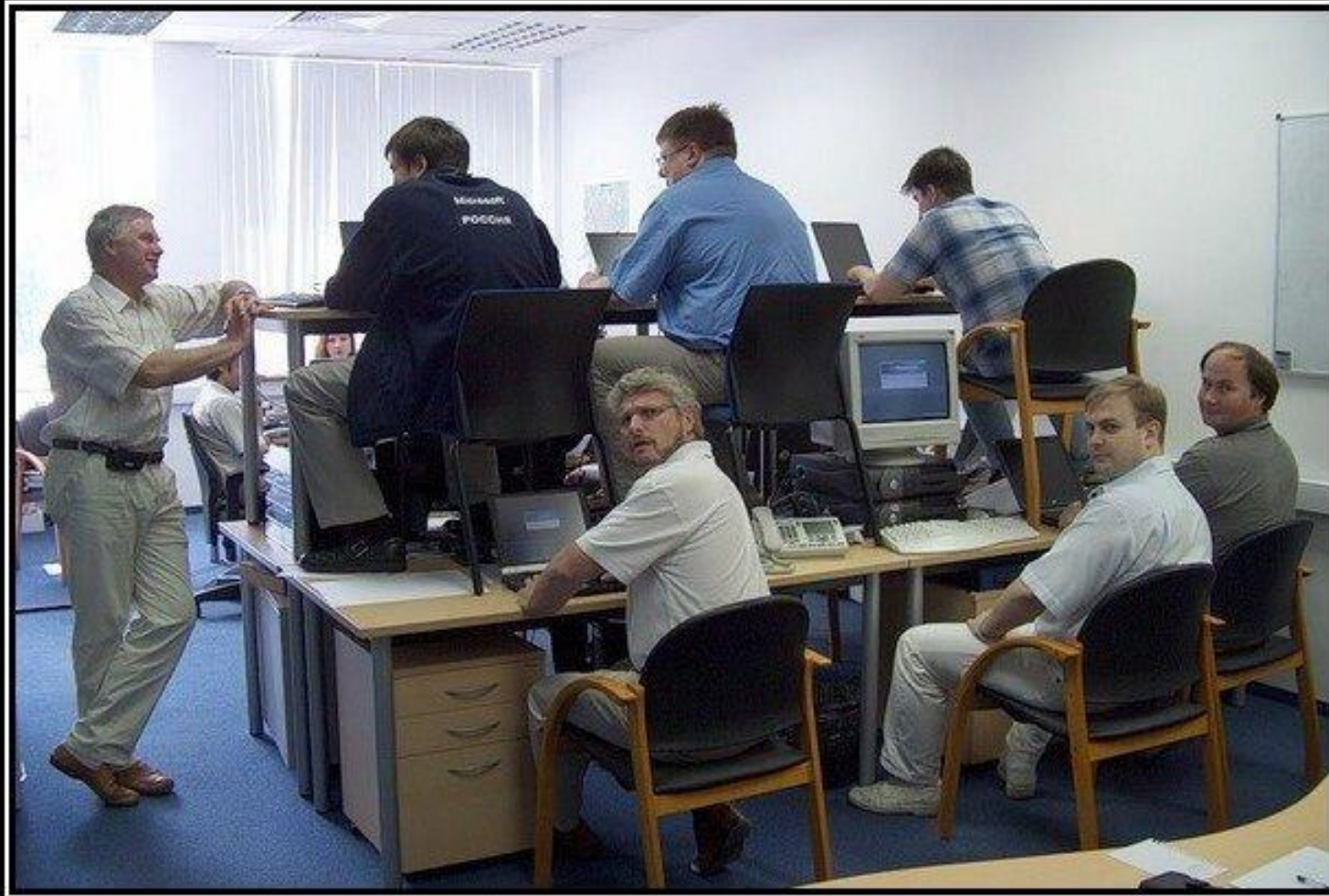




The sum is greater
than the whole of
its parts

Liebenberg meeting, September 16th, 2025



COLLABORATION CULTURE

It's a better way to stay on top of what's happening.

<https://www.pinterest.ca/pin/116530709079463466/>



TEAMWORK

Large ambitious goals usually require that people work together.

before and after the 7 hour zoom
meeting that could have been an email



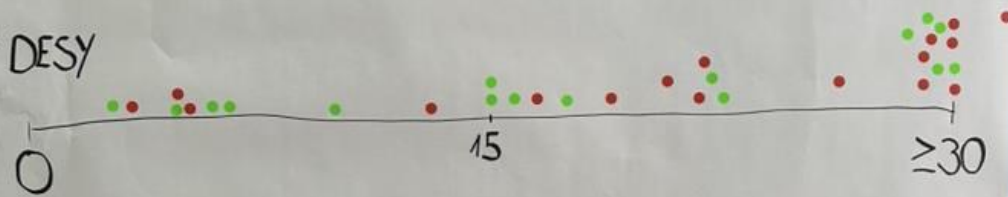
<https://www.winkgo.com/team-work-memes/>

With how many people do you actively collaborate to do your work (approximately)?

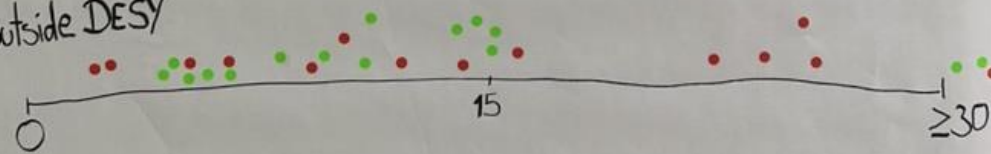


With how many people do
you actively collaborate to do
your work?

at DESY



outside DESY



We will cover the following questions:

- 1) Why do people collaborate?
- 2) What are benefits and downsides?
- 3) How do we make the best of it?



What we will do this afternoon

Agenda



Interactive impulse
(be prepared for a surprise)

