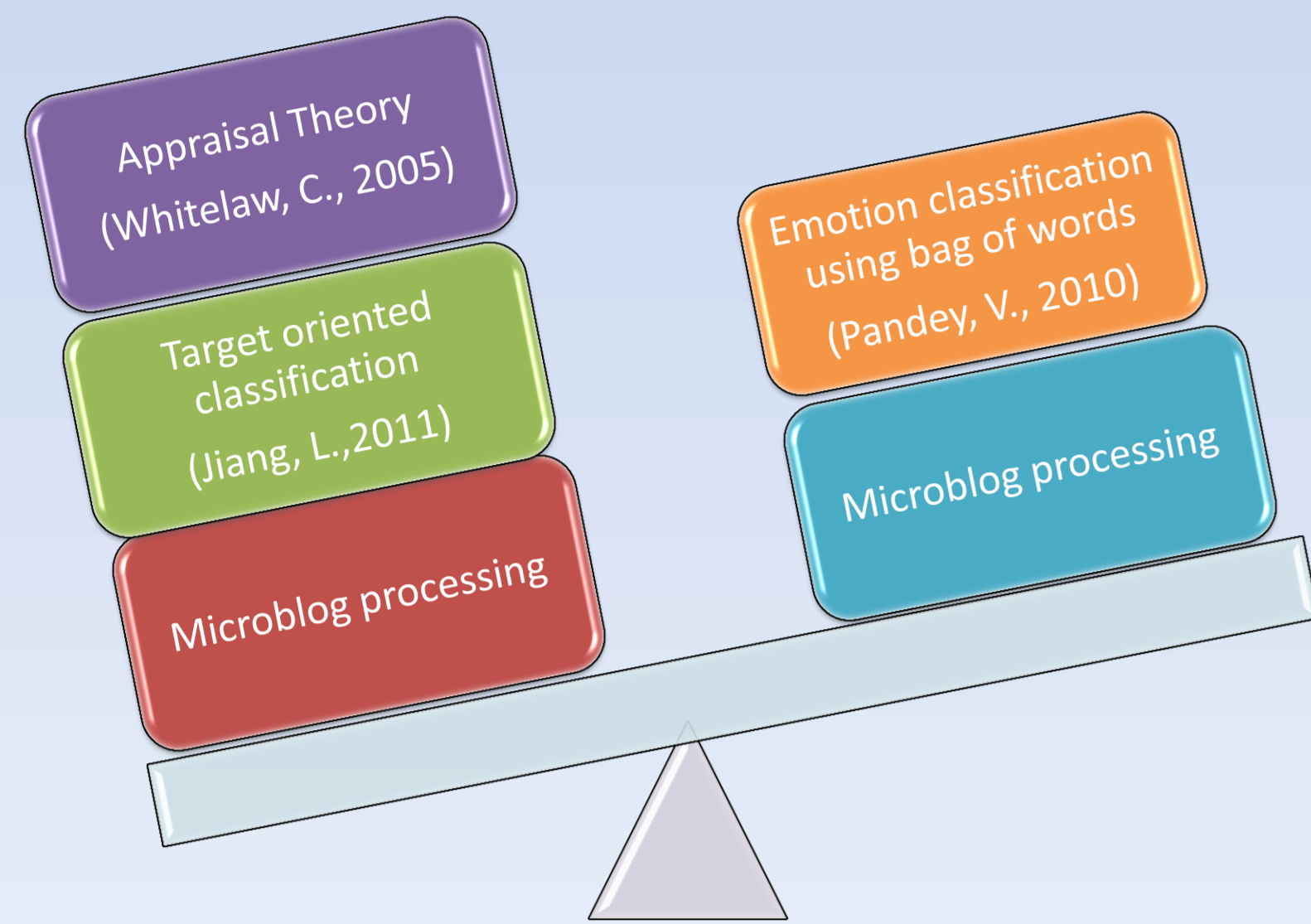


Emotion Classification of Microblogs Based on Appraisal Theory

Appraisal Theory

