Body language takes it all? –

Effects of Nonverbal Behavior and players' ability level on outcome expectations in team sports

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Body language takes it all? –
The communicative value of nonverbal channels

„He is full of self-confidence"   „The team has given up"

Body language takes it all? –
The communicative value of nonverbal channels

"He has been playing a good season"

"They have been playing a bad season"

"He is full of self-confidence"

"The team has given up"

Theoretical background

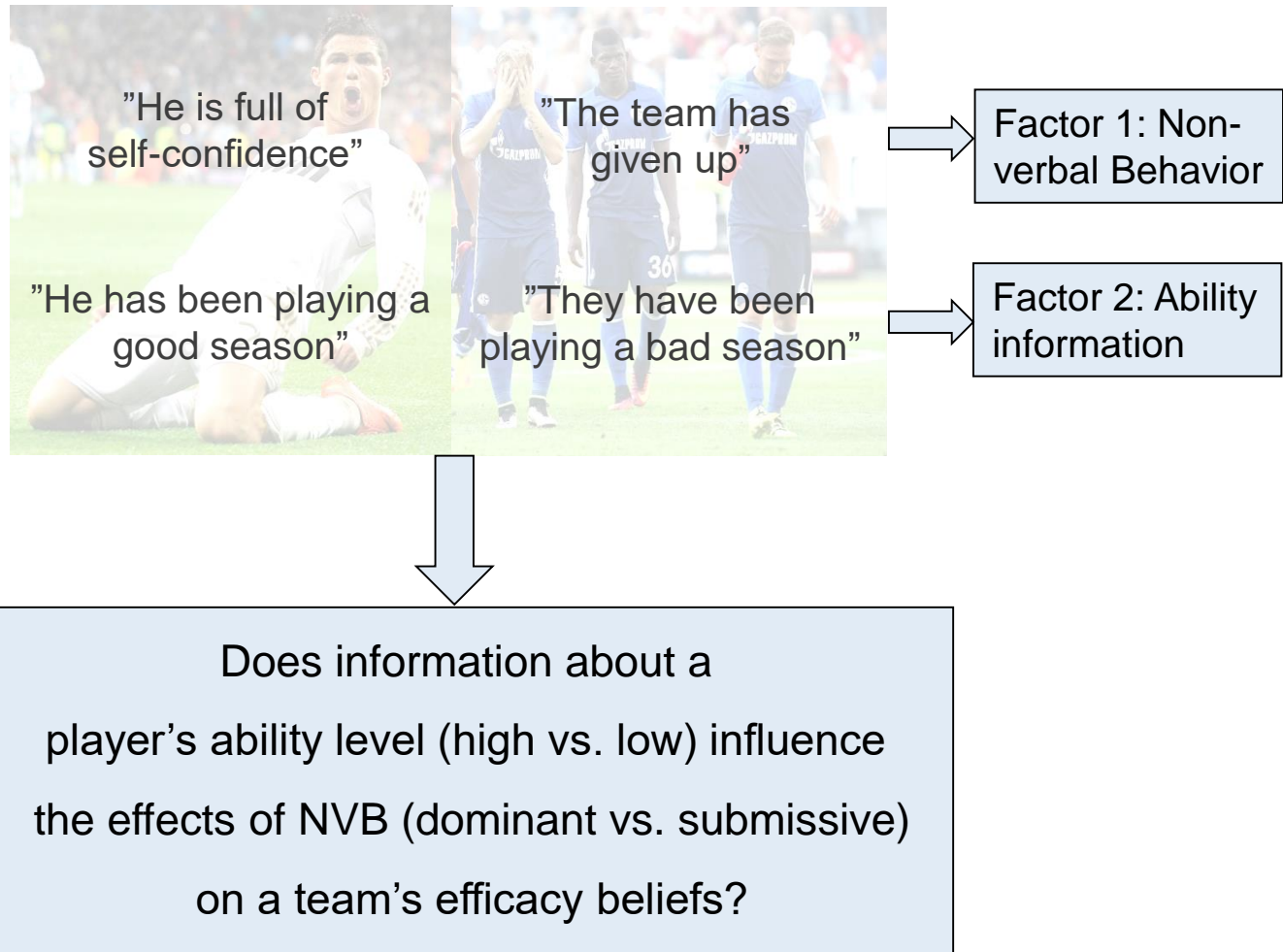**Evolutionary perspective** (Darwin, 1872)**:**
- Nonverbal Behavior (NVB) is used to communicate internal states/ the social status
- Dominant NVB: superiority, „I am winning" → give up
- Submissive NVB: inferiority, „I am losing" → avoiding further life-threatening attacks

Sports setting (Greenlees et al.; 2005, Furley et al., 2015)**:**
- NVB influences…
    - …ratings about a player's quality
    - …emotions
    - …efficacy beliefs
- High effect sizes for NVB-effect
→ *demand*-effects?
→ Unrealistic setting: no other information that might influence participants' ratings was integrated

Research question

"He is full of self-confidence"

"The team has given up"

Factor 1: Non-verbal Behavior

"He has been playing a good season"

"They have been playing a bad season"

Factor 2: Ability information

Does information about a

player's ability level (high vs. low) influence

the effects of NVB (dominant vs. submissive)

on a team's efficacy beliefs?

