

Department of Sociology
THE UNIVERSITY OF CHICAGO

SOCIOLOGY 40133

Content Analysis

W/F 1:30 - 2:50
Winter 2009-2010
Classroom: W 302
<http://chalk.uchicago.edu/>

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Office Hours: Thursday 8:00-10:00

I. The Course

A vast expanse of information about what people do, know, think, and feel lies embedded in texts—from transcribed interviews, news and the academic cannon to constitutions, poetry and idling online chat. With the rise of literacy, and more recently of computers, scanners and the internet, there are both greater supply and demand for textual information, providing us with access to a greater variety of texts that reach further into the human condition, past and present. This class will begin by considering the nature of texts and the possibilities for (and limits to) analyzing society and culture through textual content. We will spend several sessions cultivating skills for close, interpretive text analysis (or so-called “qualitative text analysis”/QCA). Then we will survey techniques for counting and verifying discovered meaning across texts (classic “content analysis”). Finally, we will explore recent approaches from natural language processing and information retrieval that facilitate the discovery and assessment of meaning on larger scales.

The course is designed to assist those seeking to enhance or expand a small-scale coding project (think interviews and field notes), those hoping to wisely summarize large samples of text, or those in search of tools to sift through quantities of documents to find those meriting a closer read. The course balances an empirical paper with experimentation using techniques. Students will be evaluated based on their participation, a presentation/report on a chosen method and a final paper.

II. Readings

Readings will be circulated in class and through the course’s chalk site.

III. Course Requirements

A. READING and DISCUSSION (10%)

Content analysis is a seminar. Students are expected to read and reflect on all of the assigned readings before class. Participation in class discussion is expected of all class members. To

facilitate this, I expect students to come to class prepared with: a) one discussion question related to the reading and b) one application or extension of the method discussed.

B. EXERCISES (30%)

Students are also expected to complete several small assignments intended to invite exploration with the techniques we read about. The first three involve qualitative coding. The final three involve “experimenting” with three quantitative approaches to coding/analysis. For these final three, students can either use existing programs or, if they have programming experience (or want to experiment), write their own and turn in a brief (double-spaced 3-5 page) report of the results and a brief evaluation. These experiments will briefly sketch the mechanics of using the method, present results from a preliminary (“toy”) analysis with it, evaluate its drawbacks and identify scope conditions for its beneficial use. These must be turned in within one week of the day we discuss the method. Students are encouraged to key assignments to the substance of the final project. Students will be scheduled to present empirical detail from one or two (depending on class size) of these investigations in class for discussion.

C. FINAL PROJECT (60%)

Students will write a 15-20 page final paper in which they will perform textual analysis for social insight based on tools developed and explored over the course of the quarter. The paper can be primarily qualitative or quantitative (or equally both). If qualitative, however, it must incorporate at least one quantitative technique developed through the quarter. If quantitative, it must validate its inferences with qualitative assessments.

IV. Calendar of Reading Assignments

Week 1.

Jan.6: General introduction

Jan.8: Semantics, semiotics and theory of meaning

Danesi, Marcel and Paul Perron. 1999. “The Field of Cultural Semiotics” and “The Signifying Order” in *Analyzing Cultures*. Bloomington: University of Indiana: 39-101

Wittgenstein, Ludwig. 1953. *Philosophical Investigations*. Malden, MA: Blackwell, remarks 1-32, 65-71, 197-205, 240-282, 340-345 (pp. 1-14, 27-29, 68-70, 75-82, 93-94).

See also:

Suchman, Mark. 2003. “The Contract as Social Artifact.” *Law & Society Review* 37(1):91-142.

Franzosi, Roberto. 2004. "A Worlde of Wordes" from *From Words to Numbers: Narrative, Data and Social Science*. Cambridge University Press: 193-236.

Week 2.

Jan.13: Open Coding (or Finding Things)

Spradley, James P. 1979. *The Ethnographic Interview*. Steps 5-6. New York: Holt, Rinehart and Winston: 92-119.

Strauss, Anselm L. and Juliet Corbin. 1990. *Basics of Qualitative Research*. chapters 5-6. Newbury park, CA: Sage: 61-95.

Note: I recommend, but do not require the use of atlas.ti for projects in the first few weeks. Free editions for limited size projects are available at:

<http://www.atlasti.com/demo.php>)

See also:

Lofland, John and Lyn H. Lofland. 1995. Chapter 6. *Analyzing Social Settings*. Wadsworth Publishing Company: 99-122.

