

MOTIVATION & EMOTION  
**Extrinsic motivation  
 & goal-setting**



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Image source  
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**Outline –  
 Extrinsic motivation**

- Quasi-needs
- Extrinsic motivation
- Incentives, consequences, and rewards
  - Incentives
  - Reinforcers
  - Consequences
- Hidden costs of reward
  - Intrinsic motivation
- IM vs. EM
- Expected and tangible rewards
- Implications
- Benefits of incentives, consequences, and rewards
- Cognitive evaluation theory
  - Controlling and informational events
- Types of EM
- Motivating others to do uninteresting tasks

Based on Reeve (2015, pp. 116-117)

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**Overview**



1. Extrinsic motivation (Ch 5)
2. Goal setting & goal striving (Ch 8)



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**Quasi-needs**

- Situationally-induced wants that create tense energy to engage in behaviour to reduce built-up tension.
- Deficiency-oriented.
- What we lack, yet want, from the environment in a rather urgent way.

**Examples:**

- an umbrella in the rain
- a bandaid for a cut
- a secure job

Based on Reeve (2015, pp. 119)

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**Extrinsic motivation**

**Reading:  
 Reeve (2015),  
 Ch 5  
 (pp. 116-151)**

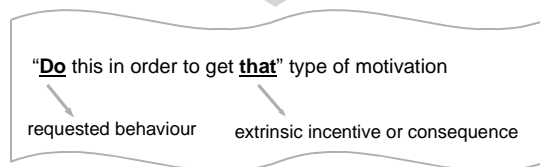


Image source:  
[https://commons.wikimedia.org/wiki/File:Carrot\\_and\\_stick\\_motivation.svg](https://commons.wikimedia.org/wiki/File:Carrot_and_stick_motivation.svg)

**3**

**Extrinsic motivation**

Environmentally-created reason (e.g., incentives or consequences) to engage in an action or activity.



“What’s in it for me?”  
 motivation

Based on Reeve (2015, pp. 120)

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## External regulation of motivation: Incentives, consequences, and rewards

- Based on operant conditioning

Incentives	Consequences	Rewards
<ul style="list-style-type: none"> <li>• Precede behaviour, create expectation, based on past learning</li> <li>• Attracts or repels a person from a course of action.</li> </ul> <p>(e.g., a nice smell vs. a bad smell)</p>	<ul style="list-style-type: none"> <li>• Follows behaviour</li> <li>• Reinforcers: "Do"                             <ul style="list-style-type: none"> <li>• Positive: ↑s action to get more of a desirable quality (e.g., smile)</li> <li>• Negative: ↑s action to get less of an undesirable quality (e.g., frown)</li> </ul> </li> <li>• Punishers: "Stop":                             <ul style="list-style-type: none"> <li>• ↓s action to avoid undesirable quality</li> </ul> </li> </ul>	<p>Any offering from one person to another person in exchange for his or her service or achievement.</p>

Based on Reeve (2015, pp. 120-122)

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## Rewards

How do rewards work?  
Do they facilitate desirable behaviour?

An extrinsic reward enlivens positive emotion and facilitates behaviour because they signal opportunity for a personal gain.

When events take an unexpected turn for the better, then **dopamine** is released and **Behavioural Activation System (BAS)** neural activation occurs, as the brain inherently latches onto the environmental signal of the unexpected gain.

Based on Reeve (2015, pp. 124-125)

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## Reinforcer effectiveness

Reinforcer effectiveness is determined by:

- Quality and intensity
- Immediacy
- Recipient's need for, and perceived value of, the reward (person/reinforcer fit)

Based on Reeve (2015, p. 124)

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## Any external event (Rewards)

### Controlling function

"If you do X,  
then you get Y."

- Decreases intrinsic motivation
- Interferes with quality of learning
- External regulation increases
- Self-regulation undermined

### Informational function

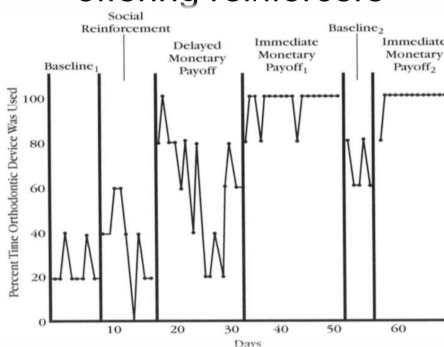
"Because you  
were able to do X,  
that means  
you are effective,  
competent."

