



Beispielbild

Lernen & Gedächtnis

Empirisches Praktikum

SoSe 2008

Auswertung der Experimente

## Experiment 1: Fragestellung

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1. Können wir den Effekt der unterschwelligen Verarbeitung von Gesichtern replizieren?
2. Hängen die Effekte von der Polarität der gezeigten Emotion ab?
3. Hängen die Effekte von dem Geschlecht der dargestellten Person ab?

## Experiment 1: Hypothesen

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1. Unterschwellige Identifikation?
2. Unterschiede zwischen den Emotionen: Freude vs. Angst?
3. Modifikation der Effekte durch Geschlecht der dargestellten Person?

# Versuchsplan

2 x 2 x 2 faktorieller Versuchsplan mit Messwiederholung

		Überschwellig	Unterschwellig
Positiv	Weibl.	30	30
	männl	30	30
Negativ	Weibl.	30	30
	Männl.	30	30

## Deskriptive Statistik

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Stichprobe:

N = 28

Alter = 26.9 (SD=7.4) 18 – 47

Geschlecht = 17 w, 11 m

RT-Kontrolle:

MIN=150ms

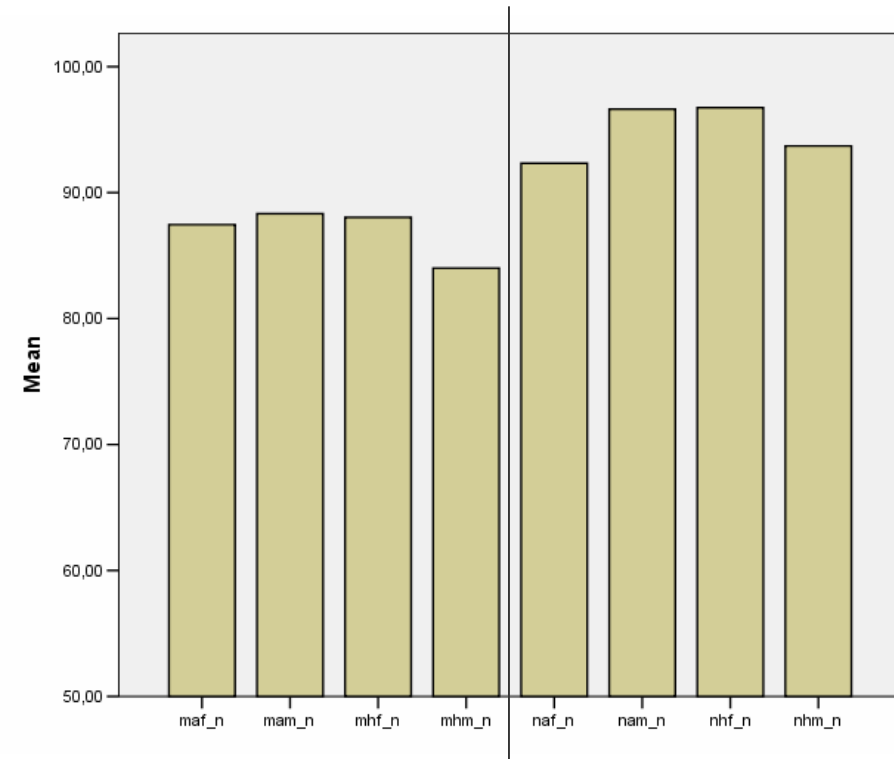
MAX=1.500ms

# Deskriptive Statistik

## Trefferquote

Descriptive Statistics

	N	Mean	Std. Deviation
maf_n	28	87,4500	12,41515
mam_n	28	88,3214	12,09571
mhf_n	28	88,0357	12,64229
mhm_n	28	84,0036	14,11465
naf_n	28	92,3321	9,75785
nam_n	28	96,6214	5,09658
nhf_n	28	96,7393	4,97991
nhm_n	28	93,7000	6,03539
Valid N (listwise)	28		



Mxxxxx=maskiert vs nXXXX=nicht maskiert

xAxxx = ANGRY vs xHxxx=HAPPY

xxFxx= female vs xxMxx = male

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
mask	Sphericity Assumed	3491,011	1	3491,011	31,831	,000	,541
	Greenhouse-Geisser	3491,011	1,000	3491,011	31,831	,000	,541
	Huynh-Feldt	3491,011	1,000	3491,011	31,831	,000	,541
	Lower-bound	3491,011	1,000	3491,011	31,831	,000	,541
Error(mask)	Sphericity Assumed	2961,175	27	109,673			
	Greenhouse-Geisser	2961,175	27,000	109,673			
	Huynh-Feldt	2961,175	27,000	109,673			
	Lower-bound	2961,175	27,000	109,673			
emotion	Sphericity Assumed	17,663	1	17,663	,065	,800	,002
	Greenhouse-Geisser	17,663	1,000	17,663	,065	,800	,002
	Huynh-Feldt	17,663	1,000	17,663	,065	,800	,002
	Lower-bound	17,663	1,000	17,663	,065	,800	,002
Error(emotion)	Sphericity Assumed	7292,344	27	270,087			
	Greenhouse-Geisser	7292,344	27,000	270,087			
	Huynh-Feldt	7292,344	27,000	270,087			
	Lower-bound	7292,344	27,000	270,087			
geschl	Sphericity Assumed	12,778	1	12,778	,440	,513	,016
	Greenhouse-Geisser	12,778	1,000	12,778	,440	,513	,016
	Huynh-Feldt	12,778	1,000	12,778	,440	,513	,016
	Lower-bound	12,778	1,000	12,778	,440	,513	,016
Error(geschl)	Sphericity Assumed	784,898	27	29,070			
	Greenhouse-Geisser	784,898	27,000	29,070			
	Huynh-Feldt	784,898	27,000	29,070			
	Lower-bound	784,898	27,000	29,070			

