

Group Dynamics

Ali Fallah Zadeh

Summer 2026

Intra-group dynamics

Social Identity Theory

Henri Tajfel(1979)

US

THEM

In-group

Out-group

Intra-group dynamics

Black sheep effect

In-group favoritism

Group influence on individual behaviour

Contagious Yawning

Identification

Obedience

Conformity

Empathy

Contagious yawning

Spectrum?



Contagious Yawning

Suggestibility?

- Psychologists at Leeds University:

- Selected 40 psychology students and 40 engineering students.

- Each student was made to wait individually in a waiting room.

- Along with an undercover assistant who yawned 10 times in as many minutes.

- The students were then administered an emotional quotient test: Students were shown 40 images of eyes and asked what emotion each one displayed.

Contagious Yawning

Suggestibility? Not at all

- The results of the test support the idea that **contagious yawning** is linked to **empathy!!**

- **The students that** yawned contagiously an average of 5.5 times in the waiting room and scored 28 out of 40 on the emotional test.

- **Paraventricular nucleus** and **Oxytocin** role!

From Separate Worlds to a Shared Classroom

The first exposure to the opposite gender can be exciting — and anxiety-provoking

*"Same people
A very different world."*

High School (Single-Sex Environment)



- Small class size (20–25)
- Same-gender environment
- Clear curriculum and expectations
- Familiar social circle
- Low social-evaluative pressure

*"I knew the rules.
I felt comfortable."*

Transition to University

A major shift in a short time

- New people
- New environment
- New social norms
- New identity
- New challenges

University (Coeducational Environment)



- Large class size (100–120+)
- Mixed-gender environment
- Vast, English textbooks
- Diverse backgrounds, new social networks
- Higher social-evaluative pressure

*"Suddenly, everything feels bigger,
louder, and more uncertain."*

What happens inside?

Normal psychological responses in a new mixed-gender environment

1 Novel exposure

Limited previous contact with the opposite gender



"I'm not used to this..."

2 Self-consciousness

Increased attention to how I look and behave



"What do they think of me?"

3 Evaluation apprehension

Fear of being judged or making a mistake



"Did I say something stupid?"

4 Interaction anxiety

Shyness, hesitation, awkwardness



"It feels awkward to even start a conversation."

5 Possible positive outcomes

With time and experience: comfort, friendships, confidence



*"It gets easier —
and can be rewarding."*



Key brain systems involved

- Amygdala – threat detection, social anxiety
- mPFC – self-evaluation, self-consciousness
- TPJ – perspective-taking, understanding others
- Reward circuits – social connection and acceptance

Related concepts

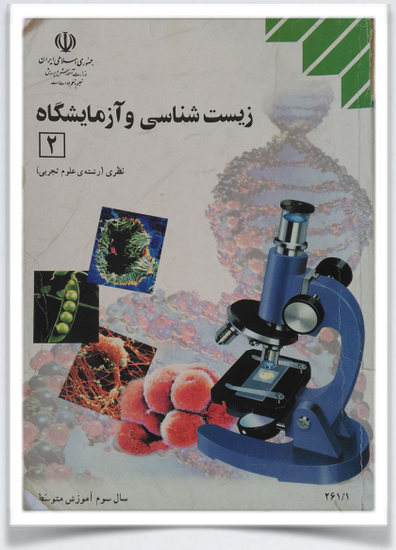
- Intergroup anxiety (including cross-gender interaction anxiety)
- Social-evaluative threat / Evaluation apprehension
- Shyness (normal personality trait)
- Social anxiety (when persistent and impairing)

*"Unfamiliarity is not a weakness.
It's a normal part of growing up."*

NEW
PEOPLE
BROADER HORIZONS
A STRONGER YOU

Ultra rapid transition

30th Shahrivar



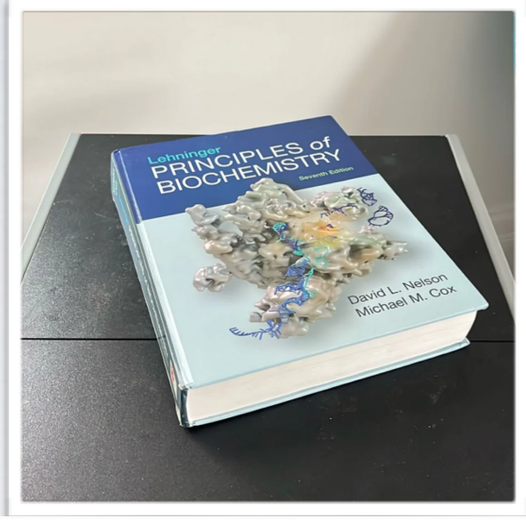




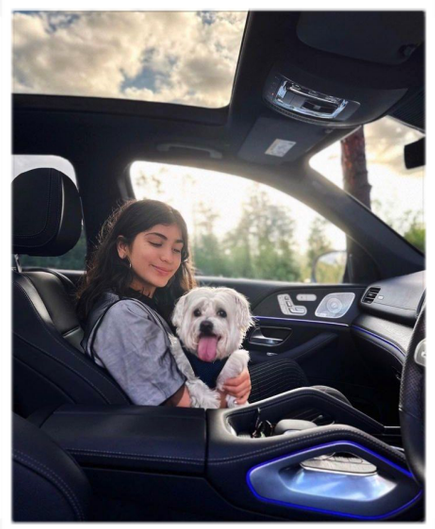




1st Mehr







Iran Red Crescent Med J. 2015 Oct 6;17(10):e17767. doi: 10.5812/ircmj.17767

Sources and Severity of Perceived Stress Among Iranian Medical Students

Somaieh Borjalilu [1], Aeen Mohammadi [1], Rita Mojtahedzadeh [1,*]

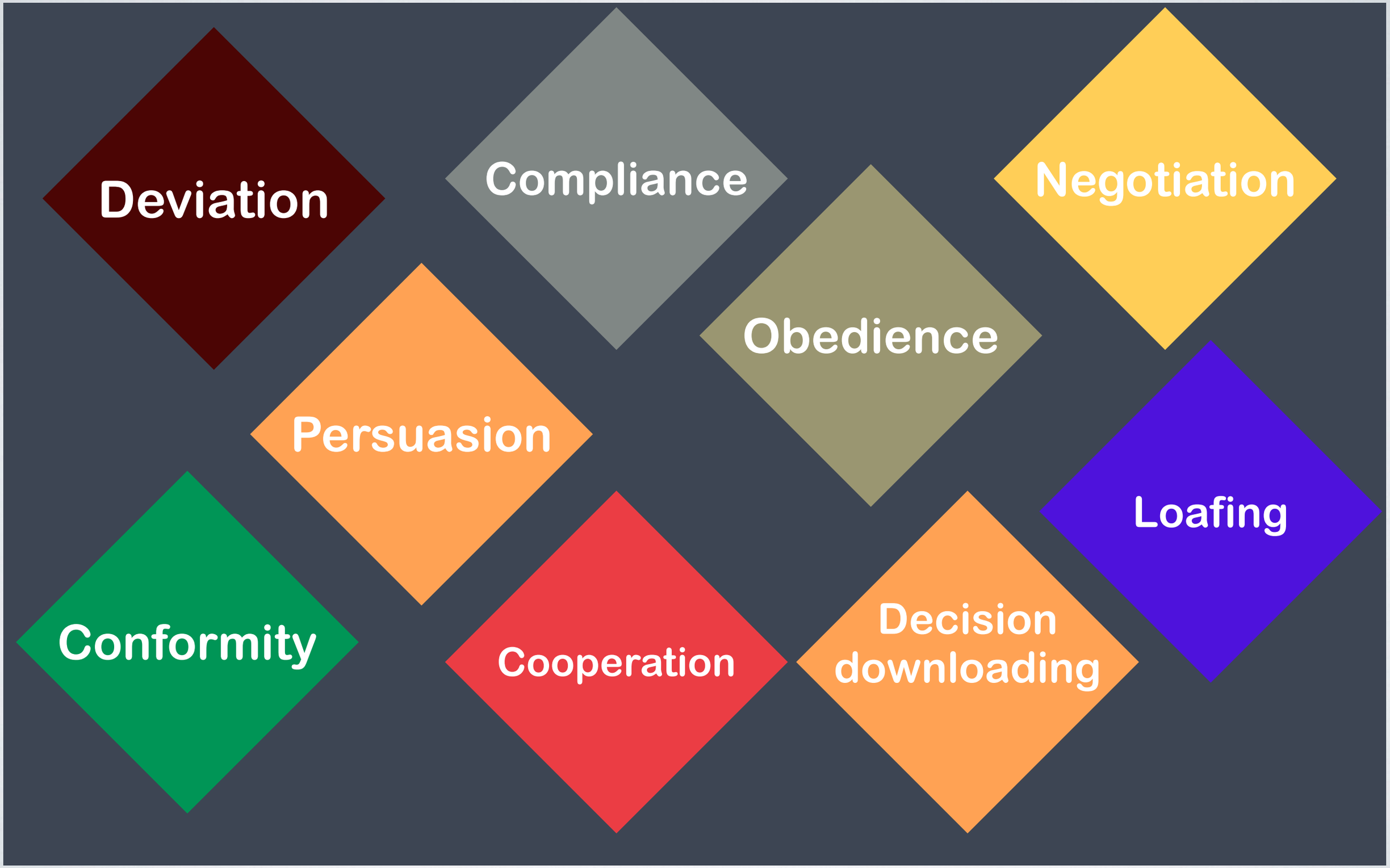
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PMCID: PMC4636747 PMID: 26568843

Table 2. Sources of Stress and Its Perceived Severity.

Sources of Stress	Frequency of Occurrence Severity		
Stressors	**Never/Almost Never**	**Sometimes**	**Often/Very Often**
Academic			
Frequency of examinations	34 (10)	76 (22)	231 (68)
Performance in examinations	54 (16)	70 (20)	217 (64)
Academic curriculum	48 (14)	78 (23)	215 (63)
Dissatisfaction with class lectures	82 (24)	110 (32)	149 (44)
Non-availability of adequate learning materials	55 (16)	98 (29)	188 (55)
Becoming a doctor	80 (23)	92 (27)	169 (50)
Lack of time for recreation	77 (23)	109 (32)	155 (45)
Competition with peers	81 (24)	94 (27)	166 (49)
Performance in practice	78 (23)	118 (35)	145 (42)
Lack of special guidance from faculty	65 (19)	95 (28)	181 (53)
Psychosocial			
High parental expectations	109 (32)	108 (32)	124 (36)
Loneliness	39 (12)	100 (29)	202 (59)
Family problems	250 (73)	50 (15)	41 (12)
Accommodation away from home	92 (27)	117 (34)	132 (39)
Political situation in the country	176 (52)	61 (18)	104 (30)
Relations with the opposite sex	119 (35)	96 (28)	126 (37)
Difficulty in reading text books	74 (22)	103 (30)	164 (48)
Lack of entertainment in the institution	45 (13)	74 (22)	222 (65)
Difficulty in the journey back home	59 (17)	120 (35)	162 (48)
Quality of food in mess	71 (21)	100 (29)	170 (50)
Financial strain	154 (45)	101 (30)	86 (25)
Inability to socialize with peers	245 (72)	58 (17)	38 (11)
Living conditions in the hostel	96 (28)	72 (21)	173 (51)
Member of fraternity or sorority	248 (73)	23 (7)	70 (20)
Lack of personal interest in medicine	201 (59)	37 (11)	103 (30)
Adjustment with roommate/s	199 (58)	52 (16)	90 (26)
Health			
Sleeping difficulties	233 (68)	68 (20)	40 (12)
Class attendance	231 (68)	74 (22)	36 (10)
Nutrition	192 (56)	89 (26)	60 (18)
Exercise	242 (71)	64 (19)	35 (10)
Quality of food in mess	313 (92)	17 (5)	11 (3)
Physical disability	316 (92)	16 (5)	9 (3)
Alcohol/drug abuse/smoking	233 (68)	68 (20)	40 (12)

Member's Attitude



Ringelmann Effect

Loafing effect

Ringelmann Effect

- One Person ➡ 100 units
  Two Person ➡ 186 units (200)
  Three Person Group ➡ 255 units (300)
  Eight Person Group ➡ 392 units (800)



Ringelmann Effect

Loafing effect

- Maximillien Ringelmann(1860-1931):

✣Individuals expending **less** individual effort on a task when working as part of a **group** than when working alone.

