

NOT  
Punishment is <sup>v</sup>a Negative  
Procedure!

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# Introduction

- Punishment is a very controversial topic in applied behavior analysis today. Because reinforcement, antecedent manipulations, and certain skill acquisition procedures are often described as “positive,” the implication is that punishment procedures must be “negative.” Some procedures – mostly those described as “positive” – are also characterized as “natural,” with the implication that they’re automatically good, or at least benign.

# Introduction

- Well, that's not the case at all. In fact, there is no evidence that all reinforcement procedures are "positive" in the sense of always being pleasant and producing no ill effects. And it's certainly not the case that all "positive" procedures are "natural," or vice versa. Indeed, there are many naturally occurring consequences that most of us would not describe as pleasant or "positive."

# Introduction

- The terms “positive,” “negative,” and “natural” in this context are more political in nature than scientific or logical, and carry with them more baggage than a fully loaded 747. Punishment has undeniably become ABA’s redheaded stepchild, and the use of punishment procedures typically invokes the wrath of the local behavioral program review committee and the “positively” enlightened crowd.

# Overview

- Misconceptions about reinforcers and punishers
- Problems with punishers and reinforcers
- Punishment and coercion
- Punishment is all around us, necessary, and beneficial

# Overview

- Problems in using “typical” punishers with atypical individuals
- Problems caused by aversives in general
- Benefits of learning to tolerate aversives
- Teaching people how to “handle” aversives

# A quote from Dr. Peter Harzem (paraphrased badly)

- Punishment is an unfortunate term that we have borrowed from the non-scientific community and carries with it all of the connotations of the non-scientific term
- "I (Peter) would have proposed the term DISINFORCEMENT"
- We all should have listened to Peter

# PBS

- Why are positive behavioral supports called positive?
- Do they support **positive** behavior?
- Do they **positively** support negative behavior?
- Is it because they are **positively** void of all aversives?
- Is the last statement **Positively BS?**
- Are the rest of us doing NBS? (Negative Behavioral Suppression™)



Are we positive that  
reinforcers can't be negative?

- Aversives and Reinforcers can be powerful motivators
- POWERFUL MOTIVATORS CAN HAVE POWERFUL "SIDE-EFFECTS"

“Punished by Rewards;  
The Trouble with Gold  
Stars, Incentive Plans, A's,  
Praise, and Other Bribes”  
by Alfie Kohn

# Punished by Rewards

- Not a Behavior Analyst or Psychologist. Primarily an author and lecturer. MA in Social Sciences from University of Chicago.
- His book is filled with “behaviorism bashing” and unflattering portrayals of Skinner.
- His criticisms are largely based on oversimplifications and misconceptions of behavioral principles and outdated behavioral practices.
- But he does thoroughly document the criticisms of the use of potential reinforcers that are held by many people who don't truly understand the principles or who form their opinions based on popular non-scientific arguments.

# Criticisms of Rewards and Programmed Use of Potential Reinforcers

- Although many, they fall into 6 general categories...
- Fundamental Aversion
- Undesired Effects
- It Doesn't Work

# Criticisms of Rewards and Programmed Use of Potential Reinforcers

- Fosters Dependency
- Fails to Address the Real Problem
- Damages Relationships

# “It’s repugnant, distasteful, and just plain wrong”

- It’s inherently “wrong” to use rewards. Doing so is treating people like pets or “passive beings whose behavior must be elicited by external motivation in the form of incentives”.
- It is manipulative, controlling and demeaning. Those who control the rewards are essentially threatening to withhold them if the person does not behave the way they want, so it just as controlling and coercive as a threat. Rewards and punishment are not opposite, but 2 sides of the same coin. Talks about response cost and taking away earned privileges.
- Quote: “Most behaviorists are not fond of punishment; as one Skinnerian has written,” “the trouble may be not that it doesn’t work but that it works only too well”[Rachlin]. “I think exactly the same thing can be said of rewards: we pay a substantial price for their success.” Quoting Rachlin, 1991, p.132

# “It Has Undesired Effects”

- They also change the way we do things in undesired ways. People “rush through” just to get the reward and quality suffers.
- They also change the reason for doing something, displacing other (better) motivations, i.e. “intrinsic motivation”.
- They change the attitude we take toward the activity in undesired ways. People don't enjoy the activity itself and view it as a chore.