Design

	Experiment I	Experiment II
Independent Variables (within-subjects Design)	Nonverbal Behavior (dominant vs. submissive) Perspective (teammate vs. opponent)	Nonverbal Behavior (dominant vs. submissive) Perspective (teammate vs. opponent) Information about a player's ability (high: 80-90 points vs. low: 10-20 points)
Dependent Variable	Collective efficacy (*team outcome confidence*): How confident are you to win the game if this player is in your team/ is in the opposite team (*0%-100%* confident)?	

Procedure
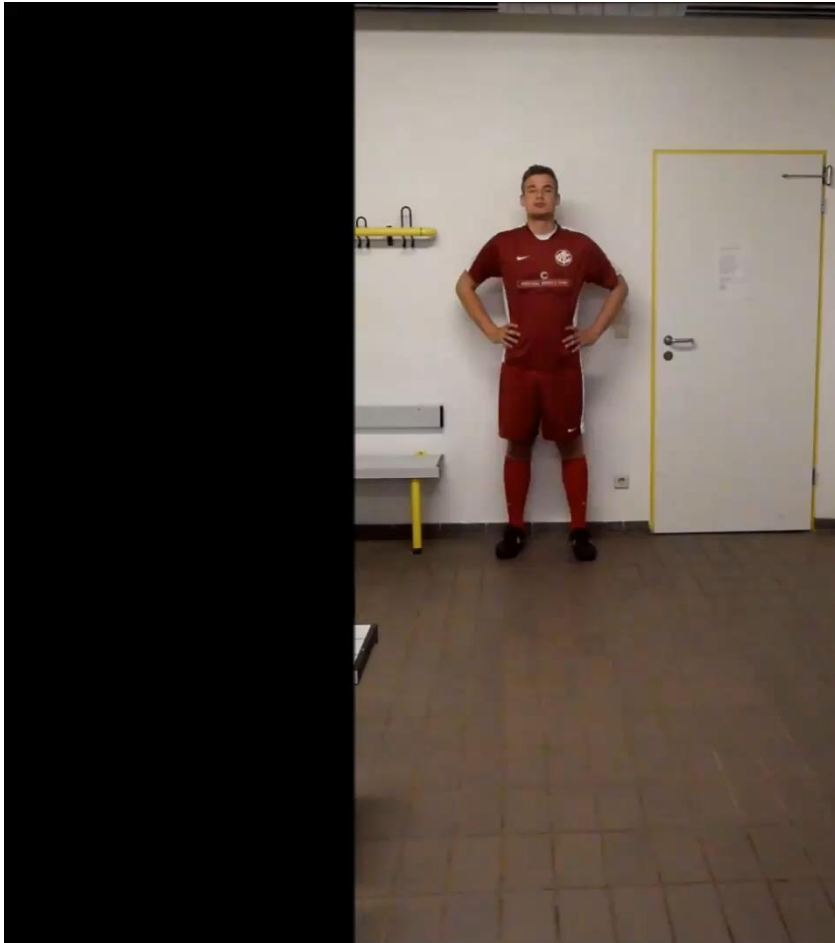
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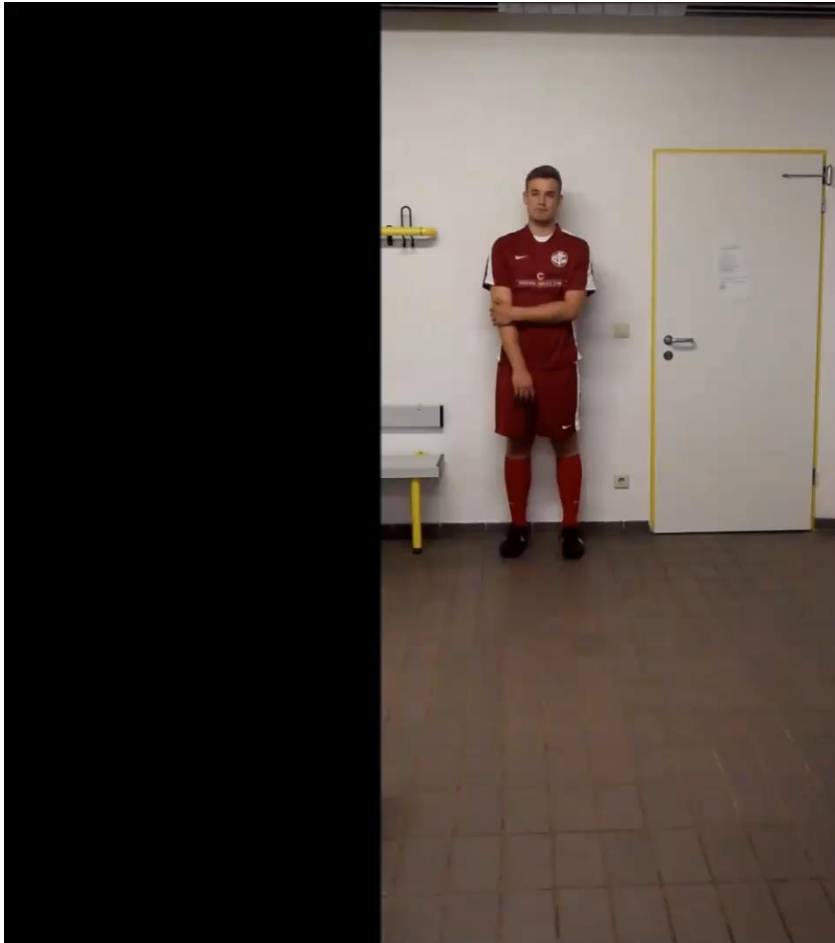Sportwissenschaft