# Inferenzstatistik

## Trefferquote

mask * emotion	Sphericity Assumed	95,291	1	95,291	,855	,363	,031
	Greenhouse-Geisser	95,291	1,000	95,291	,855	,363	,031
	Huynh-Feldt	95,291	1,000	95,291	,855	,363	,031
	Lower-bound	95,291	1,000	95,291	,855	,363	,031
Error(mask*emotion)	Sphericity Assumed	3008,130	27	111,412			
	Greenhouse-Geisser	3008,130	27,000	111,412			
	Huynh-Feldt	3008,130	27,000	111,412			
	Lower-bound	3008,130	27,000	111,412			
mask * geschl	Sphericity Assumed	68,090	1	68,090	2,113	,158	,073
	Greenhouse-Geisser	68,090	1,000	68,090	2,113	,158	,073
	Huynh-Feldt	68,090	1,000	68,090	2,113	,158	,073
	Lower-bound	68,090	1,000	68,090	2,113	,158	,073
Error(mask*geschl)	Sphericity Assumed	870,231	27	32,231			
	Greenhouse-Geisser	870,231	27,000	32,231			
	Huynh-Feldt	870,231	27,000	32,231			
	Lower-bound	870,231	27,000	32,231			
emotion * geschl	Sphericity Assumed	523,689	1	523,689	13,046	,001	,326
	Greenhouse-Geisser	523,689	1,000	523,689	13,046	,001	,326
	Huynh-Feldt	523,689	1,000	523,689	13,046	,001	,326
	Lower-bound	523,689	1,000	523,689	13,046	,001	,326
Error(emotion*geschl)	Sphericity Assumed	1083,793	27	40,140			
	Greenhouse-Geisser	1083,793	27,000	40,140			
	Huynh-Feldt	1083,793	27,000	40,140			
	Lower-bound	1083,793	27,000	40,140			
mask * emotion * geschl	Sphericity Assumed	20,582	1	20,582	,671	,420	,024
	Greenhouse-Geisser	20,582	1,000	20,582	,671	,420	,024
	Huynh-Feldt	20,582	1,000	20,582	,671	,420	,024
	Lower-bound	20,582	1,000	20,582	,671	,420	,024
Error(mask*emotion*geschl)	Sphericity Assumed	827,704	27	30,656			
	Greenhouse-Geisser	827,704	27,000	30,656			
	Huynh-Feldt	827,704	27,000	30,656			
	Lower-bound	827,704	27,000	30,656			



### Haupteffekt Maske

Estimates				
Measure: MEASURE_1				
mask	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	86,953	1,564	83,743	90,162
2	94,848	,696	93,420	96,276

Pairwise Comparisons						
Measure: MEASURE_1						
(I) mask	(J) mask	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	-7,896*	1,399	,000	-10,767	-5,024
2	1	7,896*	1,399	,000	5,024	10,767

Based on estimated marginal means  
 \*. The mean difference is significant at the ,05 level.  
 a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

### Interaktion: Emotion x Geschlecht

7. emotion * geschl					
Measure: MEASURE_1					
emotion	geschl	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	89,891	1,810	86,176	93,606
	2	92,471	1,316	89,771	95,172
2	1	92,388	1,515	89,279	95,496
	2	88,852	1,630	85,507	92,197

#### CODE

Maske 1 = maskiert

Maske 2 = nicht maskiert

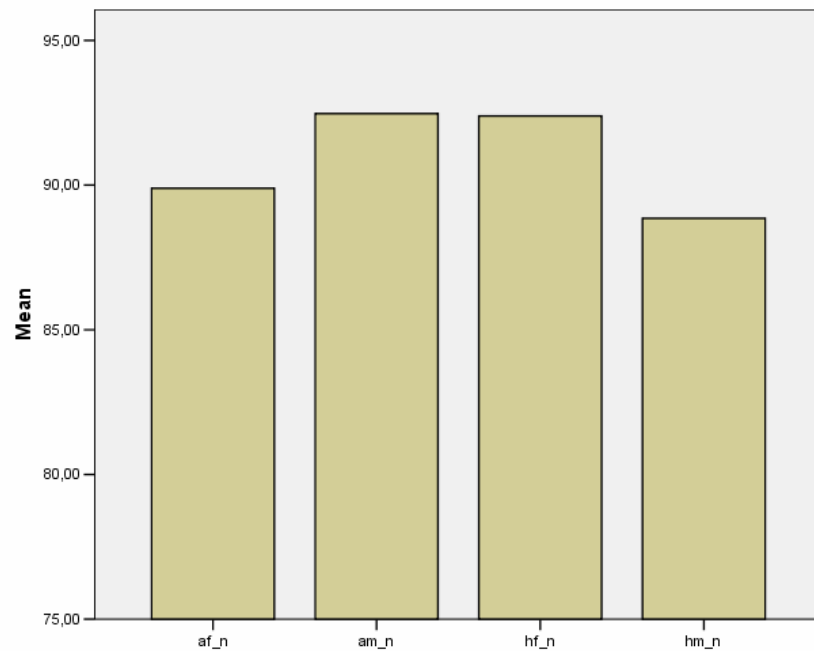
Emotion 1 = Angry

Emotion 2 = Happy

Geschl 1 = female

Geschl 2 = male

Interaktion: Emotion x Geschlecht



Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 af_n	89,8911	28	9,58006	1,81046
am_n	92,4714	28	6,96425	1,31612
Pair 2 hf_n	92,3875	28	8,01663	1,51500
hm_n	88,8518	28	8,62692	1,63034

