development in Seattle discovered the reinforcing power of adult attention for children, he decided to use the same term for the disciplinary practice of depriving them of it. In an article published in 1963, he described the procedure applied to a child diagnosed as autistic named Dicky (Wolf, 1963). Three-and-a-half years old at the start of the experiment, Dicky had undergone multiple eye operations and had to wear glasses, which he stubbornly refused to wear. Dicky suffered from tantrums, sleep and eating disorders—all behaviors that Wolf intended to modify by imposing periods of isolation. For wearing glasses, it was decided to gradually deprive him of food to increase his appetite for the sweets he was served as rewards, following a differential reinforcement procedure that Skinner described as 'shaping'.

A follow-up article published three years later revealed that, during his seven-month hospital stay, Dicky had been subjected to around 100 periods of isolation before the frequency of his tantrums diminished. Afterwards, his father "expressed contentment with Dicky's rate of progress," although his integration into a specialized public school was still not an option. The child joined an experimental class at the Institute of Child Development, where further 'time-out' periods were imposed when he threw a tantrum or pinched his classmates. As Dicky was still in diapers, his teachers rewarded him with a mouthful of ice cream or an M&M as soon as he went to the toilet. However, the behavioral approach proved ineffective in increasing his positive interactions with other children, which remained close to zero throughout the first year. Wolf nonetheless concluded that his device was a success: "After 3 years' of intensive application of operant behavior modification techniques, Dicky progressed from 'hopeless' to the point where he was able to take advantage of a public school education program. Perhaps, through the continued efforts of his parents and teachers he may develop into a productive citizen." (Wolf, 1967, p. 110)

THE GOLDEN AGE OF BEHAVIORISM

In 1968, recruited by the University of Kansas, Montrose M. Wolf founded the *Journal of Applied Behavioral Analysis* (JABA) to promote his applied

research models and defend the validity of single-subject experiments, the results of which he then extrapolated. As the publication's editor and final reviewer, he helped authors rewrite their reports to enable them to draw convincing, albeit provisional, conclusions from their experiments. As it turned out, Wolf co-edited half of the articles published in the first two volumes of *JABA*, his circle of reviewers being limited to collaborators in his department (Risley, 2005). The combination of a dubious theoretical approach, sometimes fanciful experiments, and frequent biases in the analysis of their results foreshadowed a crisis that was to erupt half a century later: that of the reproducibility of psychological research.

However, an inexhaustible field of experimentation had just been opened. ABA was inflicted on autistic children, who were given an average of 40 hours of treatment per week over a period of two years or more (Lovaas, 1987), on children suffering from attention deficit hyperactivity disorder (ADHD) in various contexts (Fabiano, 2004), and introduced into child psychiatry, where seclusion soon became an almost automatic response to any behavioral infraction (Delaney, 1999). Wolf himself developed a behavior modification program for juvenile delinquent homes, involving a complex system of rewards, participatory governance with consequences, a reinforcement model based on adult attention, and the inevitable 'time-out' he now claimed as his own.

The years that followed ushered in the golden age of behaviorism, and several national and international associations experienced considerable growth. ABA became the mainstay of autism treatment, although abuses were reported in the use of punitive procedures such as electric shocks, isolation, and food deprivation (Leaf, 2022). Point incentive programs known as 'token reinforcement systems' were gradually introduced in schools to increase schoolwork and reduce discipline breaches using differential reinforcement strategies. For a child who couldn't sit still in his chair, for example, every 15 minutes spent seated could earn him tokens, stamps or stickers that could later be exchanged for rewards, punishments being reserved for dangerous or destructive behavior.

AN OBSESSION WITH CONTROL

The promoters of behavioral therapy were determined to remodel the social environment to confirm their theoretical presuppositions. Introducing parents—and mothers in particular—to the techniques tested in the laboratory proved to be a major challenge. First introduced in an outpatient setting, systematic reinforcement procedures including 'time-out' soon spread to the home through countless Parent management training (PMT) programs, in the hope of disciplining children perceived as aggressive, hyperactive, hot-tem-

pered, or simply unruly. The 13 Family Skill Training modules, for example, suggested applying operant conditioning techniques to situations as diverse as putting away clothes or toys, bedtime, toileting, anger management, fights between children, following instructions, school attendance, chores, homework, swearing or lying, or even arson (Blechman, 1985). In this vast literature, the conviction that children must imperatively conform to family and social rules—a concept known as ‘compliance’—is rarely challenged.