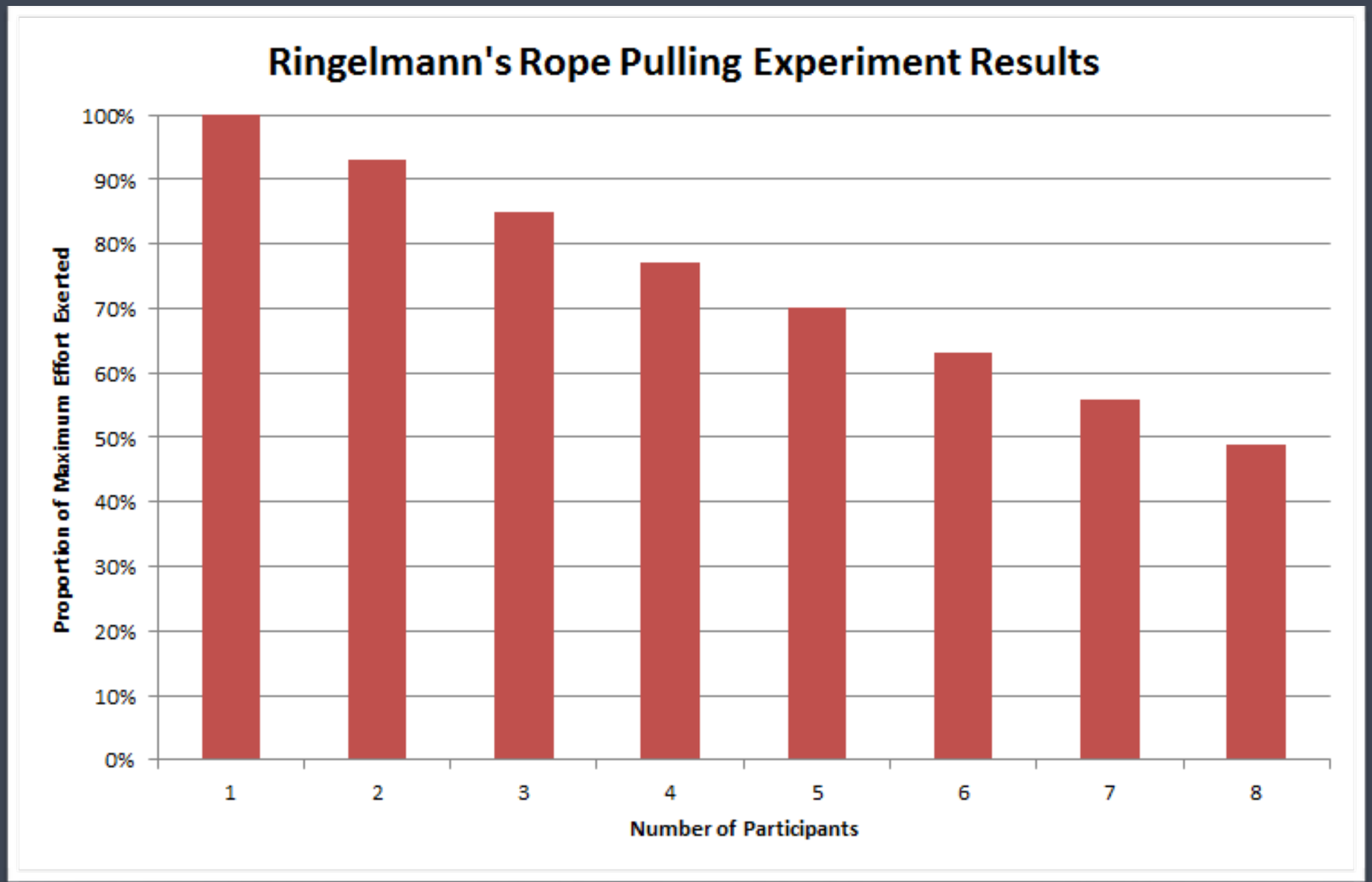
✣Participants pulled on a rope individually, in groups of 7, or in groups of 14.

✣ Maximum pulling effort was recorded via a **dynamometer**

✣Those participants who pulled alone exerted a mean force of **85.3** kg per person. When participants pulled in **7- and 14-person** groups, the mean force exerted per person was **65.0 kg and 61.4 kg.**

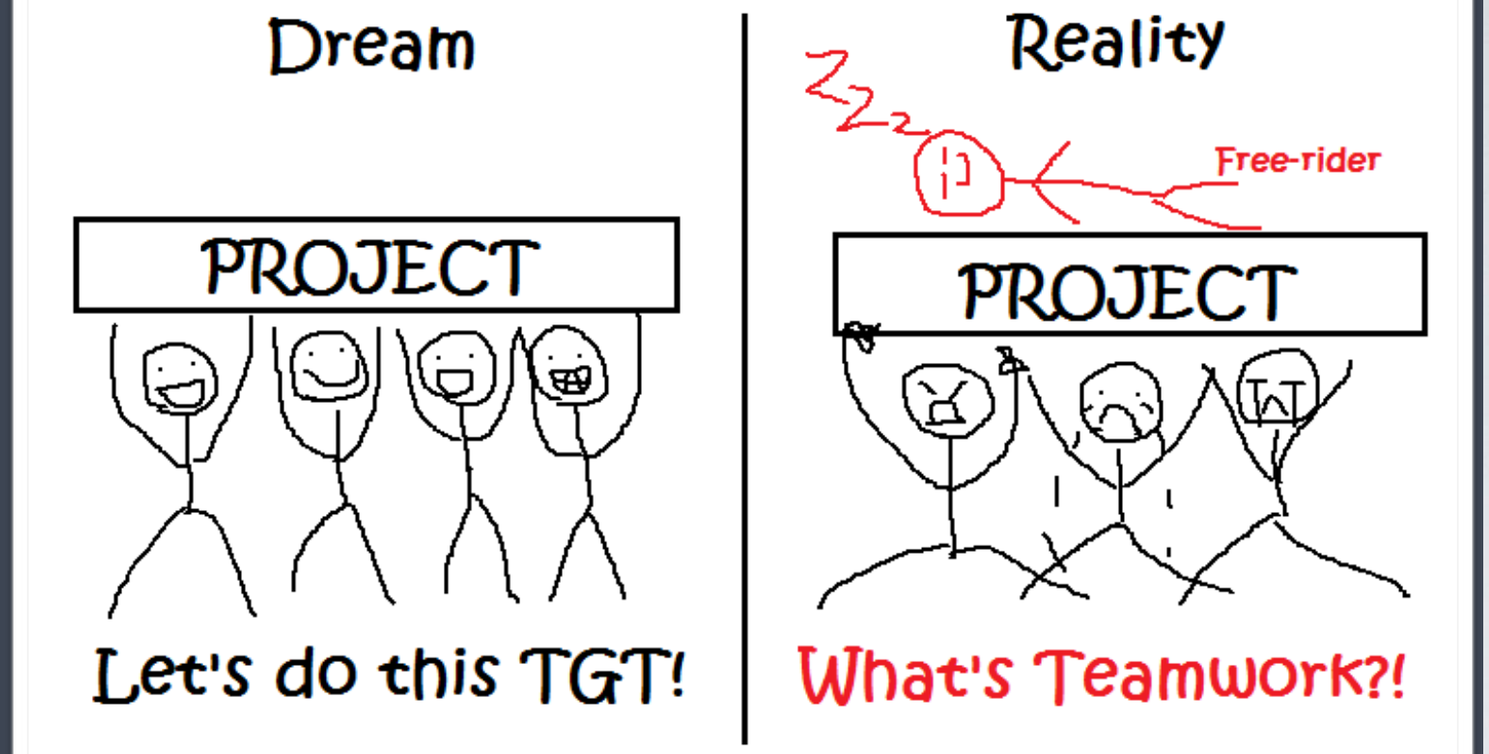
Ringelmann Effect

Loafing effect



Social loafing

Women expressed less social loafing than men across different cultures





United States and China

↓ ↓

Individualistic **Collectivistic**

Ringelmann Effect

Collective Effort Model

- Steven Karau meta-analysis (1993) :

✣ Concluded that social loafing occurred because there was usually a stronger perceived **contingency** between **individual effort** and **valued outcomes** when working individually.

✣ Valued outcomes are also divided among all group members.

✣ All individuals are assumed to try to maximize the expected utility of their actions.

✣ Social identity theory???

Ringelmann Effect

Collective Effort Model

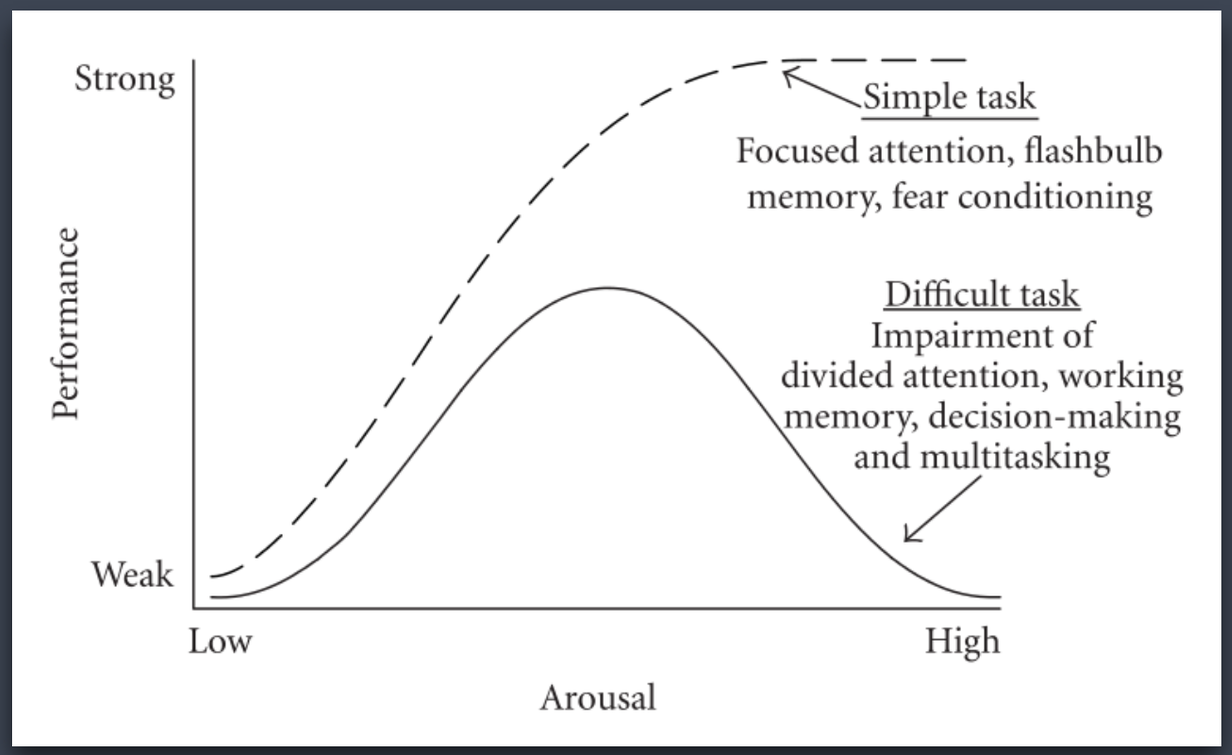
- The CEM also acknowledges that some valued outcomes do not depend on performance.

- For example, exerting strong effort when working on intrinsically **meaningful tasks** or with **highly respected team members** may result in **self-satisfaction** or approval from the group, even if the high effort had little to no impact on tangible performance outcomes.

Social facilitation

Audience effect

Yerkes – Dodson law(1908)







- Is the tendency for people to perform **differently** when in the presence of others than when alone.

- Compared to their performance when alone, when in the presence of others, they tend to perform **better** on **simple** or well-rehearsed tasks and **worse** on **complex** or new ones.

Conformity

1- Compliance

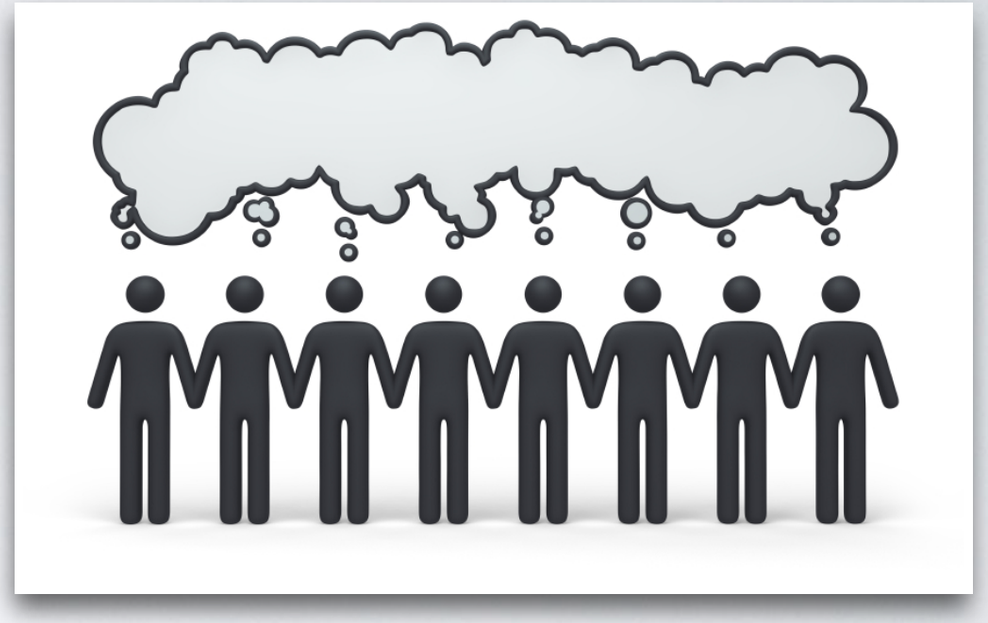
(or group acceptance):

When an individual accepts influence because he hopes to achieve a favourable reaction from another person or group.