# “It Doesn't Work”

- Changes are temporary. You have to keep the rewards coming to get the behavior to last. Cites a bunch of studies that found no generalization in frequency or quality of performance. Also studies where children offered rewards took shortcuts and performed with less quality.
- They don't work as well for those who are not completely dependent on others (animals, disabled people, prisoners, inpatients). Offered no studies to support this contention.
- They only change simple, “quantifiable” behavior, not things that are more complex. Rewards are actually detrimental to performance of creative tasks. Cites a study that concluded this.



# “It Fosters Dependency”

- The more they are used the more they are needed. People get dependent on rewards and become less likely to do things for better reasons. People need more and more rewards, raising the stakes (like higher levels of punishment) over time to keep engaging in the behavior.

# “It Fails to Address the Real Problem”

- It's a quick fix that doesn't solve the real problem. Rewards are used when things are going badly and overshadow the real reasons, i.e., “why is the child screaming?”, “why is the student ignoring his homework?”, etc...

# “It Damages Relationships”

- They hurt relationships because they create an imbalance of power and coercion. They make peers compete instead of work together cooperatively. They lead to jealousy. Group rewards hurt relationships when one person causes the entire group to lose the reward.

# Punishment on Trial

## Ennio Cipani

- “Galileo’s dealings with the papacy in the 16th century may seem like small claims court when compared to the wrath of people who stand to judge those who support the use of punishment.”

# Punishment on Trial (Ennio Cipani)

- He covers the following misconceptions/objections/myths:
- Punishment doesn't work
- Punishment is only temporary
- Punishment = Abuse
- Punishment is not as effective as reinforcement

# Punishment on Trial (Ennio Cipani)

- Parents feel guilty after using punishment (they also feel guilty about making their child mad for things)
- Punishment causes problems for a child's emotional development (people paired with the punisher may acquire aversive properties)
- Time-out does not work

# Punishment on Trial (Ennio Cipani)

- Six basic principles of Punishment
- There must exist a behavioral contingency (specific response, not just “misbehavior”)
- Be consistent (Every Single Time is Better)
- The even swap rule (reinforcing another behavior, hopefully a functional equivalent)
- Remove competing consequences (you can't go to the YMCA because you hit someone so let's go get donuts)
- Be specific (about reinforcers, punishers, what to do and when to do it)
- Prove it works

# Punishment on Trial

- Where do I get this book???
- <http://www.ecipani.com/PoT.pdf>



# The Negative Effects of Positive Reinforcement

- Michael Perone (2003) The Behavior Analyst
- Positive reinforcement has aversive functions
- “Even the procedures we regard as prototypes of positive reinforcement have elements of negative reinforcement or punishment embedded in them.”

# The Negative Effects of Positive Reinforcement

- The defining features of aversive control
- “A stimulus is aversive if its contingent removal, prevention, or postponement maintains behavior-- that constitutes negative reinforcement--or if its contingent presentation suppresses behavior-- punishment.”
- “There is no mention in these definitions of pain, fear, anxiety, or distress, nor should there be.”
- This does not mean that an aversive WILL NOT generate the above reactions

# The Negative Effects of Positive Reinforcement

- Perone argues that it is not so much the stimulus itself that is aversive, but the contingencies in which that stimulus is embedded
- Time-out is only aversive (which it is supposed to be) if the Time-in environment contains powerful reinforcers!
- MOs would also play into whether or not the time-out is aversive!

# The Negative Effects of Positive Reinforcement

- "Aversiveness is not an inherent property of a stimulus, and it cannot be measured apart from the effect of the stimulus on behavior"
- "Aversive control is inevitable because every positive contingency can be construed in negative terms."
- "Whenever a reinforcer is contingent on behavior it **MUST** be denied in its absence."

