

Appendix

Study 1, Translated Experimental Instructions:

Different social networking sites on the Internet allow their users to share web topics with their friends and peers. This survey analyses what kind of content is being shared on Facebook, which is one of the best known social networking sites.

In this survey there are no right or wrong answers. It is all about your personal preferences.

In the following, we kindly ask you to read nine different articles and to answer some questions afterwards. In case you find one of the articles interesting and wish to share it with friends or could imagine sharing it, please use the Facebook button below the article. The articles are not really shared on Facebook but only used to learn about your preferences. Please assume that the message is completely new. Your data will be kept confidential and are only used for research purposes.

Thank you very much for taking part in this survey!

Please read the following article carefully. Could you imagine sharing it on Facebook?

Aggression among students: Girls set the tone

Cuddling or fighting? According to a new study the atmosphere in classroom is dominated mainly by the girls. If they are aggressive, the boys will be aggressive as well.

In some classes the students have punch-ups every day, in others there is constant harmony - and both ways at the same school. A new study of Potsdam University explains why there sometimes are hot tempered classes and then calm communities next door. The scientists have found out that the attitude of the majority motivates the others to adapt themselves. The girls in particular define the frame for aggressive behaviour.

"We need to understand how aggressive behaviour develops and what the impacts are to be able to do something about it", says the social psychologist Robert Busching. Over a period of three years he has monitored the aggressive behaviour of 1321 students in Berlin at the age of 12 to 16 and their attitude towards the assaults of others. The results of the study "The girls set the tone" were published in the scientific journal "Personality and Social Psychology Bulletin".

The students read a fictional story in which an adolescent provoked another. They were asked to put themselves in these positions and to state how they would react: keep discussing or hit hard at once? The adolescents were also asked how often they had kicked, hustled or bitten others in the past six months or whether they had damaged their mates with regard to their social relationships because of gossiping or mobbing. The students of the same classes were interviewed twice a year over a period of three years.

The class forms the individual

They found that the individual students adapted themselves to the standard of the class: if their community tolerated aggressive behaviour, even the peaceful students would rather start beating the others. The other way round, aggressive students became quieter if they were taught in a class with high social expectations.

The girls seem to play a significant role. If they are extremely quarrelsome, the whole class behaves more violently. "The girls agree more easily than the boys on what is accepted. And they have a considerable influence as a homogenous group", explains Busching, the psychologist.

The female authority, however, can also have a reason based on developmental psychology: in adolescence the girls are more oriented towards older boys. The boys, however, concentrate on the girls of the same age but according to Busching they have little influence. Within the same age group, the opinion of the girls prevails more easily.

 or continue?

PROCESS



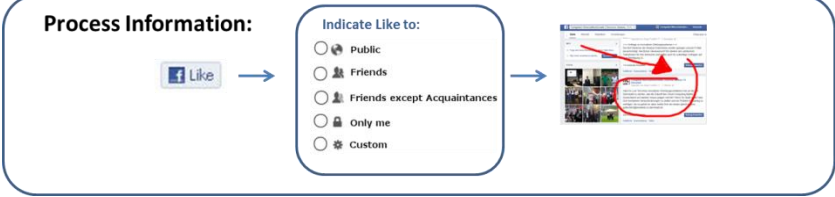



Process Information:

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You only have to click the button "Recommend" to post the article on Facebook

Figure 1. Study 1, Experimental setup (translated)

<p>Process Information:</p> 	<p>One-click, Low Information Control, Positively connoted Label (T1)</p>
<p>Process Information:</p> 	<p>One-click, Low Information Control, Neutral Label (T2)</p>
<p>Process Information:</p> 	<p>One-click, High Information Flow Control, Positively connoted Label (T3)</p>
<p>Process Information:</p> 	<p>One-click, High Information Flow Control, Neutral Label (T4)</p>
<p>Process Information:</p> 	<p>Two-click, Low Information Control, Positively connoted Label (T5)</p>
<p>Process Information:</p> 	<p>Two-click, Low Information Control, Neutral Label (T6)</p>