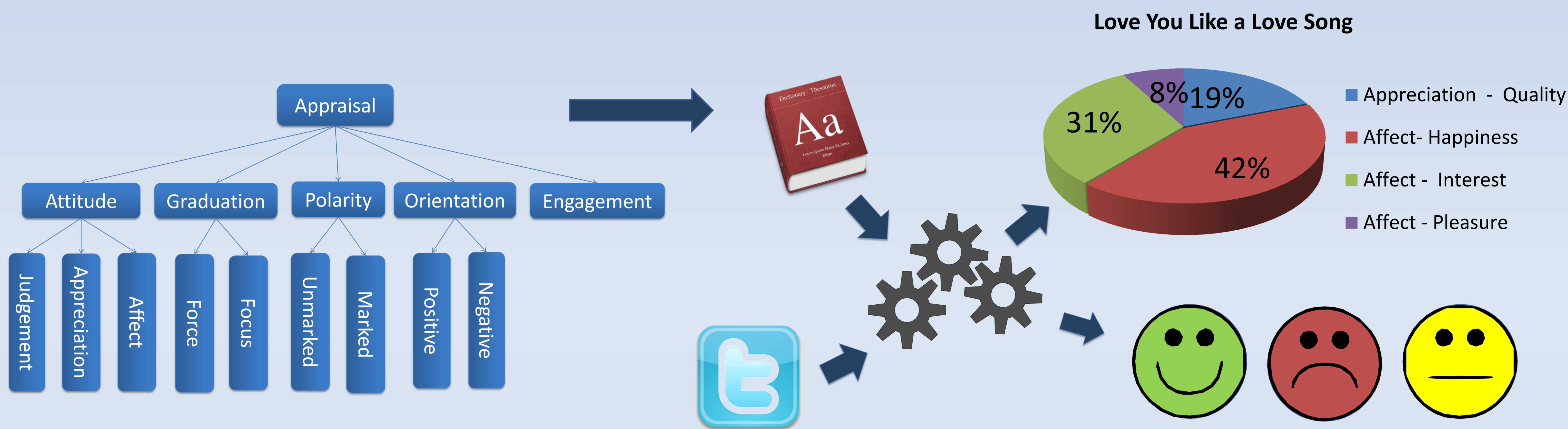
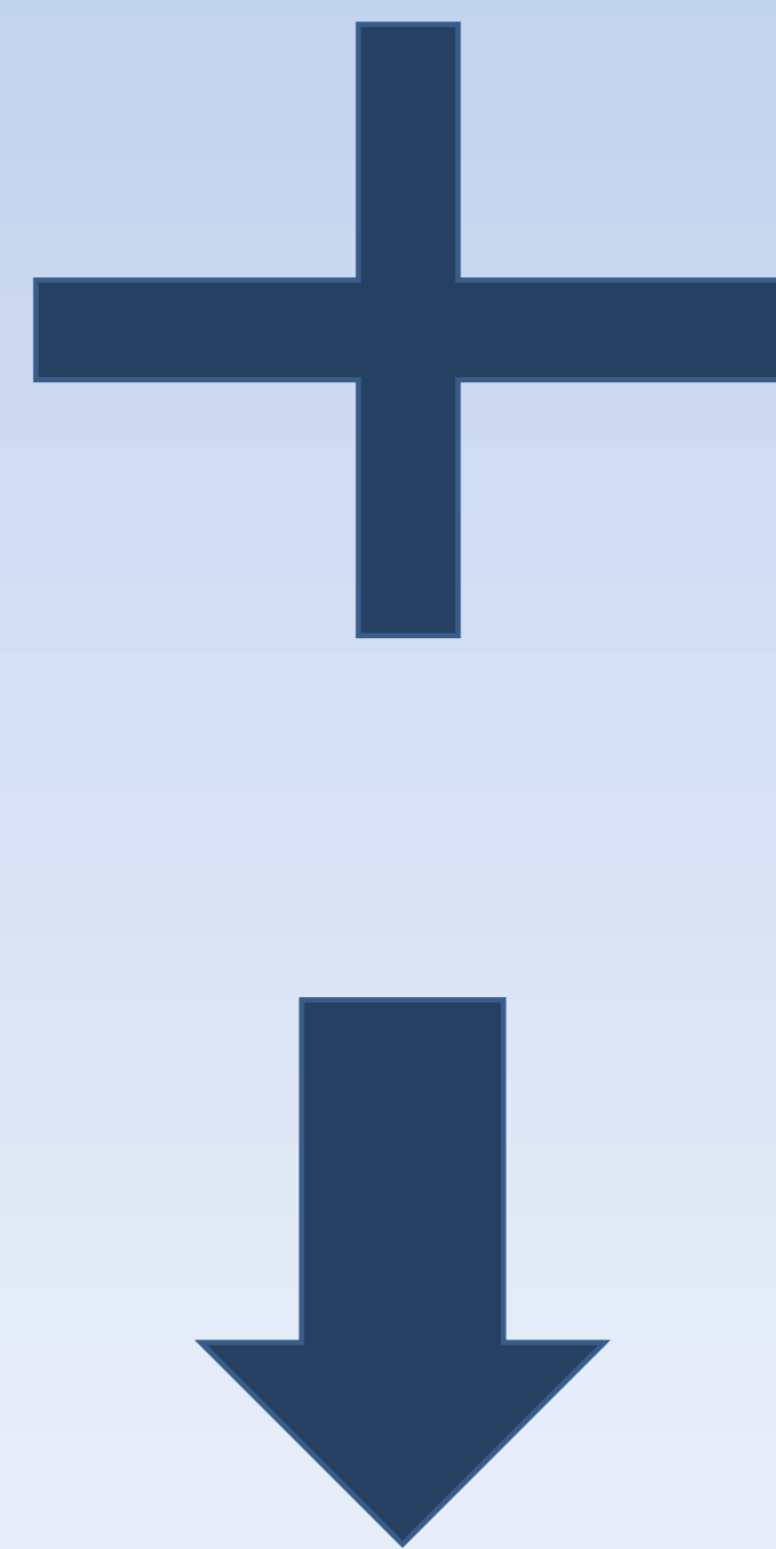
emotions are consequences of how an author appraised some situation



