

DAIDP 2026

# Human Behaviour 101

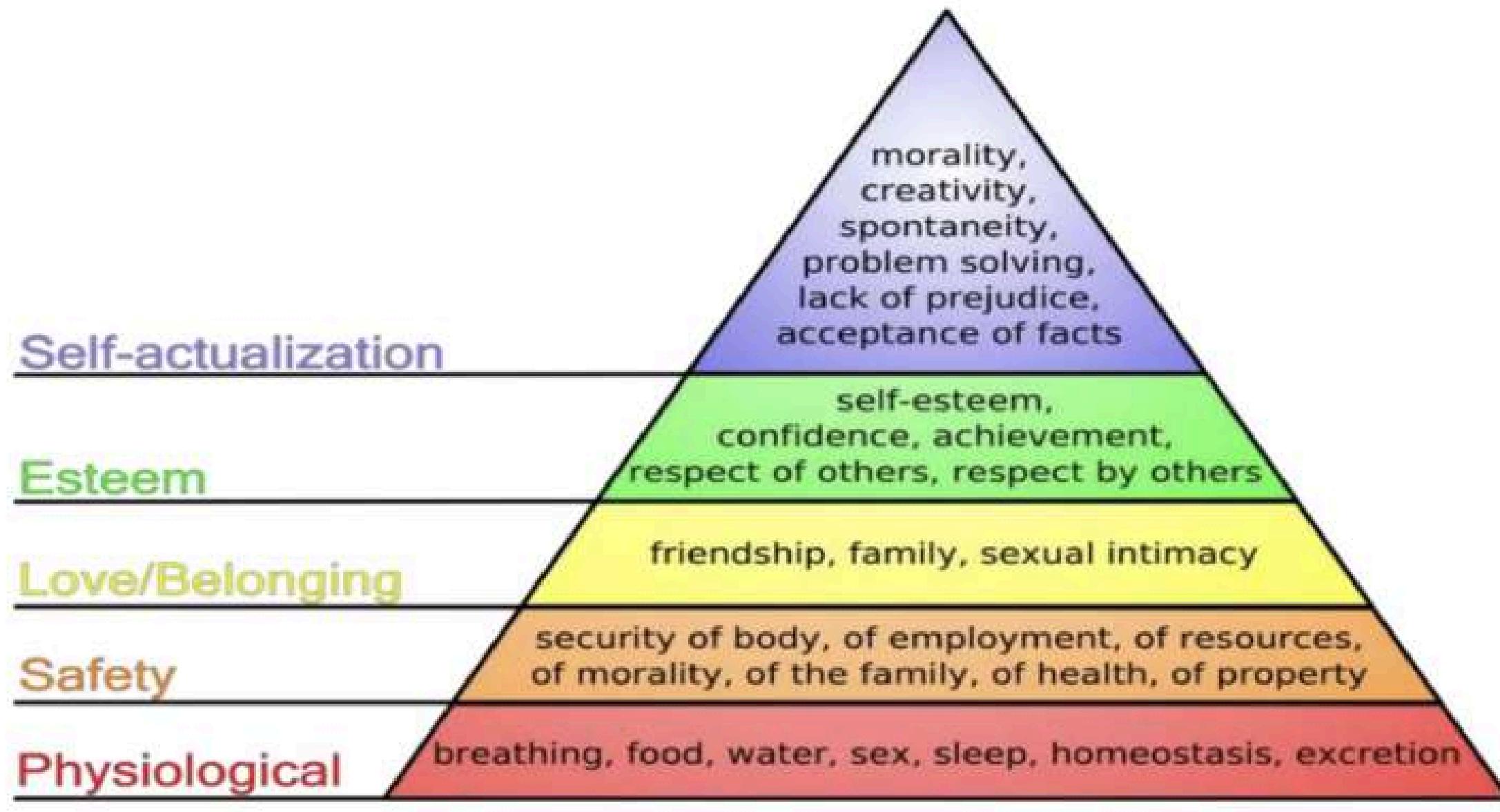
Understanding Human Behaviour Before  
Building Systems