Jan.15: (cont.)

Barley, Stephen R. 1983. "Semiotics and the Study of Occupational and Organizational Cultures" *Administrative Science Quarterly* 28:393-413.

See also:

Goffman, Erving. 1981. "Replies and Responses." *Forms of Talk* Philadelphia: University of Pennsylvania Press: 5-77.

Coding texts (1)

Week 3.

Jan.20: Playing with Typologies and Refining Codes

Spradley. *The Ethnographic Interview*. Steps 8, 10: 132-154, 173-184.

Strauss and Corbin. *Basics of Qualitative Research*. Chapter 7: 96-115.

See also:

Lofland and Lofland. *Analyzing Social Settings*. Chapter 7: 123-148.

Miles, Matthew B. and A. Michael Huberman. *Qualitative Data Analysis: An Expanded Sourcebook*, second ed. Thousand Oaks: Sage: 245-262.

Jan.22: (cont.)

Davis, Fred. 1959. The cabdriver and his fare: Facets of a fleeting relationship. *American Journal Sociology* 65:158-165.

Evans, James, Gideon Kunda, Stephen Barley. 2004 "Beach Time, Bridge Time and Billable Hours: The Temporal Structure of Temporal Contracting" *Administrative Science Quarterly* 49:1-38.

Coding texts (2)

Week 4.

Jan.27: Playing with Relationships: Memos, visualizations, and formalizations

Lofland and Lofland. *Analyzing Social Settings*. Portion of Chapter 9: 193-203.

Strauss and Corbin. *Basics of Qualitative Research*. Chapter 12: 197-223.

See also:

Miles and Huberman. *Qualitative Data Analysis: An Expanded Sourcebook*: Diagramming chapters throughout.

Jurafsky, Daniel & James H. Martin. 2000. *Speech and Language Processing*. Singapore: Pearson Education, Inc.: Chapter 14 ("representing meaning")

Jan.29: Selective Coding (or Counting Things)

Krippendorff, Klaus. 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, CA: Sage: "Reliability" 211-256.

Roscigno, Vincent J. and Randy Hodson. 2004. "The Organizational and Social Foundations of Worker Resistance." *American Sociological Review* 69(1): 14-39.

Rzhetsky, Andrey, Hagit Shatkay and W. John Wilbur. 2009. "How to Get the Most out of Your Curation Effort." *PLoS Computational Biology* 5(5): e1000391: 1-13.

See also:

Miles and Huberman. *Qualitative Data Analysis: An Expanded Sourcebook*: 262-287.

Uebersax, JS and W. M. Grove. 1993. "A latent trait finite mixture model for the analysis of rating agreement." *Biometrics* 49(3): 823-835.

Week 5.

Feb.3: Sampling text

Krippendorff, Klaus. 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, CA: Sage: "Sampling" 111-124.

Morning, Ann. 2008. "Reconstructing Race in Science and Society: Biology Textbooks, 1952-2002." *American Journal of Sociology* 114(s1): S106-S137.

See also:

Kalton, Graham. 1983. *Introduction to survey sampling*. Beverly Hills : Sage Publications: 1-96.

Henry, Gary T. 1990. *Practical Sampling*. Newbury Park: Sage Publications.

Mohr, John. 1998. "The Classificatory Logics of State Welfare Systems: Towards a Formal Analysis." in *Public Rights, Public Rules: Constituting Citizens in the World Polity and National Policy*, edited by Connie McNeely. New York: Garland.

Coding texts (3)

Feb.5: Scaling up: using machines; creating corpora

Stone, Philip J. et al. 1966. *The general inquirer; a computer approach to content analysis*. Cambridge, MA: MIT Press: Chapters "General Inquirer" and "Construction of Categories", 67-71, 85-92, 113-168.

Evans, James. 2006. "Industry Collaboration and Theory in Academic Science." Working Paper.

Leavitt, Stephen and Dubner. *Freakonomics* excerpt from chapter 2: 62-69.

See also:

Stone, P.J. 1997. "Thematic text analysis: new agendas for analyzing text content." In *Text Analysis for the Social Sciences*, Carl Roberts, ed., Lawrence Erlbaum Associates.

Pitch Texts/Context for Final Papers

Week 6.

