

Exploring Styles of Humor

Via Exploratory Factor Analysis

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Presentation Overview

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What we know about humor now?

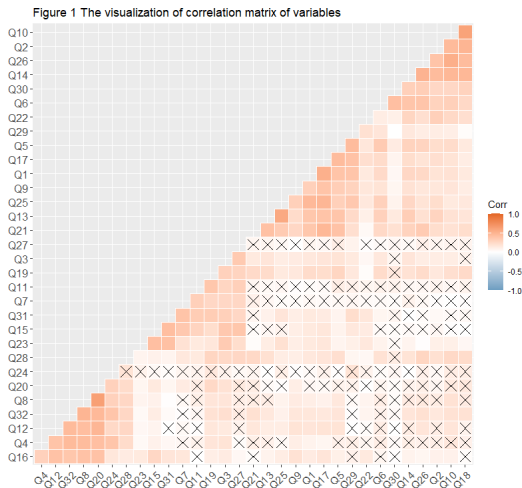
- Humor has potential beneficial effects on physical and psychosocial health and well-being.
- There have been some self-report humor measures (e.g. Coping Humor Scale–CHS) that can evaluate the positive effects of humor on mental health.
- However, researchers suggested these existed measures showed an insignificant relationship between humor and well-being.
- One possible reason for these is that we may ignore some 'NOT GOOD' humor, which is possibly detrimental to well-being.
- Therefore, it is necessary to develop a scale to measure the styles (functions) of humor.

Data

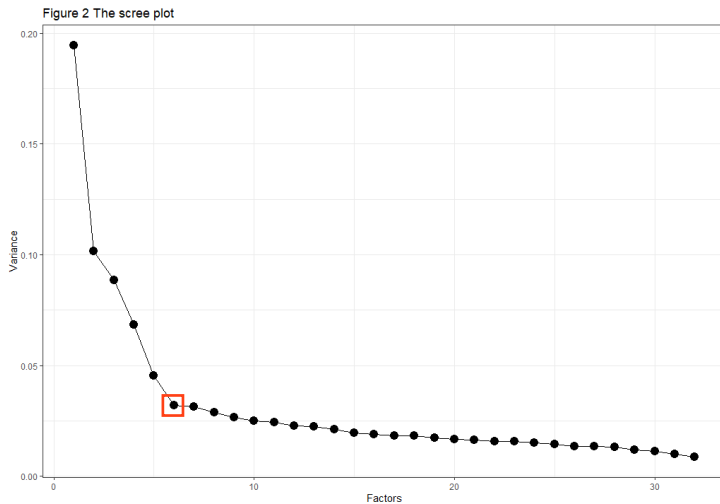
- 32 questions are used to classify the styles of humor
 - I usually don't laugh or joke around much other people.
 - People are never offended or hurt by my sense of humor.
 - ...
- 1071 observations were collected ($n \gg x$)
- Data is from

The logo for Kaggle, featuring the word "kaggle" in a light blue, lowercase, sans-serif font.

Checking Correlation Matrix



Determining the number of factors



$$k = 6$$

When the number of factors is equal to 6, the solutions using the principal factor method with varimax rotation:

Variables	F1	F2	F3	F4	F5	F6	Communality	Specific Vairance
Q1	0.144	0.626					0.439	0.561
Q2	0.596	0.159				0.155	0.413	0.587
Q3		0.158	0.170	0.518			0.322	0.667
Q4			0.599				0.369	0.631
Q5	0.217	0.630				-0.100	0.478	0.522
Q6	0.426	0.295			0.105	-0.101	0.297	0.703
Q7				0.544			0.298	0.702
Q8			0.743				0.566	0.434
Q9	0.110	0.461	0.136			0.155	0.269	0.731
Q10	0.732		0.156			0.135	0.587	0.413
...		
Q30	0.439						0.210	0.790
Q31		0.103		0.639		0.217	0.475	0.525
Q32	0.138	0.121	0.654				0.466	0.534

$$k = 4$$

When the number of factors is equal to 4, the solutions using the principal factor method with varimax rotation:

Variables	F1	F2	F3	F4	Communality	Specific Vairance
Q1	0.644	0.136			0.447	0.553
Q2	0.188	0.590			0.390	0.610
Q3	0.146	0.106	0.179	0.510	0.325	0.675
Q4			0.601		0.370	0.630
Q5	0.567	0.216	0.111		0.385	0.615
Q6	0.312	0.424			0.282	0.718
Q7				0.542	0.296	0.704
Q8			0.743		0.566	0.434
Q9	0.456	0.107	0.136		0.241	0.759
Q10		0.725	0.154		0.559	0.441
...		
Q30		0.440			0.200	0.800
Q31	0.130			0.667	0.463	0.537
Q32	0.112	0.138	0.657		0.466	0.534

Variables \rightarrow Factors

- f_1 : Q1, Q5, Q9, Q13, Q17, Q21, Q25, Q29.
- f_2 : Q2, Q6, Q10, Q14, Q18, Q22, Q26, Q30.
- f_3 : Q3, Q7, Q11, Q15, Q19, Q23, Q27, Q31.
- f_4 : Q4, Q8, Q12, Q16, Q20, Q24, Q28, Q32.

What are the practical meanings of factors?

Then we summarize the characteristics of questions for each factor:

- f_1 : Affiliative humor (individuals tend to say funny things and to tell jokes.)
- f_2 : Self-enhancing humor (you have a humorous outlook on life.)
- f_3 : Aggressive humor (individuals use humor as sarcasm, teasing and "put-down" to others.)
- f_4 : Self-defeating humor (to amuse others by excessive self-dispraise.)

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