- **Conforming** to the majority (publicly), in spite of not really agreeing with them (privately).

Ingratiational

Asch's line experiment.



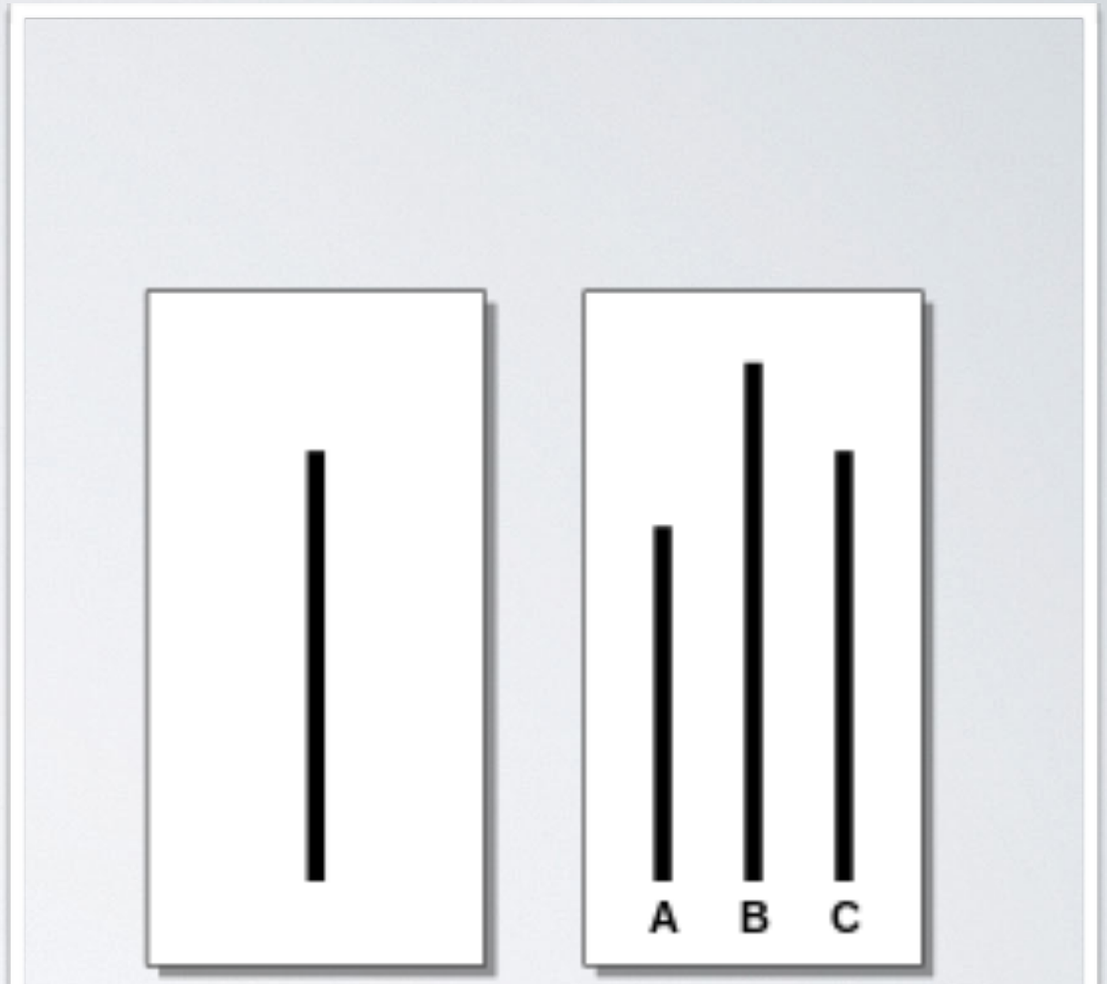
Conformity bias



Conformity

Asch's line experiment

- A number of 50 male students from Swarthmore College in the USA participated in a **'vision test.'**
- Using a line judgment task, Asch put a naive participant in a room with seven confederates.
- On average, **one third (32%)** of the participants who were placed in this situation and **conformed** with the clearly **incorrect majority.**



Would you please choose
The same length's line?

Factors Affecting Conformity

- **Allen & Levine (1968)**: In their version of the experiment, they introduced a **disagreeing confederate** wearing thick-rimmed glasses thus suggesting he was visually impaired. Even with this seemingly incompetent dissenter conformity dropped from 97% to 64%.

- Clearly, the presence of an ally decreases conformity.



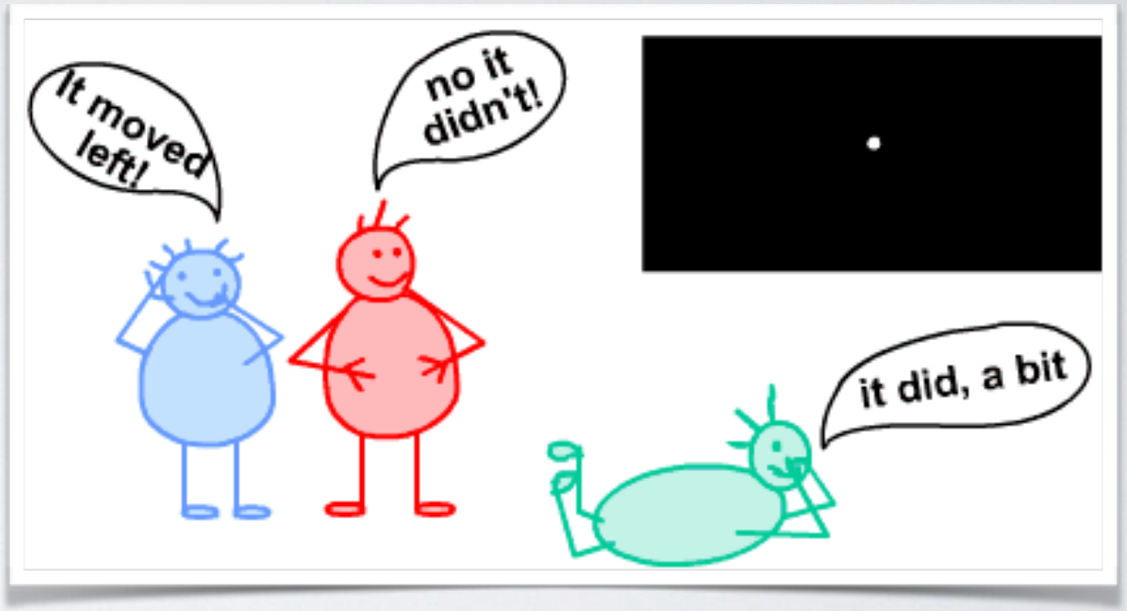
Conformity

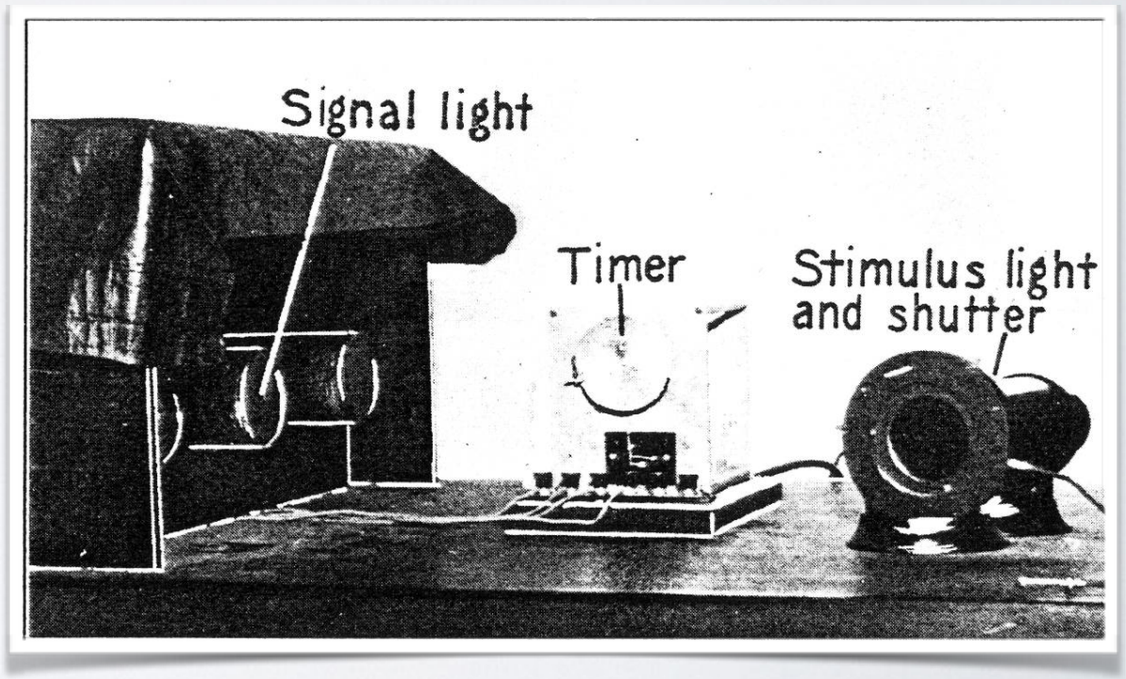
2- Internalisation
(genuine acceptance of group norms)

He adopts the induced behavior because it is congruent [consistent] with his value system, also **agreeing** with them **privately**.

Informational

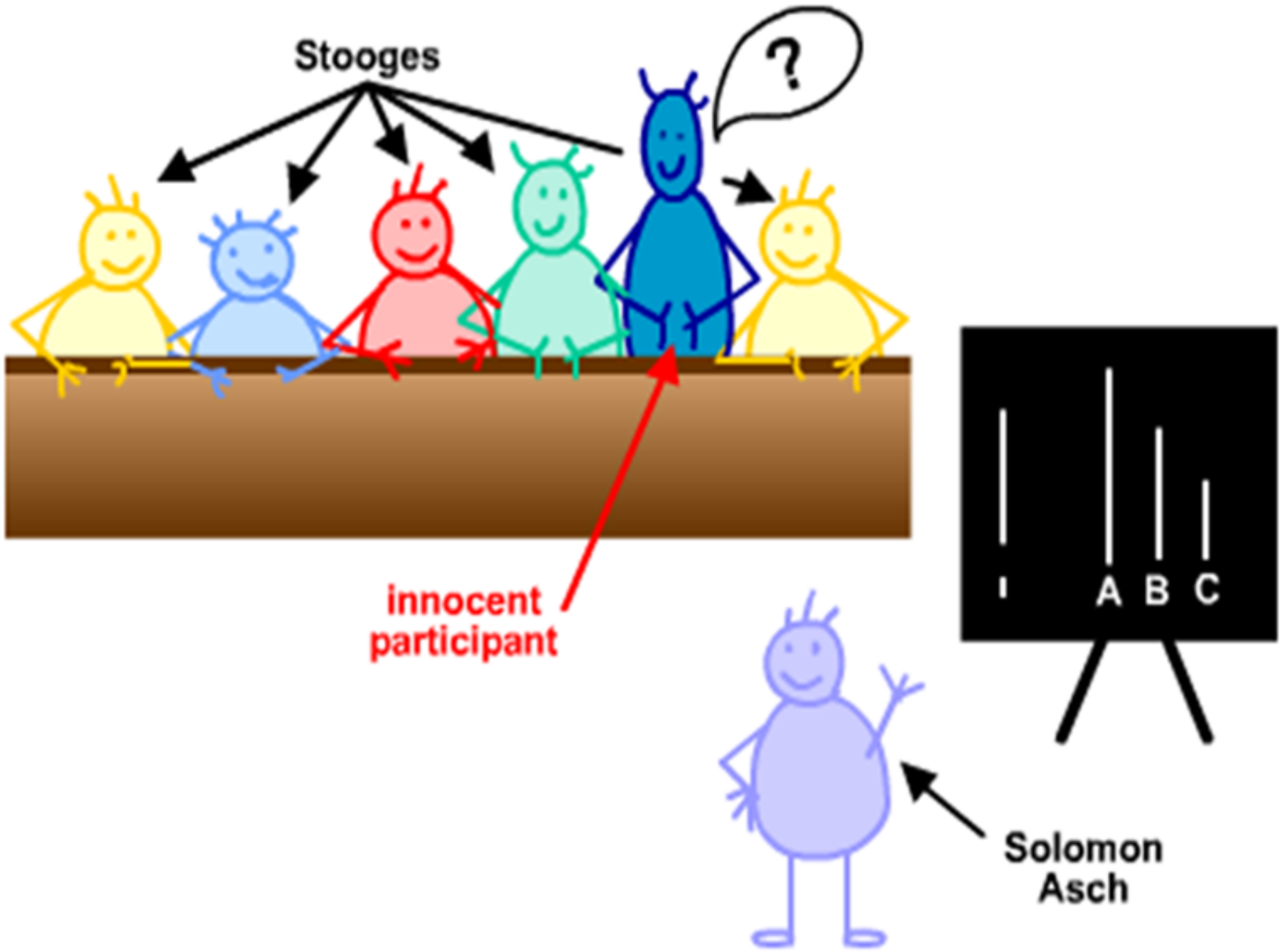
- **Sherif (1935) Autokinetic Effect Experiment**





Conformity

Asch's line experiment



Conformity

3-Identification
(or group membership)

- This occurs 'when an individual accepts influence because he wants to establish or maintain a satisfying self-defining relationship to another person or group'

- Individuals conform to the expectations of a social role, e.g. police officers. similar to compliance as there does **not have** to be a change in private opinion.