Paired Samples Test

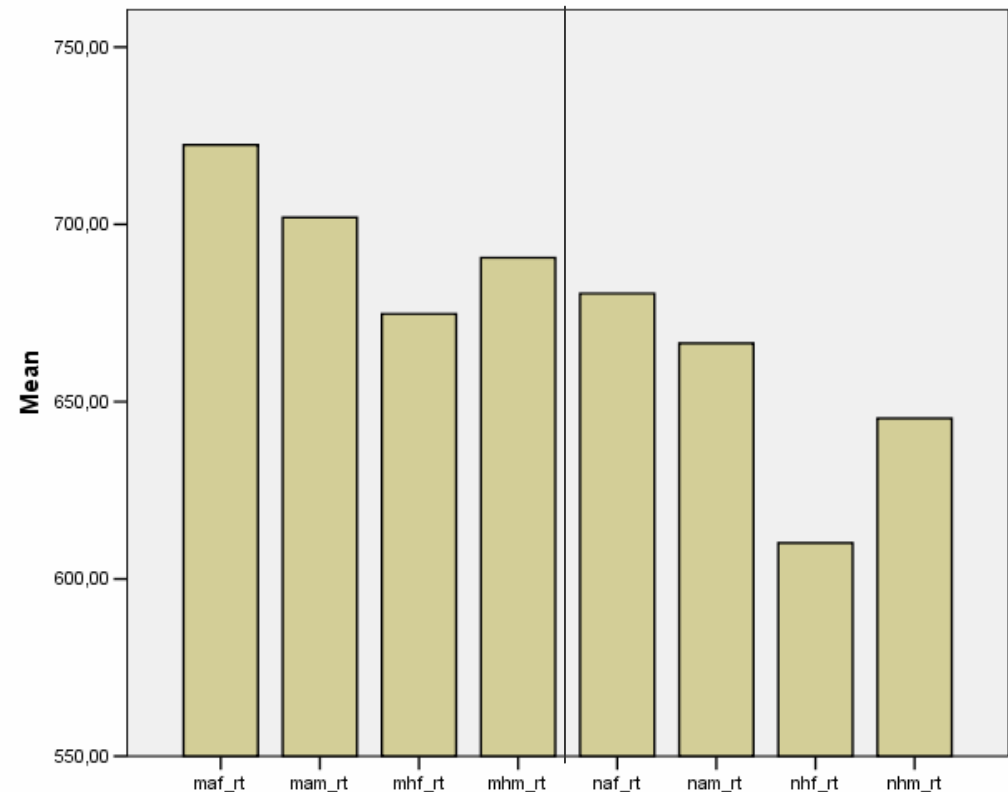
		Paired Differences				t	df	Sig. (2-tailed)	
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower				Upper
Pair 1	af_n - am_n	-2,58036	5,80339	1,09674	-4,83068	-,33004	-2,353	27	,026
Pair 2	hf_n - hm_n	3,53571	5,96083	1,12649	1,22435	5,84708	3,139	27	,004

# Deskriptive Statistik

## Reaktionszeit

Descriptive Statistics

	N	Mean	Std. Deviation
maf_rt	28	722,4286	140,24355
mam_rt	28	701,9643	132,04698
mhf_rt	28	674,7500	116,71860
mhm_rt	28	690,6071	114,94164
naf_rt	28	680,5000	123,79149
nam_rt	28	666,4643	141,13258
nhf_rt	28	610,1429	97,04284
nhm_rt	28	645,2857	96,49174
Valid N (listwise)	28		