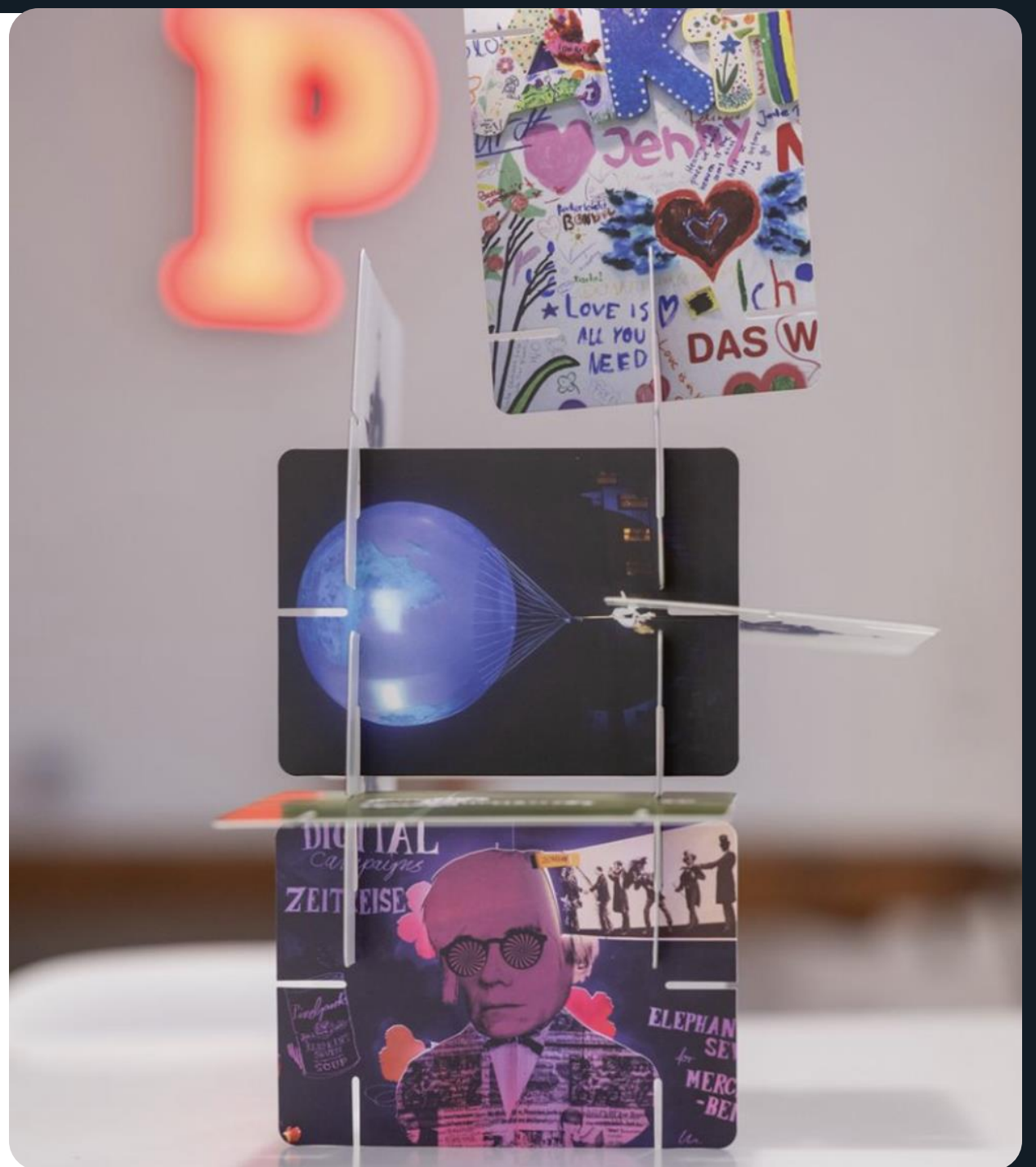
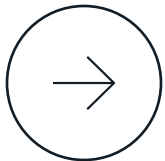


Coffee break
approx. 4pm

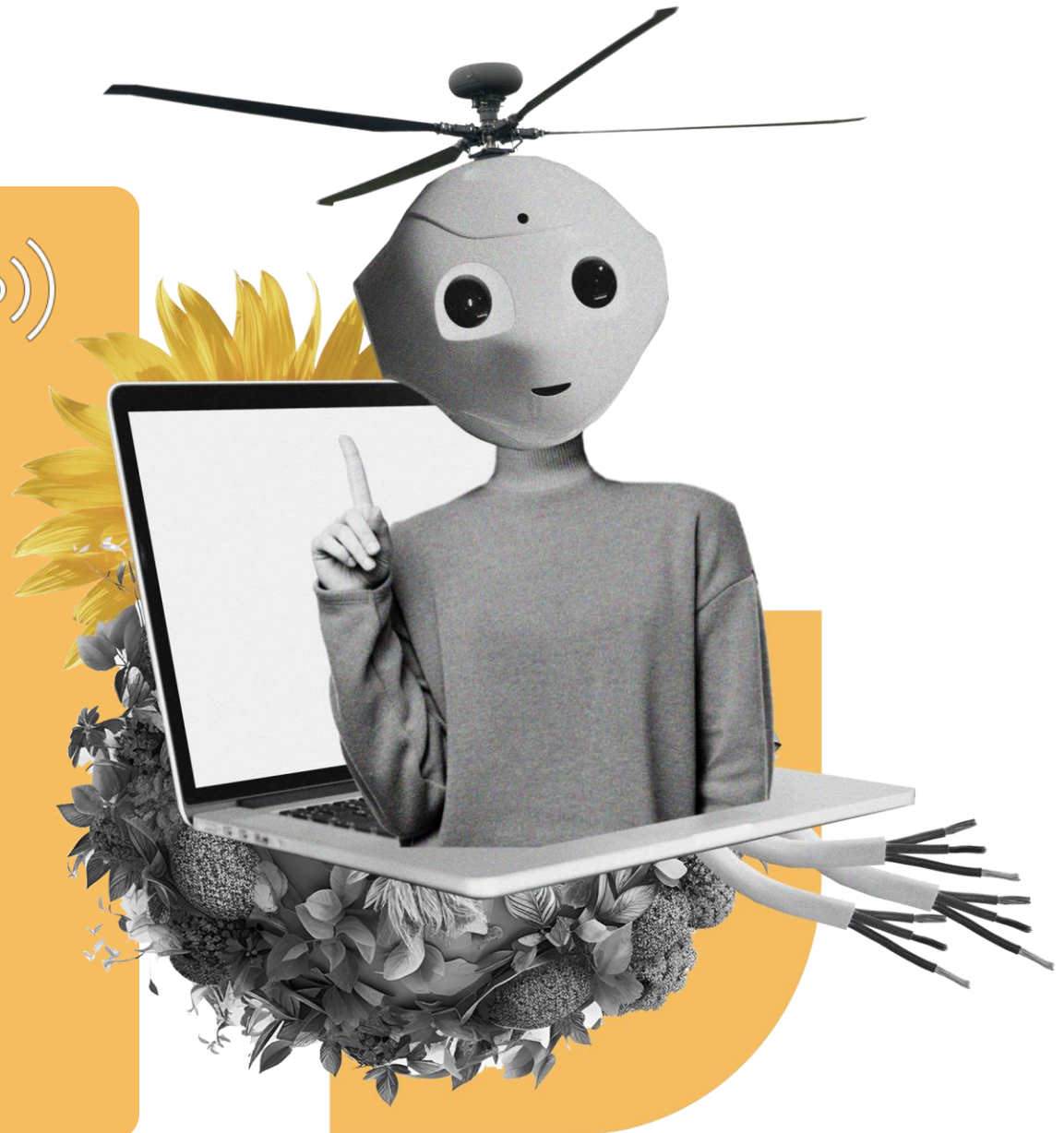


Working session
creating the puzzle

Is the sum greater
than the whole of
its parts?



What do you hear?