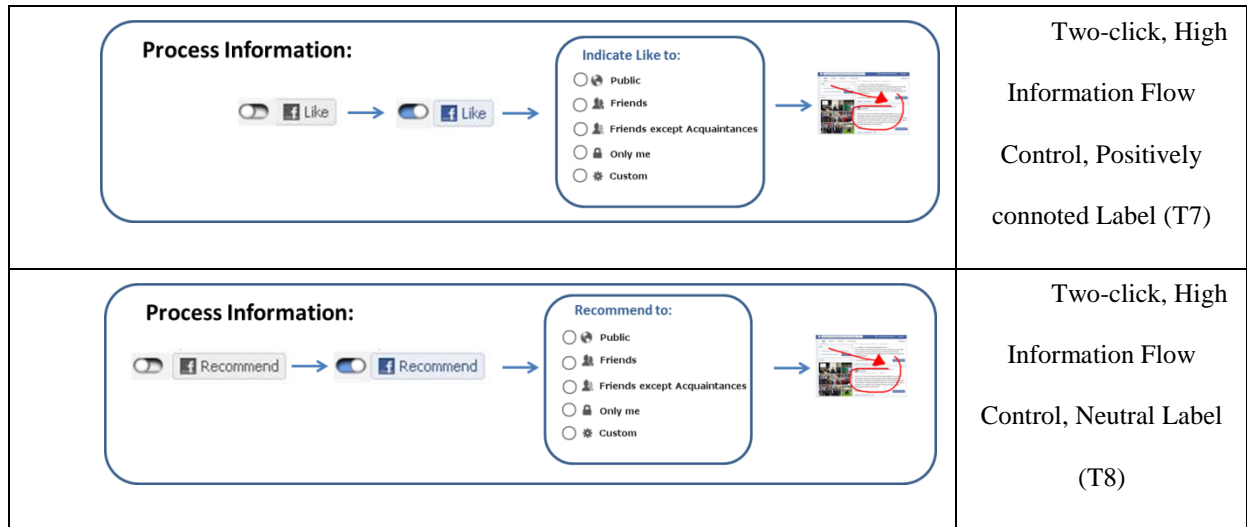


Figure 2. Study 1, All experimental treatments (translated)

Variable	Categories	Percentage of sample
Gender	Male	54.03
	Female	44.97
Education level	High School	17.88
	University degree	25.45
	other	56.67
User's reading interests (multiple choice)	Science	43.58
	Business	34.92
	Technology	32.68
	Travel	52.23
	Politics	40.22
	Local news	48.04
	Lifestyle	37.71
	Sports	58.66
	Culture	43.58
	Humor	54.75
	Society	48.60
	Career	37.71
	Cars	45.81
Number of friends on Facebook	0-50	2.23
	51-100	33.52
	101-150	17.04
	151-200	18.44
	201-250	9.78
	251-300	5.31
	301-350	5.03
	351-400	1.96
	401-450	2.23
451 and more	4.47	
Frequency of Facebook usage	Never	1.12
	As good as never	2.79
	Once a month	2.79
	Once a week	10.89
	Several times a week	23.18
	Once a day	34.08
	Several times a day	25.14

Table 1. Study 1, Demographical sample characteristics

Treatment group	Number of participants	Correctly identified the sharing mechanism	# of users who shared at least once	Female participants	Age	Need to belong	Need to be different	Opinion leader	Altruism
1	47	26 (55%)	19	21	46	3.72	4.01	4.36	5.04
2	43	14 (33%)	18	20	43	3.67	4.21	4.51	5.21
3	46	25 (54%)	10	22	47	3.77	4.11	4.36	5.40
4	43	16 (37%)	7	17	47	3.85	4.37	4.42	5.43
5	46	8 (17%)	8	15	43	3.84	4.09	4.25	5.15
6	42	15 (36%)	12	20	43	3.77	4.03	4.44	5.24
7	44	11 (25%)	6	24	48	3.76	4.09	4.52	5.26
8	47	12 (26%)	14	22	43	3.68	4.23	4.44	5.01
Total	358	127 (35%)	94	161	45	3.76	4.14	4.41	5.21
Random distribution tests		$\chi^2(7) = 29.09^{***}$	$\chi^2(7) = 18.88^{**}$	$\chi^2(7) = 5.36^{n.s.}$	F = 1.20 ^{n.s.}	F = .27 ^{n.s.}	F = .52 ^{n.s.}	F = .54 ^{n.s.}	F = 1.27 ^{n.s.}