# What Humans Need First

**What are your needs in life?  
Do some needs hold more importance than the others?**

# Maslow's Hierarchy of Needs



Humans have an order of needs. Lower order needs must be met before considering higher order needs

# Group Project: Pick One

**A**

- 1. One person dominates all decisions
- 2. Your ideas are regularly shut down
- 3. Mistakes are mocked
- 4. You're told: "Just do what I say"
- 5. You're afraid to ask questions

But

- 6. This group usually gets a high grade

**B**

- 1. Everyone is encouraged to speak
- 2. Ideas are discussed, not dismissed
- 3. Mistakes are treated as learning
- 4. Feedback is respectful
- 5. You feel comfortable saying "I don't understand."

But

- 6. The final grade is not guaranteed

# Why this matters for AI design

AI products enter human lives, not empty brains.

If an AI system:

- feels unsafe
- feels threatening
- feels disrespectful

people won't care how smart it is.

Human needs come before intelligence.



Maslow's Need	Design/UX Equivalent	Application in AI Products
Physiological	Functionality	The AI product must perform its core task correctly (e.g., a language app teaches words, a medical AI assists with diagnosis).
Safety	Reliability & Security	The AI must work consistently and protect user data (e.g., a banking AI ensures secure transactions and consistent performance).
Love/Belonging	Usability & Social Interaction	The product must be easy to use and facilitate community or team collaboration (e.g., an AI work tool enables seamless communication among team members).
Esteem	Proficiency & Personalization	The AI should empower users to achieve more or become better at tasks through features like personalized recommendations or adaptive learning (e.g., a fitness app celebrates milestones).
Self-Actualization	Creativity & Meaning	The product provides a delightful, inspiring experience that allows users to express their individuality or find greater purpose (e.g., AI tools that help users explore creative pursuits or contribute to a broader social mission).

# Why Your Brain Says “Nope” sometimes

Even when you’re capable



from the location that I expect it to be loaded. This was accomplished by editing the my logic inside of my overloaded getClassLoader() method and getJavaFileForOutput() in my extended ForwardingJavaFileManager<JavaFileManager> to support feeding the returned classLoader the proper CodeSource URL location. – rpg711 Apr 22 at 19:23

[add / show 6 more comments](#)

This question had a bounty worth +50 reputation from rpg711 that ended 19 hours ago. You have 4 hours to award the bounty

This question has not received enough attention.

Exhaustive list of source or example-supported representations of how source lookup behaves.

## 1 Answer

active    oldest    votes

- 2 No answers?! SO must be baffled by the specifics Or not thinking outside your localized and very specific problem.
- 2 Amigo, the world is fraught with non-helpful/meaningless error messages.
- ✓ Have you duplicated a dev environment? Reinstall eclipse add your plugins and or updates and pull your source code plus dependencies over and see if the same thing happens.
- +50 Does it compile? If so, do you have a staging environment where you can push changes to see things for yourself.
- Your SVN repo... can you find a historical build of your source that was golden and attempt to reproduce this mystery?
- Cached artifacts and phantoms? Are you possibly creating false positives? You know...you think you are going crazy but nothing is wrong? Try a fresh dev environment.
- I have had to do all these stupid things to resolve my ridiculous and very specific mysteries.

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answered 26 mins ago

Frank Tudor  
577 • 1•5•20

Are you suggesting that you have experience with this and are now just withholding it out of spite? Nothing you said is at all relevant to the question BESIDES the dev environment part. And yes, my entire team is running the same environment so it's occurred on more than just my machine. Fun note : I doubt it ever worked to begin with, I probably just accidentally had some scripts on the build path. – rpg711 24 mins ago

Please do not belittle my problem. I am aware that only a very specific group of people can answer my question to the extent that I need it answered, but if you are interested, the problem goes BEYOND setup and you need to look beyond. This is not just a simple case of "I have error x halp me fix". I am trying to investigate HOW source lookup works, because as I said, there is no technical limitation documented that prevents remote debugging from working with dynamically compiled code. If you read the preface, the context is provided so we know the WHY behind the question. – rpg711 15 mins ago