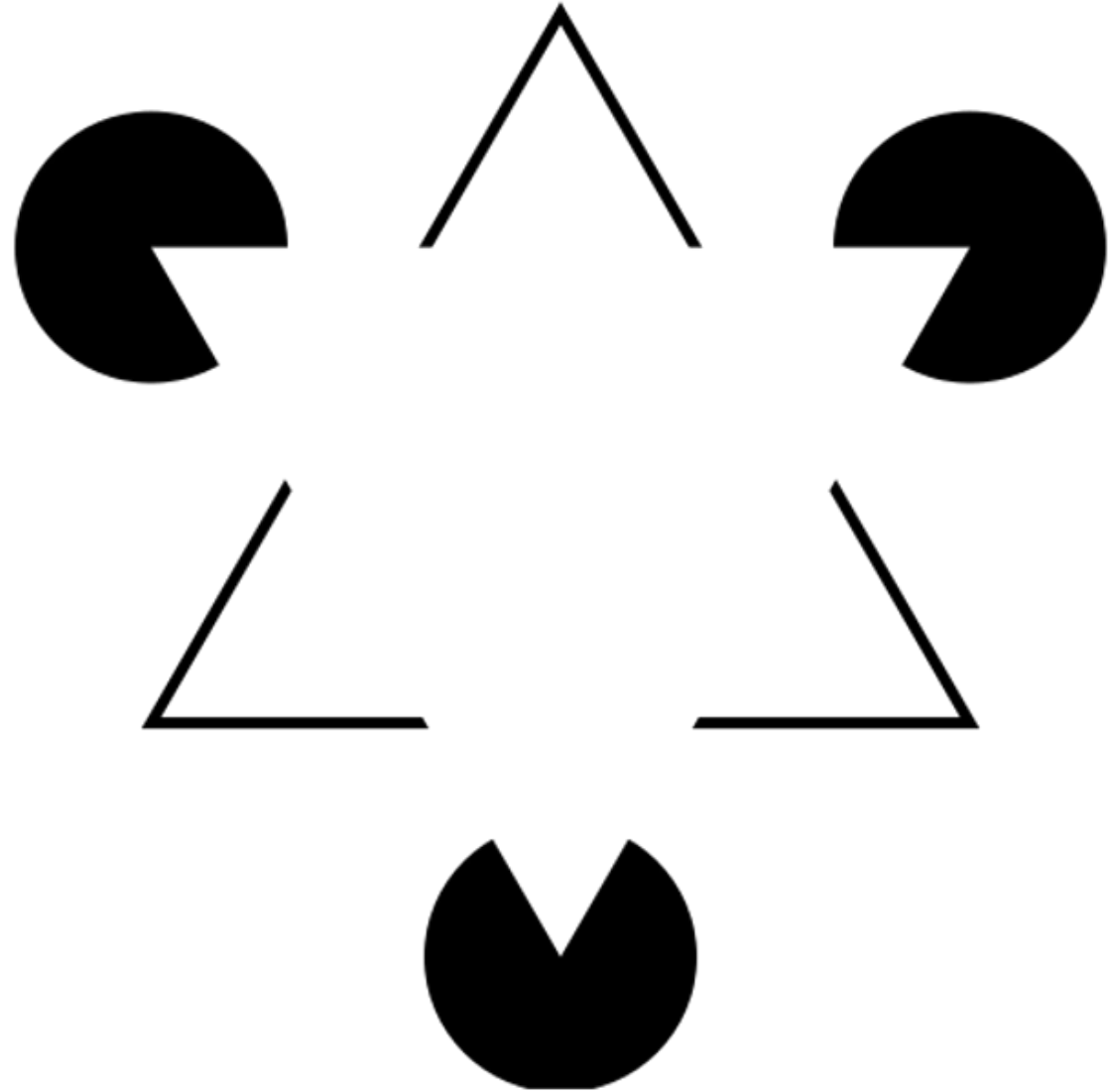


**„The whole is *other* than
the sum of its parts“**

— Kurt Koffka (1935), Principles of
Gestalt Psychology, S. 176

**“The whole is something
besides the parts“**

— Aristoteles (350 BC), Metaphysik



Why do people

- get together,
- organize themselves,
- work in groups?



To collaborate or not to collaborate

Benefits and risk factors of collaboration

Benefits

Innovation through multiple perspectives
(and disciplines)

More resources (e.g., time, knowledge,
equipment) & potentially higher impact

Higher visibility and potential for more
citations

Possibility for learning and development

Risk factors

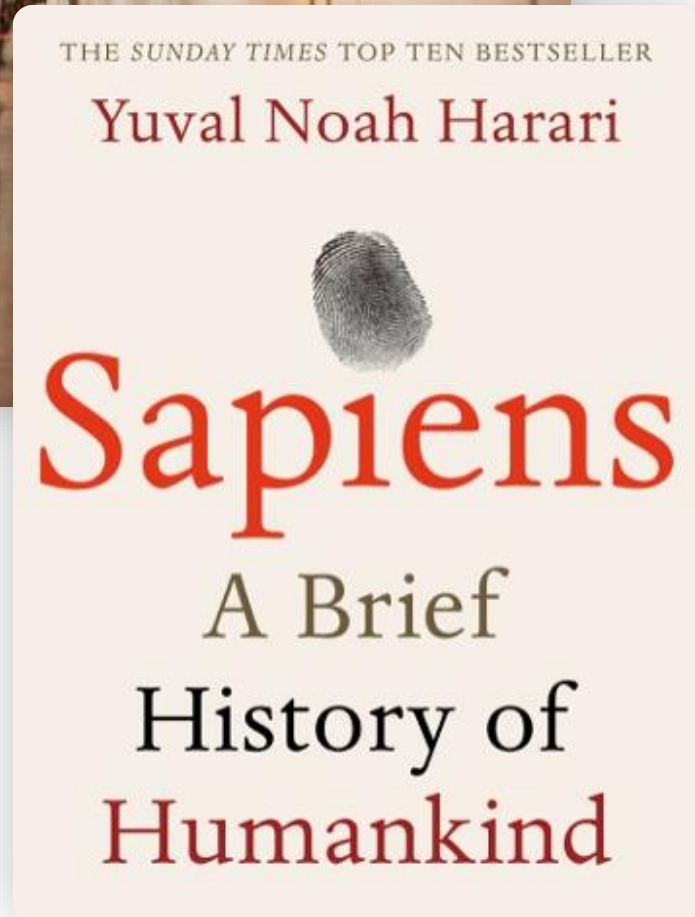
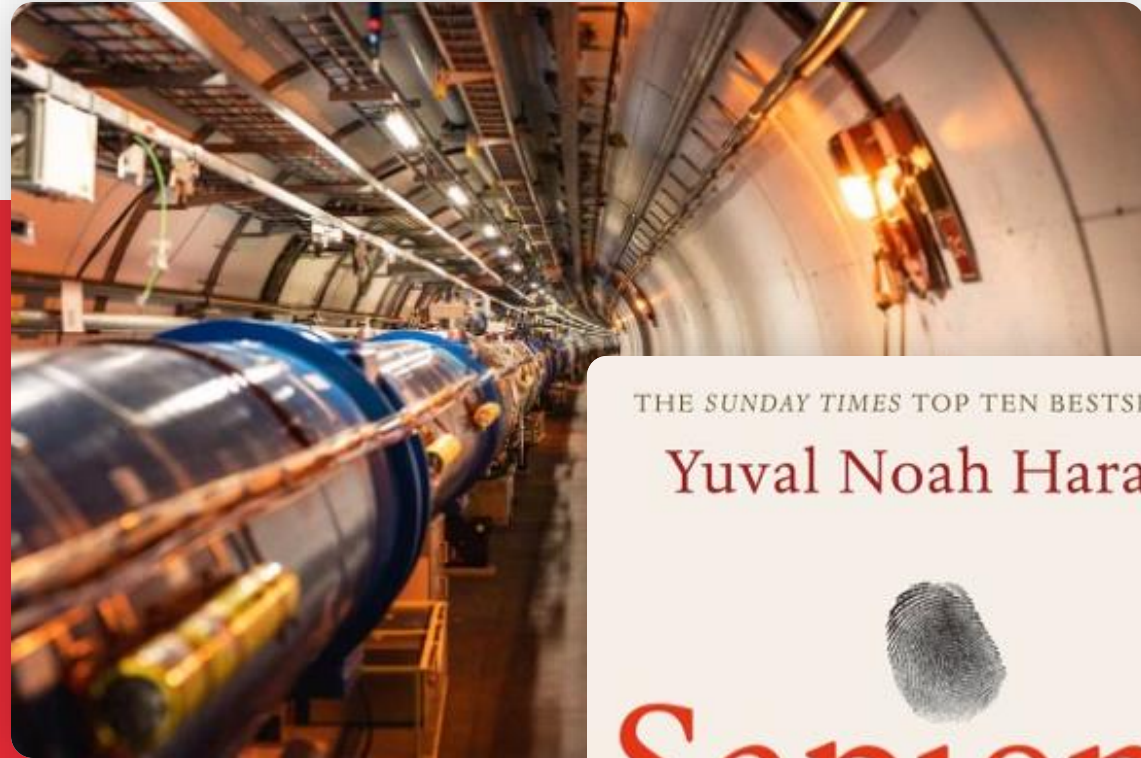
More coordination necessary