Notes: * p < 0.10, ** p < 0.05, *** p < 0.01, n.s. not significant

Table 2. Study 1, Summary statistics of treatment groups

Article	Positivity	Anger	Anxiety	Awe	Sadness	Surprise	Practical utility	Interest	Fraction of Recommendations / Likes
1	4.13 (1.41)	3.10 (1.78)	2.68 (1.67)	2.56 (1.57)	2.99 (1.80)	3.69 (1.71)	3.23 (1.76)	4.46 (1.58)	11.9% / 8.7%
2	4.20 (1.44)	2.61 (1.58)	2.58 (1.56)	2.67 (1.58)	2.69 (1.60)	3.53 (1.66)	4.14 (1.67)	4.46 (1.71)	10.0% / 7.4%
3	4.56 (1.42)	2.36 (1.63)	2.32 (1.59)	2.39 (1.57)	2.31 (1.57)	3.83 (1.75)	4.09 (1.67)	4.44 (1.70)	12.8% / 7.8%
4	4.13 (1.45)	3.38 (1.79)	3.33 (1.81)	2.99 (1.67)	3.49 (1.83)	4.05 (1.68)	4.00 (1.65)	4.78 (1.44)	14.5% / 9.5%
5	4.65 (1.44)	2.28 (1.62)	2.21 (1.56)	3.05 (1.81)	3.37 (1.77)	3.06 (1.70)	3.13 (1.69)	4.41 (1.64)	8.9% / 7.4%
6	4.72 (1.30)	2.33 (1.57)	2.33 (1.57)	2.56 (1.63)	2.34 (1.58)	3.54 (1.68)	4.82 (1.64)	4.86 (1.54)	16.2% / 7.4%
7	4.32 (1.40)	2.74 (1.79)	2.46 (1.70)	2.36 (1.53)	2.59 (1.63)	3.38 (1.69)	3.09 (1.65)	3.99 (1.72)	9.5% / 4.8%
8	5.05 (1.43)	2.43 (1.62)	2.38 (1.57)	3.63 (1.86)	2.68 (1.60)	4.10 (1.68)	4.15 (1.67)	4.92 (1.60)	16.8% / 11.1%
9	3.73 (1.43)	4.17 (2.00)	3.28 (1.99)	2.65 (1.77)	3.59 (1.95)	3.76 (1.81)	2.74 (1.75)	3.95 (1.75)	8.9% / 5.9%
Total	4.39 (1.46)	2.82 (1.81)	2.62 (1.72)	2.76 (1.71)	2.90 (1.77)	3.66 (1.73)	3.71 (1.80)	4.47 (1.66)	
F	27.75 ^{***}	40.32 ^{***}	21.80 ^{***}	20.87 ^{***}	29.16 ^{***}	13.08 ^{***}	58.86 ^{***}	16.21 ^{***}	

Notes: * p < 0.10, ** p < 0.05, *** p < 0.01, n.s. not significant

Table 3. Study 1, Users' evaluation of articles

Positively connoted Label	N = 423; M = 15.4%; SD = .361
Neutral Label	N = 387; M = 19.1%; SD = .394
High Information Flow Control & Positively connoted Label	N = 414; M = 4.6%; SD = .209
High Information Flow Control & Neutral Label	N = 387; M = 7.0%; SD = .255
Two-click & Positively connoted Label	N = 414; M = 7.7%; SD = .267
Two-click & Neutral Label	N = 378; M = 14.3%; SD = .350
Two-click & High Information Flow Control & Positively connoted Label	N = 396; M = 3.5%; SD = .185
Two-click & High Information Flow Control & Neutral Label	N = 423; M = 9.2%; SD = .290