- **Zimbardo's prison study(1973)**





Conformity

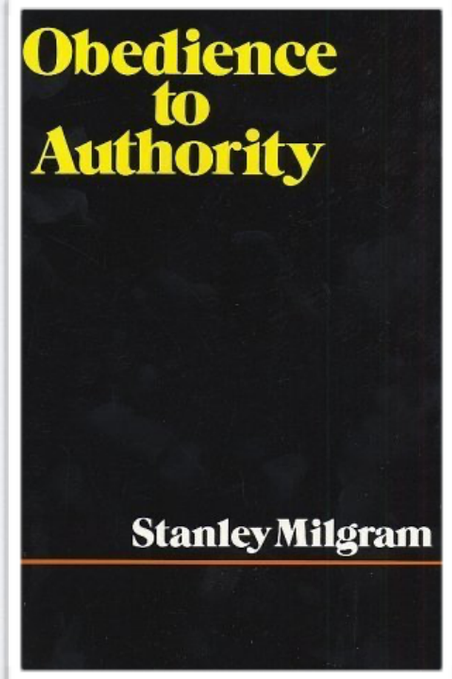
Stanley Milgram experiment

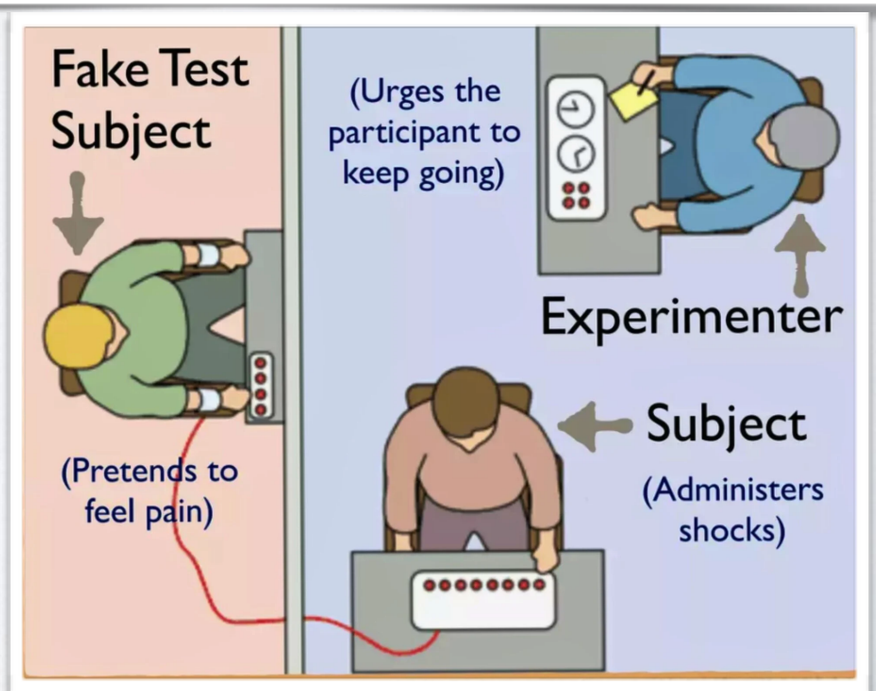
"learner" could be heard banging on the wall at 300 volts and 315 volts and then falling **silent**

The experiments unexpectedly found that a very high proportion of subjects would obey the instructions,

with every participant going up to 300 volts, and 65% going up to the full 450 volts!!!!

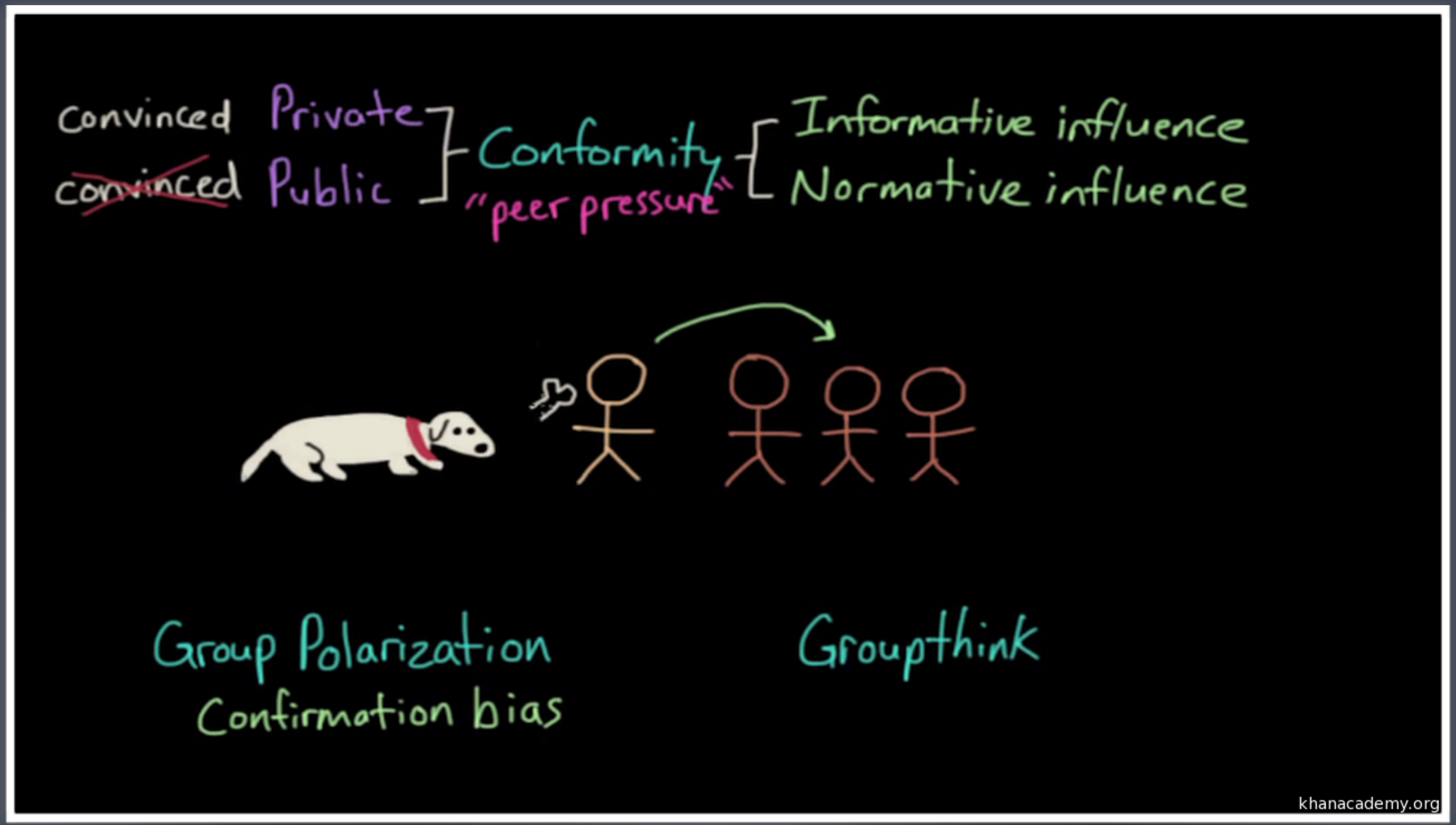






Conformity

Zimbardo's experiment



Conformity

Factors Affecting Conformity:

1-Group size
The **bigger** the **majority group** (no of confederates), the **more** people **conformed**

2-Lack of Group Unanimity

Asch (1956) found that even the presence of just **one confederate** that goes against the majority choice can reduce conformity as much as **80%**!

3-Psychological Identity

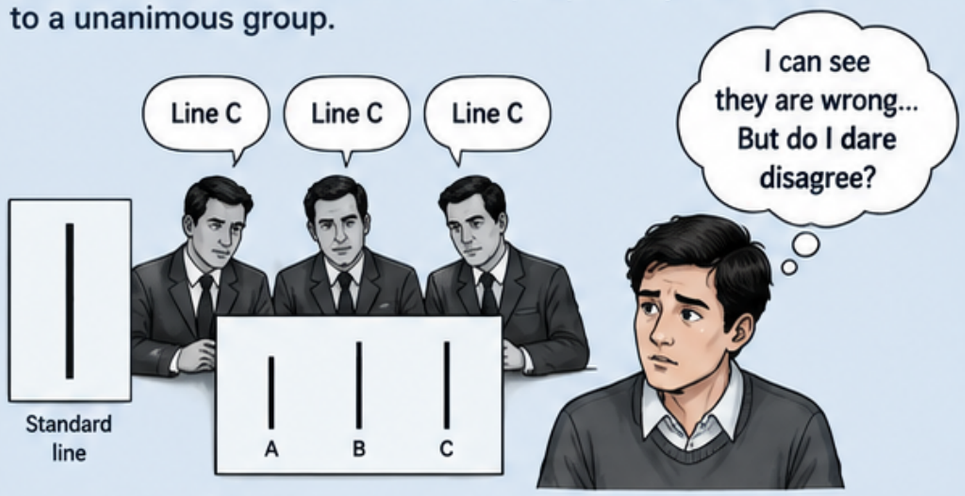
Two Studies, One Human Tendency

Different settings. Same social pressures.

From a line on a page to a life in a ward

1. Solomon Asch – Line Experiment (1950s)

Even when the answer is obvious, people may conform to a unanimous group.



Key Features

- Simple, unambiguous task (which line matches?)
- Confederates give a unanimous wrong answer
- No real-world consequences
- Measured conformity of the participant

Main Finding

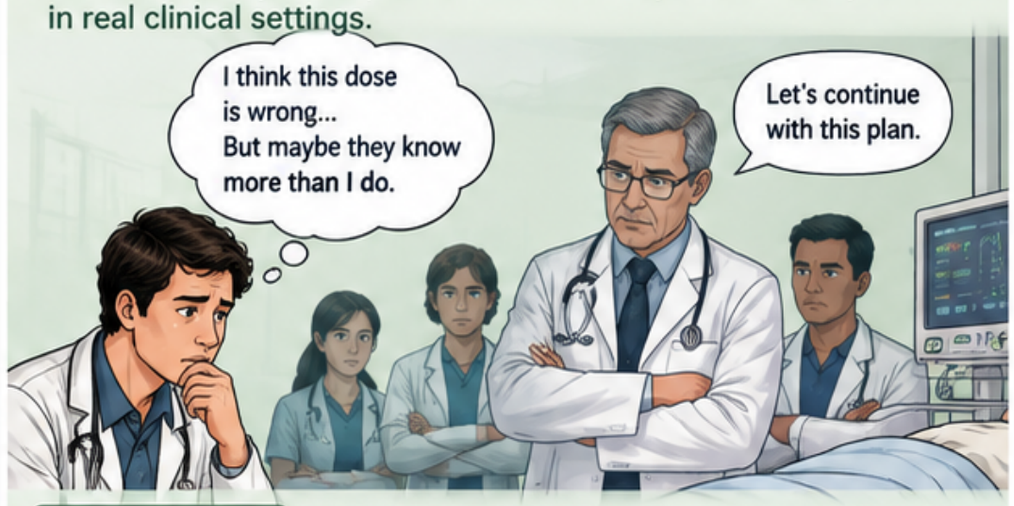
~ 37% of participants conformed to the group at least once, despite the correct answer being obvious.