# The Negative Effects of Positive Reinforcement

- Skinner (1971) pointed out that there is a potential problem when the behavior produced by positive reinforcement (over-eating) has deferred aversive consequences. "The problem to be solved by those concerned with freedom is to create immediate aversive consequences"

# The Negative Effects of Positive Reinforcement

- “Positive contingencies can be dangerous specifically because they do NOT generate avoidance, escape, or their emotional counterparts, even when the contingencies are ultimately detrimental”
- You drink too much because hangovers occur tomorrow!
- This gave rise to the invention of the “Bloody Mary”

# The Negative Effects of Positive Reinforcement

- The ATF! Alcohol Tobacco and Firearms
- We have an entire government agency devoted to problematic reinforcers
- VICE: Entire divisions of the police devoted to problematic reinforcers
- Sex, drugs, rock and roll, junk-food, TV, video games, gambling

# Can “straight up” reinforcement procedures contain aversives?

- HELL YES!
- Failure to meet the contingencies for reinforcement, especially when the MO is high, can produce crisis
- This even can occur with procedures as seemingly benign as a DRO



# DRO

- Typically they may only specify the absence of behavior for a matter of seconds (like with high-frequency SIB)
- For higher functioning individuals however they may specify an extended period of the non occurrence of behavior (e.g., no aggression all day equals prize box at the end of the day)

# DRO

- Example: Cynthia must go all day without name calling and she can have her choice of snacks at the end of the day
- half-way through the day she calls another student a name
- the teacher informs her that now she will not be able to get her choice of snacks
- Cynthia becomes aggressive upon hearing that she has failed to meet the contingency

# DRO

- Was anything taken from Cynthia?
- Was anything presented to Cynthia?
- Did she become aggressive the moment she name called, (which violated the contingency) or the moment she was informed of the failure to meet the contingency?

# Wrong magnitude of reinforcement = Aversive

Try this experiment!

1. Go to a nice restaurant and order at least 100 dollars in food and beverages
2. After concluding your meal and receiving the check, leave a single dollar bill in plain sight on the table
3. Walk to the entrance and watch the reaction of your server
4. Run like hell!

# Conclusion of Study

- Servers hate dollar bills!
- Next time leave quarters!

# Stimuli that signal the cessation of reinforcement can be aversive

- Bobby gets 10 minutes of computer time after completing 5 math worksheets
- At minute 9 the teacher reminds him that he has to stop using the computer in 1 minute
- Bobby's not a Mac, he's a PC (pre-crisis)

# Schedule-induced aggression in Pigeons

- Certain schedules of reinforcement (primarily very high fixed ratio) can produce adjunctive aggression
- The stimuli associated with reinforcement, even the reinforcer itself can acquire aversive properties as it is correlated with the imminent start of another period of "work"
- This can produce an "approach-avoidance" sort of problem (Jeff Kupfer). "Should I stay or should I go"

# Induced Attack During Fixed-Ratio and Matched-Time Schedules of Food Presentation

Kupfer (Anne), Allen & Malagodi 2007

- “there may be aversive aspects of the fixed-ratio response requirements leading to increased levels of induced behavior. Numerous studies have demonstrated that pigeons or rats will respond to terminate or escape from stimuli associated with schedules of positive reinforcement”



# Kupfer (Anne), Allen & Malagodi 2007

- "Azrin et al. (1966) and Hutchinson et al. (1968) suggest that induced attack during ratio schedules may be a function of the aversive elements related to response number required for reinforcement. Thus, aggression may be elicited by such aversive elements in a manner similar to that occurring during periods of extinction or when electric shock is presented."

# How does punishment occur?

- Naturally occurring non-socially mediated
- Naturally occurring socially mediated
- Programmed (contrived)

# Naturally occurring non-socially mediated punishers

- Perone (2003) "Aversive control is responsible for the fact that we button our coats when the temperature drops and loosen our ties when it rises. It leads us to come in out of the rain, to blow on our hot coffee before we drink it, and to keep our fingers out of electrical outlets."
- Aesop (560 BC)

# The Sun and the Wind



# The Sun and the Wind



- The Wind and the Sun were disputing which was the stronger. Suddenly they saw a traveller coming down the road, and the Sun said: "I see a way to decide our dispute. Whichever of us can cause that traveller to take off his cloak shall be regarded as the stronger. You begin."





