



# The incremental validity of the Cognitive Fusion Questionnaire (CFQ) over a measure of automatic negative thoughts

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## BACKGROUND

The Cognitive Fusion Questionnaire (CFQ; Gillanders et al., 2014) is a well-validated measure of cognitive fusion. However, it is unclear if the CFQ has incremental validity compared to measures of the frequency of difficult thoughts. Items on the CFQ include "My thoughts cause me distress or emotional pain" and "I get upset with myself for having certain thoughts." Responses to these items could be highly influenced by the frequency of difficult thoughts. Establishing the incremental validity of the CFQ over a measure of the frequency of difficult thoughts would help to clarify that the CFQ is measuring cognitive fusion specifically.

This poster presents the results of an investigation of the incremental validity of the CFQ compared to a measure of automatic negative thoughts, the ATQ-F or ATQ (Hollon & Kendall, 1980) in a college student sample ( $n = 389$ ). Specifically, this study examined the predictive validity of the CFQ when controlling for automatic negative thoughts and whether or not CFQ and ATQ-F items load separately in a factor analysis.

## METHODS

### Participants

- $N=389$ , 69.7% female, mean age 20.08 (SD=3.48) years
- 4.1% Hispanic or Latino
- 95.4% White, 2.3% Asian, 1.3% Black, 0.5% American Indian/Alaska Native, 0.5% Native Hawaiian/Pacific Islander, 1.5% other
- Inclusion criteria: College student, 18 or older
- Participants completed self-report measures through online survey, with follow-up survey four weeks later
- Although participants were unscreened, 13.2% reported significant distress according to CCAPS cutoffs

### Measures

- *Cognitive Fusion Questionnaire* (CFQ; Gillanders et al., 2014)
- *Counseling Center Assessment of Psychological Symptoms, 34-item version* (CCAPS-34; Locke et al., 2012)
- *Automatic Thoughts Questionnaire-Frequency* (ATQ-F; Hollon & Kendall, 1980)

## ANALYSIS

- Multivariate regression models tested if baseline cognitive fusion predicted distress, depression, anxiety, social anxiety, and academic distress one month later controlling for baseline levels of the DV and automatic negative thought frequency
- Principal axis factoring with direct oblimin rotation (allowing for correlation between factors) was applied to CFQ and ATQ-F items to determine if the two measures load separately

## RESULTS

- At baseline the CFQ was significantly associated with automatic negative thoughts ( $r = 0.71$ ,  $p < .001$ ), depression ( $r = 0.67$ ,  $p < .001$ ), anxiety ( $r = 0.67$ ,  $p < .001$ ), social anxiety ( $r = 0.53$ ,  $p < .001$ ), and academic distress ( $r = 0.50$ ,  $p < .001$ )
- The CFQ predicted distress ( $\beta = 0.14$ ,  $p < .05$ ), depression ( $\beta = 0.11$ ,  $p < .05$ ), and anxiety ( $\beta = 0.16$ ,  $p < .01$ ) one month later controlling for the DV and automatic negative thoughts at baseline
- The CFQ did not predict significant additional variance in social anxiety or academic distress one month later controlling for the DV and automatic negative thoughts at baseline
- Four factors were obtained with eigenvalues  $> 1$ , and CFQ and ATQ-F items loaded exclusively on separate factors (loadings were considered significant if  $> 0.4$ ). Factor 2 (with CFQ items) had medium to large correlations with the other factors ( $r = 0.42$  with Factor 3;  $r = 0.60$  with Factor 1 items,  $r = 0.62$  with Factor 4 items)

CFQ correlations at baseline	<i>r</i>	<i>p</i>
Automatic negative thought frequency	.71	<.001
Depression	.67	<.001
Anxiety	.67	<.001
Social anxiety	.53	<.001
Academic distress	.50	<.001