"The power of the group is real, even when your own eyes tell you otherwise."

— Asch, 1951

2. Healthcare Trainees – Speaking Up Study (Spain, Mexico, Colombia, 2024)

Even when they see a potential harm, many trainees stay silent in real clinical settings.



Key Features

- Real clinical situations with potential for patient harm
- Medical, nursing and psychology trainees (n = 1,152; 771 with clinical experience)
- Hierarchical team structure
- Personal, professional and social consequences
- Measured whether trainees spoke up or stayed silent

Main Finding

> 33% of trainees with clinical experience stayed silent at least once in a potentially harmful situation.

"They saw the risk. They understood it. But more than one in three stayed silent."

— Carrillo et al., 2024

Key Differences and Similarities

Aspect	Asch Line Experiment	Healthcare Trainees Study
Task	Simple, clear, perceptual judgment	Complex, real clinical decision
Type of pressure	Normative influence (unanimous peers)	Normative + hierarchical + epistemic uncertainty
Uncertainty	Low (answer is obvious)	High (trainee may doubt their own knowledge)
Consequences	None (laboratory setting)	Real (patient safety, evaluation, relationships)
Conformity/silence rate	~ 37% conformed	> 33% stayed silent
What it shows	Power of group norms	Pewer of group norms and hierarchy in real life

Same human brain. Different context. Higher stakes.

From a line on a page to a patient at the bedside, the fear of standing alone can silence even a well-informed voice.

Speak up. It matters.

The Same Picture, A Different Brain

Social influence doesn't just change what we say — it can change **what we see.**

Berns et al. (2005)
Biological Psychiatry

Using fMRI, participants performed a mental rotation task while viewing (supposed) group answers. The group sometimes gave unanimous but incorrect answers.



CONFORMITY

"I go with the group."



Greater activity in **occipital–parietal networks** (visual & visuospatial processing)

Social information altered perceptual processing itself — not just a conscious decision to "go along."

"The group can change what you see."

INDEPENDENCE

"I stick to my own judgment."



Increased activity in **amygdala and caudate** (salience, emotional cost, conflict)

Going against the group was associated with greater emotional and motivational engagement — standing alone isn't free.

"Standing alone has a cost."



Brains are social.

Other people's opinions don't just influence our choices — they can shape our perception of reality.

SAME EVIDENCE. DIFFERENT BRAINS. A MORE SOCIAL MIND.

Berns et al., 2005 | Biological Psychiatry

From Minds to Minds

A Neural Model of Conformity

Other people's opinions are not just noise — they are information to the brain.

Same Brain. Different Choices.



MY JUDGMENT

"I think X."

Based on my perception, experience, and values.

$\longleftarrow \neq \longrightarrow$

A DIFFERENCE CREATES A SIGNAL IN THE BRAIN.

GROUP NORM

"Everyone thinks Y."

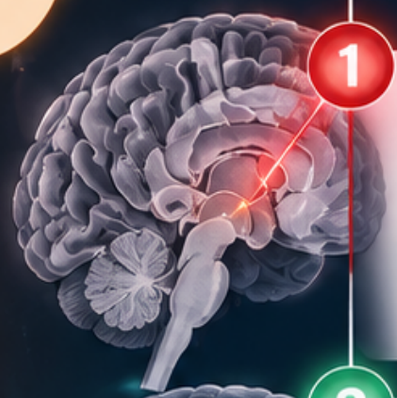
Social information from peers, experts, or the majority.



Confidence
Identity
Higher threshold for social influence



Standing alone can be aversive — but also meaningful.



1

SOCIAL CONFLICT

rACC / medial frontal systems

"Something doesn't match."

- Detects discrepancy between your judgment and group opinion.
- Signals cognitive conflict, like a prediction error.



2

LEARNING / ERROR SIGNAL

Ventral Striatum

"Maybe I should update."

- Treats social feedback as valuable information.
- Strength of this signal predicts later conformity.



3

VALUE / PERCEPTUAL UPDATE

OFC + NAcc + perceptual networks

"Maybe Y really is better / more normal."

- Social information changes the perceived value or even the perception of the stimulus.
- Leads to an updated judgment in line with the group.

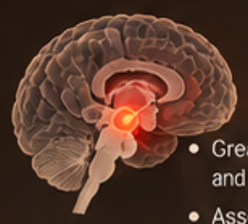


Belonging
Acceptance
Less uncertainty
Social learning

It feels safer to go with the flow.

DISSENT / INDEPENDENCE

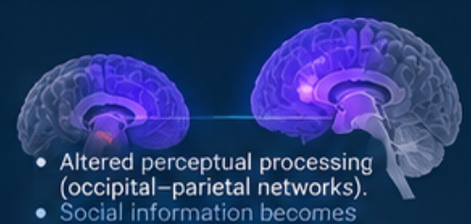
Amygdala + Caudate



- Greater emotional salience and cost when going against the group.
- Associated with stronger emotional and motivational engagement.

"I still think X."

CONFORMITY



- Altered perceptual processing (occipital–parietal networks).
- Social information becomes integrated into your judgment and perception.

"I think Y too."

The social brain doesn't just hear what others think —
it can change what we see, what we value, and what we do.

Key empirical studies:
Berns et al. (2005) | Klucharev et al. (2009)
Campbell-Meiklejohn et al. (2010) | Zaki et al. (2011)

Different paths.
Same brain.
A more thoughtful you.

The Neural Pathway of Social Conformity

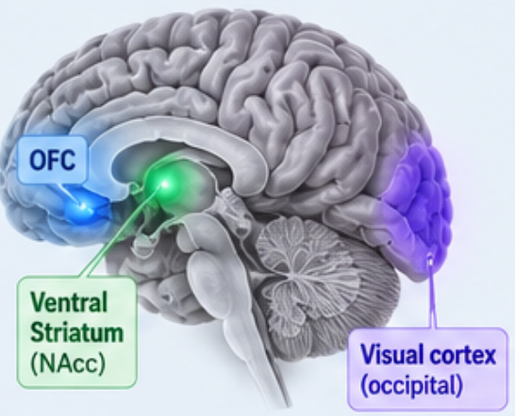
From discrepancy to change in mind

"The human brain is a social prediction machine."

Other people are not just noise — they are information.

1 Forming your own judgment

Visual and value processing



- You see a face (or other stimulus) and form an initial judgment.
- Visual cortex processes perceptual features.
- OFC and ventral striatum encode subjective value (e.g., attractiveness).

How attractive is this face?

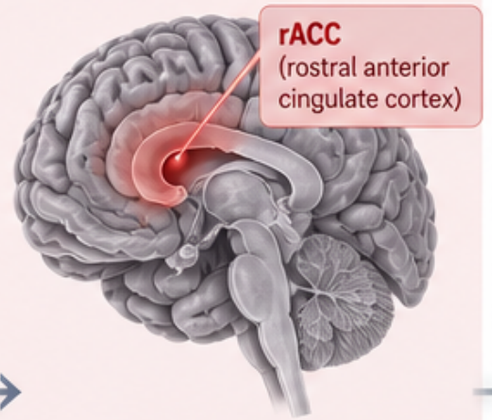


1 2 3 4 5 6 7 8 9 10

(not attractive) (very attractive)

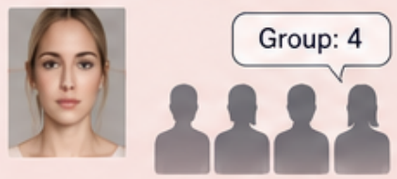
2 Encountering a different opinion

Social information processing



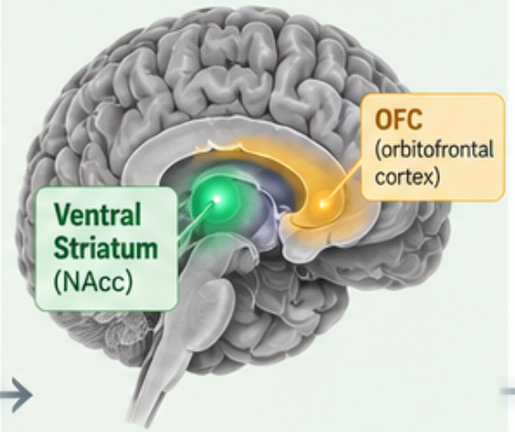
- You see the group's rating.
- If it differs from your own, rACC detects the conflict ("Something doesn't match").
- This signal is similar to a prediction error in reinforcement learning.

Your rating: 7 | Group average: 4



3 Learning & evaluating

Should I update?

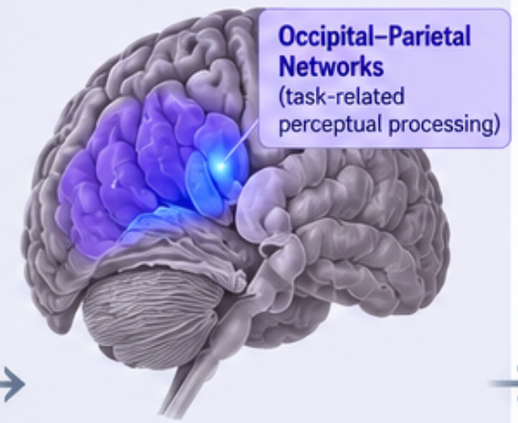


- The brain treats the social discrepancy as valuable information.
- Ventral striatum signals a prediction error ("Maybe I should update").
- OFC helps re-evaluate the value of the stimulus in light of others' opinions.

"Maybe others know something I don't. Should I adjust my judgment?"

4 Updating perception and value

Social influence changes the brain



- Social information can modulate activity in perceptual networks (e.g., occipital–parietal cortex).
- Your perception of the stimulus may subtly shift.
- OFC and NAcc update the subjective value — you may actually see it as more/less attractive or normal.

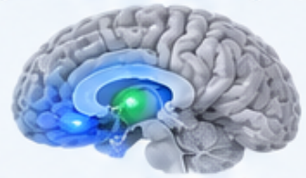
"It looks a bit different now... Maybe Y really is better."

5 Outcome

Two possible paths

Conformity

Judgment shifts toward the group.

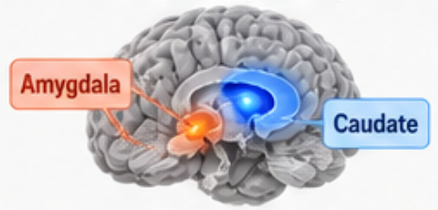


- Incorporation of social information into perception and value.
- Often associated with changes in OFC, NAcc, and occipital–parietal networks.

"I think Y too."

Dissent / Independence

You maintain your original judgment.



- Standing alone is associated with greater activity in the amygdala and caudate (emotional salience and cost).
- Independence shows that resisting social influence is not neutral — it requires effort.

"I still think X."

Key Evidence from fMRI Studies

- **Berns et al. (2005)** Mental rotation task
  Conformity → ↑ occipital–parietal activity
  Independence → ↑ amygdala & caudate
- **Klucharev et al. (2009)** Face attractiveness ratings
  Social conflict → rACC & ventral striatum
  Neural signal predicts later conformity
- **Zaki et al. (2011)** Peer influence on attractiveness
  Conformity → modulation of NAcc & OFC
  Change in subjective value representation

Different regions. A more social mind.