Name: Joshua

Alter: 19

Im Verein seit: 2006

Position: offensives Mittelfeld

Hobbys: Freunde treffen, Joggen

Saisonbewertung: 90/100 Punkte

Procedure

Name: Joshua

Alter: 19

Im Verein seit: 2006

Position: offensives Mittelfeld

Hobbys: Freunde treffen, Joggen

Saisonbewertung: 10/100 Punkte

Procedure

- **24 pretested videos (12 male, 12 female)**

- **Gender equivalence**

- **Randomized Design**
  - **Order of presentation**
  - **condition**

Experiment I	Experiment II
12 videos per participant	12 videos per participant
• 6x dominant, 6x submissive	• 3x dominant NVB, high ability • 3x dominant NVB, low ability • 3x submissive NVB, high ability • 3x submissive NVB, low ability

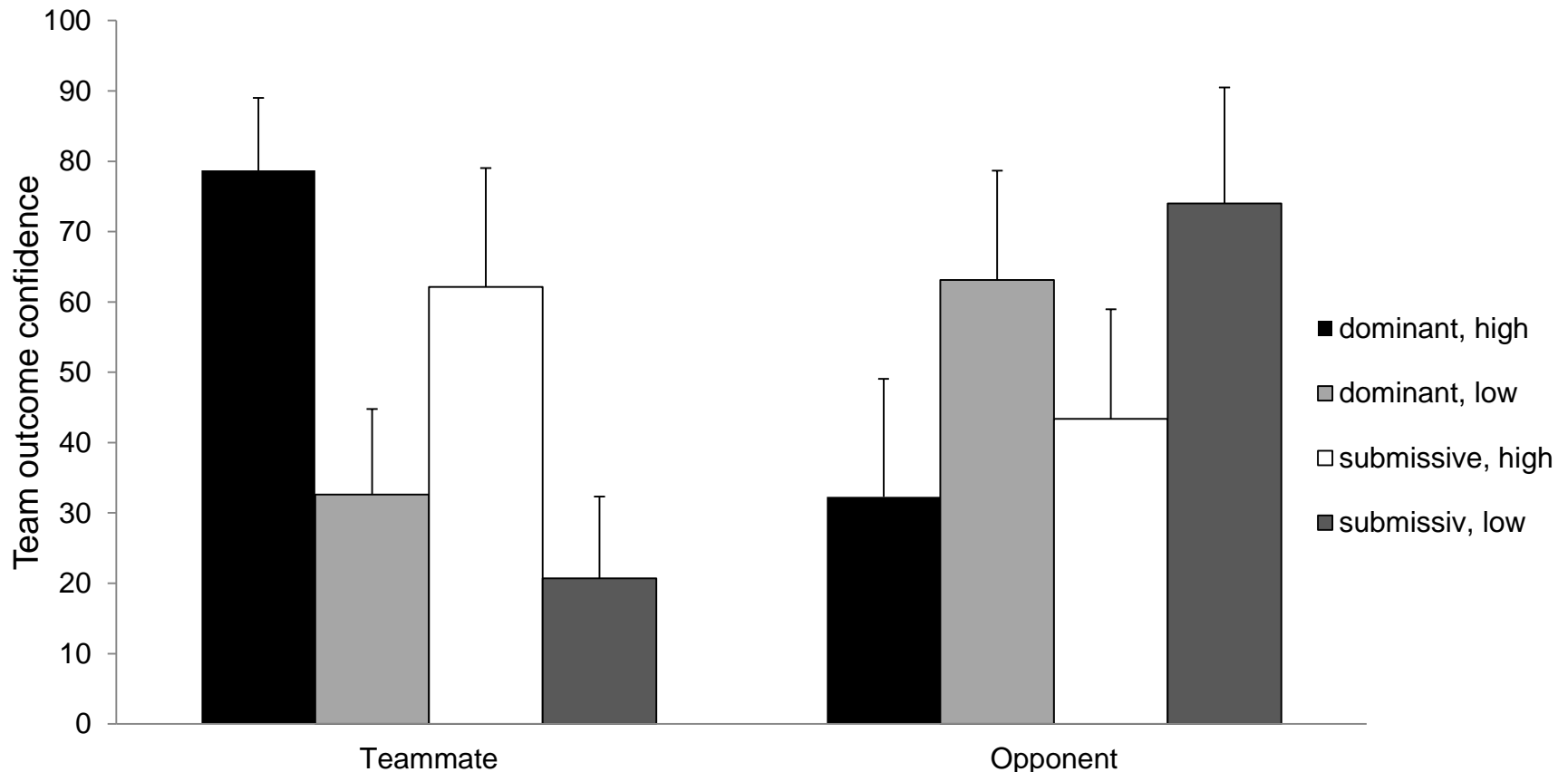# Results Experiment I
NVB and team outcome confidence
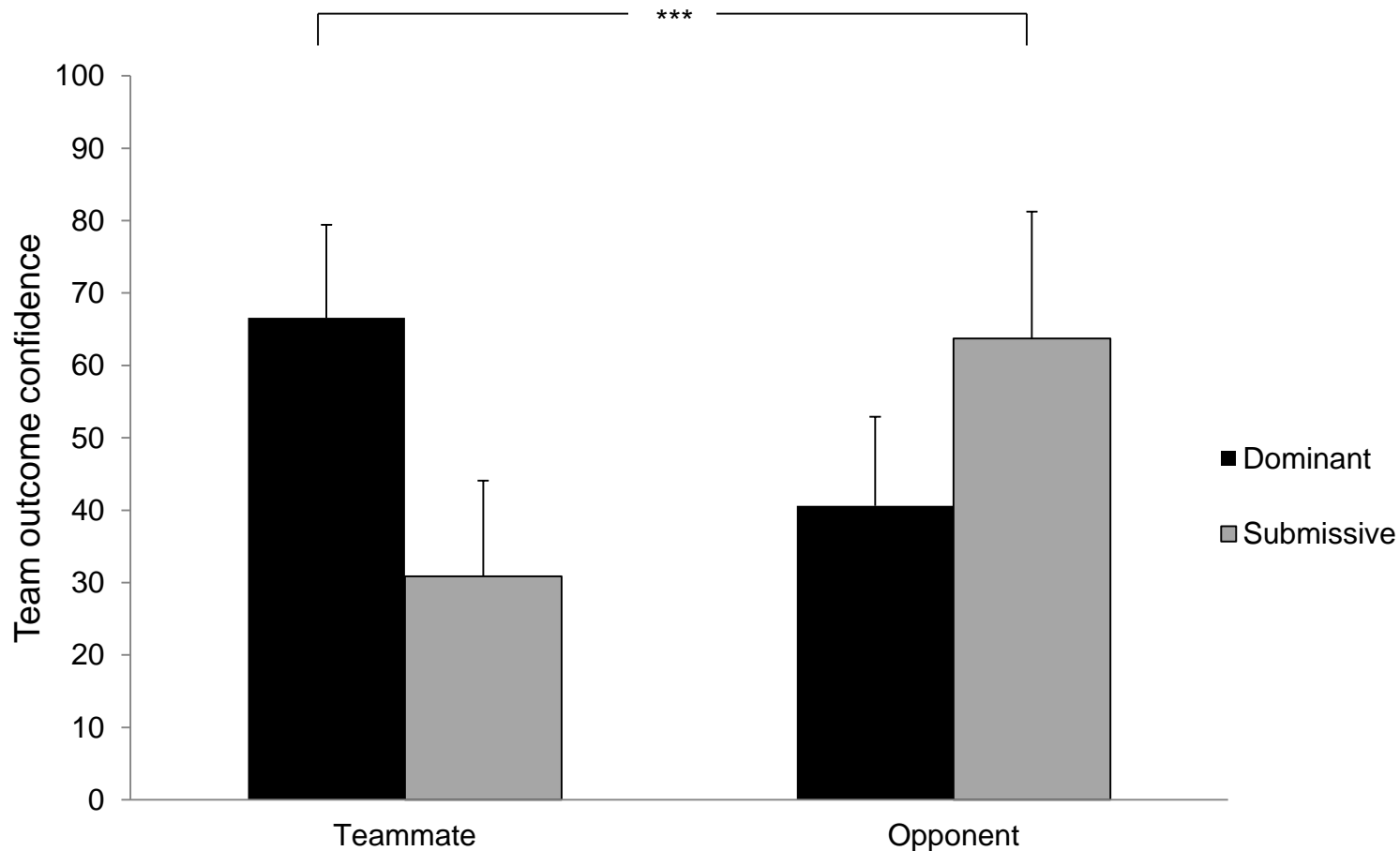
NVB x perspective: $F[1, 79] = 146.626$, $p < .0001$, $\eta^2_p = .650$