Feb.10: Words & Phrases

Hearst, Marti A. 1997. Untangling Text Data Mining. Proceedings of ACL'99: the 37th Annual Meeting of the Association for Computational Linguistics. <http://www.ischool.berkeley.edu/~hearst/papers/acl99/acl99-tdm.html>

Manning and Schütze. 1999. Foundations of Statistical Natural Language Processing. MIT Press: Chapter 3 (linguistic foundations), 5 (collocations).

See also:

Rzhetsky, Andrey, Michael Seinghaus and Mark Gerstein. Forthcoming. "To a brave new biology, through text mining." *Cell*.

Tomokiyo, Takashi & Matthew Hurst. 2003. "A Language Model Approach to Keyphrase Extraction." Proceedings of the ACL 2003 workshop on Multiword expressions: Analysis acquisition and treatment.

Bird, Stephen, Ewan Klein & Edward Loper. 2008. "Regular Expressions." Appendix from *Natural Language Processing in Python*.

Feb.12: Words, Phrases & Lexical Semantics (College Break)

Manning and Schütze. 1999. Chapter 7 (word sense disambiguation); 8.5 (semantic similarity).

Gentzkow, Matthew & Jesse M. Shapiro. 2007. "What Drives Media Slant? Evidence from U.S. Daily Newspapers." *NBER Working paper 12707*.

See also:

Manning, Christopher, Prabhakar Raghavan and Hinrich Schütze. 2008. "Dictionaries and Tolerant Retrieval." Chapter 3 from *Introduction to Information Retrieval*.

Week 7.

Feb.17: Syntax & Semantic Grammars

Jurafsky, Daniel & James H. Martin. 2000. *Speech and Language Processing*. Singapore: Pearson Education, Inc.: Chapter 8 ("part of speech tagging")

Franzosi, Roberto. 1994. "From Words to Numbers: A Set Theory Framework for the Collection, Organization, and Analysis of Narrative Data." *Sociological Methodology* 24: 105-136.

See also:

Ignatow, Gabriel. 2004. "Speaking Together, Thinking Together? Exploring Metaphor and Cognition in a Shipyard Union Dispute." *Sociological Forum* 19(3): 405-433.

Feb.19: Parsing & Information Extraction

Bird, Stephen, Ewan Klein & Edward Loper. 2008. "Partial Parsing and Interpretation." Chapter 7 from *Natural Language Processing in Python*.

Friedman, Carol, Pauline Kra and Andrey Rzhetsky. 2002. "Two biomedical sublanguages: A description based on the theories of Zellig Harris." *Journal of Biomedical Informatics* 35: 222-235.

Rzhetsky et al. 2004. "GeneWays: a system for extracting, analyzing, visualizing, and integrating molecular pathway data." *Journal of Biomedical Informatics* 37(1): 43-53.

Jurafsky, Daniel & James H. Martin. 2000. *Speech and Language Processing*. Singapore: Pearson Education, Inc.: Chapter 15.5 ("Semantic Analysis: Information Extraction"): 577-586.

Week 8.

Feb.24: Dimension Reduction: Vector Space models and Latent Semantic Indexing

Manning and Schütze. 1999. Chapter 15 ("Topics in Information Retrieval")

Pocklington, Richard and Michael L. Best. 1997. "Cultural Evolution and Units of Selection in Replicating Text." *Journal of Theoretical Biology* 188(1): 79-87.

See also:

Manning, Christopher, Prabhakar Raghavan and Hinrich Schütze. 2008. "Scoring, term weighting and vector space model." Chapter 6 from *Introduction to Information Retrieval*.

Landauer, Thomas K. 2007. "LSA as a Theory of Meaning" chapter 1 in T. K. Landauer, W. Kintsch, and D. S. McNamara, eds., *Handbook of Latent Semantic Analysis*. Mahwah, NJ: Lawrence Erlbaum Associates: 3-35.

Widdows, Dominic. 2003. *Geometry and Meaning*, chapter 5. "Word-Vectors and Search Engines"; chapter 6 "Exploring Vector Spaces in One and More Languages" OR chapter 7 "Logic with Vectors: Ambiguous Words and Quantum States."

Feb.26: Clustering Documents & Text

Manning and Schütze. 1999. *Foundations of Statistical Natural Language Processing*. MIT Press: Chapter 13 (clustering)

Suchman, Mark. 2006. "The Contracting Universe: Law Firms and the Evolution of Venture Capital Financing in Silicon Valley." Working paper.