Longitudinal regression models	$\beta$	<i>p</i>	$R^2$
<b>Prediction of distress</b>			
Distress at baseline	.55	<.001	.61
Automatic negative thoughts	.15	.008	
Cognitive fusion	.14	.011	
<b>Prediction of depression</b>			
Depression at baseline	.42	<.001	.73
Automatic negative thoughts	.26	<.001	
Cognitive fusion	.11	.047	
<b>Prediction of anxiety</b>			
Anxiety at baseline	.62	<.001	.76
Automatic negative thoughts	.05	.365	
Cognitive fusion	.16	.004	

	Factor Loadings			
	1	2	3	4
CFQ - My thoughts cause me distress or emotional pain	0.064	<b>0.812</b>	0.012	0.027
CFQ - I get so caught up in my thoughts that I am unable to do the things that I most want to do	0.048	<b>0.833</b>	0.026	0.008
CFQ - I over-analyze situations to the point where it's unhelpful to me	-0.001	<b>0.780</b>	0.092	-0.068
CFQ - I struggle with my thoughts	-0.014	<b>0.976</b>	-0.049	-0.024
CFQ - I get upset with myself for having certain thoughts	0.073	<b>0.824</b>	-0.080	0.012
CFQ - I tend to get very entangled in my thoughts	-0.078	<b>0.938</b>	-0.076	0.023
CFQ - It's such a struggle to let go of upsetting thoughts even when I know that letting go would be helpful	-0.039	<b>0.873</b>	-0.060	0.042
ATQ-F - I feel like I'm up against the world.	-0.036	0.163	0.188	<b>0.433</b>
ATQ-F - I'm no good.	<b>0.722</b>	0.115	0.170	-0.046
ATQ-F - Why can't I ever succeed?	<b>0.511</b>	0.093	0.336	0.029
ATQ-F - No one understands me.	0.241	0.249	0.162	0.240
ATQ-F - I've let people down.	<b>0.448</b>	0.253	0.172	0.063
ATQ-F - I don't think I can go on.	0.179	0.045	-0.069	<b>0.573</b>
ATQ-F - I wish I were a better person.	<b>0.524</b>	0.148	0.261	-0.065
ATQ-F - I'm so weak.	<b>0.582</b>	0.137	0.107	0.049
ATQ-F - My life's not going the way I want it to.	0.323	0.012	0.398	0.203
ATQ-F - I'm so disappointed in myself.	<b>0.621</b>	0.086	0.280	0.017
ATQ-F - Nothing feels good anymore.	0.087	0.093	0.096	<b>0.825</b>
ATQ-F - I can't stand this anymore.	0.134	0.152	-0.035	<b>0.576</b>
ATQ-F - I can't get started	-0.153	0.133	0.203	<b>0.693</b>
ATQ-F - What's wrong with me?	0.331	0.221	0.220	0.296
ATQ-F - I wish I were somewhere else.	0.091	0.073	0.278	<b>0.448</b>
ATQ-F - I can't get things together	0.117	0.130	<b>0.465</b>	0.343
ATQ-F - I hate myself	<b>0.888</b>	0.013	-0.159	0.041
ATQ-F - I'm worthless	<b>0.847</b>	0.078	-0.166	0.070
ATQ-F - Wish I could just disappear	<b>0.551</b>	0.059	-0.221	0.350
ATQ-F - What's the matter with me?	<b>0.417</b>	0.189	0.176	0.216
ATQ-F - I'm a loser	<b>0.771</b>	-0.042	-0.031	0.109
ATQ-F - My life is a mess	0.237	0.063	<b>0.428</b>	0.241
ATQ-F - I'm a failure	<b>0.888</b>	0.023	0.011	-0.020
ATQ-F - I'll never make it	<b>0.553</b>	-0.043	0.045	0.300
ATQ-F - I feel so hopeless	<b>0.472</b>	0.094	0.032	0.372
ATQ-F - Something has to change	0.098	0.116	<b>0.428</b>	0.349
ATQ-F - There must be something wrong with me	0.333	0.104	0.163	<b>0.421</b>
ATQ-F - My future is bleak	0.293	0.015	-0.065	<b>0.573</b>
ATQ-F - It's just not worth it	0.044	-0.013	-0.175	<b>0.873</b>
ATQ-F - I can't finish anything	0.095	0.046	0.143	<b>0.611</b>

## REFERENCES

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