$N = 80$ (41 w, 39 m)
$M_{age} = 23.9$, $SD = 4.9$

Results Experiment II
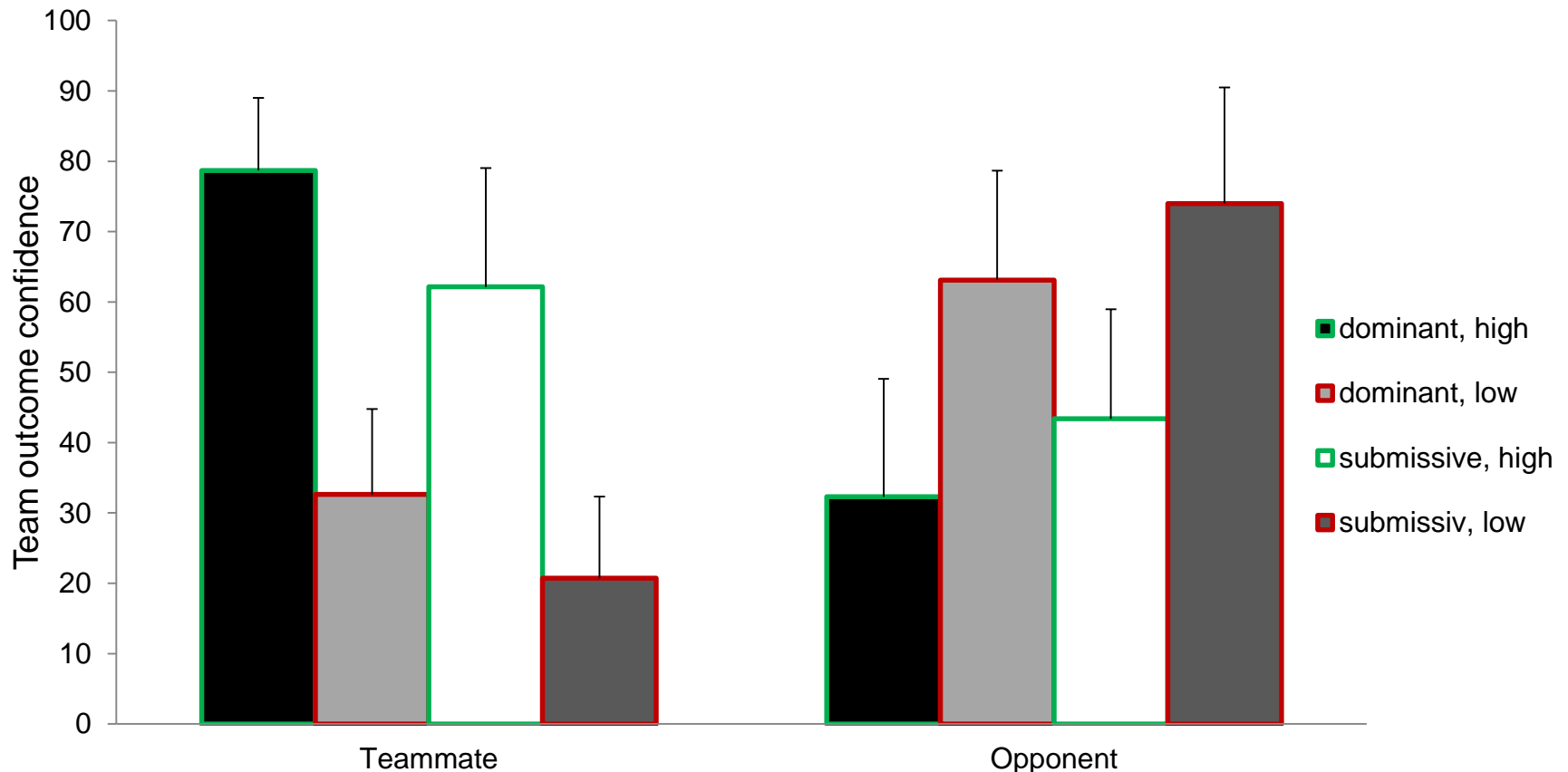## NVB, player's ability and team outcome confidence

- Information x perspective: $F[1, 60] = 267.449$, $p < .0001$, $\eta^2_p = .817$
- NVB x perspective: $F[1, 60] = 3.17$, $p = .080$, $\eta^2_p = .050$