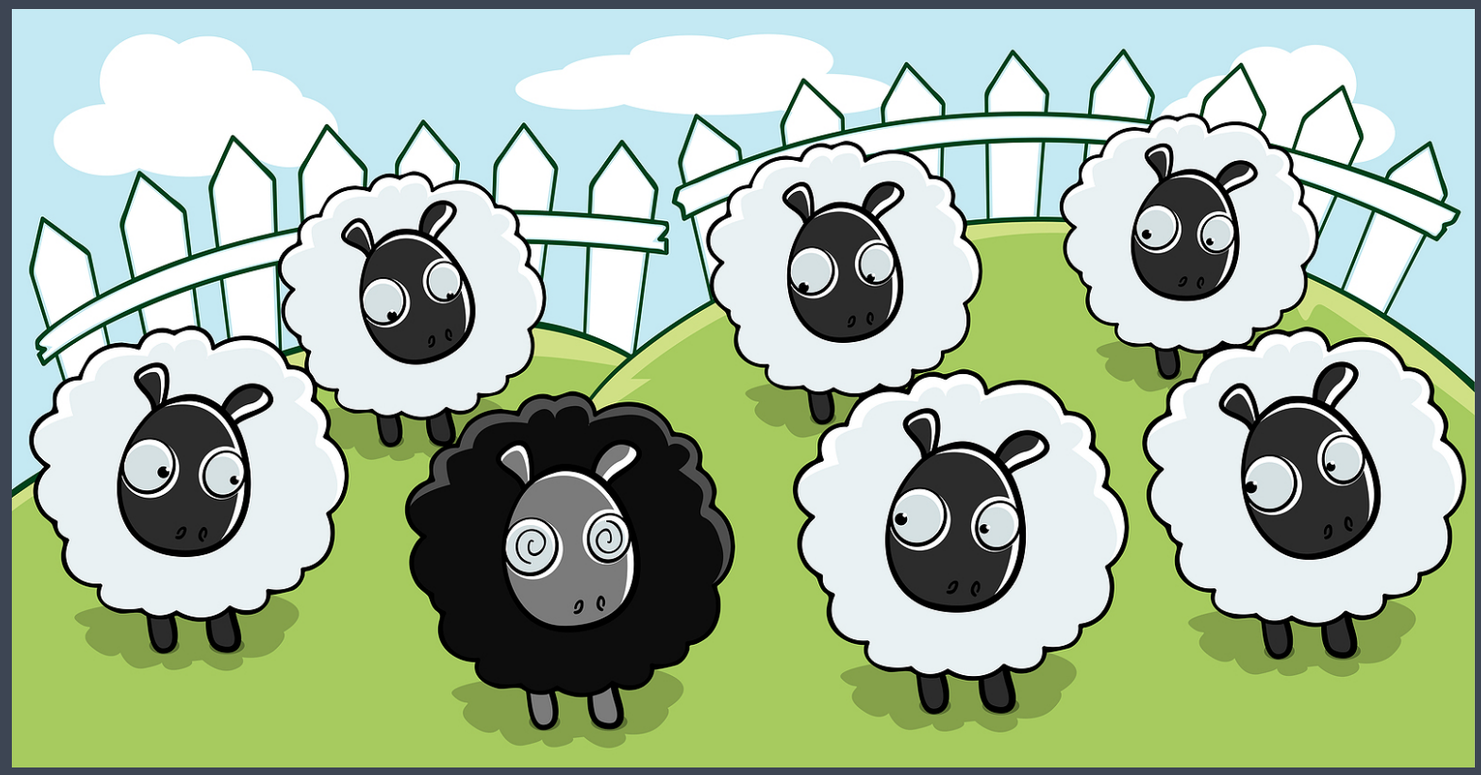


Take-Home Message

- Other people's opinions are processed as meaningful information in the brain.
- They can change what we see, what we value, and what we do.
- Independence is possible — but it is not free.
- Understanding these mechanisms can help us make more deliberate and healthy choices.

Same Brain. Different Choices.

Black sheep effect



In group-psychology, the **Black Sheep Effect** refers to the tendency of group members to judge likeable ingroup members more positively and deviant in-group member more negatively than comparable out-group members.

Conformity? Yes or No

Non-conformity

* Some critics thought the high levels of conformity found by Asch were a reflection of American, 1950's culture and told us more about the historical and cultural climate of the USA in the 1950's than then they do about the phenomena of conformity.

* In the 1950's America was very conservative, involved in an anti-communist witch-hunt : McCarthyism

* Perrin and Spencer (1980) suggested that the Asch effect was a "Child of its time."

* Smith and Bond (1998) discovered cultural differences in conformity between western and eastern countries.

Group pressure toward Conformity

STANLEY SCHACHTER

1- Internal Group Pressure

The first factor is the extent to which the group feels its own internal pressure to change the dissenter's opinion.

How important is it to the group to change the person's ideas?

- Group Status
- Dose of Deviation

2- Dependence of the Group

The degree to which the group feels that it depends upon the deviant member.

- The Authority figures
- New-comping members
- Marginal members

Social Identity Theory

- Hains, Hogg, & Duck, 1997:

- To the Social Identity Theory of leadership, individuals who **typify** the **norms** of their organizations should be **more likely** to be selected as leaders than other employees.

- Giessner and van Knippenberg (2008):

- if the leaders are regarded as **prototypical**, unfulfilled goals and aspirations do not undermine the reputation or status of the leader as appreciably.

- **In-group favoritism….**

Dominence hierarchy





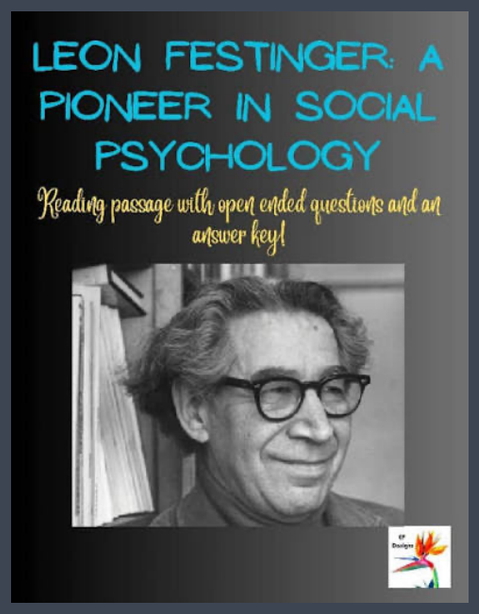
Big fish in a little pond → little fish in a big pond

Academic self-concept

Objective competence

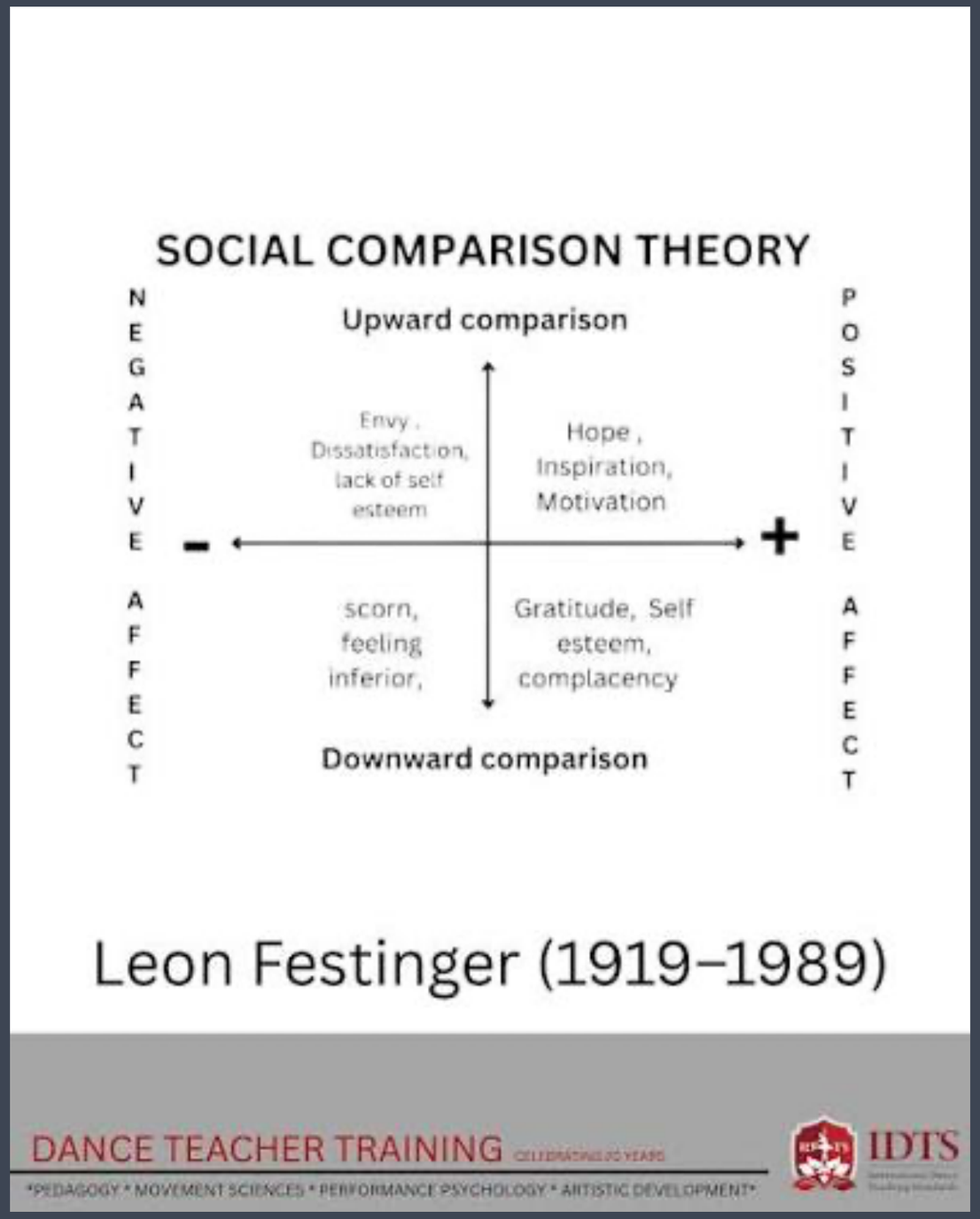
Subjective competence

Social Comparison Theory



Leon Festinger

Relative Deprivation



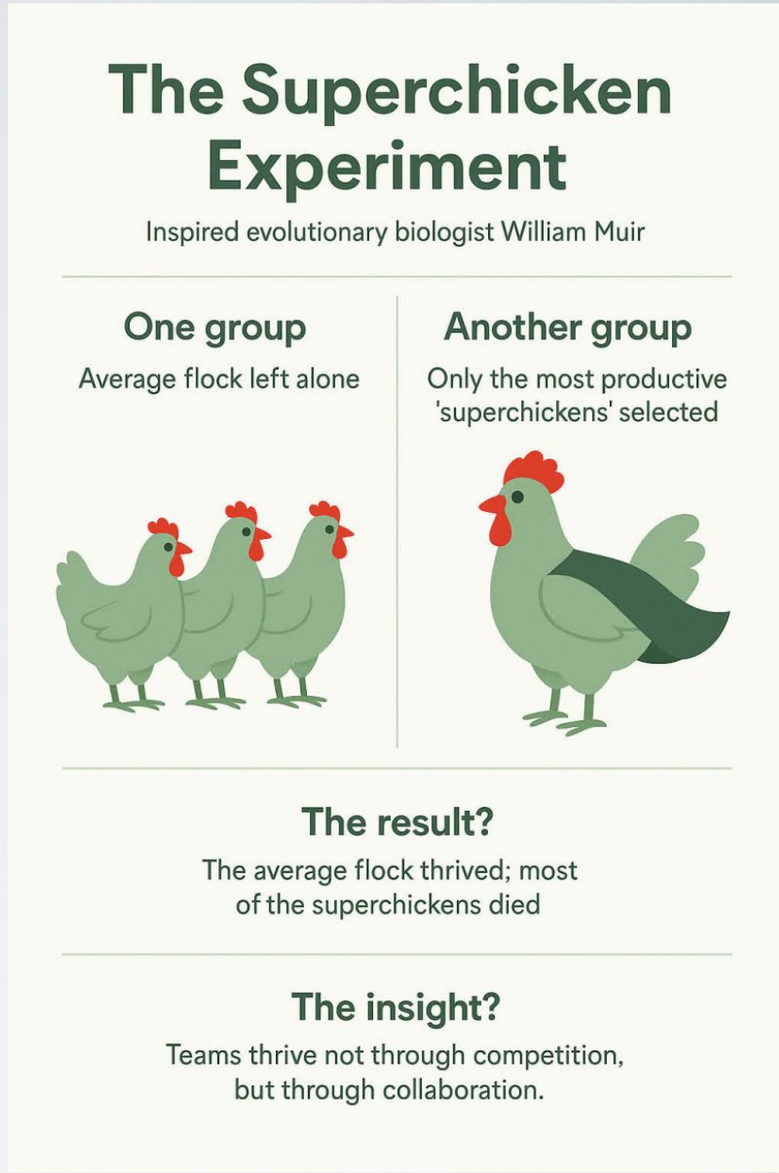
Super-chicken Experiment



William Muir







For the past 50 years, we've run most organizations along the 'superchicken' model