- Increases intrinsic motivation
- Enhances high-quality learning
- Enhances self-regulation

Based on Reeve (2015, pp. 124-125)

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## Managing behaviour by offering reinforcers



Reeve (2015), Figure 5.1 Effect of reinforcement on use of orthodontic device, p. 123)

## Do punishers work?

Do they suppress undesirable behaviour?

Research shows that **punishment** is an **ineffective** motivational strategy (popular but ineffective)

### "Side effects"

#### Negative emotionality

e.g.,

- crying,
- screaming,
- feeling afraid

#### Impaired relationship

between punisher and punishee.

#### Negative modeling

of how to cope with undesirable behaviour in others.

Based on Reeve (2015, pp. 128-130)

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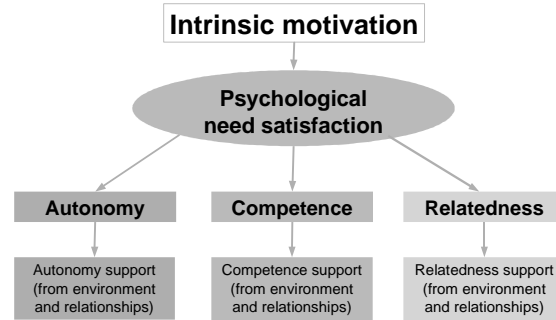
## Immediate & long-term consequences of corporal punishment (Spanking)

- **Short-term:**
  - Immediate compliance
- **Long-term:**
  - Aggression
  - Anti-social behaviour
  - Poor mental health
  - Poor quality of relationship with parent
  - Victim of physical abuse
  - More likely to abuse own child
  - More likely to get a criminal record

Based on Reeve (2009, Figure 5.3, p. 129)

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## Origins of intrinsic motivation



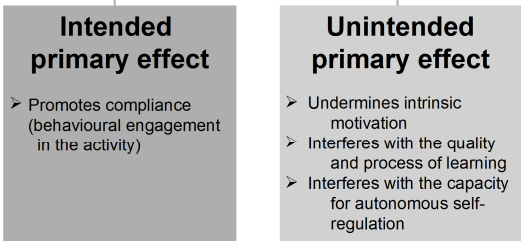
Based on Reeve (2015, Figure 5.4, p. 131)

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## Hidden cost of rewards

Extrinsic rewards can have unexpected, unintended, and adverse effects on intrinsic motivation, learning, and self-regulation.

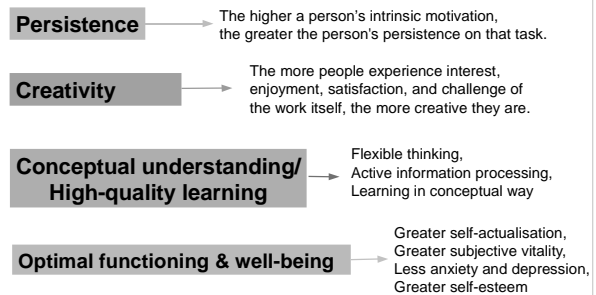
### Using a reward to engage someone in an activity



Based on Reeve (2015), pp. 130-131)

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## Benefits of intrinsic motivation



Based on Reeve (2015, pp. 131-133)

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## Intrinsic motivation

The inherent desire to engage one's interests and to exercise and develop one's capacities.

"I am **doing this** because **it is ...**" type of motivation

engaged activity

interesting, fun, enjoyable, satisfying psychological needs (i.e., autonomy, competence, relatedness)

Based on Reeve (2015, pp. 130-131)

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## Benefits of incentives, consequences, and rewards

When there is **no** intrinsic motivation to be undermined, rewards can make an otherwise uninteresting task seem suddenly worth pursuing e.g.,



Based on Reeve (2015, pp. 137-139)

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## Reasons not to use extrinsic motivation (even for uninteresting endeavors)

- Extrinsic motivators** undermine the quality of performance and interfere with the process of learning.
- Using rewards** distracts attention away from asking the hard question of why a person is being asked to do an uninteresting task in the first place.
- There are better ways** to encourage participation than extrinsic bribery.
- Extrinsic motivators** still undermine the individual's long-term capacity for autonomous self-regulation.