Possibility for conflict and power
struggles

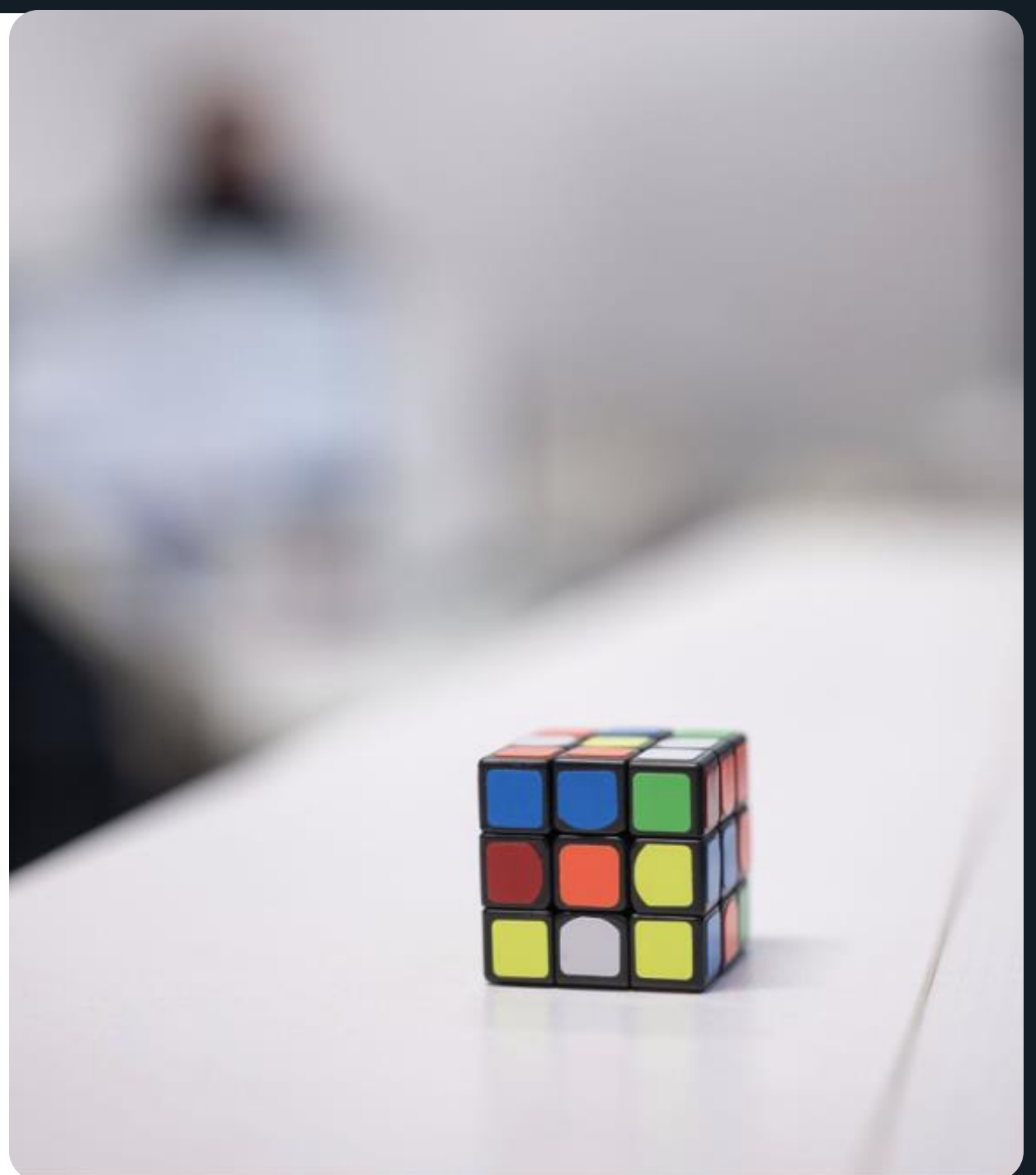
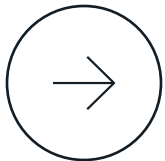
Risk for less individual autonomy

Inefficiency due to lack of or shift of clear
division of roles and responsibilities

One thing is for sure: In order to solve **complex problems**, we need to collaborate



Zooming in: The psychology of (sub-)groups



Which groups are you part of? List as many as you can think of.



Which groups are you part of? List as many as you can think of.

30 114

MessMapp group	THAT GAMMA EuCAPT AP
Postdoc representatives	KOM
Postdoc group	KOM
IceCube	CQTA FH MT-DMA FH-FPF
Veranstaltungsorga	Leitungsteam
CTA, MST, Gamma, MAGIC, EnBo,	Helmholtz
ComBo	DESY
Gamma	WA
Particle Physics	Staff
Research Technology	Veranstaltungstechnik
CTA	IceCube
ZDSS	Helmholtz Association Postdoc Network
HESS	Presseteam
Leitungsteam (Management)	ULTRASAT
Group Leader	CTAO
Astro particle Division	Liebenberg
Parent	MST

Gamma group	AFC
DESY in Zeuthen	EuroBrokers
Baukommission	Under Dog
CZEU, Baukommission, JF BAU, LA CE, GL, TL,	Bereichsreferenten
Z-Chat	PFU
LLAGN working group	Engineering Board
Catering in Campus	Astrophysiker
Unix, win, netw, hh-fgl, combo, z-chat, cta-computing, gridka, rsr, cybersecurity, icecube computing, ildg,	Project Advisory Board
Neutrino Astronomy	Leitungsteam,
THAT	Neutrino Astronomy Group
ULTRASAT team SST camera team Gamma DESY AP DESY Zeuthen DESY Ultrasat SW & FW	AP-Division, Leitungsbüro, personal development, genera Network, Coast-Postdoc-Career-Center, Helmholtz postdoc Coordinators, Postdoc Network
, Führungskraft,	University Affiliation
EuCAPT	AP division, GAMMA group, cta, sstcam collaboration, postdoc reps
gamma group, COSI collaborations, LAT collaboration, small research group meeting, HEXP collaboration, NuSTAR user committee, CTA	DESY