See also:

Manning, Christopher, Prabhakar Raghavan and Hinrich Schütze. 2008. "Flat Clustering" and "Hierarchical Clustering." Chapters 16 and 17 from *Introduction to Information Retrieval*.

Week 9.

Mar.3: Text & Document Classification

Manning and Schütze. 1999. Chapter 16 *Text Categorization*

See also:

Witten, Ian H. and Eibe Frank. 2005. "Algorithms: The Basic Methods" and "Implementations: Real Machine Learning Schemes." Chapter 4 and 6 from *Data Mining: Practical Machine Learning Tools and Techniques*: 83-142; 187-283.

Fan, Jung-Wei and Carol Friedman. 2007. "Semantic Classification of Biomedical Concepts Using Distributional Similarity." *Journal of the American Medical Informatics Association* 14(4): 467-177.

Mar.5: Text & Document Networks (& inferential-AI)

Carley, Kathleen. 1993. "Coding Choices for Textual Analysis: A Comparison of Content Analysis and Map Analysis." *Sociological Methodology* 23:75-126.

Carley, Kathleen. 1994. "Extracting Culture Through Textual Analysis." *Poetics* 22:291-312.

See also:

Carley, Kathleen. 1997. "Network Text Analysis: The Network Position of Concepts." in *Text Analysis for the Social Sciences: Methods for Drawing Statistical Inferences from Texts and Transcripts*, edited by Carl Roberts. Mahwah, NJ: Lawrence Erlbaum Associates.

Week 10.

Mar.10: Text & Document Networks 2

Corman, Stephen R., Timothy Kuhn, Robert D. McPhee, Kevin J. Dooley. 2002. Studying Complex Discursive Systems: Centering Resonance Analysis of Communication. *Human Communication Research* 28(2): 157-206.

Batagelj, Vladimir and Andrej Mrvar. Density-based approaches to Network analysis: Analysis of Reuters Terror News Network. Working Paper.

Manning, Christopher, Prabhakar Raghavan and Hinrich Schütze. 2008. "Link Analysis." Chapter 21 in *Introduction to Information Retrieval*.

Mar.12: no class (reading day)

****Final Projects due Friday, Mar.19 at 5pm****

Selected Content Analysis Bibliography:

Texts / Surveys:

- Berelson, Bernard. 1952. *Content Analysis in Communication Research*. Glencoe, IL: The Free Press.
- Franzosi, Roberto. 2004. *From Words to Numbers: Narrative, Data, and Social Science*. Cambridge: Cambridge University Press.
- Holsti, Ole. 1969. *Content Analysis for the Social Sciences and Humanities*. Reading, MA: Addison-Wesley.
- Krippendorff, Klaus. 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, CA: Sage.
- Neuendorf, Kimberly A. 2001. *The Content Analysis Guidebook*. Beverly Hills: Sage.
- Osgood, Charles, George Suci, and Percy Tannenbaum. 1957. *The Measurement of Meaning*. Urbana: University of Illinois Press.
- Popping, Roel. 2000. *Computer-assisted Text Analysis*. London: Sage.
- Smith, Charles ed. 1992. *Motivation and Personality: Handbook of thematic content analysis*. Cambridge: Cambridge University Press.

Theory:

- Caws, Peter. 1988. *Structuralism: The Art of the Intelligible*. Atlantic Highlands, NJ: Humanities Press International.
- Clark, Herbert, and Eve Clark. 1977. *Psychology and Language: An Introduction to Psycholinguistics*. New York: Harcourt Brace Jovanovich.
- Collins, Allan, and Elizabeth Loftus. 1975. "A Spreading-Activation Theory of Semantic Processing." *Psychological Review* 82:407-428.
- D'Andrade, Roy. 1995. *The Development of Cognitive Anthropology*. Cambridge: Cambridge University Press.
- DiMaggio. 1997. "Culture and Cognition." *Annual Review of Sociology* 23:263-287.
- Klimoski, Richard, and Susan Mohammed. 1994. "Team Mental Model: Construct of Metaphor?" *Journal of Management* 20:403-437.

Mitkov, Ruslan ed. 2003. *The Oxford Handbook of Computational Linguistics*. Oxford: Oxford University Press.

Rapoport, Anatol. 1969. "A System-Theoretic View of Content Analysis." in *The Analysis of Communication Content*, edited by George Gerbner, Ole Holsti, Klaus Krippendorff, William Paisley, and Philip Stone. New York: John Wiley & Sons.