$N = 61$ (29 w, 32 m)
$M_{age} = 20.8$, $SD = 1.8$

Results Experiment II
NVB, player's ability and team outcome confidence

- Information x perspective: $F[1, 60] = 267.449$, $p < .0001$, $\eta^2_p = .817$
- NVB x perspective: $F[1, 60] = 3.17$, $p = .080$, $\eta^2_p = .050$

$N = 61$ (29 w, 32 m)
$M_{age} = 20.8$, $SD = 1.8$

Discussion

- Experiment I: High effect sizes align with previous research on the importance of NVB in the sports performance setting
- Experiment II
  - Body language doesn't take it all: Further information about a player's ability reduces the effects of NVB on efficacy beliefs
  - Do the results question the automatic interpretation of nonverbal cues as channel to communicate relevant status information?

- Future research
  - Importance of the information about a player's ability-cue, when information is less clear
  - Considering further factors that might have an influence on the NVB effect, i.e. gender stereotypes, personal relevance

Thank you for your attention!

Questions?

Literature

- Darwin, C. (1872). *The expression of emotions in man and animals.* London: Murray.

- Furley, P., Moll, T., & Memmert, D. (2015). "Put your Hands up in the Air"? The interpersonal effects of pride and shame expressions on opponents and teammates. *Frontiers, 6,* 1361.

- Greenlees, I. A., Bradley, A., Thelwell, R. C., & Holder, T. P. (2005a). The impact of two forms of opponents' non-verbal communication on impression formation and outcome expectations. *Psychology of Sport and Exercise, 6,* 103-115.

- Shariff, A. F., & Tracy, J. l. (2011). What are emotion expressions for? *Current Directions in Psychological Science, 20,* 395-399.

- Warr, P. B., & Knapper, C. (1968). *The perception of people and events.* London: Wiley.

Design HS I

|	Nonverbales Verhalten (within-Faktor)	
	Dominant *(24 Videos, 12w/12m)*	Unterwürfig *(24 Videos, 12w/12m)*
Perspektive (within-Faktor) — Mitspieler	MW = 66,69 N = 80 N (Fälle)= 482	MW = 30,88 N = 80 N (Fälle) = 477
Gegner	MW = 40,59 N = 80 N (Fälle) = 479	MW = 63,74 M = 80 N (Fälle) = 480

Design HS II

| Informationen (within-Faktor)	Nonverbales Verhalten (within-Faktor)		
		Dominant *(24 Videos, 12w/12m)*	Unterwürfig *(24 Videos, 12w/12m)*
	Positive Infos (80, 85 oder 90 Punkte)	Mitspieler *(183 Fälle)* / Gegner *(183 Fälle)*	Mitspieler *(183 Fälle)* / Gegner *(183 Fälle)*
	Negative Infos (20, 15 oder 10 Punkte)	Mitspieler *(183 Fälle)* / Gegner *(183 Fälle)*	Mitspieler *(183 Fälle)* / Gegner *(183 Fälle)*