Table 4. Study 1, number of observations, mean and standard deviations of sharing probability per treatment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
High control	1.028 (0.686)	-0.858*** (0.177)	-0.856*** (0.177)	-0.848*** (0.177)	-0.854*** (0.177)	-0.864*** (0.177)	-0.855*** (0.177)	-0.857*** (0.175)
Positively connoted label	-1.059* (0.552)	-1.153* (0.641)	-1.061* (0.627)	-1.253** (0.565)	-1.465** (0.613)	-1.688*** (0.616)	-1.251** (0.583)	-2.789*** (0.752)
Two-click	-0.351** (0.173)	-0.356** (0.172)	-0.357** (0.173)	-0.358** (0.172)	-0.351** (0.172)	-0.344** (0.172)	-0.353** (0.172)	-0.348** (0.171)
Age*High-control	-0.041*** (0.015)							
Positivity	0.117 (0.077)	0.105 (0.077)	0.109 (0.077)	0.115 (0.077)	0.0993 (0.077)	0.126 (0.077)	0.119 (0.077)	0.188** (0.080)
Positivity*Positively con. label	0.147 (0.101)	0.157 (0.103)	0.150 (0.102)	0.135 (0.101)	0.169* (0.101)	0.116 (0.101)	0.123 (0.106)	-0.046 (0.112)
Anger	-0.100 (0.063)	-0.114 (0.073)	-0.106* (0.063)	-0.108* (0.063)	-0.112* (0.063)	-0.110* (0.063)	-0.109* (0.063)	-0.115* (0.063)
Anxiety	0.109* (0.066)	0.104 (0.066)	0.106 (0.076)	0.105 (0.066)	0.110* (0.066)	0.107 (0.066)	0.104 (0.066)	0.105 (0.066)
Awe	-0.090* (0.048)	-0.087* (0.047)	-0.087* (0.047)	-0.124** (0.058)	-0.086* (0.047)	-0.088* (0.047)	-0.086* (0.048)	-0.079* (0.047)
Sadness	-0.095* (0.056)	-0.094* (0.056)	-0.094* (0.056)	-0.094* (0.056)	-0.144** (0.067)	-0.095* (0.056)	-0.092 (0.056)	-0.095* (0.056)
Surprise	0.085* (0.046)	0.083* (0.046)	0.083* (0.046)	0.078* (0.046)	0.080* (0.046)	0.006 (0.058)	0.086* (0.046)	0.080* (0.046)
Practical Utility	0.145*** (0.050)	0.144*** (0.050)	0.144*** (0.050)	0.144*** (0.050)	0.144*** (0.050)	0.155*** (0.050)	0.117* (0.060)	0.138*** (0.050)
Interest	0.376*** (0.070)	0.369*** (0.069)	0.369*** (0.069)	0.372*** (0.070)	0.366*** (0.070)	0.361*** (0.070)	0.369*** (0.070)	0.211*** (0.079)
Interaction effects of pos. connoted label with:								
Anger		0.018 (0.081)						
Anxiety			-0.001 (0.083)					
Awe				0.091 (0.075)				
Sadness					0.111 (0.077)			
Surprise						0.178** (0.082)		
Pract. Utility							0.066 (0.081)	
Interest								0.478*** (0.133)
Need to belong	0.287*** (0.095)	0.274*** (0.094)	0.274*** (0.094)	0.279*** (0.094)	0.272*** (0.094)	0.248*** (0.095)	0.272*** (0.094)	0.269*** (0.093)
Need to be different	-0.242*** (0.083)	-0.248*** (0.083)	-0.247*** (0.083)	-0.250*** (0.083)	-0.254*** (0.083)	-0.252*** (0.083)	-0.249*** (0.083)	-0.232*** (0.082)
Opinion Leader	0.273** (0.119)	0.281** (0.119)	0.284** (0.119)	0.278** (0.119)	0.270** (0.119)	0.287** (0.119)	0.285** (0.119)	0.276** (0.118)
Altruism	0.191* (0.115)	0.193* (0.115)	0.191* (0.115)	0.199* (0.115)	0.202* (0.115)	0.194* (0.115)	0.188 (0.115)	0.152 (0.114)
Age	0.016* (0.009)	0.000 (0.008)	0.000 (0.008)	-0.000 (0.008)	0.000 (0.008)	0.001 (0.008)	0.001 (0.008)	0.001 (0.008)
Female	-0.800*** (0.186)	-0.790*** (0.186)	-0.790*** (0.186)	-0.792*** (0.186)	-0.795*** (0.186)	-0.811*** (0.187)	-0.793*** (0.186)	-0.775*** (0.184)
Constant	-4.161*** (1.342)	-3.201** (1.293)	-3.256** (1.292)	-3.167** (1.280)	-2.953** (1.292)	-2.968** (1.284)	-3.191** (1.279)	-2.706** (1.267)
Education level controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Facebook posting frequency con.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Facebook usage frequency con.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Article controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Round number controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3222	3222	3222	3222	3222	3222	3222	3222
Wald χ^2	261.5	256.5	256.2	258.0	258.5	256.9	256.4	254.9