DESY	PITZ BR KfB DPG	Umzüge	
DESY	CoCo	Language pedants	cqta
DV	Leitungsteam	PITZ DESY DESY-ZEUTHEN MT ARD ST3 Photo Injektor Development FELs Laser research Cathode Research Accelerator Research FLASH radiation therapy ESTRO FLASH focus group THz research	HAPN
F	DESY		Zdet
Not a computing expert	Helmholtz	Sir, asa	Liebenberg
HESS, CTAO, GAMMA, DESY, IAA, HUMaster, CSIC, IAU, SEA	NOC HH	Z-Chat	No car ownet
ComBo	ZN Infra, Z-chat,	proWissen	Laser
NOC ZN	Directorate, ZEU, ET., CTAOCouncil, BeckurtsFoindation, Humboldt Foundation, DZA, University of Potsdam, TU Dresden	Pitz, ts4i, xfel Injector, THz at Zeuthen, Thz at Hamburg, TEMF collaboration , Beam Dynamics group MPY, Computing Board, LEDS workshop scientific committee	Qs4physics
DESY	Pitz, fgl, enbo, pitz steering, ombuds desy, netzwerk hgf, frauen, gbww, fachfrauen, praktbetr, pitz collab	Cisco Jour Fix	pearls
Cyclists	Atlas	Qsnet	XFEL BCM1F
Female physicist	itk strips, atlas tracking, top, b-tagging, atlas desy, desy, dlab	wheel	Xantaro Jour Fix
EL MST SST	AP Staff		Babies!
DESY, Zeuthen	Migrant		
,drd5	Experimental working group Faculty meetings Funding boards Selection committees Organising committees Leitungsteam Staff meetings		
Leitungsbüro	Z-Chat		
LT			

Why do people get together (and work) in groups?

What psychological research says...

Shapes our self-concept, our identity: „Who am I?“



Has emotional significance:
Pride, involvement, meaning



Offers security: through social bonds, support, and a shared worldview



Shapes our behavior: We behave according to the norms of the group



Sources:

Hogg & Terry (2000); Korte (2007); Tajfel & Turner (1979)

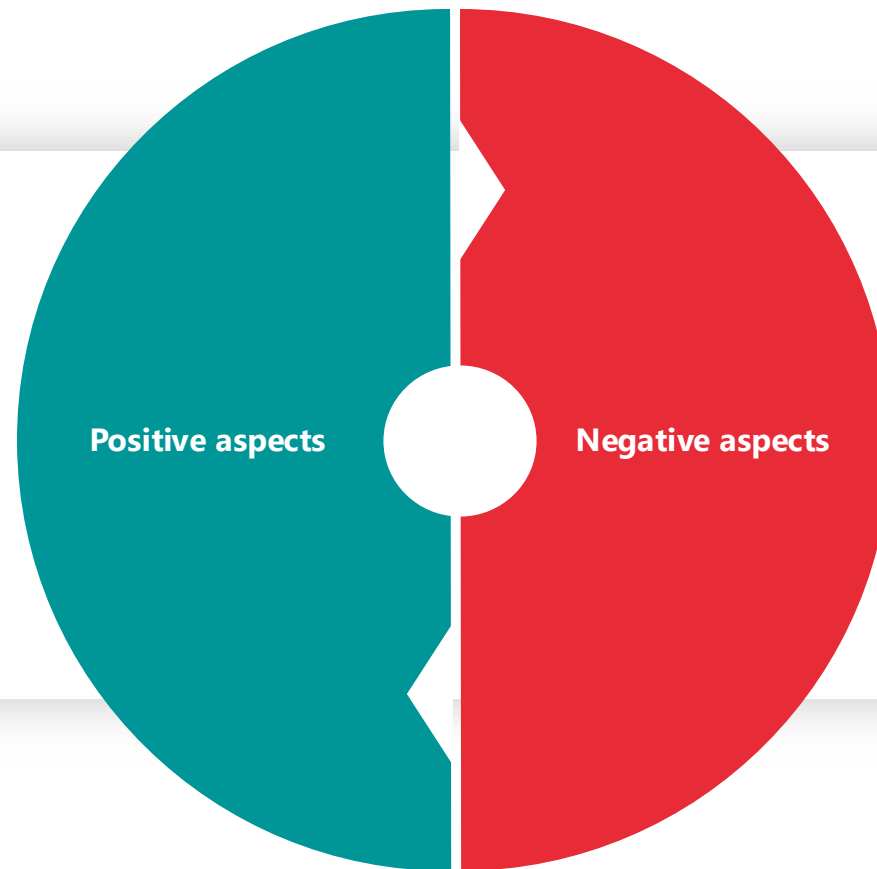


Why do people get together (and work) in groups?

Derivations from social identity theory

Social Identity Theory

People derive part of their self-concept from the social groups they belong to



To maintain a positive self-concept, they seek to view their in-groups positively; often by comparing them favorably to relevant out-groups

The negative aspects of in-groups and out-groups

What psychological research says...

In-group-favoritism and out-group discrimination: "us vs. them"



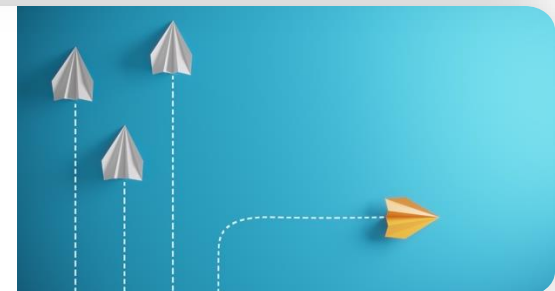
(Communication) barriers, conflict: "the others are weird, we don't understand them"



Group think: "any objections?"



Fewer perspectives are included, isolated thinking: "our way is the right way"



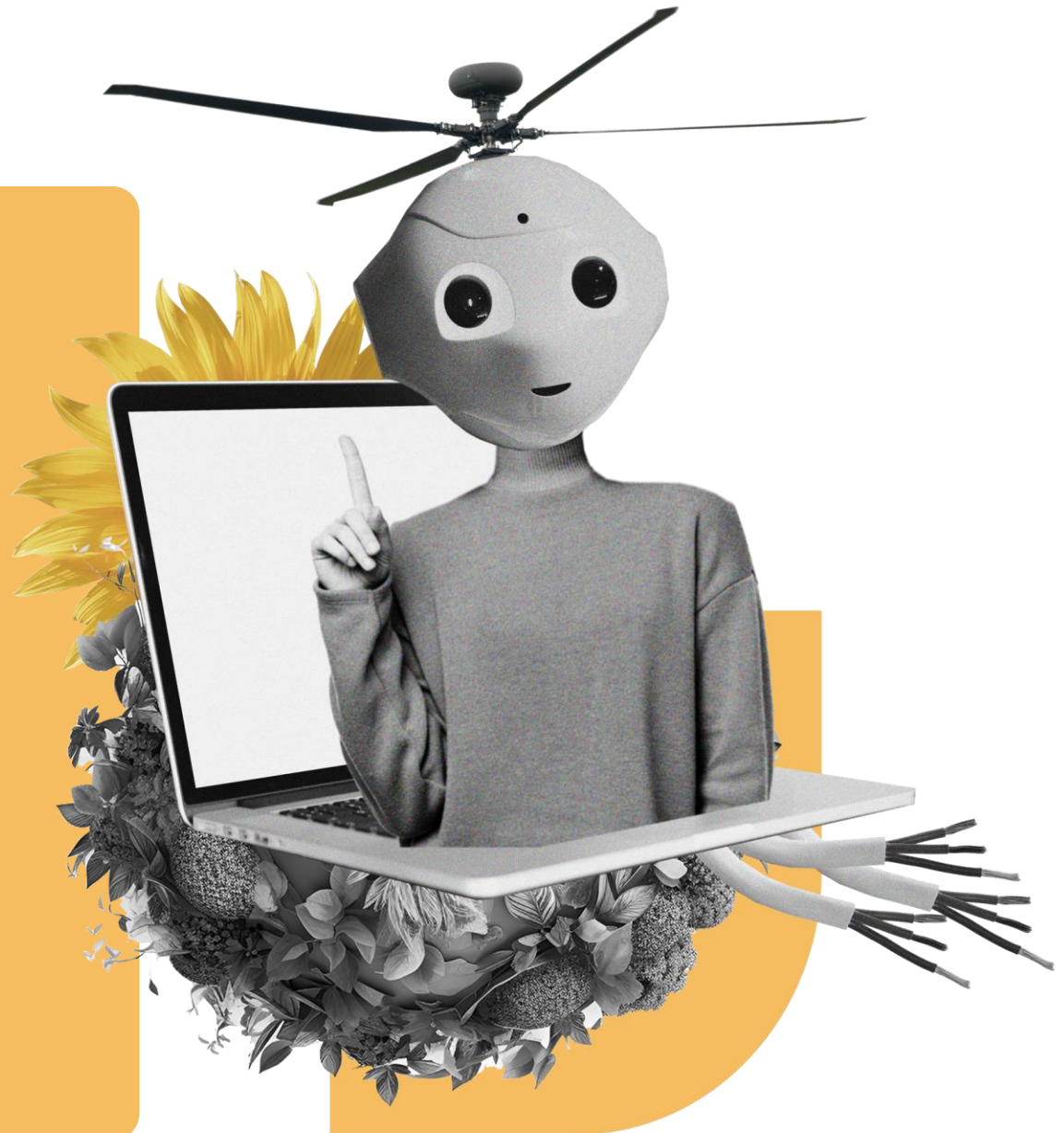
Sources:

Hogg & Terry (2000); Korte (2007); Tajfel & Turner (1979)



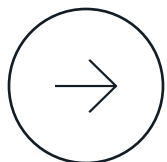
The sum *is* greater /
different than the whole of
its parts.

Group identity can be very
beneficial but also very
harmful for us...



It's your turn

Your model of DESY in Zeuthen



Build a model that represents how you perceive DESY in Zeuthen at the moment.

10 groups → 2 groups per table



Combine your models at each table

The 2 groups at each table combine their models to one.

Decide who will present!



Present your models briefly:

- Core aspects of your model
- In-groups and out-groups
- Benefits and risks

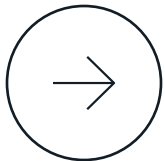




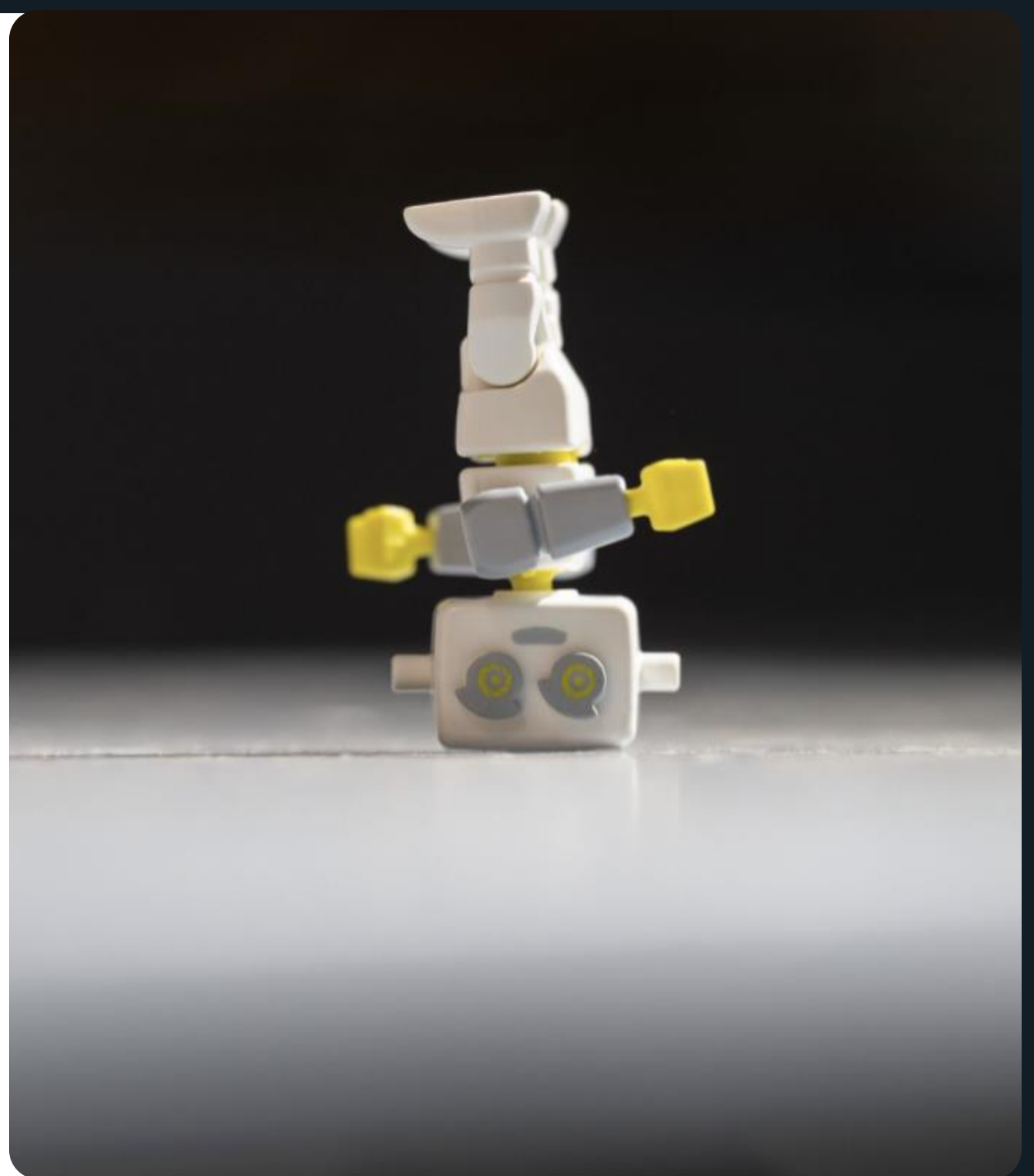


Coffee break

20 minutes



The parts and the
whole – how to find
the right balance?



There are three ways to balance the parts and the whole

What psychological research says



**Making the whole („the
superordinate identity“)
salient**

Making the whole („the superordinate identity“) salient

For example, with logos, claims



Sources:

Hogg & Terry (2000); Hewstone et al., 2002; Rovetta et al., 2025

There are three ways to balance the parts and the whole

What psychological research says



Making the whole („the superordinate identity”) salient



Highlighting dual and nested identification

Highlighting dual and nested identification

Recognizing the different identities and how they coexist; valuing similarities and differences



<https://www.youtube.com/watch?v=jD8tjhVO1Tc>

Sources:

Hogg & Terry (2000); Hewstone et al., 2002; Rovetta et al., 2025

There are three ways to balance the parts and the whole

What psychological research says



**Making the whole („the superordinate identity“)
salient**



**Highlighting dual and
nested identification**



**Fostering contact between
the parts**

Fostering contact between the parts

As equals, no
competition, with a
common goal



There are three ways to balance the parts and the whole

What psychological research says



**Making the whole („the superordinate identity“)
salient**

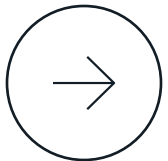


**Highlighting dual and
nested identification**



**Fostering contact between
the parts**

What can you do to
foster identification
with the parts *and*
with the whole?