From what I see, this would be a question that intrigues many. The upvotes seem to denote this. Is there any particular reason why you are so sarcastic in your post? – rpg711 12 mins ago

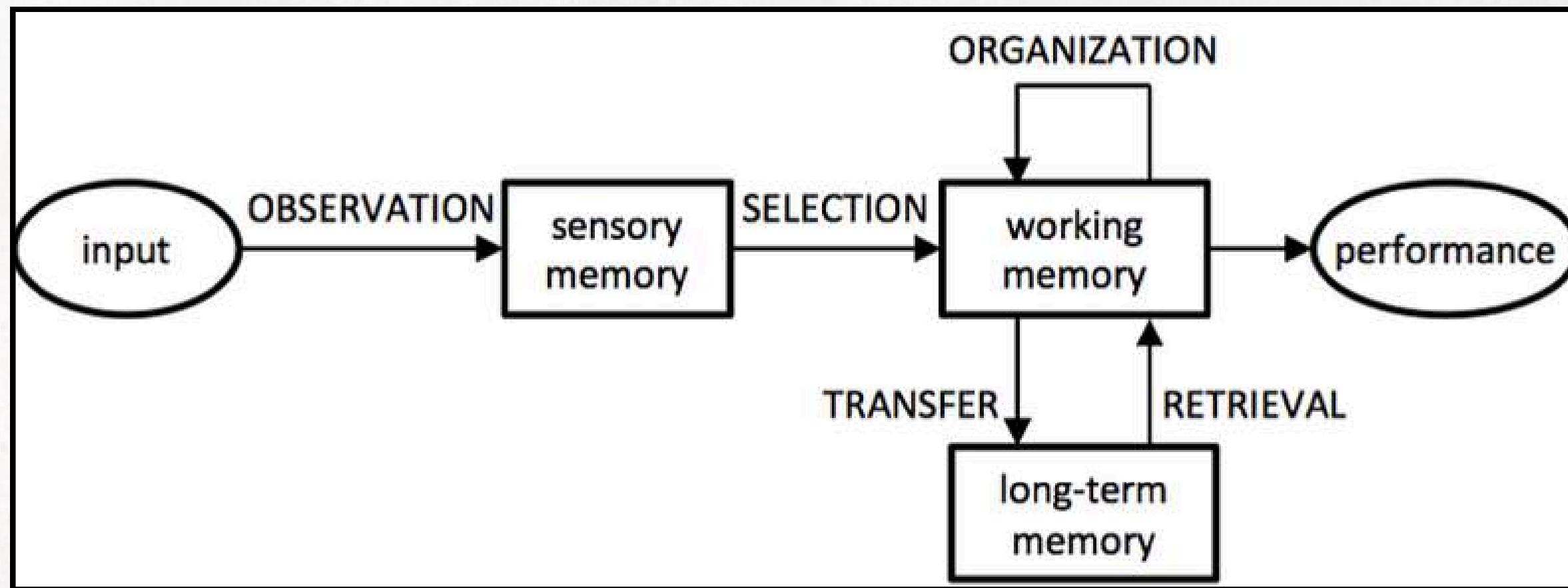
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Every visual distraction demands a piece of the user's limited cognitive resources, potentially derailing them from their intended task.



# Cognitive Load

When too much hits together → thinking breaks.



Working memory ---- tiny (now)

Long-term memory ---- huge (over time)

If working memory overloads ---- learning stops.

