



The Cognitive-Ecological Challenge of Diversity

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Challenges of Diversity

Increasing diversity in many societies (Plaut, 2010)



Challenges:

Reduced willingness to cooperate and increasing social conflicts (Abascal & Baldassarri, 2015; Alesina & Ferrara, 2000; Esteban, Mayoral, & Ray, 2012; Portes, 2014; Putnam, 2007; Ramos, Bennett, Massey, & Hewstone, 2019)

Social Psychology: Negative attitudes towards novel/unfamiliar groups (out-groups, minorities) (Hewstone, Rubin, & Willis, 2002; Jonas et al., 2014; Smith & Mackie, 2015)

Dominant Explanation: Motivation

- Self-serving motives (Abrams & Hogg, 1988; Brewer, 2003; Gaertner & Insko, 2000; Tajfel & Turner, 1979)

A Cognitive-Ecological Perspective

Novel Perspective:

Challenges of increasing diversity and emergence of social conflicts also have **non-motivated** causes

Cognitive Principles

- Information Processing
- Learning
- Communication



Evaluative Information Ecology

- Structure and distribution of evaluative information

AI would form similar biases!

Three Example Projects

Example 1: Diversity, Complexity and Negative Attitudes

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities

Example 3: Why Stereotypes are Negative

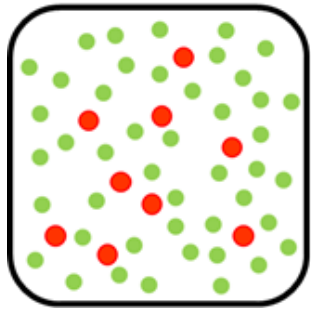
Example 1: Complexity and Negative Attitudes

Information Ecology: Negative Behavior is **rare** – Most people are „good“ most of the time (Alves et al., 2017a)

Cognition: Learning is „noisy“ and therefore regressive (Fiedler, 1991; Furby, 1973)

Diversity = More groups -> more noisy learning -> stronger regression -> more negative attitudes

Hypothesis: In a more diverse environment, the perceived prevalence of „bad people“ increases and attitudes become increasingly negative



1 Group

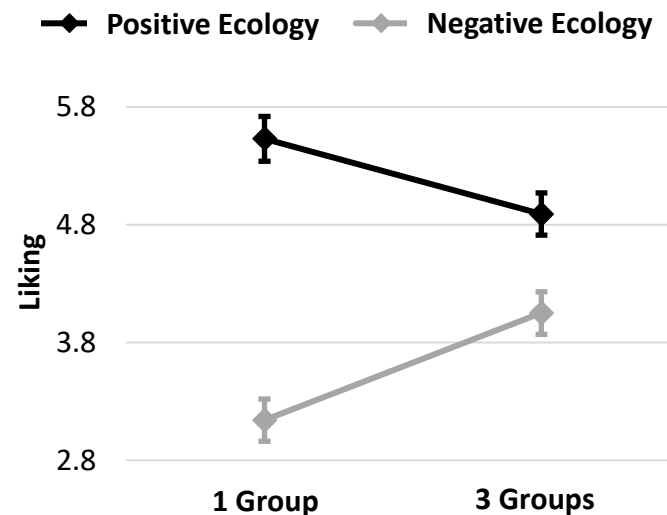


3 Groups

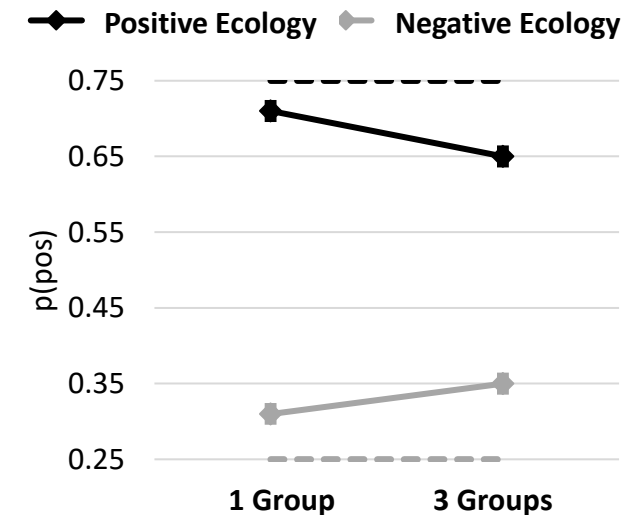


Positive Ecology 18 : 6
Negative Ecology 6 : 18

6 : 2 6 : 2 6 : 2
2 : 6 2 : 6 2 : 6



Interaction: $F(1, 198) = 17.35, p < .001, \eta_p^2 = .08$



$F(1, 198) = 27.67, p < .001, \eta_p^2 = .12$

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities

Two Assumptions:

