



# Who needs willpower? The science of self-control

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# The New Year's Resolution Project (2007)

– Professor Wiseman, Hertfordshire University

3000 participants

Over half were confident that, 1 year later, they would achieve their goals.

**What percentage were successful?**

**12%**

# Will power

A nontechnical term for self-control or the ability to resist temptation

Penguin Dictionary of Psychology (2001)

Exercising self-control is **behaviour**, and “we account for it in terms of other variables in the environment... It is these variables that provide the ultimate control.”

— Skinner (1953)

# Skinner's conceptualisation of self-control

## The **controlled** response

- The target behaviour you want to change

## The **controlling** response

- The self management behaviour (strategies) employed to change the target behaviour

“There are two types of people in this world, good and bad. The good sleep better, but the bad seem to enjoy the waking hours much more.”

— Woody Allen

**Immediate** reinforcement  
is more powerful than  
delayed



# Temporal discounting

Even when **immediate** reinforcers are much **smaller** than delayed reinforcers, the immediate reinforcers still exert a stronger influence on behavior

— Critchfield & Kollins (2001)

# Behavioural deficits (good habits)

<b>Deficit</b>	<b>Immediate contingency</b>	<b>Delayed positive outcome</b>
Exercise	Punishment (sore muscles) Response effort Reinforcement of competing behaviour (TV, nap)	Weight loss Better health Better physique
Healthy eating	Decreased reinforcement value Response effort to prepare healthy food Reinforcement of competing behaviour (eating junk food)	Weight loss Better health More energy Less constipation

# Behavioural excesses (bad habits)

<b>Excess</b>	<b>Immediate contingency</b>	<b>Delayed negative outcome</b>
Smoking	Immediate reinforcement (alertness, relaxation) Little response effort Response effort for alternative behaviours	Lung cancer Emphysema Heart disease Stained teeth
Unprotected sex	Immediate reinforcement Less reinforcement and more response effort for condom use	Pregnancy Diagnosis of sexually transmitted disease

A key goal of **self-management** is to implement strategies that overcome the influence of immediate reinforcement for undesirable behavior

**Drax**

# Self-management

“The personal application of behavior change tactics that produces a desired change in behavior”

Cooper, Heron, & Heward (2007)

# Goal setting

“Every Mon, Wed and Fri, after work, I will go for a run. This coming week, I will run for 5 mins.”

Monday	Wednesday	Friday
✓	✓	✓



# Self-monitoring

A therapeutic intervention in its own right

Cooper, Heron and Heward (2007)

# Functional behaviour assessment

Identify antecedents and consequences relating to target and competing behaviours

# Nick's flossing intervention

Baseline: floss 10 times a year (max!)

Target behaviour: floss once-a-day

# Flossing – relevant contingencies

<b>Immediate contingency</b>	<b>Delayed positive outcome</b>
<p>Punishment (painful, bleeding gums)</p> <p>High response effort (after 11pm when I am tired)</p> <p>Reinforcement of competing behaviour (go to bed)</p>	<p>Healthy gums</p> <p>Nicer breath</p>

# Response prompts

Present prompts for desired behaviour,  
remove prompts for undesired

Goal setting:

“I will floss my teeth everyday.”

# Motivating operations

Reduce MO for desired, increase for undesired

E.g., Manipulate **response effort**

- Lower for the desirable target behaviour
- Increase for the undesired behaviour

# MOs and flossing

## **Immediate contingency**

Punishment (painful, bleeding gums)

Response effort (particularly at 11pm  
when I am tired)

Reinforcement of competing  
behaviour (go to bed)



# Hijack existing behaviour chains

Put dinner dishes  
in the dishwasher



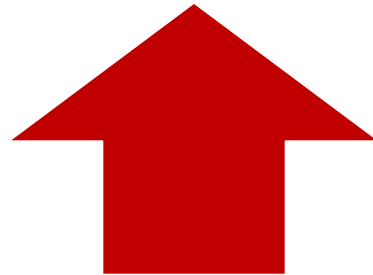
Watch TV in the  
lounge



Put dinner dishes  
in the dishwasher



Watch TV in the  
lounge



Goal setting:

“I will floss my teeth everyday after putting the dishes into the dishwasher.”

Outcome?

# Flossing strategies

Goal setting

FBA (kind of)

Response prompt (goal on fridge)

Manipulate MO (early evening)

Hijacking a behavioural chain (dishwasher)

# Social reinforcement

Include a social component

“Contract” praise

The role of **rule-governed**  
behaviour, **covert** behaviour and  
**private events**

Groot

# Summary



**Bad** habits are difficult to break because they are **easy** to do and produce **immediate** reinforcement

The opposite is often the case with **good** habits!

Self management aims to make it easier be good

# Stacking the deck in your favour

1. Write down your goal
2. Self-monitor
3. Use motivators and cues to make it easy to do the desired behaviour and hard to do the undesired behaviour
4. Make use of existing behaviour chains
5. Arrange for social reinforcement



# Thank you

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