Note: Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.

Table 5. Analysis of interaction effects

Variable	Percentage of sample	M	SD	Min	Max
# Facebook shares		14.65	85.32	0	4047
High control	25.93				
Positively connoted label	15.87				
Two-click design	48.82				
Positivity ^{ab}		.56	1.49	-9.38	14.29
Anger ^{ab}		2.07	1.23	1	5
Anxiety ^{ab}		1.73	1.06	1	5
Awe ^{ab}		1.49	0.79	1	5
Sadness ^{ab}		1.72	1.10	1	5
Surprise ^{ab}		2.02	1.03	1	5
Practical utility ^{ab}		1.48	0.93	1	5
Interest ^{ab}		3.09	0.88	1	5
Based on news agencies reports ^b	68.23				
Female first author ^b	5.32				
Writing complexity ^b		67.28	15.89	10	100
Published on start page ^b	26.13				
Published in science section	1.96				
Published in sports section	14.97				
Published in cars section	1.43				
Published in digital section	1.03				
Published in business section	8.68				
Published in health section	0.85				
Published in culture section	2.08				
Published in society section	4.40				
Published in politics section	12.85				
Published in travel section	0.87				
Published in humor section	0.20				
Published in education section	0.51				
# words		604	668.12	75	9,465
Published between 6 am and 6 pm	71.54				
Published on weekend	27.69				
Spiegel Online	8.13				
Focus Online	19.80				
Sports1	13.44				
Chip Online	2.43				
Handelsblatt	14.99				
Welt Online	13.25				
Zeit Online	18.31				
FAZ.net	6.59				
Heise Online	2.09				
Bunte	1.07				

Note: ^a before standardization, ^b manually coded articles (n = 638)