The evaluation of this disposition in children, however, revealed major disparities between studies and inconsistent results. In the very young children, some authors went so far as to distinguish between ‘orientation compliance’ if the child’s visual attention was directed towards an object designated by the adult, ‘contact compliance’ involving touching this object, and ‘task compliance’—i.e. the extent to which he performed the activity ordered (Schaffer and Crook, 1980). Others assessed the time it took the child to respond to commands. The types of control exercised—‘coercive’ vs. ‘inductive’—and their effects on the obedience of children of all ages were also examined, as was the formulation of the orders given (Marion, 1983).

Despite their inconsistencies, these observations were then quantified, and statistical interpretations extrapolated based on ‘compliance rates’ that reflected an obsession with control rather than a rigorous scientific approach. A study by Steven A. Hobbs and his colleagues at the University of Georgia, for example, presented the effects of a variation in the length of ‘time-out’ on the compliance of a sample of 28 children aged four to six—recruited with their mothers, through an advertisement in a local newspaper (Hobbs, 1978). The experimental set-up was a small, glass-walled room containing toys, and the activity consisted of getting the young subjects to obey a few simple maternal commands. If the child failed to comply within 10 seconds, a ‘time-out’ of 10 seconds, 1 minute or 4 minutes was imposed, with the simple explanation: “You did not do what I told you right away; so you are going to have to stay in the corner for awhile.” The authors recorded the occurrences of non-compliance, averaged their percentages for each group considered and subjected these figures to an analysis of variance before concluding: “The results indicate that even very short durations of timeout decrease deviant child behavior. However, longer durations appear to produce greater response suppression and more effectively maintain the suppression when timeout contingencies are removed.”

THE CHILD AS TYRANT

The question of why PMT programs continued to spread despite these empirical setbacks is worthy of debate. No doubt part of the answer lies in the seductive effect on the public of the promises made by ambitious sci-

entists, determined to make behaviorism a discipline of its time, even if it meant resorting to the tactics of consumerism. In a reflection on its social validity, published in 1978 by his JABA, Wolf clearly stated the objective “to design a responsive consumer-oriented applied social science” (Wolf, 1978, p. 213). He praised the efforts of opinion pollsters capable of making excellent predictions about voting behavior and suggested: “Surely we can do as well.”

Another factor is that these researchers were making widely shared interpretations of children’s behavior at the time. In other words, their presumptions seemed self-evident, because they confirmed the beliefs that many parents had internalized from their earliest childhood. In a short study from 1959, reporting on the isolation treatment of a 21-month-old male toddler who had difficulty falling asleep following a long illness, Carl D. Williams of the University of Miami explained: “[The child] enforced some of his wishes, especially at bedtime, by unleashing tantrum behavior to control the actions of his parents.” (Williams, 1959) It was therefore decided to “remove the reinforcement of this tyrant-like tantrum behavior” by leaving the child to cry alone in his room—the first extinction in a series of ten occurring after 45 minutes of uninterrupted screaming. Concluding on the success of his experiment the researcher remarked: “It should be emphasized that the treatment in this case did not involve aversive punishment. All that was done was to remove the reinforcement. The extinction of the tyrant-like tantrum behavior then occurred.”

The fact that behavioral sciences were historically derived from animal experimentation certainly helped reinforce the belief that children, like animals, can and must be trained. Indeed, subsequent studies invariably referred to the fundamentals of the discipline, suggesting this analogy in barely veiled terms. A 1972 experiment by Geoffry D. White and his colleagues at the Oregon Research Institute on the effects of three durations of ‘time-out’ on twenty children described as retarded, began with the reminder that this procedure “has continually been shown, both in animal studies [...] and in experiments with humans [...], to be effective in suppressing a variety of behaviors” (White, 1972). A year later, another study by Tomi S. MacDonough and Rex Forehand of the University of Georgia, defining the parameters of the ‘time-out’ procedures that would be applied to children in a clinical setting, mentioned precisely the same experiments: “The importance of scheduling [the number of ‘time-outs’] is apparent from an examination of laboratory studies with human adults [...] and with animals [...]” (MacDonough and Forehand, 1973) From then on, this research would be set in stone to justify “evidence-based programs” for parents. As we can see,

although animal experimentation was no longer mentioned, it nonetheless provided scientific backing for 'time-out' through interposed references.