Mxxxxx=maskiert vs nXXXX=nicht maskiert

xAxxx = ANGRY vs xHxxx=HAPPY

xxFxx= female vs xxMxx = male

# Inferenzstatistik

## Reaktionszeit

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
mask	Sphericity Assumed	122859,446	1	122859,446	36,949	,000	,578
	Greenhouse-Geisser	122859,446	1,000	122859,446	36,949	,000	,578
	Huynh-Feldt	122859,446	1,000	122859,446	36,949	,000	,578
	Lower-bound	122859,446	1,000	122859,446	36,949	,000	,578
Error(mask)	Sphericity Assumed	89779,054	27	3325,150			
	Greenhouse-Geisser	89779,054	27,000	3325,150			
	Huynh-Feldt	89779,054	27,000	3325,150			
	Lower-bound	89779,054	27,000	3325,150			
emotion	Sphericity Assumed	79351,143	1	79351,143	8,258	,008	,234
	Greenhouse-Geisser	79351,143	1,000	79351,143	8,258	,008	,234
	Huynh-Feldt	79351,143	1,000	79351,143	8,258	,008	,234
	Lower-bound	79351,143	1,000	79351,143	8,258	,008	,234
Error(emotion)	Sphericity Assumed	259431,357	27	9608,569			
	Greenhouse-Geisser	259431,357	27,000	9608,569			
	Huynh-Feldt	259431,357	27,000	9608,569			
	Lower-bound	259431,357	27,000	9608,569			
geschl	Sphericity Assumed	952,875	1	952,875	,633	,433	,023
	Greenhouse-Geisser	952,875	1,000	952,875	,633	,433	,023
	Huynh-Feldt	952,875	1,000	952,875	,633	,433	,023
	Lower-bound	952,875	1,000	952,875	,633	,433	,023
Error(geschl)	Sphericity Assumed	40638,125	27	1505,116			
	Greenhouse-Geisser	40638,125	27,000	1505,116			
	Huynh-Feldt	40638,125	27,000	1505,116			
	Lower-bound	40638,125	27,000	1505,116			

# Inferenzstatistik

## Reaktionszeit

mask * emotion	Sphericity Assumed	3696,875	1	3696,875	2,033	,165	,070
	Greenhouse-Geisser	3696,875	1,000	3696,875	2,033	,165	,070
	Huynh-Feldt	3696,875	1,000	3696,875	2,033	,165	,070
	Lower-bound	3696,875	1,000	3696,875	2,033	,165	,070
Error(mask*emotion)	Sphericity Assumed	49095,625	27	1818,356			
	Greenhouse-Geisser	49095,625	27,000	1818,356			
	Huynh-Feldt	49095,625	27,000	1818,356			
	Lower-bound	49095,625	27,000	1818,356			
mask * geschl	Sphericity Assumed	2314,286	1	2314,286	3,212	,084	,106
	Greenhouse-Geisser	2314,286	1,000	2314,286	3,212	,084	,106
	Huynh-Feldt	2314,286	1,000	2314,286	3,212	,084	,106
	Lower-bound	2314,286	1,000	2314,286	3,212	,084	,106
Error(mask*geschl)	Sphericity Assumed	19455,714	27	720,582			
	Greenhouse-Geisser	19455,714	27,000	720,582			
	Huynh-Feldt	19455,714	27,000	720,582			
	Lower-bound	19455,714	27,000	720,582			
emotion * geschl	Sphericity Assumed	25585,875	1	25585,875	11,289	,002	,295
	Greenhouse-Geisser	25585,875	1,000	25585,875	11,289	,002	,295
	Huynh-Feldt	25585,875	1,000	25585,875	11,289	,002	,295
	Lower-bound	25585,875	1,000	25585,875	11,289	,002	,295
Error(emotion*geschl)	Sphericity Assumed	61193,125	27	2266,412			
	Greenhouse-Geisser	61193,125	27,000	2266,412			
	Huynh-Feldt	61193,125	27,000	2266,412			
	Lower-bound	61193,125	27,000	2266,412			
mask * emotion * geschl	Sphericity Assumed	578,571	1	578,571	,458	,504	,017
	Greenhouse-Geisser	578,571	1,000	578,571	,458	,504	,017
	Huynh-Feldt	578,571	1,000	578,571	,458	,504	,017
	Lower-bound	578,571	1,000	578,571	,458	,504	,017
Error(mask*emotion*geschl)	Sphericity Assumed	34125,429	27	1263,905			
	Greenhouse-Geisser	34125,429	27,000	1263,905			
	Huynh-Feldt	34125,429	27,000	1263,905			
	Lower-bound	34125,429	27,000	1263,905			

### Haupteffekt Maske

#### Estimates

Measure: MEASURE\_1

mask	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	697,438	22,111	652,069	742,806
2	650,598	20,259	609,029	692,167

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) mask	(J) mask	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	46,839*	7,706	,000	31,029	62,650
2	1	-46,839*	7,706	,000	-62,650	-31,029

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

### Haupteffekt Emotion

#### Estimates

Measure: MEASURE\_1

emotion	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	692,839	24,246	643,091	742,587
2	655,196	19,173	615,857	694,536

#### Pairwise Comparisons

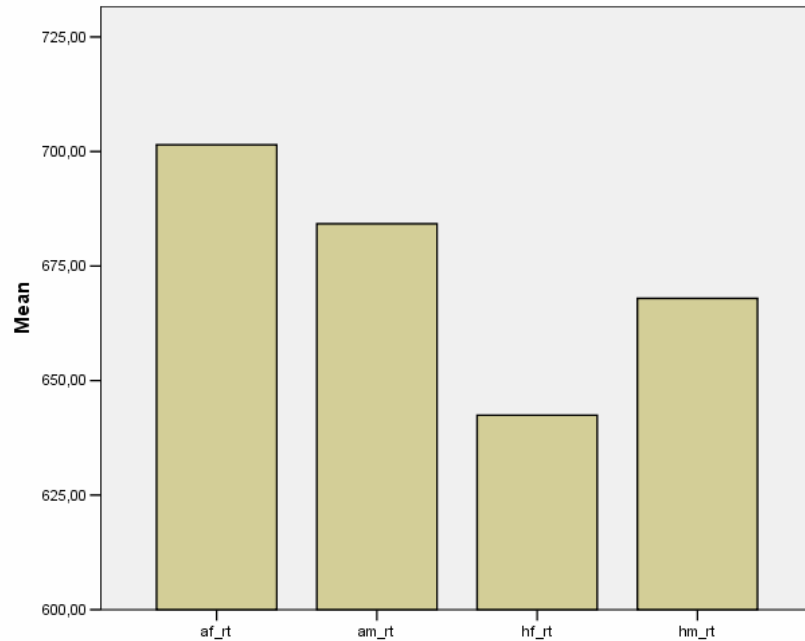
Measure: MEASURE\_1

(I) emotion	(J) emotion	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	37,643*	13,099	,008	10,766	64,520
2	1	-37,643*	13,099	,008	-64,520	-10,766

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).