Table 6. Study 2, Summary statistics

Model	(1) Only controls	(2) + Main effects	IRR	(3) Only coded articles	(4) Neg. bin. model	(5) + # Tweets	(6) + newspaper readership controls
	# Shares	# Shares	# Shares	# Shares	# Shares	# Shares	#Shares
# Tweets						0.014*** (0.001)	
High control		-0.791** (0.399)	.45**	-3.850*** (0.733)	-2.780*** (0.801)	-0.703** (0.355)	-1.801*** (0.301)
Pos. con. label		-1.945*** (0.565)	.14***	-2.646*** (0.445)	-0.945 (0.751)	-1.367*** (0.528)	-9.662*** (1.772)
Two-click design		-0.879*** (0.121)	.42***	-1.572*** (0.322)	-1.971*** (0.672)	-0.851*** (0.125)	-0.918*** (0.212)
Pos. con. label *Positivity ^a		0.141*** (0.030)	1.15***	0.948*** (0.151)	-0.075 (0.136)	0.109*** (0.024)	0.047*** (0.015)
Positivity ^a	0.052*** (0.013)	0.049*** (0.014)	1.05***	0.010 (0.066)	0.025 (0.027)	0.022*** (0.009)	0.138*** (0.030)
# words	0.000 (0.000)	0.000 (0.000)	1.00	-0.000 (0.000)	0.000 (0.001)	-0.000 (0.000)	0.000 (0.000)
Published between 6am and 6pm	0.134** (0.052)	0.134** (0.052)	1.14***	0.572** (0.246)	0.275** (0.115)	0.230*** (0.065)	0.083*** (0.030)
Published on weekend	-0.079 (0.062)	-0.080 (0.062)	0.92	0.623** (0.282)	-0.026 (0.050)	-0.059 (0.057)	-0.065 (0.069)
Anger ^a				0.019 (0.096)			
Anxiety ^a				0.170*** (0.045)			
Awe ^a				-0.539*** (0.139)			
Sadness ^a				0.355*** (0.096)			
Surprise ^a				0.171** (0.085)			
Practical Utility ^a				-0.280** (0.131)			
Interest ^a				0.058 (0.053)			
Based on news agencies' reports				-1.033*** (0.215)			
Female first author				-0.800*** (0.227)			
Complexity				0.009* (0.005)			
Published on start page				1.883*** (0.538)			
Section controls	Yes	Yes		Yes	Yes	Yes	Yes
Outlet dummies	Yes	Yes		Yes	Yes	Yes	
Newspaper readership controls							Yes
Constant	3.721*** (0.689)	3.723*** (0.689)		2.398*** (0.934)	3.030*** (1.019)	2.895*** (0.626)	8.029*** (1.120)
Ln α					1.526*** (0.239)		
<i>N</i>	41,716	41,716		638	41,716	41,716	41,176
Pseudo <i>R</i> ²	0.327	0.327		0.602		0.470	0.312
<i>BIC</i>	1995936.5	1995438.5		17,026.5	196221.4	1570805.9	2124506.5
LL (constant only)	-1482837.4	-1482837.4		-21,303.6	-105499.0	-1482837.4	-1544420.3
LL (full model)	-997920.4	-997671.4		-8,484.2	-98062.8	-785355.1	-1062200.0

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. ^a standardized values

Table 7. Estimation results, Study 2

Outlet	Male unique users, Mio.	Net reach high school, %	Net reach occupied, %	Net reach age 14-19, %	Net reach age 20-29, %	Net reach age 30-39, %	Net reach age 40-49, %
Spiegel Online	6.86	32.2	22.4	24.6	29.2	25.4	20.5
Focus Online	5.18	23.6	18.3	23.6	23.2	20	17.1
Sports1	2.14	6.9	5.9	7	8.7	6.2	5.6
Chip Online	8.3	28.9	24.2	44	35.7	28	22
Handelsblatt	1.63	6.9	4.9	4.1	5.1	4.8	4.5
Welt Online	4.95	22.5	17.3	21	22.4	18.5	16.2
Zeit Online	2.61	13.8	8.8	10.2	13.7	10	7.6
FAZ.net	2.29	11.2	7.3	7.4	9.4	7.8	6.6
Heise Online	2.95	10.9	8.1	8.4	10.6	10.1	7.1
Bunte	.72	4	3.3	3.3	3.3	3.4	3.1

