Evaluative Language: When Linguistics Meets Computational Linguistics

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In this talk, I will argue that future developments in sentiment analysis need to be grounded in linguistic knowledge (and also extra-linguistic information). In particular, discourse and pragmatic phenomena play such an important role in the interpretation of evaluative language that they need to be taken into account if our goal is to accurately capture sentiment. I will show that processing evaluative language requires different linguistic levels of interpretation:

- From words to sentences: Focusing on lexical semantics of evaluative expressions and sentiment composition.
- From sentences to discourse: Focusing on the study of the role of discourse structure to sentiment analysis.
- From discourse to pragmatic inferences: Focusing on implicit evaluations, figurative language, and intention detection.

The results show that incorporating linguistic insights, discourse information and other contextual phenomena, in combination with the statistical exploitation of data can result in an improvement over approaches which take advantage of only one of those perspectives (Benamara et al, 2017; Chardon et al, 2013; Cadilhac et al, 2013; Karoui et al, 2015).

References: ● Benamara, F., Taboada, M., Mathieu Y. 2017. Evaluative Language Beyond Bags of Words: Linguistic Insights and Computational Applications. Computational Linguistics 43(1): 201-264 ● Chardon, B., Benamara, F., Mathieu Y., Popescu, V., and Asher, N. (2011): Measuring the Effect of Discourse Structure on Sentiment Analysis. CICLing (2) 2013: 25-37 ● Cadilhac, A, Asher, N, Benamara, F, Lascarides, A. (2013): Grounding Strategic Conversation: Using Negotiation Dialogues to Predict Trades in a Win-Lose Game. EMNLP 2013: 357-368 ● Karoui, J., Benamara, F., Moriceau, V., Aussenac-Gilles N., and Belguith, L. (2015): Towards a Contextual Pragmatic Model to Detect Irony in Tweets. ACL 2015: 644-650