Cognition

- **Differentiation Principle:** Novel / unfamiliar attitude objects (e.g. groups) are associated with **distinct** attributes

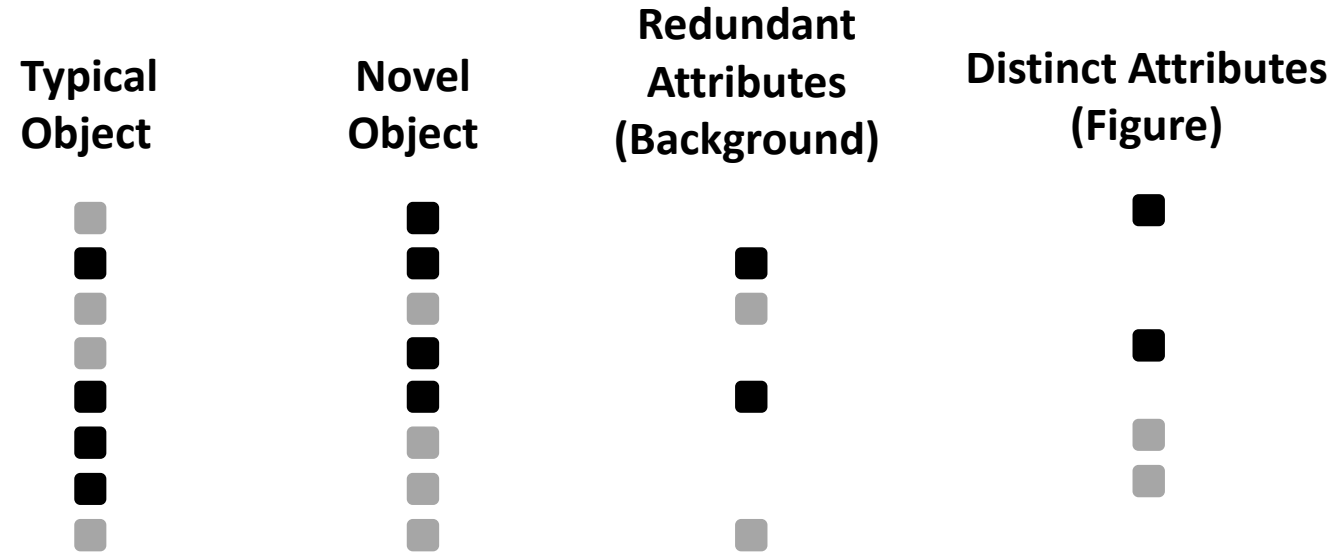
Evaluative Information Ecology:

- **Distinct** attributes tend to be **negative**

Hypothesis: Evaluative disadvantage for novel groups, out-groups, and minorities

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities

Cognition: Differentiation Principle



(Alves, 2018, PSPB; Alves et al., 2018, PSCI; Alves et al., 2020, JPSP)

(See also: Agnostelli et al., 1986; Bruner & Perlmutter, 1957; Fiske, 1980; Houston et al., 1989, 1991; Hodges, 2005; Kanouse & Hanson, 1972; Kardes & Sanbonmatsu, 1993; Wyer, 1975)

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities

Evaluative Information Ecology:

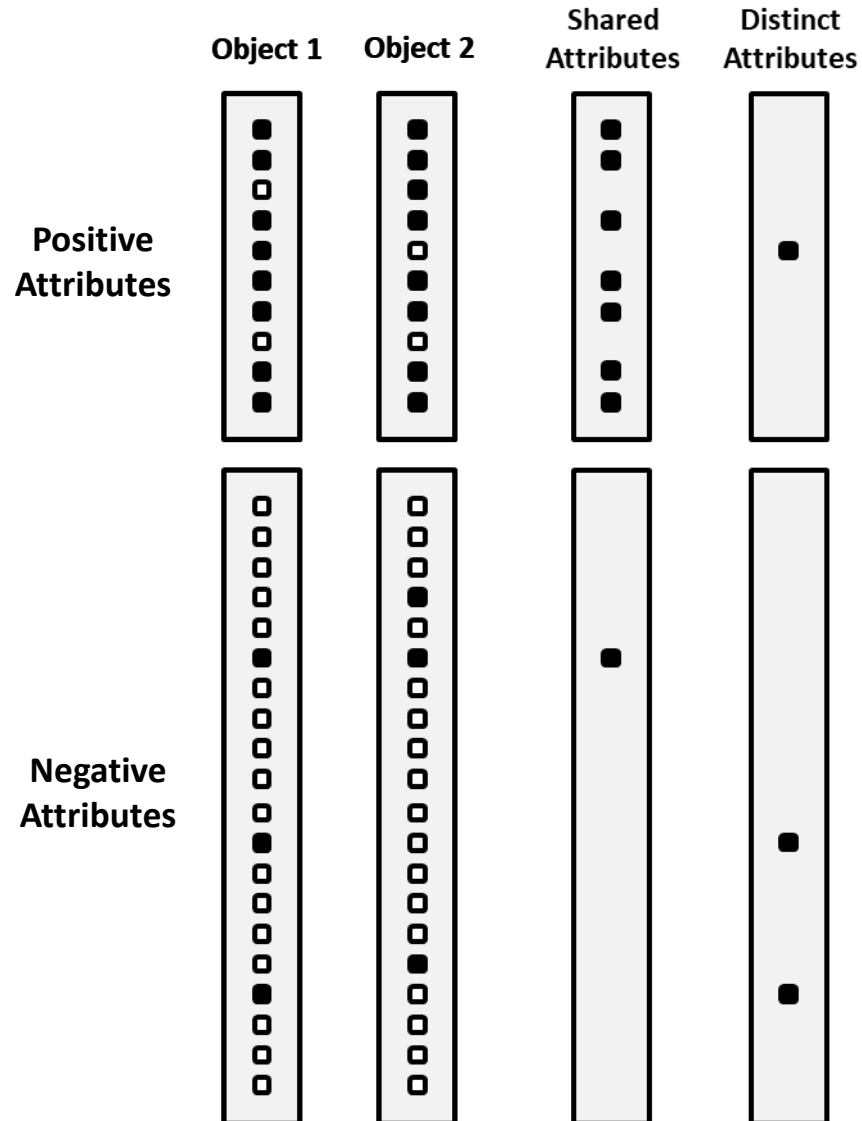
Distinct attributes tend to be **negative** attributes

Shared attributes tend to be **positive** attributes

The “Common Good” Phenomenon

(Alves et al, 2017, JEP:G; Alves et al., 2017, TICS)

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities



1. Negative attributes are more **diverse** than positive attributes
e.g. faces, traits, individuals, words, emotions, etc.

(e.g. Alves et al., 2015, M&C; Alves et al., 2016, JESP; Alves et al., 2017, TICS; Alves et al., 2018, C&E)