Based on Reeve (2015, p. 138)

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## What makes us feel good about our work? Dan Ariely

### TED Talk (20 mins)

Start at 9:54

[http://www.youtube.com/watch?feature=player\\_detailpage&v=5aH2Ppjpcho#t=594](http://www.youtube.com/watch?feature=player_detailpage&v=5aH2Ppjpcho#t=594)



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## Cognitive evaluation theory

Predicts the effects of an extrinsic event on a person's I-E motivation based on the event's effect on the psychological needs for competence and autonomy.

All external events have **two functions**:

- Control behaviour**
- Inform competence**

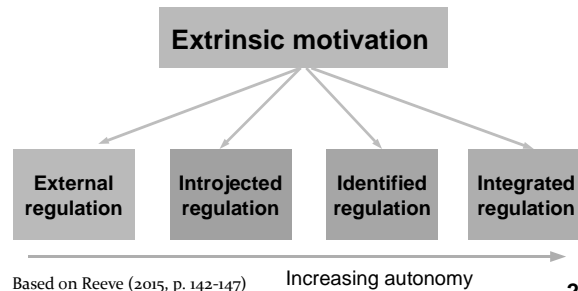
Which function is more salient determines how the external event will affect intrinsic and extrinsic motivation.

Based on Reeve (2015, pp. 139-140)

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## Types of extrinsic motivation

Self-Determination Theory (SDT) posits that different types of motivation can be organised along a continuum of self-determination or perceived locus of causality.

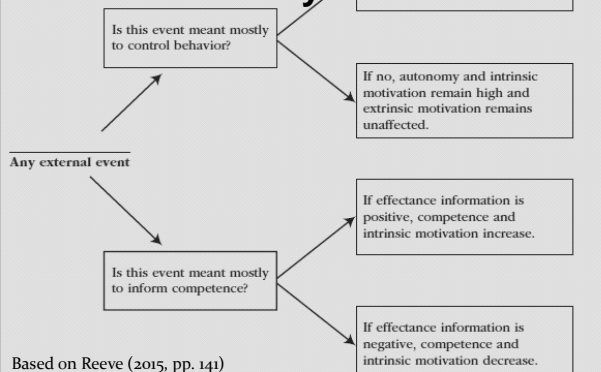


Based on Reeve (2015, p. 142-147)

Increasing autonomy

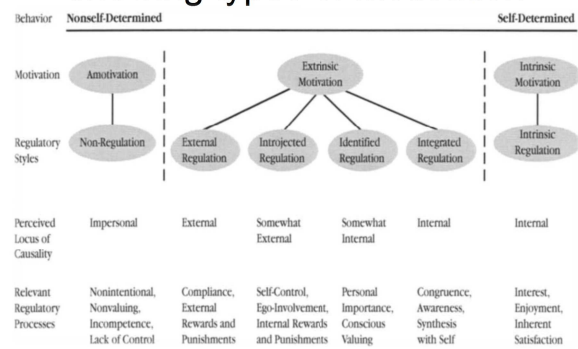
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## Cognitive evaluation theory



Based on Reeve (2015, pp. 141)

## Self-determination continuum showing types of motivation



Based on Reeve (2015, Figure 5.6, p. 143)

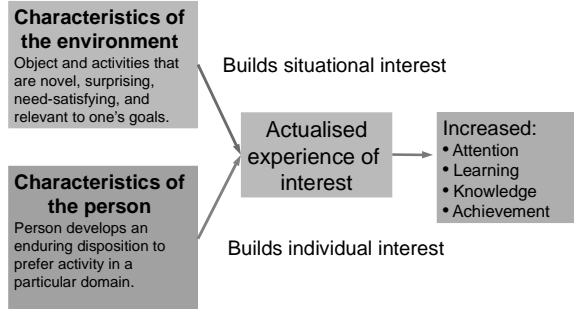
## Types of extrinsic motivation

Four Types of Extrinsic Motivation,  
Example: "Why I Recycle"