Interaktion: Emotion x Geschlecht

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	af_rt	701,4643	28	129,68708	24,50855
	am_rt	684,2143	28	131,63990	24,87760
Pair 2	hf_rt	642,4464	28	102,69555	19,40764
	hm_rt	667,9464	28	103,42589	19,54566

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	af_rt - am_rt	17,25000	49,56449	9,36681	-1,96910	36,46910	1,842	27	,077
Pair 2	hf_rt - hm_rt	-25,50000	36,26140	6,85276	-39,56070	-11,43930	-3,721	27	,001

## Diskussion

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1. Haben wir effektiv maskiert?
2. Können wir dennoch etwas über emotions-spezifische Unterschiede sagen?
3. Wie interpretieren wir den geschlechtsspezifischen Effekt des Senders?



## Experiment 2

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# Illusorische Wörter und Valenz

# Fragestellung

McKay-Experiment



## Fragestellung

Was passiert, wenn Wörter mit gemässigten Valenzen miteinander konkurrieren?

# Hypothesen

Frage: Welcher Effekt auf den IW-Bericht ist zu erwarten, wenn...

...W2=positiv & IW=negativ?

...W2=negativ & IW=positiv?

Prognose: Mehr IWs  
als W2s berichtet!

Prognose: Mehr W2s  
als IWs berichtet!

Hypothese also: Stärkerer Effekt für negativ valente Stimuli!

# Design

Drei Valenz-Bedingungen:  
 Ø W2=Neutral vs. IW=Neutral.  
 Ø W2=Positiv vs. IW=Negativ.  
 Ø W2=Negativ vs. IW=Positiv.



Zwei RB-Lokus-Bedingungen:  
 ➤ RB auf Wortanfang (KURS ~~KU~~GEL).  
 ➤ RB auf Wortende (JAHR MO~~HR~~).



3x2-faktorielles Design  
(mit sechs Item-Typen)

		RB-LOKUS (UV2)	
		RB auf Wortanfang	RB auf Wortende
VALENZ (UV1)	W2=Neutral & IW=Neutral	KURS <del>KU</del> GEL NA → NAGEL (40 Listen)	JAHR MO <del>HR</del> LCH → MOLCH (40 Listen)
	W2=Positiv & IW=Negativ	LUFT <del>LU</del> ST LA → LAST (20 Listen)	HAND MO <del>ND</del> RD → MORD (20 Listen)
	W2=Negativ & IW=Positiv	RATE <del>RA</del> CH E → EICHE (20 Listen)	TAUFE STRA <del>FE</del> ND → STRAND (20 Listen)

## Deskriptive Statistik

Stichprobe:

$N = 17$

Alter = 26.6 (SD=7.1) 18 – 40

Geschlecht = 10 w, 7 m

Kontrolle:

Alle Trials eliminiert, in denen W1 nicht genannt wurde, bzw. eine Halluzination.

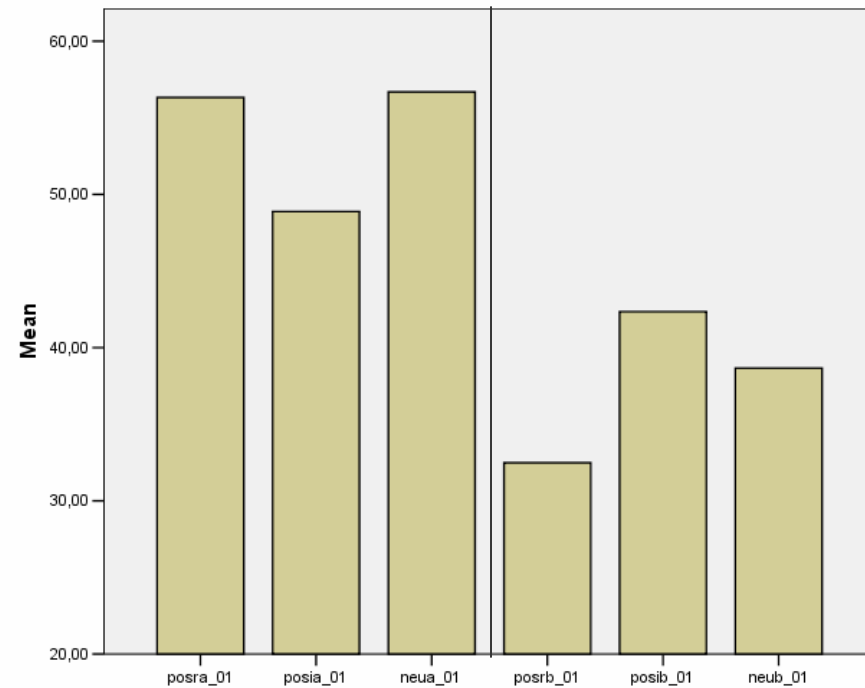
Wenn  $n < 80$  (mehr als 50% der Trials Verlust), dann wurde der Datensatz nicht berücksichtigt.