# COGNITIVE LOAD THEORY

## Intrinsic Load

The task itself is hard

- Learning recursion
- Understanding a new algorithm

## Extraneous Load

Bad presentation adds effort

- Messy code
- Cluttered UI
- Walls of text

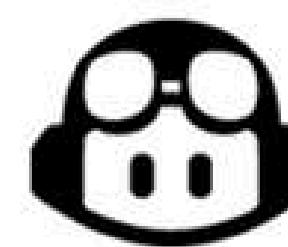
## Germene Load

Effort that builds understanding

- Step-by-step explanations
- Examples & patterns

Remove extraneous, manage intrinsic, encourage germane

# Ex: Coding with GitHub Copilot

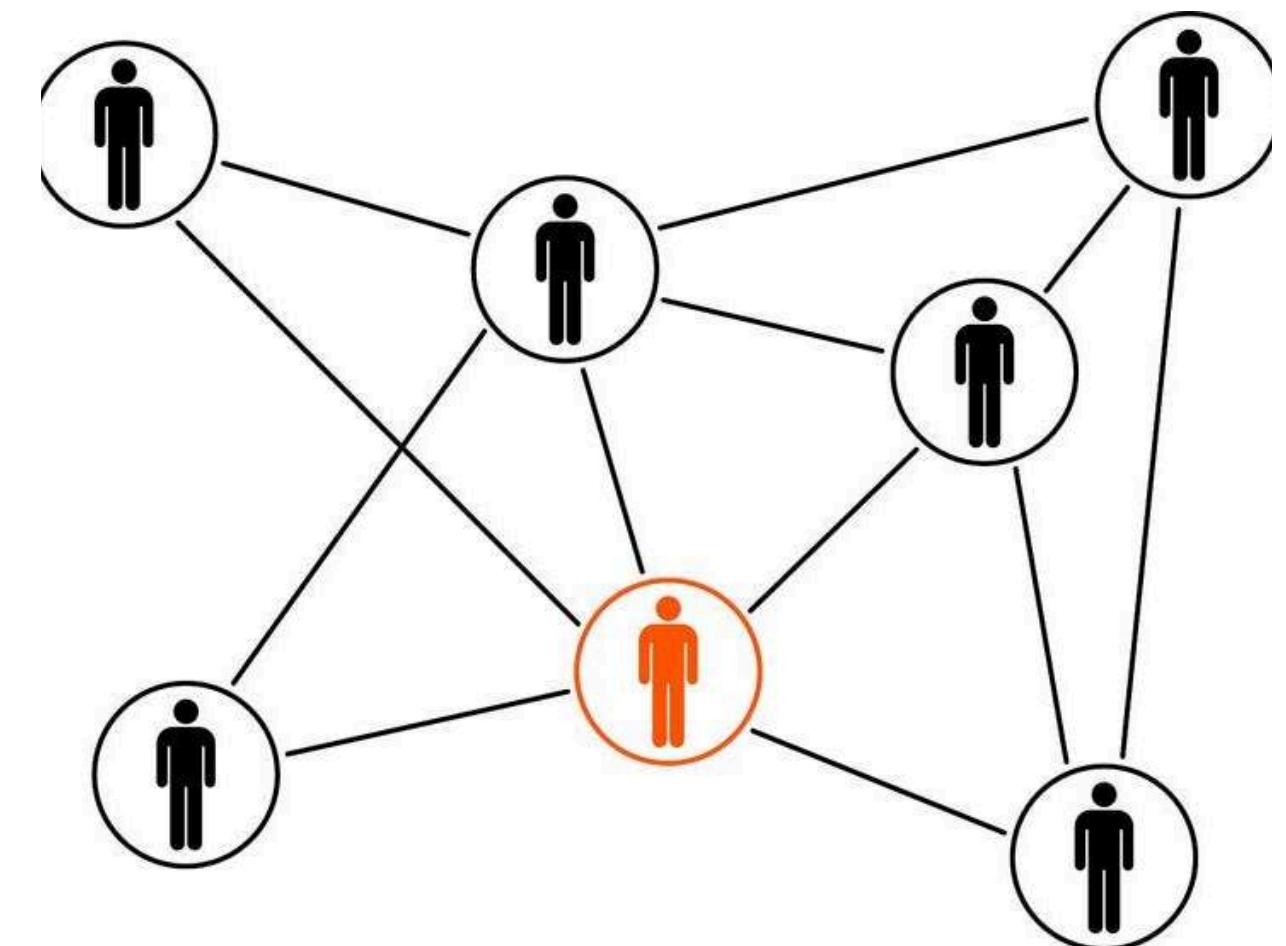


**GitHub Copilot**

# Actor -Network Theory (ANT)

Actor–Network Theory (ANT) is a sociological theory developed by Bruno Latour, Michel Callon, and John Law to explain scientific and technological activity without separating “social” and “technical” aspects.