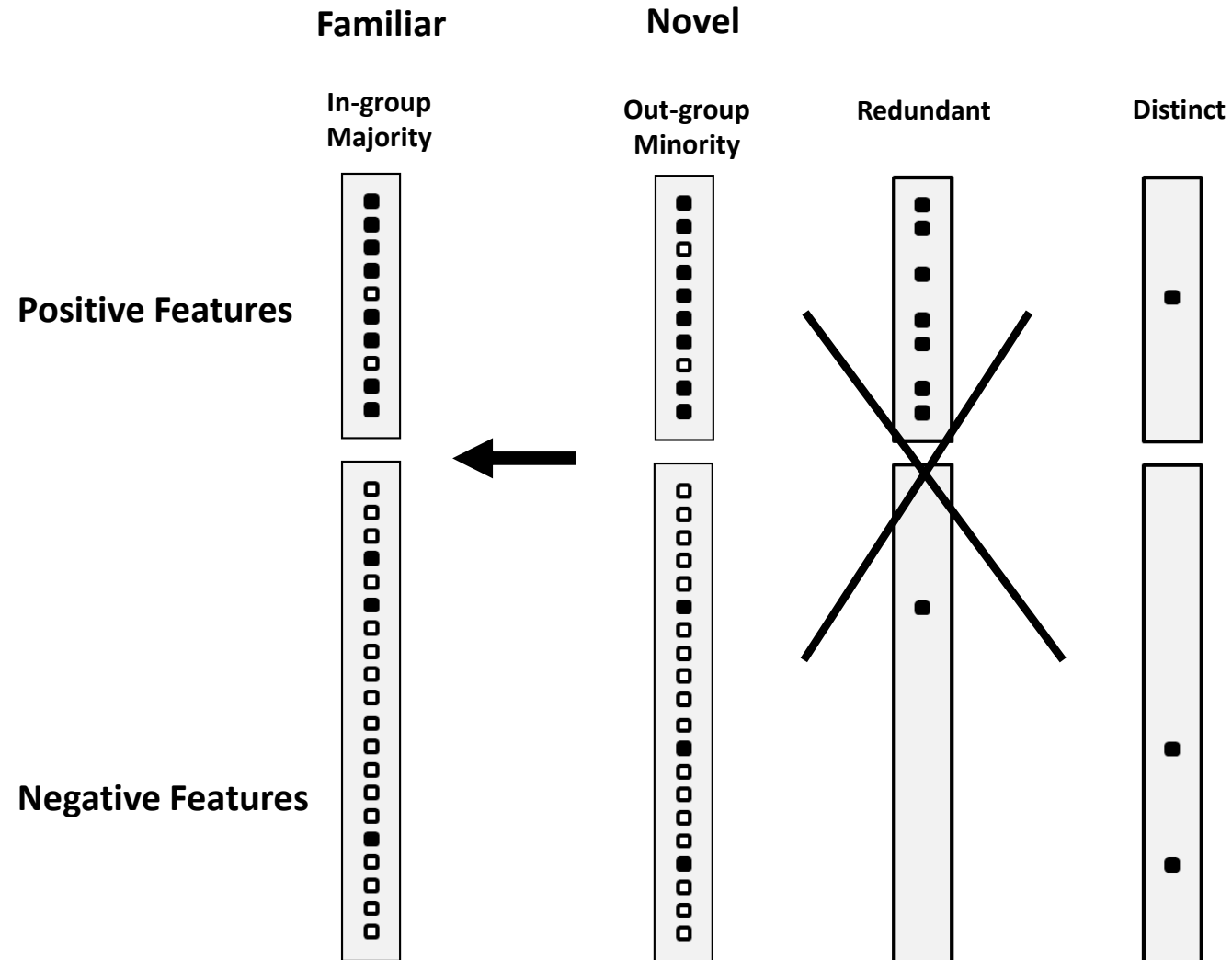
2. Positive attributes are more **frequent** than negative attributes

(e.g. Alves et al., 2017, Jep:G; Rothbart & Park, 1986; Matlin & Stang, 1978; Wood & Furr, 2016)