Sowa, John. 1984. *Conceptual Structures*. Reading, MA: Addison-Wesley.

Thomas, Sari. 1994. "Artifactual Study in the Analysis of Culture: A Defense of Content Analysis in a Postmodern Age." *Communication Research* 21:683-697.

Weber, Robert. 1990. *Basic Content Analysis*. Newbury Park: Sage.

Wittgenstein, Ludwig. 2001. *Philosophical Investigations*. Malden, MA: Blackwell.

Wittgenstein, Ludwig. 2004. *Tractatus Logico-Philosophicus*. London: Routledge.

Qualitative Content Analysis Method:

Glaser, Barney G. 1978. *Theoretical Sensitivity*. Mill Valley, CA: The Sociology Press.

Glaser, Barney G. and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.

Lofland, John and Lyn H. Lofland. 1995. Chapter 6. *Analyzing Social Settings*. Wadsworth Publishing Company: 99-122.

Miles, Matthew B. and A. Michael Huberman. *Qualitative Data Analysis: An Expanded Sourcebook*, second ed. Thousand Oaks: Sage: 245-262.

Spradley, James P. 1979. *Participant Observation*. New York: Holt, Rinehart and Winston.

Spradley, James P. 1979. *The Ethnographic Interview*. Steps 5-6. New York: Holt, Rinehart and Winston.

Strauss, Anselm. 1987. *Qualitative Analysis for Social Scientists*. New York: Cambridge University Press.

Strauss, Anselm L. and Juliet Corbin. 1990. *Basics of Qualitative Research*. chapters 5-6. Newbury park, CA: Sage.

Weitzman, Eben and Matthew Miles. 1995. *Computer Programs for Qualitative Data Analysis*. Thousand Oaks, CA: Sage.

Standard Content Analysis Method:

- Breiger, Ronald. 2000. "A Tool Kit for Practice Theory." *Poetics* 27:91-115.
- Brent, Edward, Alan Thompson, and Edward Mirielli. 1995. "Disambiguating Verbal Comments in Social Interaction: A Computer Model of Meaning." *Journal of Mathematical Sociology* 20:109-125.
- Carley, Kathleen. 1993. "Coding Choices for Textual Analysis: A Comparison of Content Analysis and Map Analysis." *Sociological Methodology* 23:75-126.
- Campbell, Donald, and Donald Fiske. 1959. "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix." *Psychological Bulletin* 56:81-105.
- Carley, Kathleen. 1997. "Network Text Analysis: The Network Position of Concepts." in *Text Analysis for the Social Sciences: Methods for Drawing Statistical Inferences from Texts and Transcripts*, edited by Carl Roberts. Mahwah, NJ: Lawrence Erlbaum Associates.
- Carley, Kathleen, and Michael Palmquist. 1992. "Extracting, Representing, and Analyzing Mental Models." *Social Forces* 70 (March):601-636.
- Cronbach, Lee, and Paul Meehl. 1955. "Construct Validity in Psychological Tests." *Psychological Bulletin* 52:283-302.
- Franzosi, Roberto. 1989. "From Words to Numbers: A Generalized and Linguistics-Based Coding Procedure for Collecting Textual Data." *Sociological Methodology* 19:263-298.
- Franzosi, Roberto. 1990. "Computer-Assisted Coding of Textual Data: An Application to Semantic Grammars." *Sociological Methods & Research* 19:225-257.
- Gerbner, George, Ole R. Holsti, Klaus Krippendorff, William J. Paisley, and Philip J. Stone. 1969. *The Analysis of Communication Content: Developments in Scientific Theories and Computer Techniques*. New York: John Wiley & Sons, Inc.
- Gower, J. 1985. "Measures of Similarity, Dissimilarity, and Distance." in *Encyclopedia of Statistical Sciences*, edited by S. Kotz and N. Johnson. New York: Wiley & Sons.
- Harris, Zellig. 1964. "Discourse Analysis." in *The Structure of Language: Readings in the Philosophy of Language*, edited by Jerry Fodor and Jerrold Katz. Englewood Cliffs, NJ: Prentice-Hall.
- Jepperson, Ronald, and Ann Swidler. 1994. "What Properties of Culture Should We Measure?" *Poetics* 22:259-371.
- Manning, Christopher, and Hinrich Schütze. 1999. *Foundations of Statistical Natural Language Processing*. Cambridge, MA: The MIT Press.
- Mohr, John. 1998. "Measuring Meaning Structures." *Annual Review of Sociology* 24:345-370.