Type of Extrinsic Motivation	External Contingency At Stake	The reason I recycle is...	Illustrative Quotation
External Regulation	Incentives, consequences	"to get a consequence."	"I recycle to make 5 cents on each can."
Introjected Regulation	Avoid guilt, boost self-esteem	"because I should."	"I recycle because I ought to, if I am going to feel good (rather than guilty) about myself."
Identified Regulation	Valuing, sense of importance	"because it is important."	"I recycle because it is important for a cleaner environment."
Integrated Regulation	Value congruence	"because it reflects my values."	"I recycle because it reflects and expresses who I am and what I believe."

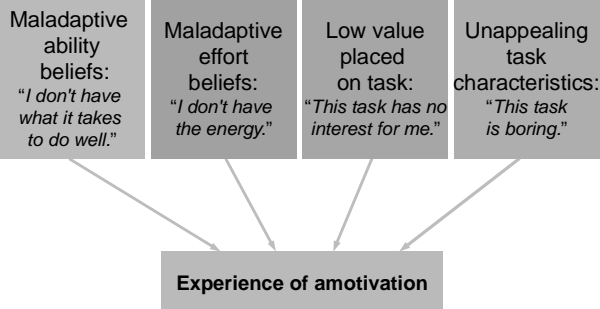
Based on Reeve (2015, Table 5.1, p. 144)

## Building interest in a particular domain



Based on Reeve (2015), pp. 147-149 **28**

## Four part experience of amotivation



Based on Reeve (2015, pp. 146-147)

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## Extrinsic motivation summary

- Extrinsic motivation arises from environmental rewards and punishments (operant conditioning) — Incentives, Consequences, Rewards
- Hidden cost → undermining of intrinsic motivation
- Cognitive evaluation theory — controlling or informational? — Autonomy, Competence
- Types of extrinsic motivation — External Regulation, Introjected Regulation, Identified Regulation, Integrated Regulation
- Motivating others to do uninteresting activities

Based on Reeve (2015, pp. 149-150)

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## Motivating others to do uninteresting activities

Ways to promote more autonomous types of extrinsic motivation

e.g.,

### Providing a rationale

Explain why the uninteresting activity is important and useful enough to warrant one's volitional engagement

### Building interest

Involves first catching one's situational interest in an activity and then holding that initial interest over time by developing an individual interest in the activity.

Based on Reeve (2015, pp. 147-149)

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## Outline – Goal setting & goal striving

- Plans
  - Corrective motivation
  - Discrepancy
  - Affect and feelings
  - Two types of discrepancy
- Goal setting
  - Goal-performance discrepancy
  - Difficult, specific goals enhance performance
  - Feedback
  - Criticisms
  - Long-term goal setting
- Goal striving
  - Mental simulations
  - Implementation intentions
- Goal disengagement

Based on Reeve (2015, p. 213) 31

## Two types of discrepancy

### Discrepancy reduction

Based on the discrepancy-detecting feedback that underlies plans and corrective motivation.

Discrepancy reduction corresponds to plan-based corrective motivation.

Discrepancy reduction is reactive, deficiency overcoming, and revolves around a feedback system.

### Discrepancy creation

Based on a “feed-forward” system in which the person looks forward and proactively sets a future, higher goal.

Discrepancy creation corresponds to goal-setting motivation.

Discrepancy creating is proactive, growth pursuing, and revolves around a “feed-forward” system.

Based on Reeve (2015, pp. 219-220)

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## Discrepancy between present and ideal states

How one's life is going.

How one wishes life was going.



**Discrepancy** occurs when the present state falls short of the ideal state. It is the discrepancy, rather than the ideal state per se, which creates a sense of wanting to change.