LISTS OF PROBLEM BEHAVIORS IN CHILDREN

Behaviorists' efforts to sell their parenting programs, however, resorted to yet another strategy. If their therapies failed to deliver the desired results, they could no doubt promote consumer satisfaction. In the early 1980s, Alan E. Kazdin's studies on the acceptability of treatment procedures—'time-out' in particular—were certainly part of such a quest for social validation (Kazdin, 1980, 1981). To this end, greater involvement of parents in their implementation seemed to be both favorable and resource-efficient: they were to be instructed in the methodical observation of their own children to convince them to resort to them. Although essential for diagnosing behavioral disorders, parental reports had a subjective dimension that was incompatible with the normative rigor to which researchers aspired.

In 1987, based on a sample of 81 families interviewed by telephone, Patricia Chamberlain of the Oregon Social Learning Center analyzed the validity of a system that would later become widespread (Chamberlain, 1987). The Parent daily report (PDR) consisted of a list of 33 behaviors considered problematic in children, as diverse as aggressiveness, bedwetting, crying, provocation, lying, disobedience, sadness, stealing, tantrums and whining. Contacted three times a week for 4 weeks, the mothers indicated, for each child observed, the occurrence or non-occurrence of each item on the list over the last 24 hours. Further observations were carried out on a random sample of families to check the reliability of the results obtained. Through statistical analysis, the numbers were then reduced to four ratios of problematic behavior for each of the children concerned—i.e. 'aggressive,' 'immature,' 'unsocialized,' and 'revengeful.'

The Child behavior checklist (CBCL) was another observation tool offered to parents. Conceived in the 1960s by Thomas M. Achenbach of the National Institute of Mental Health in Bethesda, Maryland, this questionnaire targeted 118 specific attitudes such as 'often challenges or contradicts,' 'clings to adults or is overly dependent,' 'often cries,' 'cruel to animals,' 'doesn't eat well,' 'sets fires,' 'tantrums or loses his temper easily,' 'unhappy, sad or depressed' (Achenbach, 1978; Vermeersch and Fombonne, 1997). Each description was rated on a 0, 1 or 2-point scale, depending on whether it was not true for the child under consideration (0), about or sometimes true (1), often or very true (2), now or in the last six months. Although Achenbach's CBCL was briefly criticized for the redundancy of some of its criteria and deemed "quite circumscribed with respect to understanding childhood psy-

chopathology and planning interventions” (Macmann, 1992), this rating scale has been widely translated and is used in many studies internationally.

INDOCTRINATION AND COGNITIVE REINTERPRETATION

In the process of validating behavioral studies, the initial training of the parents involved—systematic when it comes to an experimental protocol—could also induce a confirmation bias. The indications provided by the researchers in the first phase of the experiment invited the parents to interpret their understanding of child behavior according to behaviorist principles. How did this synergy of indoctrination and cognitive reinterpretation work in practice? Take the example of a 1987 study by Judith R. Mathews and her colleagues at the University of Kansas Medical Center to test the effectiveness of behavioral treatments in reducing domestic accidents in one- to two-year-old children (Mathews, 1987). The researchers began by hypothesizing that the potentially dangerous behaviors of toddlers could be restricted by instructing their mothers to use ‘time-out’ and positive reinforcement, while making their homes safer. In the initial phase, four young women—three of them teenagers—were trained in this approach, and behavioral observations were made on their children, then aged between 10 and 12 months. Positive interactions—improperly referred to as ‘time-in’—were limited to praising desirable behaviors by giving the infant around ten compliments per minute, while reducing the number of admonishments to two per minute. In contrast, the ‘time-out’ procedure consisted of saying ‘no’ firmly, grabbing the child from behind and placing her alone in a playpen until she was quiet for 5 or 10 seconds, in accordance with the instructions in an education manual published a few years earlier (Christopherson, 1977). The same procedure was used to silence one of the four babies observed, whose crying had increased dramatically after the fourth session of the experiment. All the mothers reported that they had found it very distressing to let their baby scream when a ‘time-out’ was imposed. For this reason, the study concluded that the trainers’ careful explanations and ongoing support had been “particularly important.” Despite their initial feelings, the participants eventually found the procedure useful and subsequently implemented it for other behaviors such as crying, hitting, biting, and throwing objects.