What can you do to foster identification with the parts *and* with the whole?

Your levers



Map current identities and friction points to better understand the status-quo

Highlight nested identification in your teams

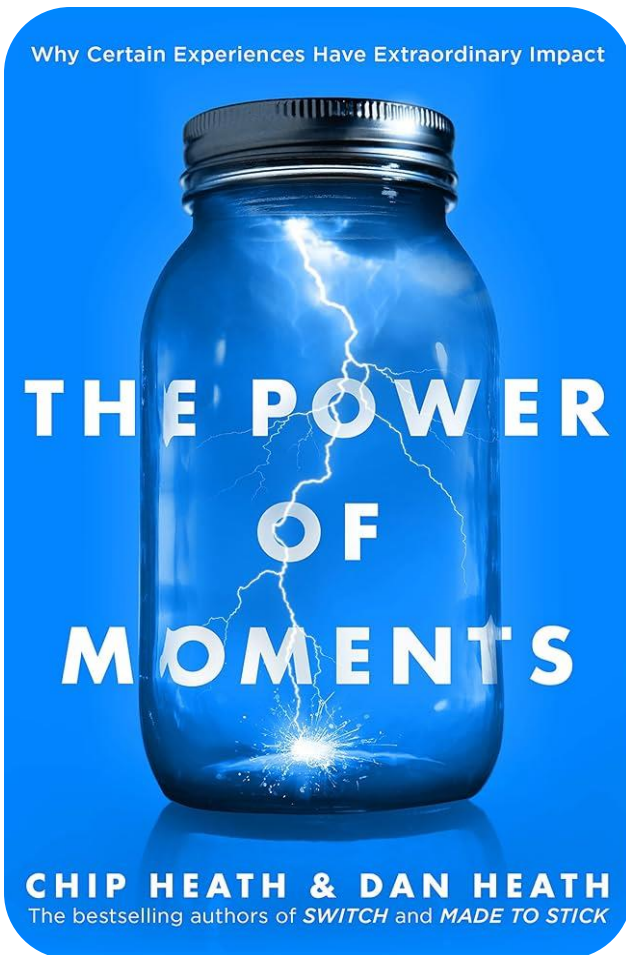
Create moments that matter

Generate contact points on eye-level and aim for understanding

Look for and include other perspectives and challenge your thinking

Creating moments that matter

How to



Elevation

Moments that lift us out of our everyday lives to experience intense pleasure or surprise.



Pride

Experiences of recognition and appreciation for our efforts and successes.



Insight

Sudden moments of clarity that change our thinking or behavior.



Connection

Situations in which we feel strongly connected to others or to a team.

What can you do to foster identification with the parts *and* with the whole?

Your levers



Map current identities and friction points to better understand the status-quo

Highlight nested identification in your teams

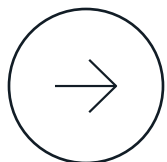
Create moments that matter

Generate contact points on eye-level and aim for understanding

Look for and include other perspectives and challenge your thinking

Working session

Creating your puzzle

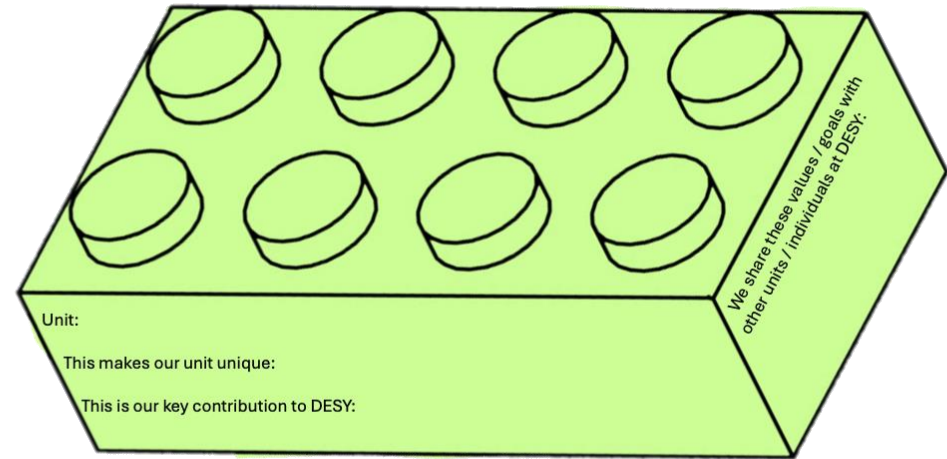


In your group/sub-unit,
design a “brick”:

- Uniqueness?
- Key contribution
- Shared values/goals

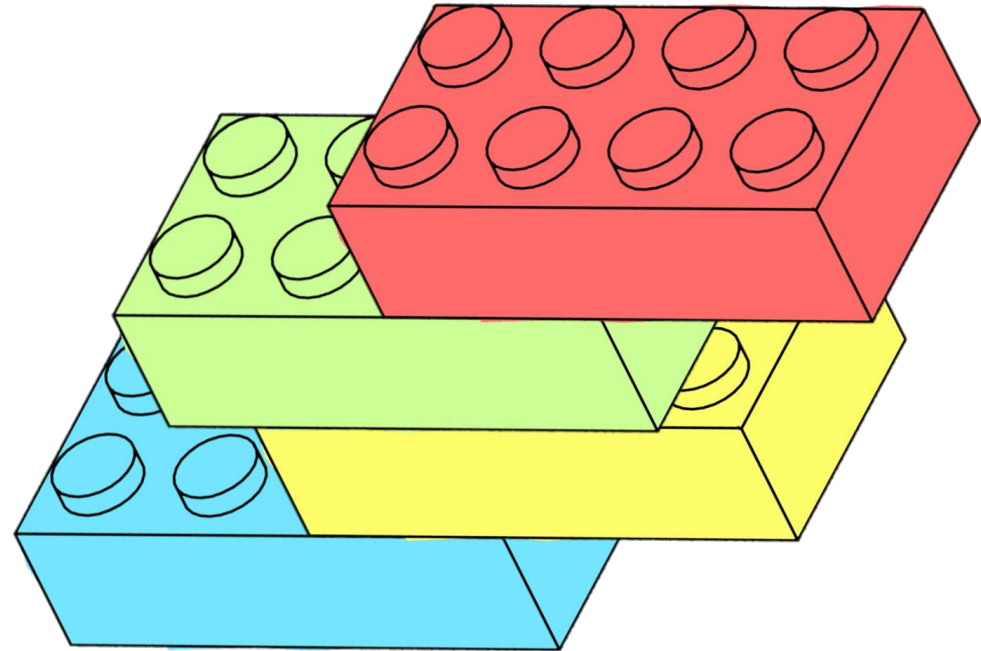
If necessary, you can create more than one “brick”.

Decide who will present!