# Inferenzstatistik

## Report: Illusorisches Wort | Reales Wort

**Descriptive Statistics**

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
posra_01	17	56,3235	5,55783	22,91551
posia_01	17	48,8824	6,63889	27,37282
neua_01	17	56,6882	6,87203	28,33412
posrb_01	17	32,4882	5,78792	23,86420
posib_01	17	42,3471	4,91519	20,26583
neub_01	17	38,6647	4,40570	18,16518
Valid N (listwise)	17			



Posra=positiv W2, RB auf Wortanfang

Posia=positiv IW, RB auf Wortanfang

Neua=neutrale Wörter, RB auf Wortanfang

Posrb, posib, neub= wie oben, aber RB auf Wortende

Report: Illusorisches Wort | Reales Wort

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
rb_pos	Sphericity Assumed	6635,640	1	6635,640	15,231	,001	,488
	Greenhouse-Geisser	6635,640	1,000	6635,640	15,231	,001	,488
	Huynh-Feldt	6635,640	1,000	6635,640	15,231	,001	,488
	Lower-bound	6635,640	1,000	6635,640	15,231	,001	,488
Error(rb_pos)	Sphericity Assumed	6970,655	16	435,666			
	Greenhouse-Geisser	6970,655	16,000	435,666			
	Huynh-Feldt	6970,655	16,000	435,666			
	Lower-bound	6970,655	16,000	435,666			
emot	Sphericity Assumed	185,967	2	92,984	,475	,626	,029
	Greenhouse-Geisser	185,967	1,670	111,377	,475	,593	,029
	Huynh-Feldt	185,967	1,841	101,003	,475	,611	,029
	Lower-bound	185,967	1,000	185,967	,475	,500	,029
Error(emot)	Sphericity Assumed	6258,006	32	195,563			
	Greenhouse-Geisser	6258,006	26,715	234,247			
	Huynh-Feldt	6258,006	29,459	212,428			
	Lower-bound	6258,006	16,000	391,125			
rb_pos * emot	Sphericity Assumed	1317,631	2	658,815	5,750	,007	,264
	Greenhouse-Geisser	1317,631	1,631	807,787	5,750	,012	,264
	Huynh-Feldt	1317,631	1,791	735,835	5,750	,010	,264
	Lower-bound	1317,631	1,000	1317,631	5,750	,029	,264
Error(rb_pos*emot)	Sphericity Assumed	3666,489	32	114,578			
	Greenhouse-Geisser	3666,489	26,099	140,486			
	Huynh-Feldt	3666,489	28,651	127,973			
	Lower-bound	3666,489	16,000	229,156			

# Inferenzstatistik

## Report: Illusorisches Wort | Reales Wort

### Haupteffekt: Position

#### Estimates

Measure: MEASURE\_1

rb_pos	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	53,965	6,126	40,977	66,952
2	37,833	4,090	29,164	46,503

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) rb_pos	(J) rb_pos	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	16,131*	4,133	,001	7,369	24,894
2	1	-16,131*	4,133	,001	-24,894	-7,369

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

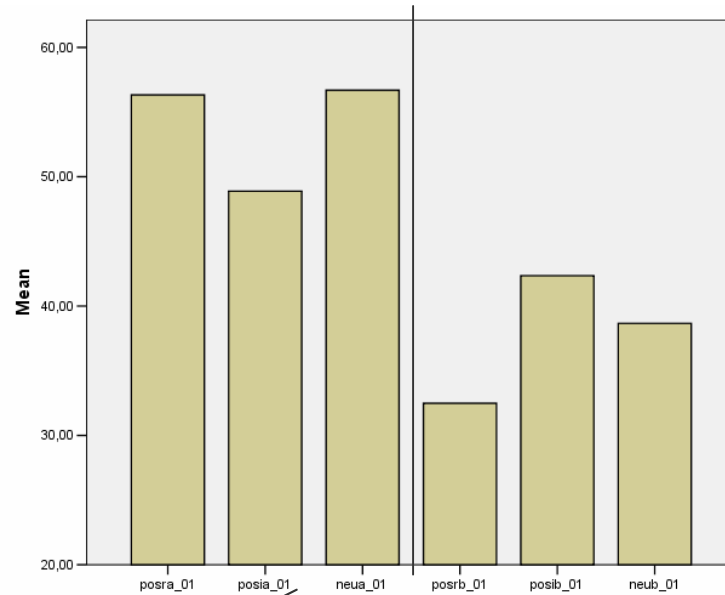
### Interaktion

#### 4. rb\_pos \* emot

Measure: MEASURE\_1

rb_pos	emot	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	56,324	5,558	44,541	68,106
	2	48,882	6,639	34,809	62,956
	3	56,688	6,872	42,120	71,256
2	1	32,488	5,788	20,218	44,758
	2	42,347	4,915	31,927	52,767
	3	38,665	4,406	29,325	48,004





Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
emot	Sphericity Assumed	659,804	2	329,902	4,046	,027	,202
	Greenhouse-Geisser	659,804	1,990	331,537	4,046	,027	,202
	Huynh-Feldt	659,804	2,000	329,902	4,046	,027	,202
	Lower-bound	659,804	1,000	659,804	4,046	,061	,202
Error(emot)	Sphericity Assumed	2609,350	32	81,542			
	Greenhouse-Geisser	2609,350	31,842	81,946			
	Huynh-Feldt	2609,350	32,000	81,542			
	Lower-bound	2609,350	16,000	163,084			

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
emot	Sphericity Assumed	843,795	2	421,897	1,846	,174	,103
	Greenhouse-Geisser	843,795	1,501	562,334	1,846	,185	,103
	Huynh-Feldt	843,795	1,621	520,424	1,846	,183	,103
	Lower-bound	843,795	1,000	843,795	1,846	,193	,103
Error(emot)	Sphericity Assumed	7315,145	32	228,598			
	Greenhouse-Geisser	7315,145	24,008	304,692			
	Huynh-Feldt	7315,145	25,942	281,983			
	Lower-bound	7315,145	16,000	457,197			

Pairwise Comparisons

Measure: MEASURE\_1

(I) emot	(J) emot	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	7,441*	3,116	,030	,836	14,047
	3	-,365	3,180	,910	-7,106	6,376
2	1	-7,441*	3,116	,030	-14,047	-,836
	3	-7,806*	2,993	,019	-14,151	-1,461
3	1	,365	3,180	,910	-6,376	7,106
	2	7,806*	2,993	,019	1,461	14,151

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

Was kann man bislang folgern?

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Was bestimmt die Häufigkeit der Illusion?

Wird die Häufigkeit durch affektive Wörter beeinflusst?

In welche Richtung geht der Effekt?

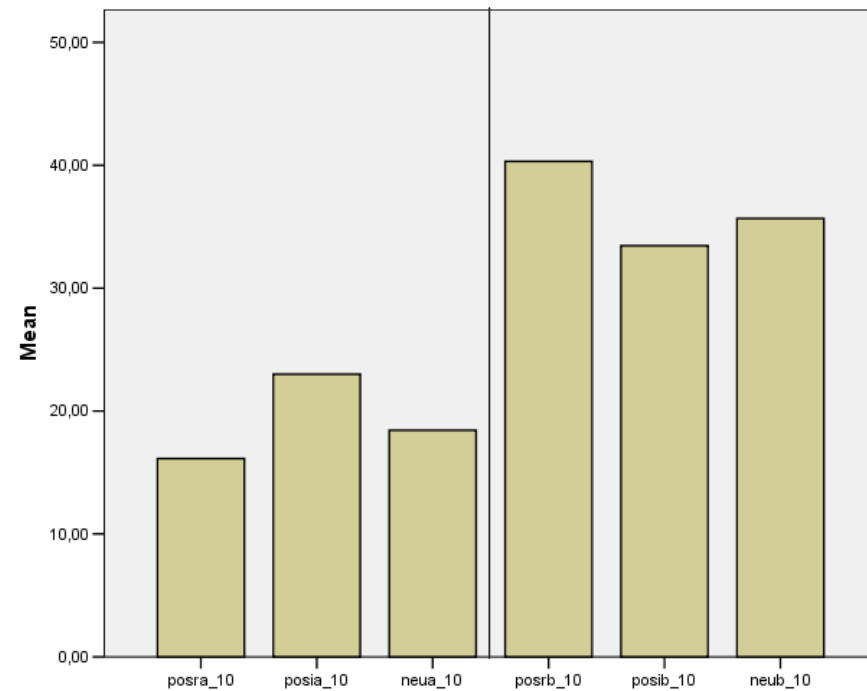
Ist er emotionsspezifisch?

# Deskriptive Statistik

## Report: Reales Wort | Illusorisches Wort

**Descriptive Statistics**

	N	Mean		Std.
	Statistic	Statistic	Std. Error	Statistic
posra_10	17	16,1353	3,77311	15,55695
posia_10	17	23,0000	4,04268	16,66838
neua_10	17	18,4353	4,64156	19,13766
posrb_10	17	40,3235	5,32566	21,95824
posib_10	17	33,4529	3,70184	15,26307
neub_10	17	35,6706	4,66678	19,24165
Valid N (listwise)	17			