As the treatment program included three elements—‘time-out’, positive reinforcement, and home security—the authors conceded that it was “impossible to determine what specifically accounted for the changes in behavior.” They also suggested that the presence of observers from outside the home might have influenced mother-child interactions, as might other

aspects of family life that their study had not considered. The experiment was based on presuppositions and was scientific in form only. The validity of the study is questionable on several counts including the size and demographic characteristics of the sample studied, the choice of observers, the methods used to assess baby behavior and parent satisfaction, the types of intervention, and the quantification of results. Nevertheless, this study would later be cited frequently, notably to justify the effectiveness of ‘time-out’ in other contexts (Morawska and Sanders, 2011).

This brief review of the evolution in the behavioral science over the last few decades undoubtedly calls for a great deal of reflection. Founded on animal experimentation and various conditioning strategies, the discipline made social conformity the basis of its childrearing project. This perspective is not only reductive, but also unsustainable in human terms since it ignores several essential dimensions of children: their affectivity, which exists only insofar as it can be manipulated; their interpersonal skills; and their innate ability to exercise reflective consciousness, which is only considered when they have to accept the consequences of their actions.

The scientific evidence that the ABA claims to justify ‘time-out’ also needs to be re-examined. Most of the studies show a confirmation bias inherent in their presuppositions—namely, the allegedly manipulative nature of the child. Added to this are various statistical flaws, such as the size and demographic of samples, or the absence of a control group. Often, no alternative approach is compared to behavioral treatments.

In a second part, to be published in the Fall 2024 Issue of this Journal, we will examine the possible harmfulness of the ‘time-out’ procedure for the child’s psycho-affective balance and the evolution of its social acceptability.

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REFERENCES

- Achenbach, Thomas M., “The Child Behavior Profile: An Empirically Based System for Assessing Children’s Behavioral Problems and Competencies,” *International Journal of Mental Health*, Fall-Winter 1978/79, Vol. 7, N° 3/4, pp. 24-42.
- Baer, Donald M., “Effect of Withdrawal of Positive Reinforcement on an Extinguishing Response in Young Children,” *Child Development*, March 1961, Vol. 32, N° 1, pp. 67-74
- Bijou, Sidney W., “Methodology for an Experimental Analysis of Child Behavior,” *Psychology Reports*, 1957, Vol. 3, N° 3, pp. 243-250.