# The Sun and the Wind

- So the Sun retired behind a cloud, and the Wind began to blow as hard as it could upon the traveller. But the harder he blew the more closely did the traveller wrap his cloak round him, till at last the Wind had to give up in despair. Then the Sun came out and shone in all his glory upon the traveller, who soon found it too hot to walk with his cloak on.
- Moral: Kindness effects more than severity.
- WTF???



# The Sun and the Wind

- The REAL morals of the story:
- Don't get into a bet with the sun, because it's already rigged
- The Wind should have bet the Sun double or nothing that he could make the man put his coat back on again
- Aversives make the world go round (Jack Michael)



# A Quote from Punishment on Trial

- “Our ability as a species to profit from punishing events and bring our behavior in accordance with such contingencies is a testament to our survival.”
- Merrill at FABBA 4 beers into the evening
- Translated by Ennio Cipani from prose into poetry
- The original statement was more like “Punishment not bad, it make you not die!”



# Behaviors that may be suppressed by Naturally occurring Non-socially Mediated Punishers:

- Poking keys into sockets
- Poking a Hornet's Nest with a stick
- Poking a fork into a toaster

# Naturally occurring non-socially mediated

- These kinds of punishers are typically primary aversives, requiring no conditioning history
- As we get older and more socialized an increasing number of punishers take the form of conditioned aversive stimuli which may occur as social interactions and/or objects that were previously neutral

# Naturally occurring non-socially mediated

- These types of punishers can range from very mild (minor back injury due to improper lifting) to life threatening (driving after drinking)
- If we are sensitive to them, these punishers, keep us healthy, improve our skills, make those around us safer, and “make us not die”

# Naturally Occurring, Socially Mediated

- These punishers are not necessarily “programmed” per se, but are common consequences of certain behaviors and may include:
  - Frowns
  - Getting “chewed out”
  - Getting one’s “ass kicked”
  - Getting un-friended on Facebook

# Naturally Occurring, Socially Mediated

- Note that (with the exception of getting one's ass kicked) many of these socially mediated consequences are conditioned aversives (they would not bother a baby)
- Remember, a stimulus may be aversive in terms of its ability to generate escape/avoidance behavior or to elicit a substantial physiological reaction, nonetheless it may not function as a punisher for a given behavior or functional response class (Please see the Sizemore and Maxwell 1985 reference in the Perone article)

# Programmed Punishers

- These are all “planned” consequences and with the exception of certain extreme laws (e.g., losing one’s hand as a result of being caught stealing) they involve primarily conditioned aversives
- Programmed punishers are used throughout society and without them everything would go to hell pretty quickly

# Programmed Punishers

- Late fees, Premium Increases
- Tickets
- Fines
- Disciplinary Actions
- Video game contingencies
- The penalty box in hockey

# Punishment and Coercion

- Perone (2003) Paraphrased, "The behavior of some people may be under the control of some dimension of the stimulus events besides their aversiveness, perhaps some events are mistakenly described as non-aversive because they are aesthetically inoffensive, or because they do not leave welts or bruises."



# Punishment and Coercion

- "...Teachers and parents might be right to prefer time-out over spanking, but the justification for the preference cannot be that one is aversive and the other is not."

# Can we arrange punishment yet minimize coercion?

- Yes!
- Dr. Glenn Latham excelled at arranging consequences that were essentially punishers but without all of the “baggage” that typically accompanies the enforcement of a contingency
- You CAN arrange consequences, yet still maintain your status as a person who people wish to approach

# Can we arrange punishment yet minimize coercion?

- Glenn used to describe a contingency in which late arrival home resulted in the loss of driving privileges for a period of time. His son had to surrender the car keys.
- Glenn had a gift for “letting the contingency do the work”
- Glenn was just there to supervise and give condolences and encouragement

# Punishment, abuse and coercion walk into a bar....

- And they all sat at different tables because they all exist independently of each other
- First of all, Abuse and Coercion are NOT scientific terms, but punishment is both a common language term AND a scientific term
- Punishment can occur without abuse or coercion
- Abuse can occur without coercion or punishment
- Coercion can occur without punishment or abuse

# The Case of the Phantom Punisher

- Punishment with no apparent agent
- Materials needed:
  - 1 Spray bottle with a jet nozzle setting with an effective range of 20 feet
  - 1 Good Sofa
  - 1 Bad Cat
  - 1 Corner to hide behind (heh, heh)