Posra=positiv W2, RB auf Wortanfang

Posia=positiv IW, RB auf Wortanfang

Neua=neutrale Wörter, RB auf Wortanfang

Posrb, posib, neub= wie oben, aber RB auf Wortende

Report: Reales Wort | Illusorisches Wort

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
rb_pos	Sphericity Assumed	7624,977	1	7624,977	15,547	,001	,493
	Greenhouse-Geisser	7624,977	1,000	7624,977	15,547	,001	,493
	Huynh-Feldt	7624,977	1,000	7624,977	15,547	,001	,493
	Lower-bound	7624,977	1,000	7624,977	15,547	,001	,493
Error(rb_pos)	Sphericity Assumed	7847,048	16	490,441			
	Greenhouse-Geisser	7847,048	16,000	490,441			
	Huynh-Feldt	7847,048	16,000	490,441			
	Lower-bound	7847,048	16,000	490,441			
emotion	Sphericity Assumed	31,294	2	15,647	,124	,884	,008
	Greenhouse-Geisser	31,294	1,950	16,051	,124	,879	,008
	Huynh-Feldt	31,294	2,000	15,647	,124	,884	,008
	Lower-bound	31,294	1,000	31,294	,124	,730	,008
Error(emotion)	Sphericity Assumed	4046,809	32	126,463			
	Greenhouse-Geisser	4046,809	31,194	129,730			
	Huynh-Feldt	4046,809	32,000	126,463			
	Lower-bound	4046,809	16,000	252,926			
rb_pos * emotion	Sphericity Assumed	801,839	2	400,920	4,134	,025	,205
	Greenhouse-Geisser	801,839	1,810	443,041	4,134	,030	,205
	Huynh-Feldt	801,839	2,000	400,920	4,134	,025	,205
	Lower-bound	801,839	1,000	801,839	4,134	,059	,205
Error(rb_pos*emotion)	Sphericity Assumed	3103,671	32	96,990			
	Greenhouse-Geisser	3103,671	28,958	107,180			
	Huynh-Feldt	3103,671	32,000	96,990			
	Lower-bound	3103,671	16,000	193,979			

# Inferenzstatistik

## Report: Reales Wort | Illusorisches Wort

### Haupteffekt: Position

#### Estimates

Measure: MEASURE\_1

rb_pos	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	19,190	3,860	11,008	27,372
2	36,482	3,872	28,273	44,692

#### Pairwise Comparisons

Measure: MEASURE\_1

(I) rb_pos	(J) rb_pos	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	-17,292*	4,386	,001	-26,589	-7,995
2	1	17,292*	4,386	,001	7,995	26,589

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

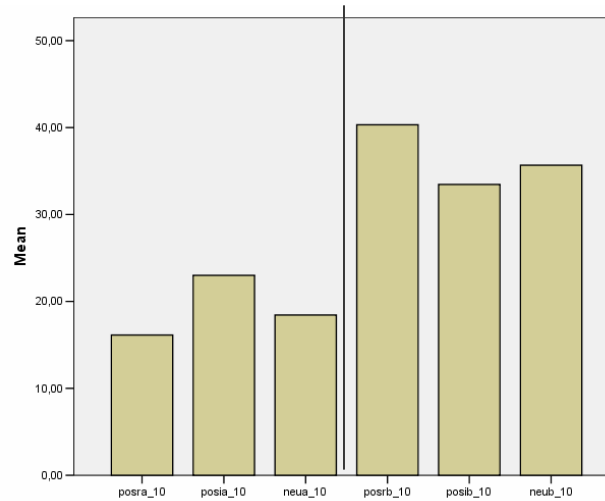
### Interaktion

#### 4. rb\_pos \* emotion

Measure: MEASURE\_1

rb_pos	emotion	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	16,135	3,773	8,137	24,134
	2	23,000	4,043	14,430	31,570
	3	18,435	4,642	8,596	28,275
2	1	40,324	5,326	29,034	51,613
	2	33,453	3,702	25,605	41,300
	3	35,671	4,667	25,777	45,564

## Report: Reales Wort | Illusorisches Wort



Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
emotion	Sphericity Assumed	415,087	2	207,544	3,285	,050	,170
	Greenhouse-Geisser	415,087	1,518	273,487	3,285	,066	,170
	Huynh-Feldt	415,087	1,644	252,559	3,285	,062	,170
	Lower-bound	415,087	1,000	415,087	3,285	,089	,170
Error(emotion)	Sphericity Assumed	2021,499	32	63,172			
	Greenhouse-Geisser	2021,499	24,284	83,243			
	Huynh-Feldt	2021,499	26,296	76,874			
	Lower-bound	2021,499	16,000	126,344			

Tests of Within-Subjects Effects

Measure: MEASURE\_1

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	
emotion	Sphericity Assumed	418,046	2	209,023	1,304	,285	,075
	Greenhouse-Geisser	418,046	1,591	262,786	1,304	,283	,075
	Huynh-Feldt	418,046	1,738	240,524	1,304	,284	,075
	Lower-bound	418,046	1,000	418,046	1,304	,270	,075
Error(emotion)	Sphericity Assumed	5128,981	32	160,281			
	Greenhouse-Geisser	5128,981	25,453	201,506			
	Huynh-Feldt	5128,981	27,809	184,436			
	Lower-bound	5128,981	16,000	320,561			

Pairwise Comparisons

Measure: MEASURE\_1

(I) emotion	(J) emotion	Mean Difference (I-J)	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for Difference <sup>a</sup>	
					Lower Bound	Upper Bound
1	2	-6,865*	1,804	,002	-10,688	-3,041
	3	-2,300	3,126	,473	-8,927	4,327
2	1	6,865*	1,804	,002	3,041	10,688
	3	4,565	3,045	,153	-1,890	11,019
3	1	2,300	3,126	,473	-4,327	8,927
	2	-4,565	3,045	,153	-11,019	1,890

Based on estimated marginal means

\*. The mean difference is significant at the ,05 level.

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

## Diskussion

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1. Gibt es generell einen Effekt der Valenz der Wörter?
2. Wie beeinflusst die Valenz des Wörter den Wettbewerb zwischen den Wortformen?
3. Wie interpretieren wir den Effekt der Position des Wiederholungsblindheit?