

DEVELOPING A COMPUTER CODING SCHEME FOR  
THE IMPLICIT ACHIEVEMENT MOTIVE

Marc Halusic

Dr. Kennon M. Sheldon, Dissertation Supervisor

ABSTRACT

Implicit motives are measured using labor-intensive coding of participant-generated text. The present research uses insights from previous attempts to automate such coding, as well as advances in the computer science of natural language processing and machine learning, to create a new method of automated coding for the achievement motive (NAch). In part 1, coded sentences were used to generate neural networks prediction models, one using variables from the Linguistic Inquiry and Word Count (LIWC; Pennebaker, 2001) software, and one using variables from a novel text processing system, called Maximum Synset-to-Sentence Relatedness (MSSR). Part 2 sought to experimentally manipulate NAch and collect text samples, and produce 2 more neural network models similar to those of part 1, except that they predicted experimental condition. Further, human generated NAch coding of text collected in part 2 were compared against predictions made by the models created in part 1 to provide another test of the magnitude of the relation between human and computer generated NAch scores. Part 3 tested all 4 models to predict achievement motive imagery in archival data collected by Ratliff (1979) which was coded using a different human motive coding system. Findings were promising for both models developed in part 1, but further improvements will be necessary before they can replace human coders.