Chris Culy, Ph.D.
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Residence   culy@mac.com
Seattle, WA   Citizenship: U.S.A.
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Education

Ph.D. and A.M. in Linguistics, B.S. in Mathematics, Stanford University

Recent work experience

Independent Consultant
    <u>Consultant for the Analysis and Visualization of Language Data</u>   2014-present
Provide services for all aspects of the analysis and visualization of language-based information.
- Develop practical natural language processing (NLP) strategies
- Incorporate effective visualizations into projects
- Combine natural language processing and textual analysis with visualization
- Provide software development support for analysis and visualization projects
- Conduct day-long workshops on visualization, with theoretical and hands-on portions
- Give presentations on aspects of visualizations to a range of audiences
- Public example: Word Formation Latin site: wfl.marginalia.it

Institute für Sprachwissenschaft (Linguistics), General and Computational Linguistics, University of Tübingen
    <u>Visiting Full Professor</u>   2011-2014
Did research and taught courses on the visualization of linguistic information and natural language processing
- Developed new research projects in the visualization of linguistic information, coupled with applications using natural language processing
- Gave several invited talks about new theoretical foundations for information visualization
- Developed visualization tools for linguistic applications
- Supervised Master's and Bachelor's theses in computational linguistics
- Mentored graduate students in computational linguistics
- Taught graduate and undergraduate courses in information visualization and natural language processing, emphasizing both theory and concrete applications
- Co-taught class on Visual Analytics for Linguists at ESSLLI 2014
- Head of graduate admissions for the Computational Linguistics group
- Undergraduate advisor

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Institute for Specialised Communication and Multilingualism, European Academy, Bolzano-Bozen (EURAC)

<u>Senior Researcher and Language Technologies Technical Officer</u>   2008-2011

Led information and language technology research and development.

- Successfully started and led new research effort in visualization of linguistic information
- Developed first-ever software licensing policy for EURAC
- Developed language technologies policies and strategies for the Institute
- Supervised junior researchers and interns in visualization and computational linguistics
- Acted as primary liaison with the ICT department
- Developed innovative visualization programs, tools, and components
- Developed programs and tools for researchers in the Institute, integrating visualization, corpus query tools, databases, etc.

FX Palo Alto Laboratory, Inc.

<u>Senior Research Scientist and Project Leader</u>   2004-2005
<u>Senior Research Scientist</u>   2003-2004

Led a multi-disciplinary research group and forged stronger connections with Japanese branches of the parent company, Fuji Xerox

- Successfully integrated groups in natural language processing, information retrieval, ubiquitous computing, and computer-supported cooperative work into new group
- Increased collaboration within the group and with the sister lab in Japan by improving communication
- Set major company research agenda in natural language processing, in close collaboration with Japanese counterpart
- Promoted research prototypes to company-internal customers via site visits in Japan
- Promoted Fuji Xerox research to other research laboratories in Japan
- Supervised 8 junior and senior researchers, giving evaluations, promotions, project direction
- Oversaw the graceful shutdown of another group and transition of its work to the sister lab in Japan when the local leader left the company
- Co-developed new text summarization algorithms, leading to 1 patent
- Provided text summarization as part of an automatic recommender system, leading to 2 patents
- Integrated a parser and summarizer into various systems by creating an XML-based representation of the parser output and providing SOAP interfaces

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SRI International

Senior Research Linguist	2002-2003
Research Linguist	2000-2002

Led and worked on multi-disciplinary teams on innovative projects, helping to sustain the Natural Language group with external funding

- Co-Principle Investigator with speech scientists on SRI's DARPA Babylon Speech to Speech Translation project, funded for US$3,000,000 over 24 months.
- Took over as Principle Investigator of SRI's ARDA AQUAINT Question Answering project, co-leading a team from different areas of artificial intelligence
- Developed a new framework for machine translation
- Worked on human-machine dialog systems, leading to 2 patents
- Extended SRI's existing parser to deal with languages other than English
- Developed novel text-to-speech technique as well as text-to-phone and intonation algorithms for Bambara with speech scientist and external linguist
- Provided natural language understanding to various systems via agents

Inxight Software, Inc.