# Typical Punishers and Atypical Behavior Problems Are Typically A Problem!

- Why???
- Typical (ethical/legal) punishers usually involve conditioned aversives, reinforcer removal OR presentation of a verbal stimulus that signals the non-availability of a reinforcer, e.g., “you just lost your outing on Saturday”
- Atypical behavior problems have often been occurring for years with substantial intermittent reinforcement and are highly resistant to weak punishers and extinction

# Typical Punishers and Atypical Behavior Problems Are Typically A Problem!

- Individuals with significant behavior problems may also lack traditional “self-control” or “suppressive” repertoires that would otherwise enable them to tolerate traditional types of punishers
- Those same individuals may also lack the necessary history of benefiting from mild punishers that is already well established even in some very young children

# Typical Punishers and Atypical Behavior Problems Are Typically A Problem!

- In many instances, the alleged punisher may be functioning as an aversive event, but may only motivate escape/avoidance and/or elicit physiological arousal and eventually aggression and/or SIB
- Please watch the Blues Brothers (1980) and go to the scene with the Nun or as they called her "the penguin"



# Typical Punishers and Atypical Behavior Problems Are Typically A Problem!

- That typical “punishers” are ineffective doesn’t mean that these same stimuli will not help at some point during treatment
- Treatment should involve adequate replacement behaviors that should, in theory, reduce the motivation to engage in the problem behavior
- Just because a given stimulus will not function to suppress a highly motivated behavior, does NOT mean that the same event will not suppress the same behavior under conditions of reduced motivation

# Example

- If a Trucker gets paid a bonus for on-time deliveries, a speeding ticket, although aversive, may not suppress speeding adequately
- If the same Trucker now works for a company that pays a flat rate for deliveries and gives bonuses for no driving infractions, the motivation to speed isn't as great and a ticket may now have a tremendous suppressive effect

# Why should Individuals learn to tolerate punishers?

- First, tolerating does not mean habituating. Habituating means the event is now neutral. Tolerating means you don't like it, you may even hate it, and you wish to avoid or terminate it and it may even suppress your behavior but you can "handle it" meaning you know how to behave in the presence of punishers (what to do and what not to do)
- Habituating can actually be a bit of a problem if you habituate to the wrong things.

# How to Boil a Frog without him knowing it

- E.W. Scripture's 1895 Experiment (again found in Michael Perone's wonderful article)
- Materials:
- 1 Frog, 1 Flame, 1 Container of water
- Procedure: Heat water from room temperature to boiling at a rate of .002 degrees Celsius per second over a 2.5 hour period
- Results: Tastes like chicken!
- The frog habituated to the water temperature and therefore never engaged in an adaptive escape response (jumping out of the hot water)

# Why should Individuals learn to tolerate punishers?

- You can make the argument that no one needs to learn to tolerate punishers if they will never be exposed to “attempted” punishers in the real world, that is they are completely sheltered from societal contingencies
- If however an individual is expected to live, work, and interact with people in the real world and be reasonably independent, then it may greatly benefit them to tolerate mild, typical societally-normed, “punishers”

# Ennio Cipani

- “The ability to accept consequences for one’s behavior, in a manner that does not provoke the social environment to “pile on” additional consequences determines a child’s adaptability to the social environment. People who exacerbate their level of undesirable behavior often make things worse for themselves in the long run. Learning to accept consequences as a child, I believe, leads one to develop as a stronger, emotionally-stable, adult.”

# Why should Individuals learn to tolerate punishers?

- Even if one argues that an individual might not encounter any punishers, he will most certainly encounter aversives (of which punishers are a subset)
- If one can tolerate aversives well, one may be able to tolerate punishers
- Tolerating aversives is even a more important issue than tolerating punishers, as aversives cause an overwhelming proportion of crisis behaviors (aggression, self-injury, etc.)
- Whether you are “for” or “against” aversives, they will occur nonetheless