Based on Reeve (2015, pp. 218-219)

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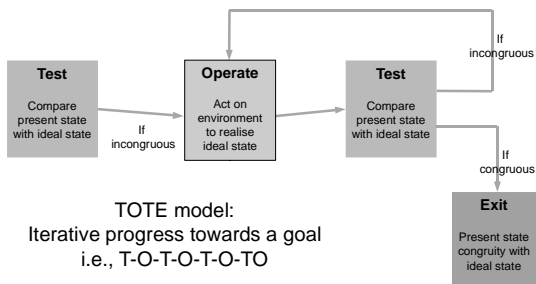
## Affect and feelings

- If making good progress, positive affect is experienced
- If making poor progress, negative affect is experienced
- Affective responses provide informational feedback to guide corrective action and energise action.

Based on Reeve (2015, p. 219) 35

## The TOTE unit

The cognitive mechanism by which plans energise and direct behaviour towards an “ideal state”.



TOTE model:  
Iterative progress towards a goal  
i.e., T-O-T-O-T-O-TO

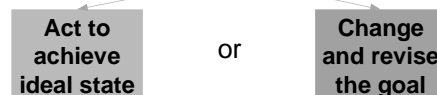
Based on Reeve (2015, Figure 8.1, p. 216)

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## Corrective motivation

**Discrepancy** between actual and ideal states does not automatically trigger action. Instead, discrepancy creates “**corrective motivation**”, i.e., desire to reduce the discrepancy by either:

Corrective motivation to reduce discrepancy between actual and ideal:



Based on Reeve (2015, pp. 217-218)

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## Goal setting

A goal is what an individual is trying to accomplish.

### Standard

a definition of what adequate performance is

Goals are reference points for guiding action so that one can evaluate the adequacy for one's performance.

Goals define the cross-over point between satisfaction and dissatisfaction.

### Incentive

a performance criterion for reinforcement

A target to aim for - usually with an external object to aim for such as money or a high grade.

Based on Reeve (2015, pp. 220-221)

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## Should I make my goals public?

Common wisdom is that sharing goals helps people to achieve them because it creates social expectation.

However, when you tell someone your goal, the mind is tricked into feeling that it's already done. and then you're less motivated to do the actual hard work.

Therefore, if you're going to tell someone your goals, make sure to do so in such a way that you derive no satisfaction from doing so.

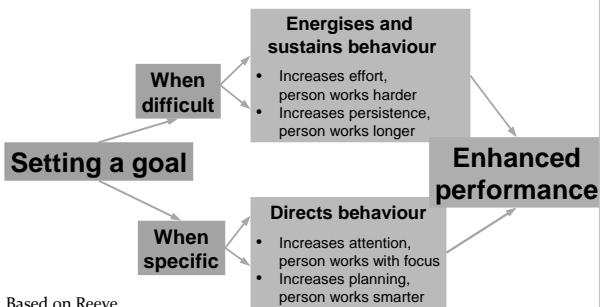
### Derek Sivers:

#### Keep your goals to yourself (3:15 mins):

[http://www.ted.com/talks/derek\\_sivers\\_keep\\_your\\_goals\\_to\\_yourself](http://www.ted.com/talks/derek_sivers_keep_your_goals_to_yourself)

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## Difficult and specific goals raise performance to remove goal-performance discrepancies



Based on Reeve (2015), Figure 8.2, pp. 224)

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## Feedback

- Along with goals, feedback is vital for goal attainment
- Provides knowledge of results and documents the performer's progress
- Defines performance against a standard
  - Above standard
  - At standard
  - Below standard
- Acts as a reinforcer or punisher
- Instructive to future goal setting efforts

Based on Reeve (2015, p. 225)

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## Additional goal mechanisms

Why do goals work to increase performance?

Clarify performance expectations.

Counteract apathy, boredom.

Make feedback important.

Without goals, performance can be emotionally unimportant.

Attainment can generate feelings of pride, satisfaction, or competence that the task itself cannot generate.