Olsen, Mark, and Louis-Georges Harvey. 1988. "Computers in Intellectual History: Lexical Statistics and the Analysis of Political Discourse." *Journal of Interdisciplinary History* 18:449-464.

Roberts, Carl. 1989. "Other Than Counting Words: A Linguistic Approach to Content Analysis." *Social Forces* 68:147-177.

Rosenberg, Stanley, Paula Schnurr, and Thomas Oxman. 1990. "Content Analysis: A Comparison of Manual and Computerized Systems." *Journal of Personality Assessment* 54:298-310.

Widdows, Dominic. 2004. *Geometry and Meaning*. Stanford, CA: CSLI.

Practice:

Anheier, Helmut, and Jurgen Gerhards. 1991. "Literary Myths and Social Structure." *Social Forces* 69:811-830.

Berelson, Bernard, ed., and Morris Janowitz, ed. 1950. *Reader in Public Opinion and Communication*. Glencoe, IL: The Free Press.

Best, Michael. 1997. "An Ecology of Text: Using Text Retrieval to Study A life on the Net." *Artificial Life* 3:261-287.

Burton, Michael, and Lorraine Kirk. 1979. "Sex Differences in Maasai Cognition of Personality and Social Identity." *American Anthropologist* 81 (New Series):841-873.

Carley, Kathleen. 1991. "A Theory of Group Stability." *American Sociological Review* 56:331-354.

Carley, Kathleen. 1986. "Knowledge Acquisition as a Social Phenomenon." *Instructional Science* 14:381-438.

Carley, Kathleen. 1988. "Formalizing the Social Expert's Knowledge." *Sociological Methods & Research* 17:165-232.

Carley, Kathleen. 1994. "Extracting Culture Through Textual Analysis." *Poetics* 22:291-312.

Hodson, Randy. 2005. "Management Behaviour as Social Capital: A Systematic Analysis of Organizational Ethnographies." *British Journal of Industrial Relations* 43, 1 (March): 39-63.

Hodson, Randy. 2004. "Organizational Trustworthiness: Findings from the Population of Organizational Ethnographies." *Organization Science* 15,4 (July-August): 432-445.

Hodson, Randy. 2004. "A Meta-Ethnography of Employee Attitudes and Behaviors." *Journal of Contemporary Ethnography* 33,1 (February): 4-38.

- Hodson, Randy. 1998. "Organizational Ethnographies: An Underutilized Resource in the Sociology of Work." *Social Forces* 76,4 (June):1173-1208.
- Mische, Ann, and Philippa Pattison. 2000. "Composing a Civic Arena: Publics, Projects, and Social Settings." *Poetics* 27:163-194.
- Mohr, John. 1998. "The Classificatory Logics of State Welfare Systems: Towards a Formal Analysis." in *Public Rights, Public Rules: Constituting Citizens in the World Polity and National Policy*, edited by Connie McNeely. New York: Garland.
- Mohr, John, and Vincent Duquenne. 1997. "The Duality of Culture and Practice: Poverty Relief in New York City, 1888-1917." *Theory and Society* 26:305-356.
- Roberts, Carl. 1997. "A Generic Semantic Grammar for Quantitative Text Analysis: Applications to East and West Berlin Radio News Content from 1979." *Sociological Methodology* 27:89-129.
- Rosenberg, Seymour. 1989. "A Study of Personality in Literary Autobiography: An Analysis of Thomas Wolfe's *Look Homeward, Angel*." *Journal of Personality and Social Psychology* 56:416-430.
- Shapiro, Gilbert, and John Markoff. 1998. *Revolutionary Demands: A Content Analysis of the Cahiers de Doleances of 1789*. Stanford, CA: Stanford University Press.
- Swede, Southworth, and Philip Tetlock. 1986. "Henry Kissinger's Implicit Theory of Personality: A Quantitative Case Study." *Journal of Personality* 54:617-646.
- Tilly, Charles. 1986. "European Violence and Collective Action since 1700." *Social Research* 53:160-184.
- Tilly, Charles. 1997. "Parliamentarization of Popular Contention in Great Britain, 1758-1834." *Theory and Society* 26:245-273.