# Why should Individuals learn to tolerate aversives?





# Okay, why should individuals learn to tolerate aversives?

- Because aversives can never be eliminated
- Because aversives are powerful natural motivators
- Because some of mankind's greatest achievements come from tolerating aversives and emerging stronger for doing so
- Because like Visa, we will be accepted by more people in more places
- Remember tolerating doesn't mean habituating, it means being able to function and continue even when things are unpleasant
- Tolerating also means handling things in a manner that doesn't hurt the individual or others

# Why not just get rid of as many aversives as possible?

- The fewer aversives someone experiences, the less likely they will learn how to behave when coming into contact with them
- As we get better and better at eliminating them, the individual can become increasingly sensitive to smaller and smaller aversives
- Soon you're walking on foam on bubblewrap on cotton balls on eggshells
- It doesn't mean we shouldn't get rid of certain aversives. The question is, how SEVERE is the aversive and how COMMON is it in daily life?

# What kinds of aversives\* do individuals have problems with?

- Delay of reinforcement
- Pain (Hunger Thirst Illness)
- Demands
- Being asked to give up reinforcers and/or conditioned reinforcers
- Blocked Access
- Extinction
- Conditioned Aversives (being informed of any other the above)
- Social Aversives
- \*we really don't know if stimuli are aversive until we understand their effect upon behavior, we may only interpret them as aversives based upon our own experience and the context in which those stimuli were presented, which may differ considerably from others

# What is the role of the suppressive repertoire?

- “Self” control is perhaps more properly construed as control by competing contingencies and/or conditioned aversives (see Catania 1975 the original article is from Behaviorism, 1975, 3, 192–199)
- We may avoid eating chocolate cake because we fear we might be afraid that someone will call us on breaking our diet AND/OR because someone may compliment us for passing up on a delicious dessert
- People say we show “self-control” when we resist accessing a reinforcer or when we resist the urge to strangle the living S\*\*T out of someone who annoys us tremendously

# What is the role of the suppressive repertoire?

- But what do we DO to avoid strangling people and WHY do we do it?
- Usually we tolerate one aversive to prevent a larger one OR because tolerating the aversive will allow us to access a reinforcer
- We do many things to avoid doing the wrong thing:

What kinds of suppressive behaviors do we do?



# What kinds of suppressive behaviors do we do?

- Eat a TWIX
- Ask to be excused
- Leave the immediate area
- Take a deep breath
- Clench our teeth/fist
- Engage in muted versions of the inappropriate behavior (breaking a pencil instead of punching someone or saying "oh darn!" instead of "oh s\*\*t!")

# How do we teach individuals to tolerate aversives?

- Some de-sensitization through repeated exposure
- Giving a “heads up” about impending aversives and telling the individual WHAT they should do and WHAT it will get them if they can do it!
- Programming in aversives so that they can be carefully controlled and the person can be successful with small aversives first (Give the Eb example)



# An Example

- Problem: Point loss creates aggression
- Solution: Either eliminate point loss, which may work, but doesn't teach someone how to handle unpleasant events, or teach the individual how to handle a point loss so that they eventually are able to handle other similar less formalized aversives
- **Practice** what the individual SHOULD DO when informed of a point loss. What to do, what to say, what questions to ask and how to stay calm

# An Example

- Arrange a small amount of reinforcement for correctly displaying those behaviors that we will call “handling it” behaviors
- If there is a point loss of 100 points, let the person earn back 50 for “handling it”
- As they get better at “handling it,” points they earn back can eventually be reduced and replaced with praise

# An Example

- The value in arranging things in this manner goes far beyond the potential suppressive effects of point loss
- The person learns how to behave when faced with unpleasant situations that involve minor conditioned aversive stimuli and this skill set is invaluable
- The process most likely involves de-sensitization (in part), competing responses, the acquisition and reinforcement of new skills and reducing the MO for aggression through good instructional control PRIOR to the aversive event

# Some final notes...

- There will always be aversives; they are truly inevitable. We can either pretend that we are not exposing our consumers to them, never program them into our behavior plans, and let them occur haphazardly so that they catch our consumers unaware and ill-prepared causing them to fail, OR....
- In addition to using reinforcement for adaptive skill building, we can program in some kinder, gentler versions of aversives that occur in typical social settings and prepare our consumers to handle them through good teaching and skill building.

# Thank-You!

- Thank You for using your suppressive repertoire during the talk!