Table 8. Newspaper readership controls, study 2

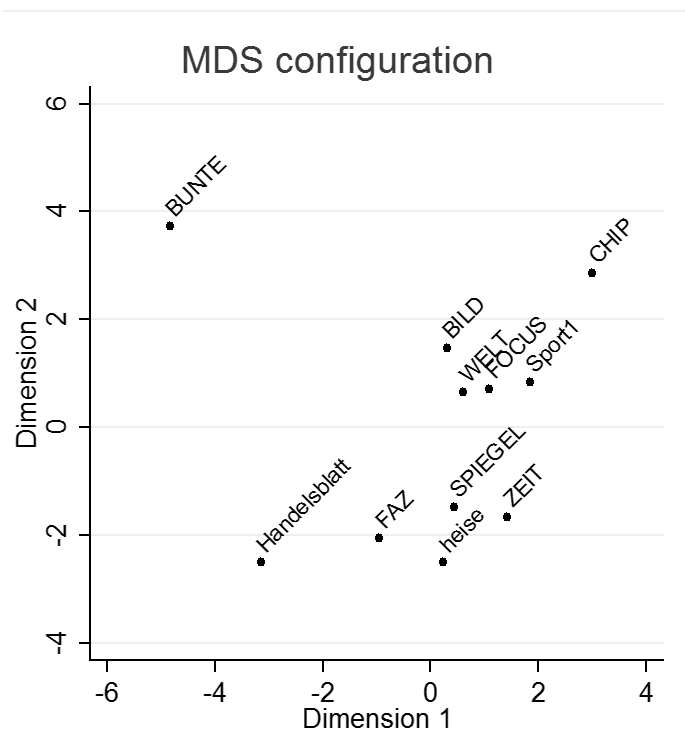


Figure 3. MDS of the 11 German leading online newspapers and magazines

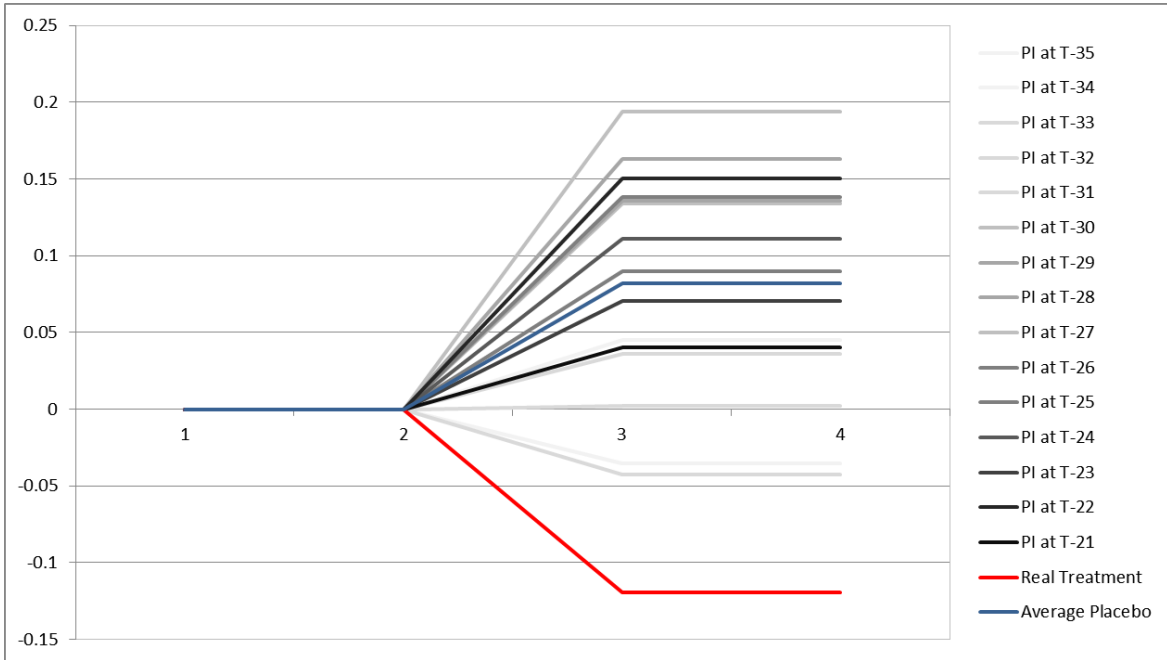


Figure 4. Effect of Placebo Intervention (PI) and Real Treatment on Intervention Effect