Based on Reeve (2009, p. 214)

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## Effect-sizes from 500+ meta-analyses of various influences of school achievement

Influence	No. of effects	Effect-Size
Feedback	139	1.13
Students' prior cognitive ability	896	1.04
Instructional quality	22	1.00
Instructional quantity	80	.84
Direct instruction	253	.82
Acceleration	162	.72
Home factors	728	.67
Remediation/feedback	146	.65
Students disposition to learn	93	.61
Class environment	921	.56
Challenge of Goals	2703	.52
Bilingual programs	285	.51
Peer tutoring	125	.50
Mastery learning	104	.50
Teacher in-service education	3912	.49
Parent involvement	339	.46
Homework	110	.43
Questioning	134	.41
<b>OVERALL EFFECTS</b>	<b>500,000+</b>	<b>.40</b>

## Effective feedback

Effective feedback answers 3 questions:

- Where am I going? (goals) Feed Up
- How am I going? Feed Back
- What next? Feed Forward

Based on Hattie and Timperley (2007, Figure 1)

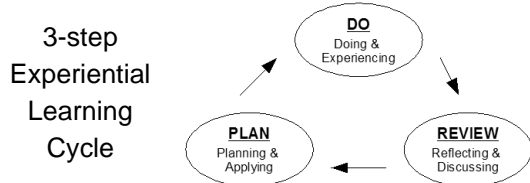


Image source: <http://www.wilderdom.com/experiential/elc/ExperientialLearningCycle.htm> 43

## Long-term goal setting

- For uninteresting tasks, short-term goals help to make them more interesting by creating extrinsic motivation.
- For interesting tasks, only long-term goals enhance intrinsic motivation. Short-term goals can be experienced as controlling distractions (undermining autonomy).

Based on Reeve (2015, pp. 225,227)

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## Feedback to enhance learning

Hattie & Timperley (2007)

- Feedback is the single most important predictor of achievement
- But feedback alone is not sufficient – effective instruction is also needed
- Feedback is powerful – but it can be helpful or harmful

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## Problems with long-term goal setting

- Lack of immediate performance feedback
  - Prolonged unreinforced performance

↓  
Goal commitment is likely to decrease  
(especially if the LTG is uninteresting)

### Solution

Translate LTG into a series of short-term goals

- LTG e.g.,: Become a psychologist
- STG e.g.,: Pass Exam X

Based on Reeve (2015, pp. 227-228)

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## Criticisms of goal setting

Goal setting has advantages, but pitfalls include that:

- Goal setting works best when tasks are relatively uninteresting and straightforward
- Goal conflict, overload, and stress
- Undermining of intrinsic motivation

Based on Reeve (2015, pp. 225,227)

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## Goal striving

Goal striving (effort, persistence, attention, strategic planning) is needed to translate goal setting into performance and goal attainment.

- **Mental stimulation:** Focus on visualising processes and actions required for success (rather than imagining what it would feel like to achieve the goal).
- **Implementation intentions:** Advanced planning for when, where, and how goal striving will be actioned. Addresses self-regulation requirements for:
  - Getting started
  - Staying on track
  - Resuming after interruption

**If ... then**

Based on Reeve (2015, pp. 228-234) 48



## Goal disengagement

- Goal disengagement is knowing when to stop and abandon a goal (e.g., if it is unattainable or a more important, incompatible goal is adopted).
- Ill-advised goal striving can make the goal striver vulnerable to failure feedback and psychological distress.
- "When one door closes, another door opens; but we so often look so long and regretfully upon the closed door, that we do not see the ones which open for us". - Alexander Bell

Based on Reeve (2015, p. 235-236) 49

## References

- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112.
- Reeve, J. (2009). *Understanding motivation and emotion* (5th ed.). Hoboken, NJ: Wiley.

Note: Detailed image credits are in the slide notes

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## Summary

1. Ideal-actual discrepancies creates cognitive motivation → plan of action to remove discrepancy (corrective motivation).
2. Goals that are specific, difficult, and self-congruent generally improve performance.
3. Feedback provides information about performance which generates negative or positive emotional motivational states accordingly.
4. Short-term goals provide rich feedback; long-term goals foster intrinsic motivation.
5. Implementation intentions help focus, start, continue, and resume: If (situational cue) → Then (goal striving action)
6. Goal disengagement is reduction or cessation of effort in the face of unattainable goals. Adaptive when it frees up resources to allocate to a different goal.

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## Next lecture



Personal control beliefs  
(Ch 9)

The self & its strivings  
(Ch 10)

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