Geschlecht männlich
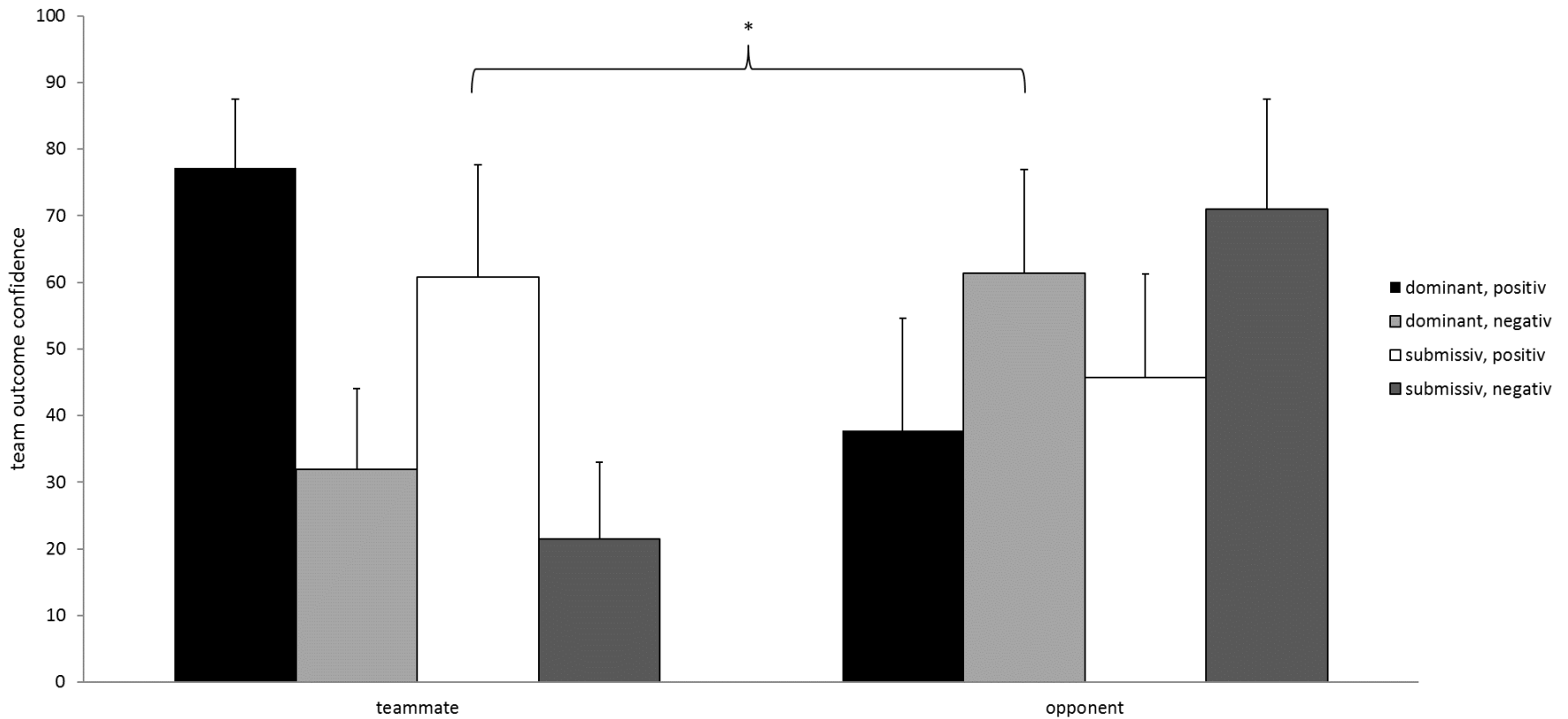
Geschlecht weiblich
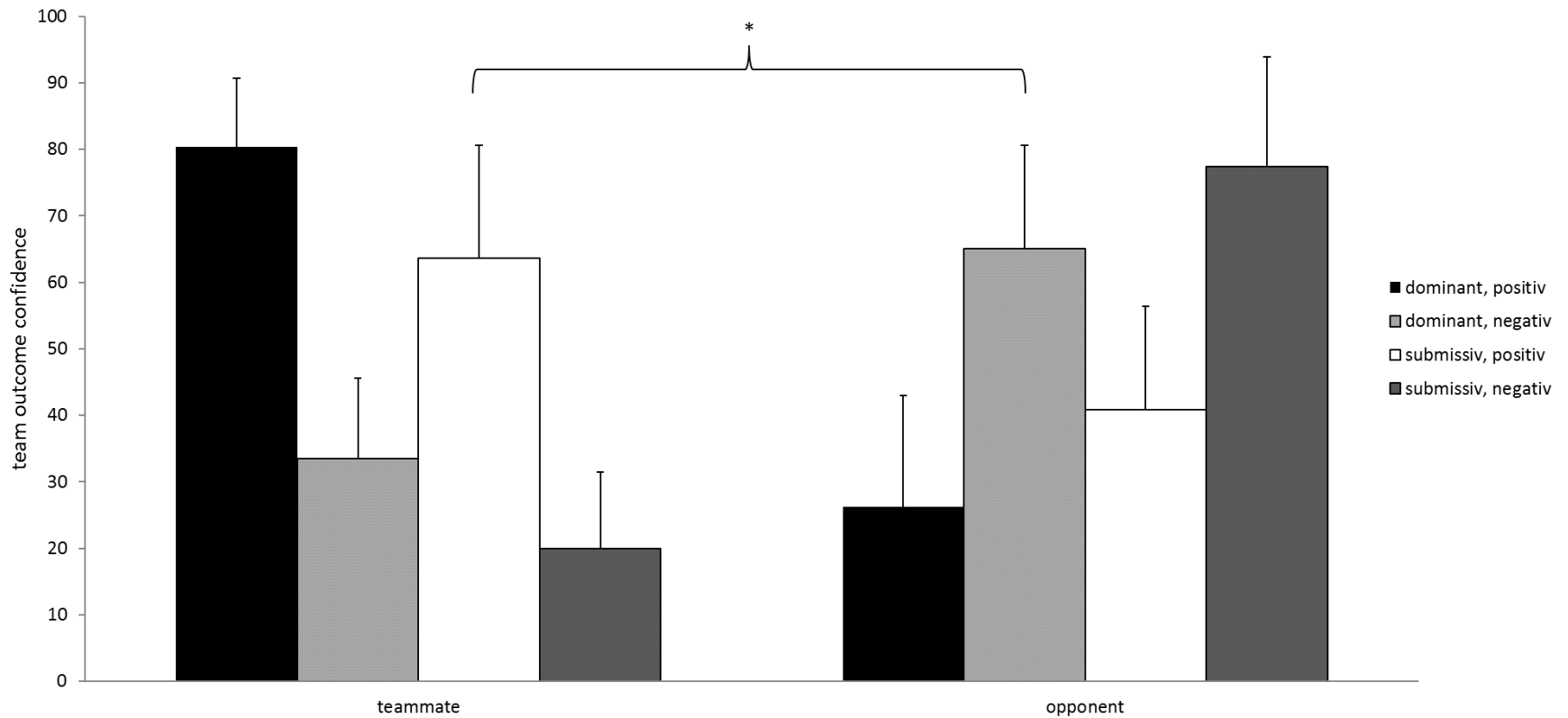
Ergebnisse Kontrollgruppe