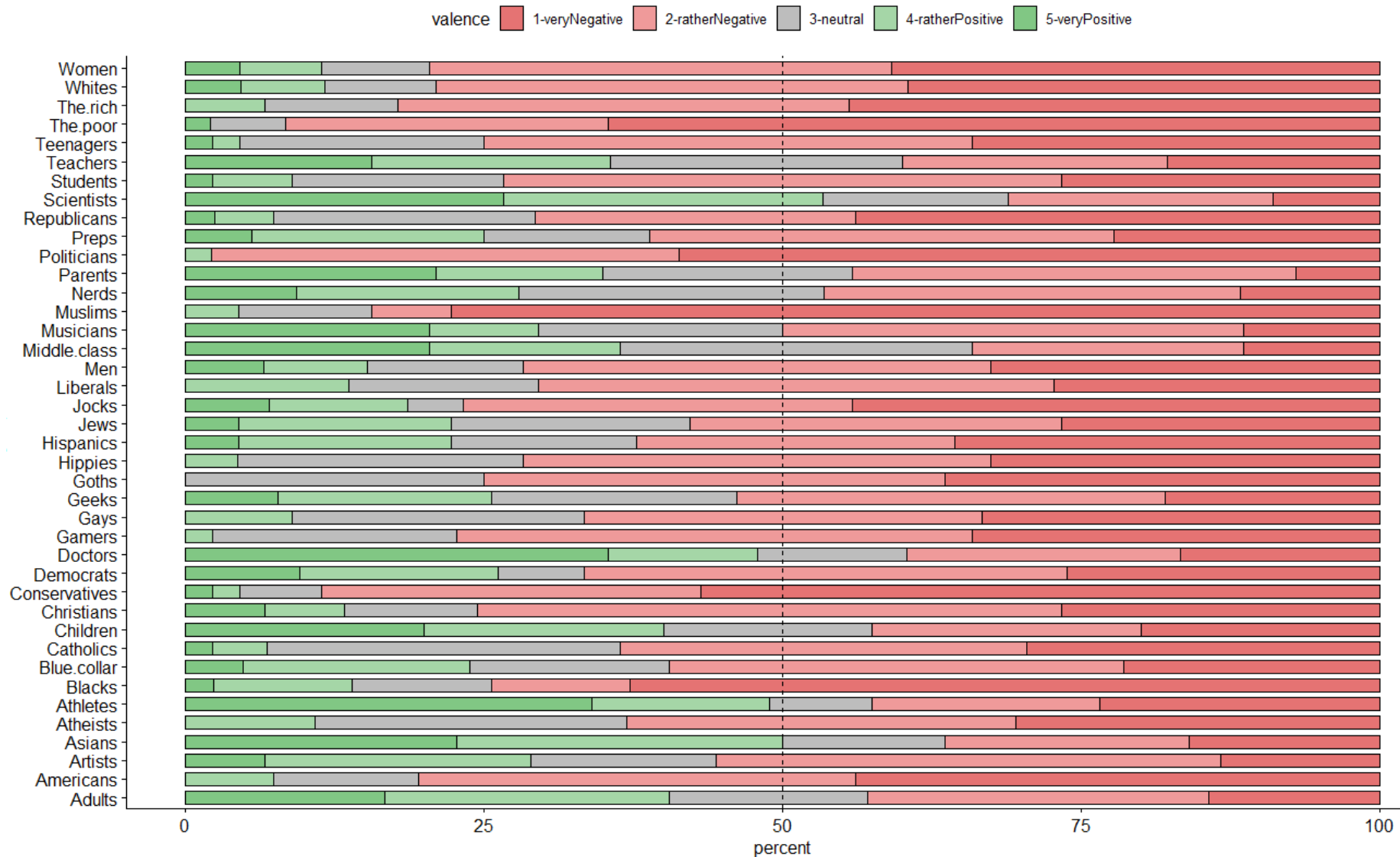
Negative attributes = distinct

Distinct attributes = negative

Example 2: Negative Attitudes towards Novel Groups, Out-groups, and Minorities



Example 3: Why Stereotypes are Negative



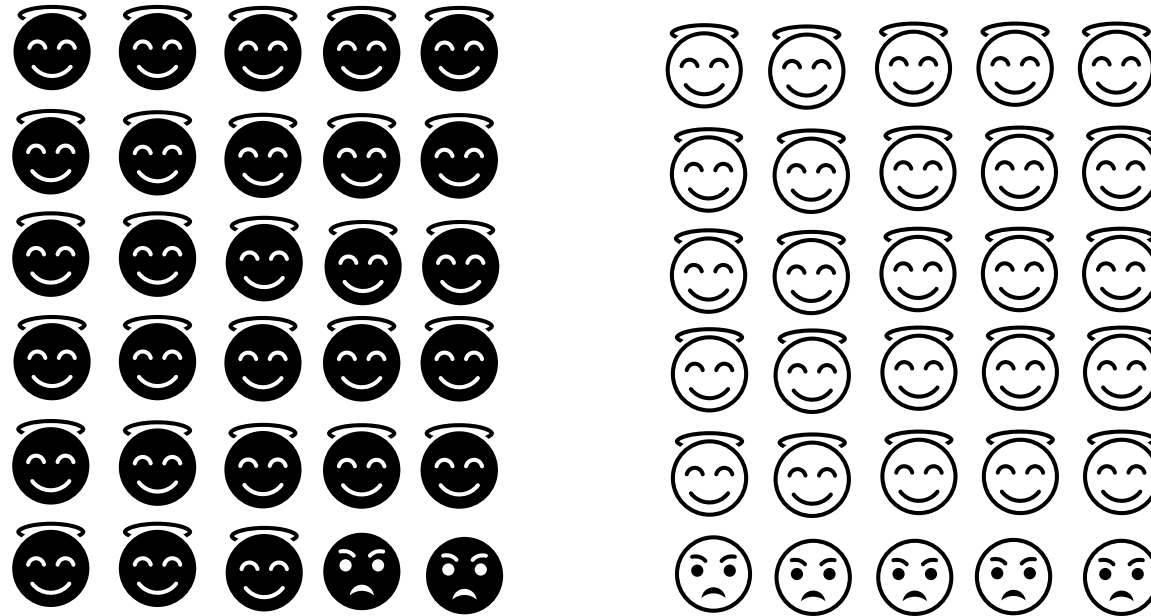
Example 3: Why Stereotypes are Negative

Stereotypes

- Are **NOT** attributes that apply to **most** members of a group
- Are attributes that best **differentiate** a group
- Negative attributes are rare -> better differentiation

Example 3: Why Stereotypes are Negative

Diagnosticty (Alves et al., 2023; Cimpian et al., 2010)

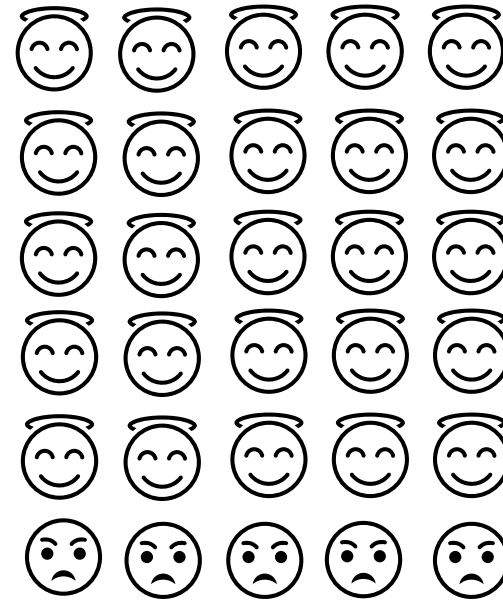
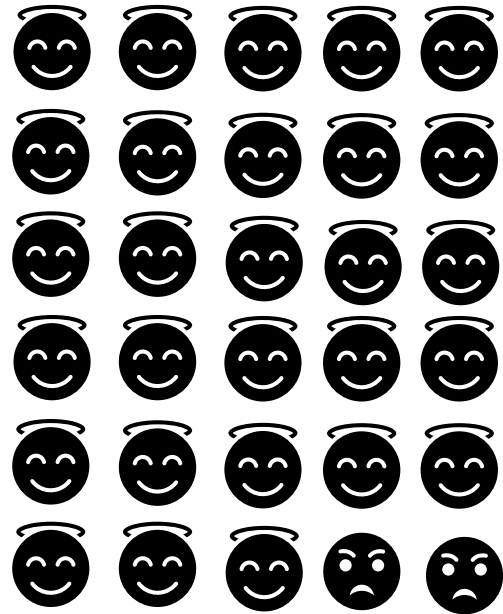


Friendly members -> almost no difference

But 2.5 times as many unfriendly members!

Example 3: Why Stereotypes are Negative

Diagnosticty (Alves et al., 2023; Cimpian et al., 2010)



Stereotype: „This group is unfriendly“

Conclusions

- Increasing diversity constitutes a **challenge** even **beyond** people's **self-serving motivations**
- Negative attitudes and stereotypes towards social groups can result from **basic cognitive principles** (e.g., noisy learning, differentiation) and the **structure** of the **information environment**
- Important to understand that **refugees** and **other minority groups** suffer **evaluative disadvantages** even when perceivers are **not motivated** to derogate them

Implications

- Blame game not helpful
- Instead: Re-learning (intergroup contact; careful media reporting, education)

Thank You!



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Moritz Ingendahl



Anne Weitzel



Christian Unkelbach



Anna Schulte



Joris Lammers