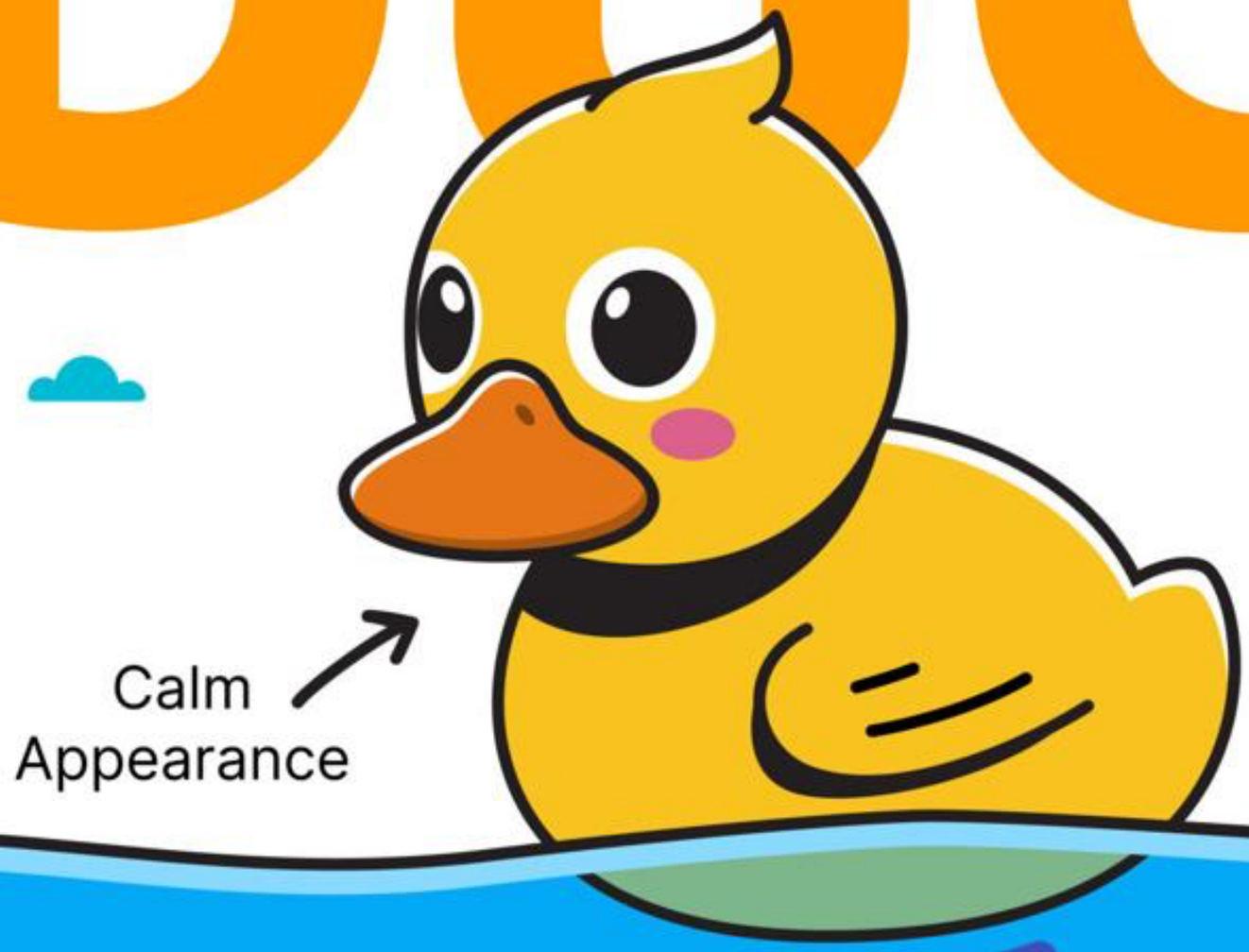
"We've thought that success is achieved by picking the superstars … and giving them all the resources and all the power.

And the result has been just the same as in William Muir's experiment:

aggression, dysfunction, waste

DUCK

SYNDROME



Calm
Appearance

Active
Inner Anxiety

Typology of difficult team members

Slumper

Dumper

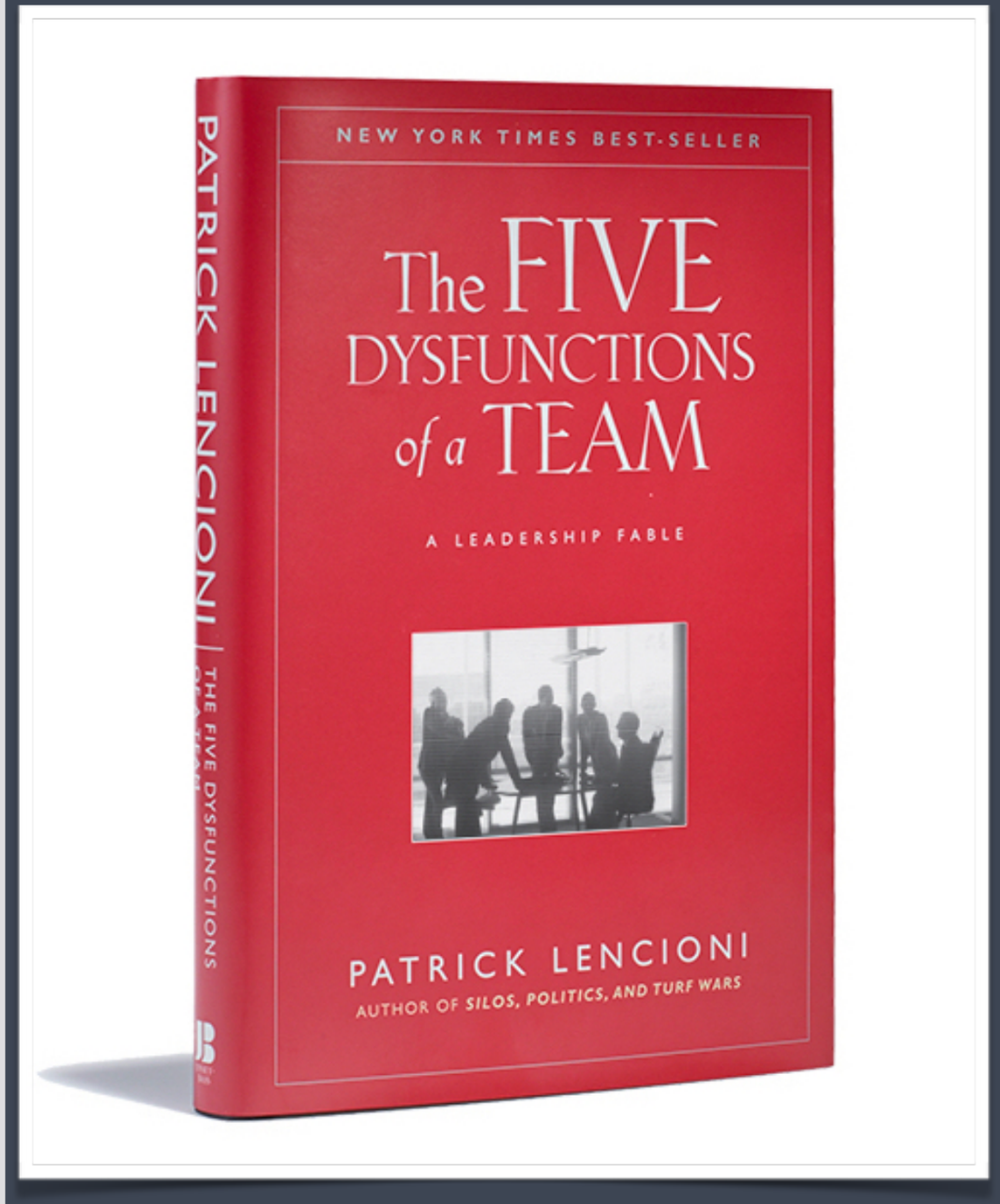
Grumper

Jumper

Trumper

Thumper

Tips to Manage Difficult Team Members

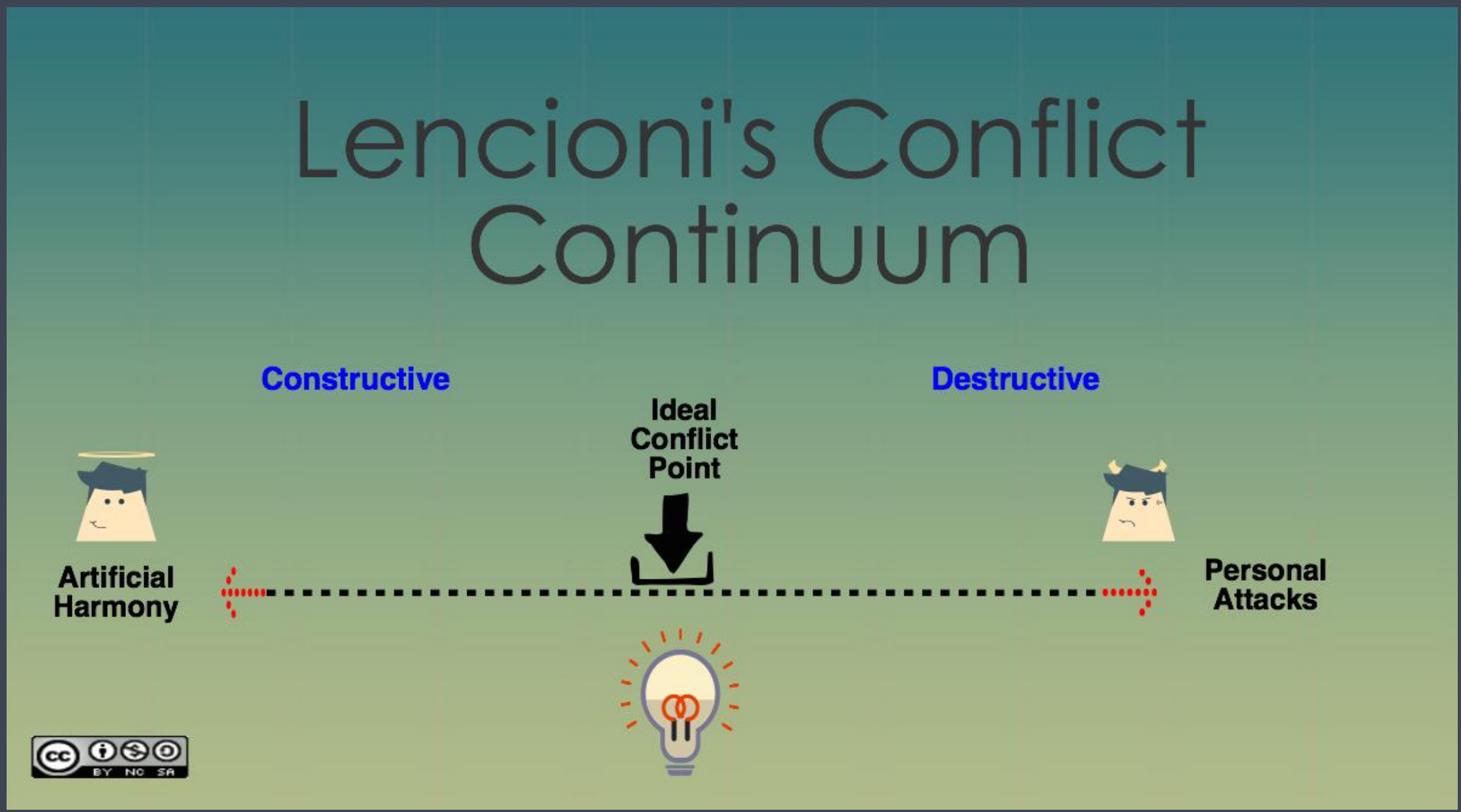




Artificial Harmony



Lencioni's conflict continuum



Attribution theory

- When the performance of an individual is in question, the team first makes an attributional judgment

- Attribution theory suggests that the team will attempt to determine whether the poor performance is internal or external in nature

- Attribution theory argues that people assess the locus of causality of achievement- relevant events as either internal or external

Attribution theory

OBSERVATION	INTERPRETATION	ATTRIBUTION OF CAUSE
Does person behave this way in other situations?	***YES:*** Low distinctiveness ***NO:*** High distinctiveness	Internal attribution External attribution
Do other people behave the same way in similar situations?	***YES:*** High consensus ***NO:*** Low consensus	External attribution Internal attribution
Does person behave this way consistently?	***YES:*** High consistency ***NO:*** Low consistency	Internal attribution External attribution

Attribution theory

Green & Mitchell

- If the attribution is focused on the guilty member, the corrective action probably will involve a discussion or reprimand

- On the other hand, if the attribution is focused away from the guilty member, corrective action will involve the task or the work environment

Attributional Processes of Leaders in Leader-member Interactions(1979)

Typology of Difficult Members

1- Bad-Apple Types

- The Withholders of effort or slackers: largely of not doing something !

- The incompetent team member: who causes a drop in team performance as a result of their lack of knowledge or skill.