Microblog

short form of blog – 140 characters full of slang words, shortcuts, emoticons and opinions

- Whitelaw, C., Garg, N., Argamon, S.: Using appraisal groups for sentiment analysis.
- Jiang, L., Yu, M., Zhou, M., Liu, X., Zhao, T.: Target-dependent twitter sentiment classification.
- Pandey, V., Iyer, C.: Sentiment analysis of microblogs. <http://cs229.stanford.edu/proj2009/PandeyIyer.pdf> 2009



Target Oriented Classification

- using appraisal theory on microblogs
- features
 - emoticons, URL, CAPS
 - count of #, @, RT
- overall accuracy **88%**

Predicted class	Identified class			Total
	Positive	Negative	Neutral	
Positive	210	17	25	252
Negative	20	214	11	245
Neutral	150	115	1688	1953
Total	380	346	1724	2450

Identification of Targets

- using **hybrid patterns**: (syntax + microblog specific features)
- pronoun + verb + adjective + @#subject
- NewMessage + RT + origMessage
- if condition than statement
- summarization of emotions to target
- summarization was never done before

User	Count of microblogs	Count of targets	Identified targets	%
Jozef Chutka	180	200	180	90
Larissa Sutherland	159	168	155	92
Jeremiah Grifin	100	112	79	70
Selena Gomez	160	167	150	89
Total	590	647	564	85