- ANT treats humans and non-humans as equal “actors” in shaping social and technical outcomes and proposes that for any actor to act, many others must act as well, action is always distributed across a network.
- Actors (human or non-human, individual or collective) are not the starting point of action; instead, their constitution must be explained through relationships.



No single actor has full control or ownership over an action or outcome.

# Google Maps Navigation

In Google Maps navigation, decision-making is distributed across a **network of human and non-human actors**.

**Users** choose destinations, drivers share location data, and planners shape infrastructure, while AI routing algorithms, GPS satellites, traffic sensors, and real-time data guide routes.

Navigation emerges from continuous **coordination among these actors** and neither users nor AI act independently.



## Google Maps

# Social Identity theory(SIT)

*“Part of who I am comes from the social groups I belong to.”*

explains how and why people define themselves based on the groups they belong to, and how this affects behavior, attitudes, and intergroup relations.

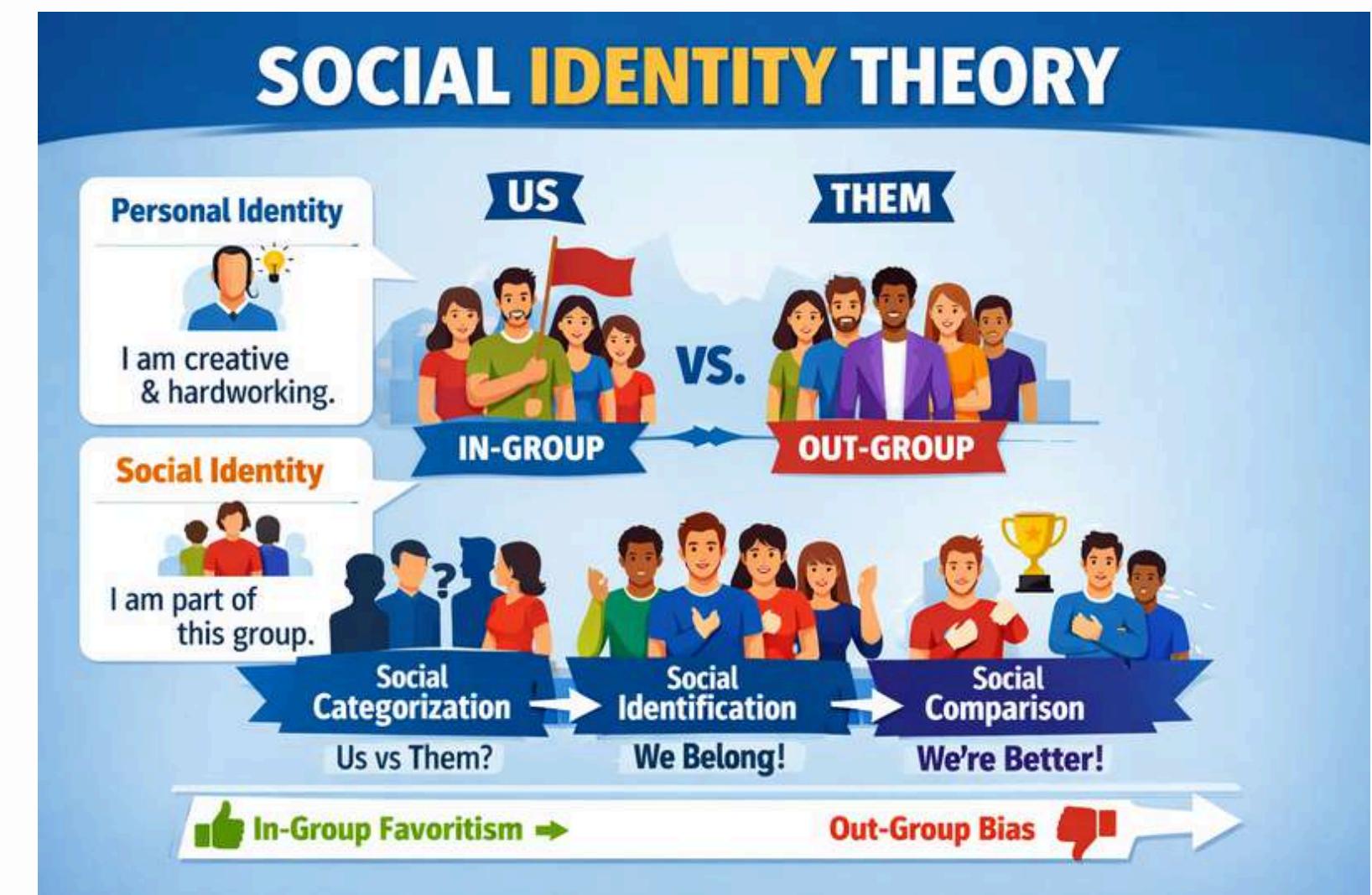
- explains how group membership shapes self-concept
- People define themselves by:
  - Personal identity (individual traits)
  - Social identity (group belonging)