Let's combine all the bricks to one large "brick puzzle"

Briefly present your thoughts

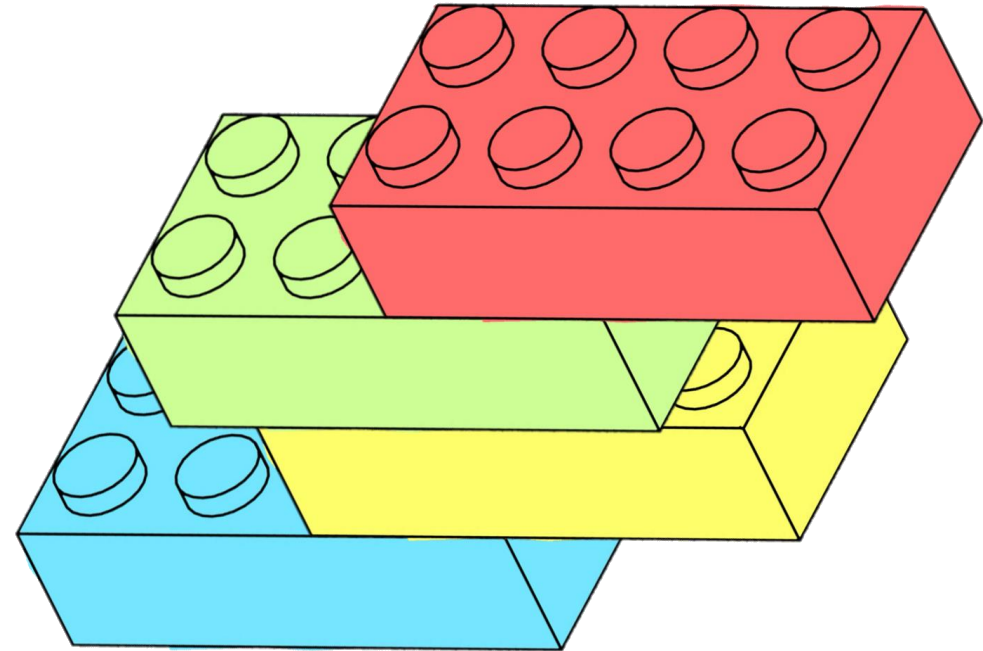




1) What similarities do we notice?

2) What differences do we notice?

3) What could strengthen our collaboration?



Similarities

Further Science
Solid Science
Curiosity
Finding Solutions
Transparency
Helping the whole Pub
Service to the campus
Connections
High tech
Diversity
Simulations
Data Production
Criticism / Feedback Culture
Scientific Compaie
Algorithms
Detectors
People Solving

Differences

More BRAINS and SKILLS
More EXPERTISE, more KNOWLEDGE, more EXPERIENCE
More SPECIALISATION
More FOCUSED
More RESOURCES
More TIME
More MONEY
More POWER
More INFLUENCE
More CREDIBILITY
More RESPECT
More AWARENESS
More TRANSPARENCY
More ACCOUNTABILITY
More RESPONSIBILITY
More COMMITMENT
More DEDICATION
More PASSION
More ENTHUSIASM
More ENERGY
More VIBES
More POSITIVITY
More OPTIMISM
More CONFIDENCE
More BRAVERY
More COURAGE
More PERSEVERANCE
More RESILIENCE
More GUTS
More RISK-TAKING
More INNOVATION
More CREATIVITY
More IMAGINATION
More DREAMS
More VISION
More PURPOSE
More MEANING
More IMPACT
More LEGACY
More INHERITANCE
More FUTURE
More HOPE
More FAITH
More LOVE
More KINDNESS
More COMPASSION
More EMPATHY
More UNDERSTANDING
More RESPECT
More APPRECIATION
More GRATITUDE
More HUMILITY
More PATIENCE
More SELF-CONTROL
More DISCIPLINE
More PERSEVERANCE
More RESILIENCE
More GUTS
More RISK-TAKING
More INNOVATION
More CREATIVITY
More IMAGINATION
More DREAMS
More VISION
More PURPOSE
More MEANING
More IMPACT
More LEGACY
More INHERITANCE
More FUTURE
More HOPE
More FAITH
More LOVE
More KINDNESS
More COMPASSION
More EMPATHY
More UNDERSTANDING
More RESPECT
More APPRECIATION
More GRATITUDE
More HUMILITY
More PATIENCE
More SELF-CONTROL
More DISCIPLINE

Strengthen Collaboration

Be open to listening to others
Be open to sharing your own ideas
Be open to learning from others
Be open to giving feedback
Be open to receiving feedback
Be open to working together
Be open to taking risks
Be open to making mistakes
Be open to trying new things
Be open to being vulnerable
Be open to being honest
Be open to being authentic
Be open to being real
Be open to being yourself
Be open to being who you are
Be open to being who you want to be
Be open to being who you need to be
Be open to being who you are and who you want to be and who you need to be

Which small action will you try in the next four weeks to foster identification with the parts *and* with the whole?



My small action...

Get coffee and talk about my research with a colleague. I wouldn't have talked with thinking to greater ideas.

K&K Seminar

Ask someone from another group to explain their job to me, in detail.

Identification with party practices in group meetings

Organize a group retreat

Identifying common goals

eat lunch time get started at "foreign" table

Communicate group goals more clearly

Ask people at the coffee machine who they are and what they do at DESY.

I will go to the AP seminar.

I will participate in the APWP Workshop 22 October & 10-08-10

Read a paper from a different group and try to understand it

Keep going, trying..... here's give up!

talk to a Shanghai at eye level

Everybody join a group meeting of a different group in the area.

Write part of R&V proposal

Show ideas in Assembly proposals with different groups.

"HUNT DOWN" OTHER POST DOLLS TO INTERACT WITH POST DOLLS OF GROUP I DON'T INTERACT MUCH WITH

take lunch with a person which I do not know (yet)

Put faces to names - who is this person who I often rely on for support

Talk with one person (at least) from a different working group.

Show our production

get to know other group meetings of other projects

Talk to a colleague you never talked to before + introduce yourself!

I will promote an exchange program between groups (people working in the other group)

Speak w/ the person sitting beside me @ lunch no matter how uncomfortable...

Get ideas back to members of the group throughout week

Get ideas back to members of the group throughout week

I quit

I will increase the contact with students of other groups

open my door... for every idea without comments

CONTRIBUTE TO THE GAMMA MEETINGS!

Identify the names of the people who are in the group who I often rely on for support



Ihre Ansprechperson

Dr. Laura Creon
Senior Consultant

laura.creon@hrpepper.de
+49 151 546 239 23





Sources

Cummings, J. N., & Kiesler, S. (2007). Coordination costs and project outcomes in multi-university collaborations. *Research policy*, 36(10), 1620-1634.

Gazni, A., & Didegah, F. (2011). Investigating different types of research collaboration and citation impact: a case study of Harvard University's publications. *Scientometrics*, 87(2), 251-265.

Hewstone, M., Rubin, M., & Willis, H. (2002). Intergroup bias. *Annual Review of Psychology*, 53(1), 575-604.

Hogg, M. A., & Terry, D. I. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review*, 25(1), 121-140.

Janis, I. L. (1982). *Groupthink: Psychological studies of policy decisions and fiascoes* (2nd ed.). Boston, MA: Houghton Mifflin.

Katz, J. S., & Martin, B. R. (1997). What is research collaboration?. *Research policy*, 26(1), 1-18.

Korte, R. F. (2007). A review of social identity theory with implications for training and development. *Journal of European Industrial Training*, 31(3), 166-180.

Leahey, E., Beckman, C. M., & Stanko, T. L. (2017). Prominent but less productive: The impact of interdisciplinarity on scientists' research. *Administrative Science Quarterly*, 62(1), 105-139.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5), 751-783.

Rovetta, A., Bortolotti, A., & Palumbo, R. (2025). Integrating team and organizational identity: a systematic literature analysis. *Frontiers in Organizational Psychology*, 2, 1439269.

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33-47). Monterey, CA: Brooks/Cole.