- Interpersonal deviant : exhibits behaviors that are recognized as violations of social norms

- A dissenter : continually express a negative mood or attitude

How to manage difficult members

1st step

Confront the Problem,Head On

Point Out the Behaviors That Are Causing Problems for the Team

2nd step

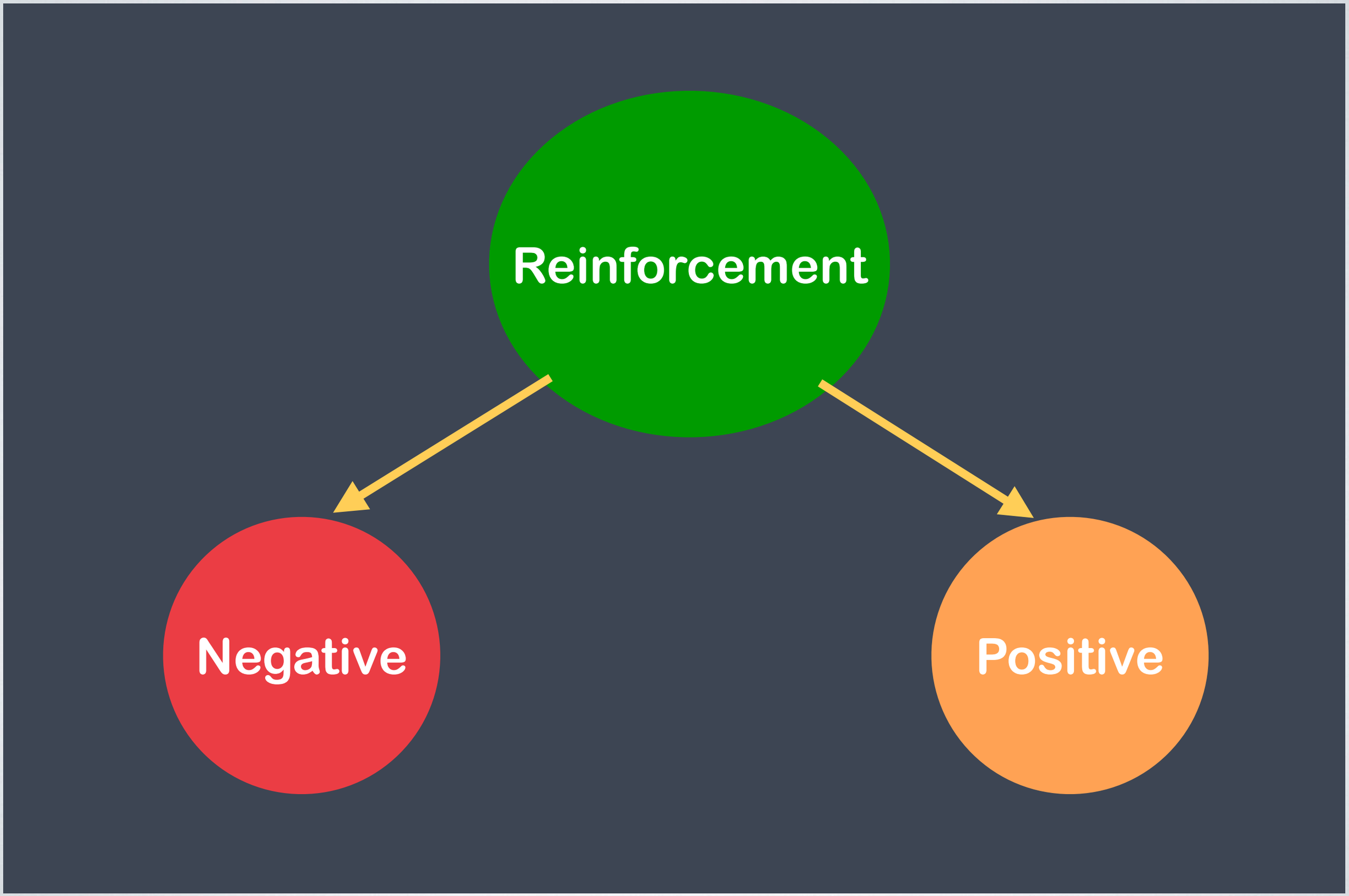
3rd step

Determine Solution and Success Measures

Accountability

4th step

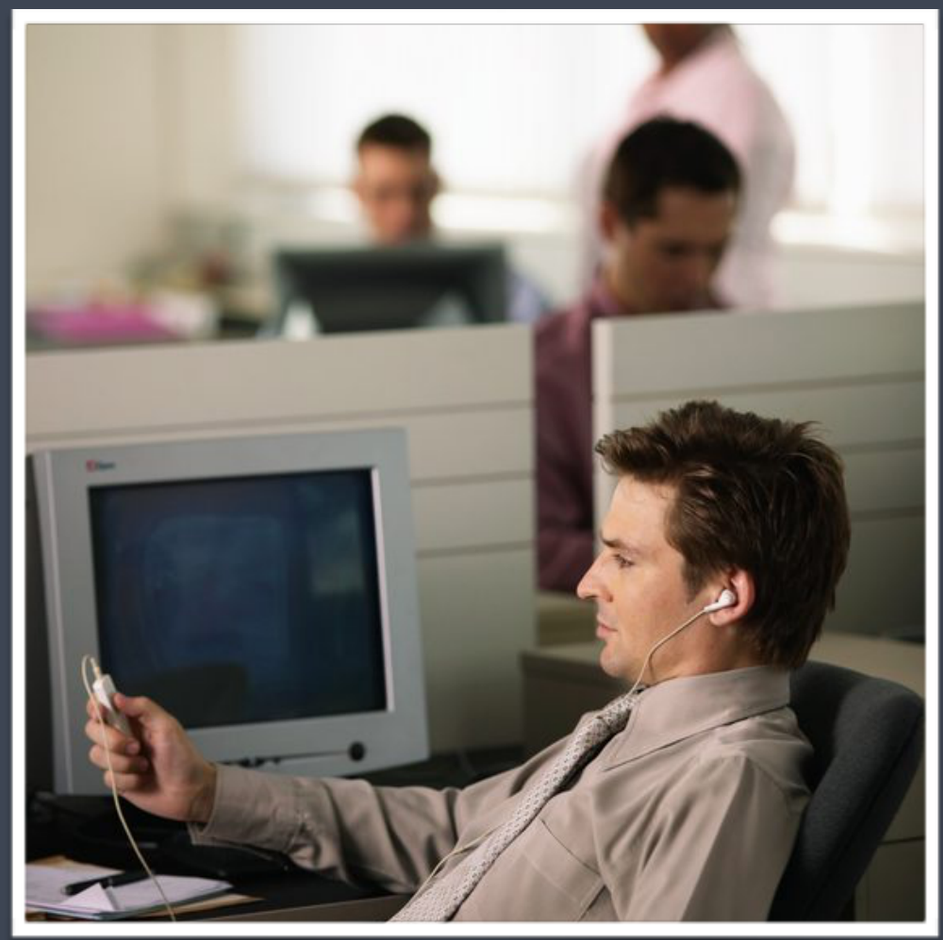
Constructive feedback



Specific Bad Apple Archetypes

- The key task when dealing with an underperformer is to determine whether the lack of progress is due to lack of conscientiousness or lack of cognitive ability

- It makes no sense to motivate an ignorant team member or to train a slacker



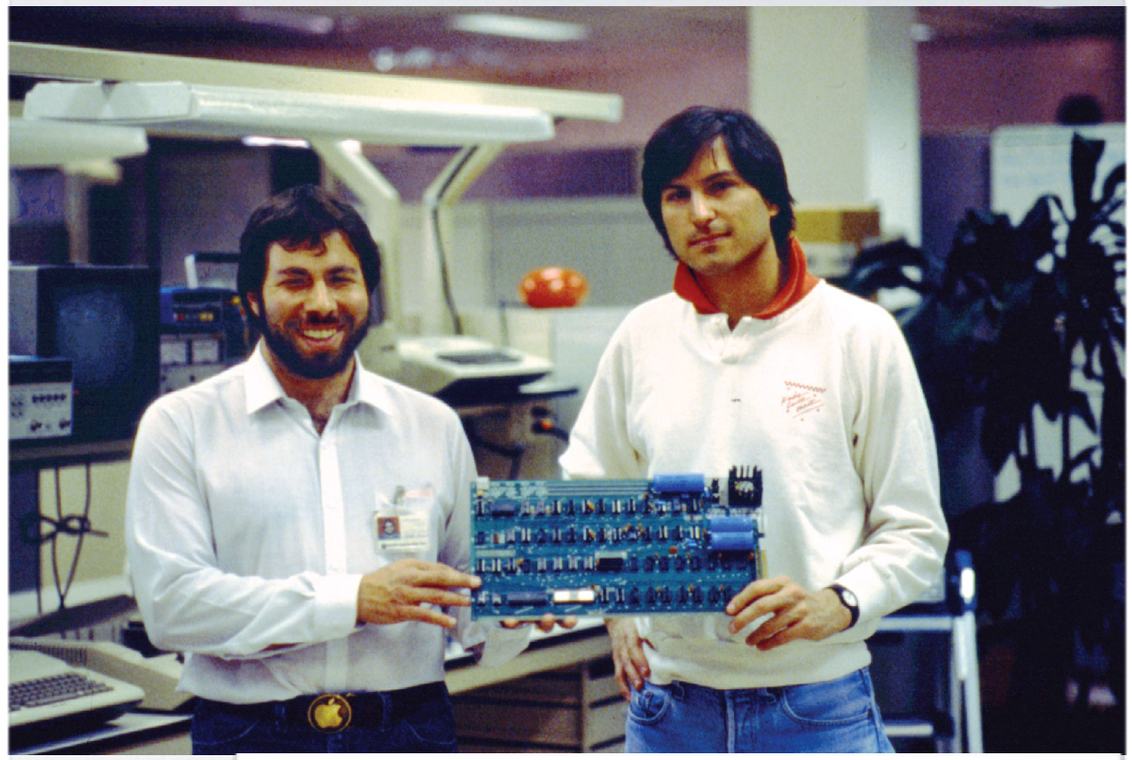
Slackers

- First the team should attempt to determine the source of lack of conscientiousness
- Maybe the result of the team dynamics
- Maybe some issue is external to the team
- Accountability phase
- Sometimes it is necessary to remove the Slacker

Bad apple?

Problematic teammate?

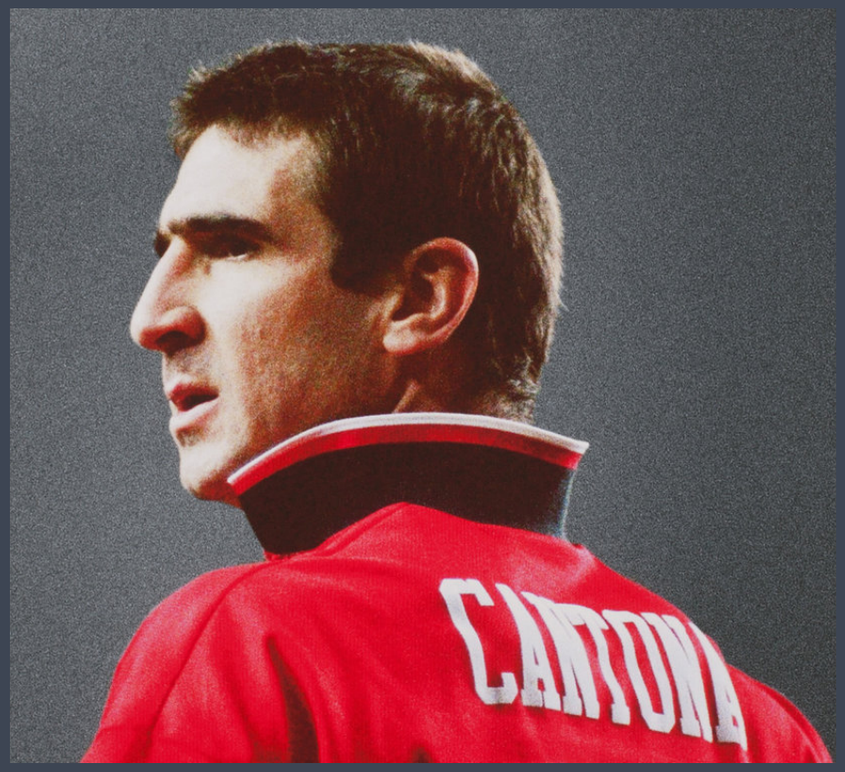
Somebody asked me ” is it true that **Jobs** was difficult to work with?”You know, he was terrible, he was the **bad-apple** by himself!!!





Bad apple?







Is he a kung-fu kicker? No ! He is

"Cantona"


Thanks!