Proposed by Henri Tajfel & John Turner (1979)

# Key Processes In SIT

*“Part of who I am comes from the social groups I belong to.”*

- **Social Categorisation:** Classifying people into groups (Us vs Them)
- **Social Identification:** Adopting group identity and norms
- **Social Comparison:** Comparing groups to maintain positive self-esteem



# “The Apple Ecosystem”

*“Part of who I am comes from the social groups I belong to.”*

- Apple users form a strong in-group identity (“Apple ecosystem”)
- Products signal creativity, premium quality, and innovation
- Design consistency reinforces group belonging
- Ecosystem lock-in strengthens social identification
- Subtle out-group distinction vs Android/Windows users



# Social Role Theory (SRT)

Humans are "social detectives" who use mental scripts to assign roles based on norms and expectations.

We categorize interactions into four primary "Archetypes":

- **Servant:** Low autonomy; strictly follows direct commands (e.g., a basic calculator).
- **Advisor:** High knowledge, low power; suggests "best" paths but leaves the final choice to the user (e.g., Grammarly).
- **Partner:** Equal status; collaborates on a goal where both parties contribute unique value (e.g., a co-pilot for coding).
- **Master:** High power; makes decisions that the user must follow (e.g., an automated safety brake).

# Max Weber's Theory of Authority

Weber stated that power is obeyed when it is seen as legitimate. He defined three ideal types of legitimate authority: Traditional (kings), Charismatic (heroes), and Legal-Rational (rules/bureaucracy).