- Blatz, William and Bott, Helen, *The Management of Young Children*, W. Morrow, 1930.
- Blechman, Elaine A., *Solving Child Behavior Problems at Home & at School*, Research Press, 1985.
- Chamberlain, Patricia et al, "Parent Observation and Report of Child Symptoms," *Behavioral Assessment*, January 1987, Vol. 9, N° 1, pp. 97-109.
- Christopherson, Edward R., "Discipline," in *Little People: Guidelines for Commonsense Child Rearing*, Westport Publishers, 1977, 1988, pp. 43-53.
- Delaney, Kathleen, "Time-Out: An Overused and Misused Milieu Intervention," *Journal of Child and Adolescent Psychiatry Nursing*, April-June 1999, Vol. 12, N° 3, pp. 53-60.
- Fabiano, Gregory A. et al, "An Evaluation of Three Time-Out Procedures for Children with Attention-Deficit/Hyperactivity Disorder," *Behavior Therapy*, Summer 2004, Vol. 35, N° 3, pp. 449-469.
- Fester, Charles B., "The development of performances in autistic children in an automatically controlled environment," *Journal of Chronical Diseases*, April 1961, Vol. 13, N° 4, pp. 312-345.
- Hobbs, Steven A. et al, "Effects of Various Durations of Timeout on the Noncompliant Behavior of Children," *Behavior Therapy*, September 1978, Vol. 9, N° 4, pp. 652-656.
- Kaehler, Laura A. et al, "Distilling Common History and Practice Elements to Inform Dissemination: Hanf-Model BPT Programs as an Example," *Clinical Child and Family Psychology Review*, September 2016.
- Kazdin, Alan E., "Acceptability of Alternative Treatments for Deviant Child Behavior," *Journal of Applied Behavior Analysis*, Summer 1980, Vol.13, N° 2, pp. 259-273.
- Kazdin, Alan E., "Acceptability of Alternative Treatments for Children: Evaluations by Inpatient Children, Parents, and Staff," *Journal of Consulting and Clinical Psychology*, December 1981, Vol. 49, N° 6, pp. 900-907.
- Leaf, Justin B., "Concerns About BA-Based Intervention: An Evaluation and Recommendations," *Journal of Autism and Developmental Disorders*, June 2022, Vol. 52, N° 6, pp. 2838-2853.
- Lovaas, O. Ivar, "Behavioral Treatment and Normal Educational and Intellectual Functioning in Young Autistic Children," *Journal of Consulting and Clinical Psychology*, 1987, Vol. 55, N° 1, pp. 3-9.
- MacDonough, Tomi S. and Forehand, Rex, "Response-Contingent Time-Out: Important Parameters in Behavior Modification with Children," *Journal of Behavior Therapy and Experimental Psychiatry*, September 1973, Vol. 4, N° 3, pp. 231-236.
- Macmann, Gregg M. et al, "Construct Validity of the Child Behavior Checklist: Effects of Item Overlap on Second-Order Factor Structure," *Psychological Assessment*, March 1992, Vol. 4, N° 1, pp. 113-116.
- Marion, Marian, "Child Compliance: A Review of the Literature with Implications for Family Life Education," *Family Relations*, October 1983, Vol. 32, N° 4, pp. 545-555.
- Mathews, Judith R. et al, "Decreasing Dangerous Infant Behaviors Through Parent Instruction," *Journal of Applied Behavior Analysis*, Summer 1987, Vol. 20, No. 2, pp. 165-169.
- Morawska, Alina and Sanders, Matthew, "Parental Use of Time Out Revisited: A Useful or Harmful Parenting Strategy?" *Journal of Child and Family Studies*, February 2011, Vol. 20, N° 1, pp. 1-8.
- Regalado, Michael et al, "Parents' Discipline of Young Children: Results from the National Survey of Early Childhood Health," *Pediatrics*, (2004) 113 (Supplement_5): 1952-1958.

- Risley, Todd, "Montrose M. Wolf (1935-2004)," *Journal of Applied Behavioral Analysis*, Summer 2005, Vol. 38, N° 2, pp. 279-287.
- Schaffer, H. Rudolph and Crook, Charles K., "Child Compliance and Maternal Control Techniques," *Developmental Psychology*, 1980, Vol. 16, N° 1, pp. 54-61
- Skinner, Burrus F., *Science and Human Behavior*, Macmillan, 1953, 1956.
- Vermeersch, S. and Fombonne, E., "La Child Behavior Checklist: résultats préliminaires de la standardisation de la version française," *Neuropsychiatrie de l'enfance et de l'adolescence*, 1997, Vol. 45, N° 10, pp. 615-620.
- White, Geoffry D. et al, "Timeout Duration and the Suppression of Deviant Behavior in Children," *Journal of Applied Behavior Analysis*, Summer 1972, Vol 5, N° 2, pp. 111-120.
- Williams, Carl D., "The Elimination of Tantrum Behavior by Extinction Procedures," *The Journal of Abnormal and Social Psychology*, September 1959, Vol. 59, N° 2, p. 269.
- Wolf, Montrose M. et al, "Application of Operant Conditioning Procedures to the Behaviour Problems of an Autistic Child," *Behavioral Research and Therapy*, 1963, Vol. 1, N° 2-4, pp. 305-312.
- Wolf, Montrose M. et al, "Application of Operant Conditioning Procedures to the Behaviour Problems of an Autistic Child: A Follow-Up and Extension," *Behavioral Research and Therapy*, May 1967, Vol. 5, N° 2, pp. 103-111.
- Wolf, Montrose M., "Social Validity: The Case for Subjective Measurement or How Applied Behavior Analysis is Finding its Heart," *Journal of Applied Behavior Analysis*, Summer 1978, Vol. 11, N° 2, pp. 203-214.

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