ohne Geschlechtertrennung
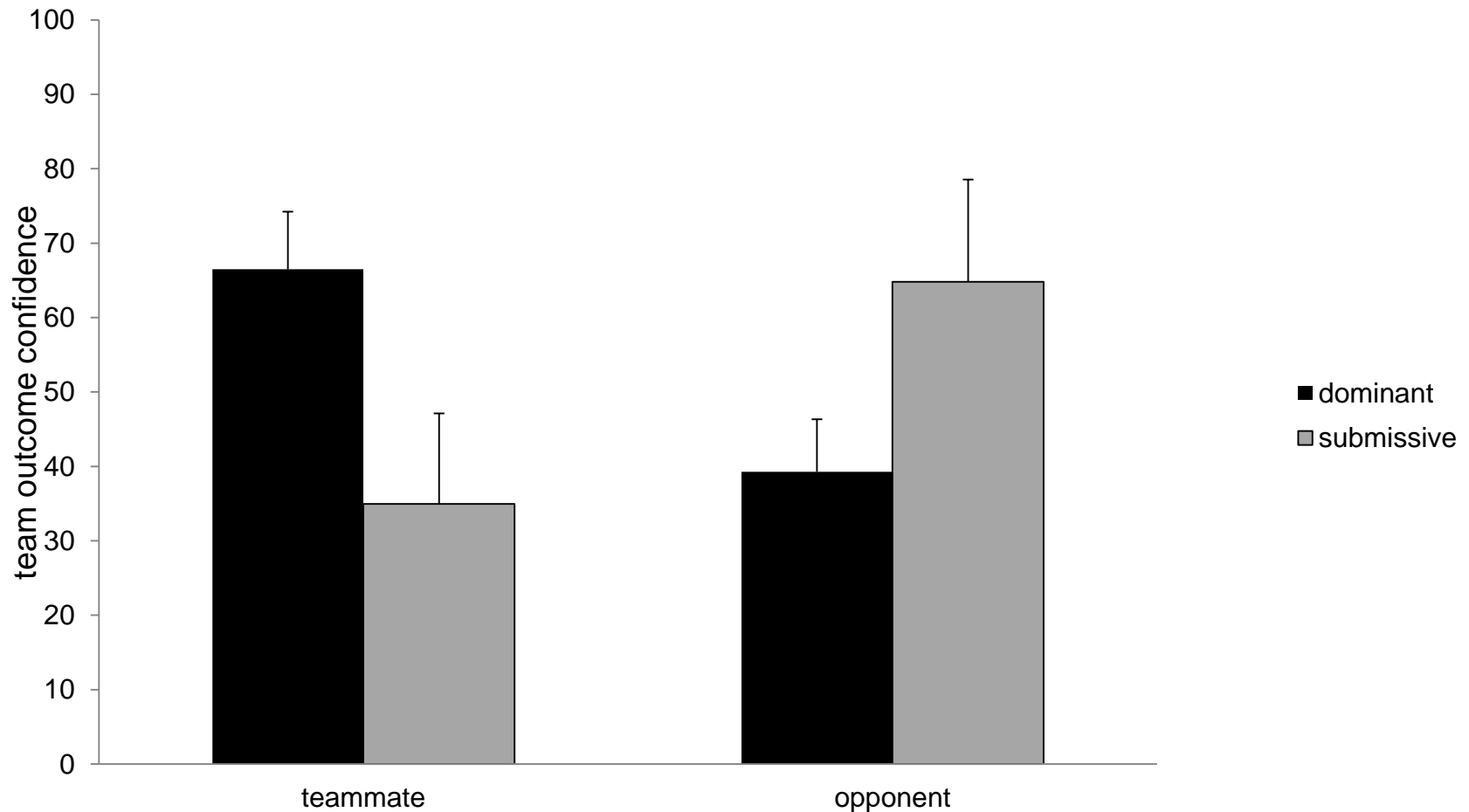
Ergebnisse vergleichbar mit HS I, höherer Wert hier als in HS I für Sub_own.