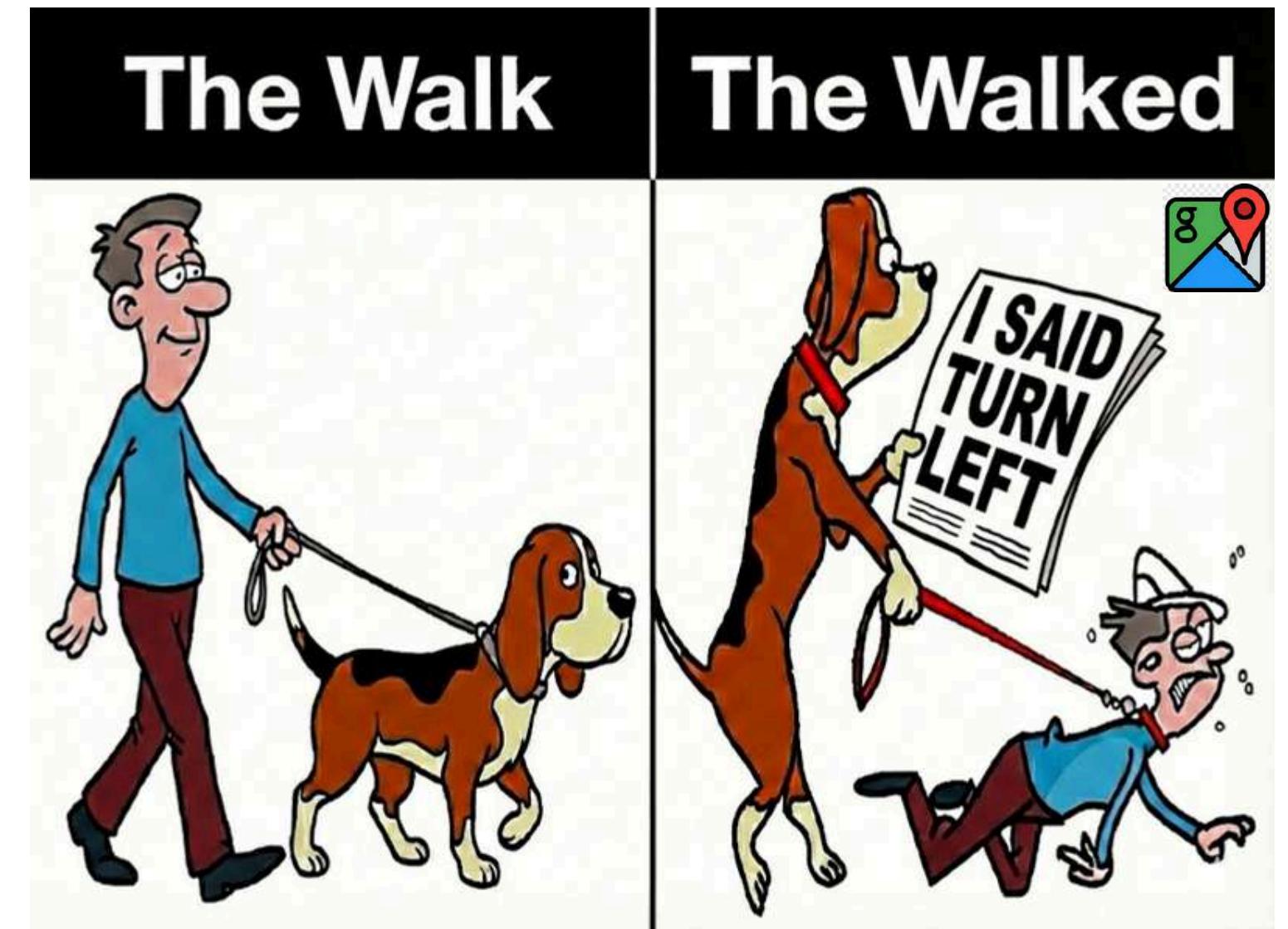
- AI is the ultimate form of Legal-Rational Authority. It doesn't have a "mood", it has a procedure. We trust it because it represents "objective" logic.
- AI systems embody this authority through algorithms users perceive as “objective” or “fair,” and this perception is what gives them legitimacy.
- The Design Dilemma: Designers must deliberately choose the role AI plays in their product.



# Hegel's Dependence Paradox

Hegel argued the Master depends on the Servant's labor to function. Eventually, the Servant gains "self-consciousness" through work, while the Master becomes helpless.

- As we delegate cognitive tasks like coding and writing, humans may become dependent on the system for basic functions.
- The Design Dilemma: Designers must debate if AI should remain a "Servant" or evolve into a Partner to keep the human "Master" skilled and engaged.



# Summary

Theory	Discipline	Core Idea	AI Design Implication
Maslow's Hierarchy of Needs	Psychology	Human motivation progresses from basic needs to self-actualization.	AI must align with user needs at different levels (safety, belonging, esteem, growth).
Cognitive Load Theory (CLT)	Psychology	Working memory has limited capacity; learning depends on managing load types.	AI should reduce overload, scaffold complexity, and enhance meaningful learning.
Actor-Network Theory (ANT)	Sociology	Humans, AI, institutions, and data are all “actors” shaping outcomes in networks.	AI must be analyzed as part of socio-technical ecosystems, not isolated tools.
Social Identity Theory (SIT)	Sociology	People’s behavior is shaped by group membership and identity.	AI must avoid reinforcing bias and should foster inclusive group representation.
Social Role Theory (SRT)	Sociology & Psychology	People assign roles (servant, master, advisor, partner) based on norms.	AI design must clarify its intended role to avoid mistrust or misuse.