Computational Linguist	1999-2000

- Revised and streamlined build process of commercial system of finite state processing
- Provided morphology expertise to junior team members

The University of Iowa

Associate Professor of Linguistics	1997-2001
Assistant Professor of Linguistics	1991-1997
Director of African Language Instruction	1991-2001

- Tenured with articles in syntax, mathematical linguistics, quantitative analysis of language, and typology
- Started and directed a successful program in African Language Instruction
- Wrote a part of speech tagger and finite-state parser for the TREC/TDT team

The University of North Carolina at Chapel Hill

Visiting Lecturer	1990-1991

- Taught classes in linguistics

Pomona College

Visiting Instructor	1990

- Taught classes in linguistics

Acting Director of the Language Laboratory	1990

- Oversaw the language laboratory and the student assistants

Pitzer College

Visiting Instructor	1990

- Taught classes in linguistics

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Patents

U.S. Patent 7,013,275: Method and apparatus for providing a dynamic speech-driven control and remote service access system. Inventors: D. Arnold, H. Franco, D. Israel, and <u>C. Culy</u>.

U.S. Patent 7,249,019: Method and apparatus for providing an integrated speech recognition and natural language understanding for a dialog system. Inventors: <u>C. Culy</u>, D. Israel, and J. Arnold.

U.S. Patent 7,363,294: Indexing for contextual revisitation and digest generation. Inventors: D-A. Billsus, D.M. Hilbert, J.J. Trevor, <u>C.D. Culy</u>, L. Denoue, G. Golovchinsky.

U.S. Patent 7,610,190: Systems and methods for hybrid text summarization. Inventors: L. Polanyi, M. H. van den Berg, G. L. Thione, R.S. Crouch, <u>C.D. Culy</u>, D.D. Ahn.

U.S. Patent 7,757,170: Recommendation aggregation for digest generation. Inventors: D-A. Billsus, <u>C.D. Culy</u>, D.M. Hilbert, J.J. Trevor.

Open source visualization tools

Exploring Word Formation in Latin   wfl.marginalia.it
Exploring Word Formation in Latin is the web application for the EU-funded project Word Formation Latin, at the Centro Interdisciplinare di Ricerche per la Computerizzazione dei Segni dell'Espressione (CIRCSE), at the Università Cattolica del Sacro Cuore, Milan, Italy. It allows for the exploration of Latin derivational morphology, via several "paths", with multiple, linked interactive visualizations.

chrisculy.net/lx/software/

DoubleTreeJS
DoubleTreeJS is an interactive way to give a more compact view of words in their context of use than a tradition concordance (KWIC) does. DoubleTreeJS is a re-implementation in Javascript of Double Tree (Culy and Lyding, 2010), which was inspired by Word Tree (Wattenberg & Viégas, 2008). See Culy et al. 2014.

KWICis
KWICis is a modern concordance (keyword in context = KWIC) visualization that is interactive and designed for structured data. It is meant to complement DoubleTreeJS.

ProD
ProD (=Prototype Dendrograms) is an interactive tool for visualizing linguistic tree structures, e.g. constituent structures, dependency structures, language family trees, etc. ProD will layout the structures either as dendrograms (nodes horizontally aligned by their distance from the leaves) or as node-link (tree) diagrams (nodes horizontally aligned by their distance from the root). See Culy et al. 2012.

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Structured Parallel Coordinates

Structured Parallel Coordinates is a data visualization tool which is a specialized version of Parallel Coordinates (see Inselberg 2009). It is designed for linguistic data which has some kind of structure, either across dimensions or within dimensions. See Culy et al. 2011a.

xLDD

Extended Linguistic Dependency Diagrams (xLDDs) are a visualization tool specialized for the graphical presentation of dependency structures and the dynamic interaction with these visualizations. xLDDs accommodate different types of linguistic information that are provided with dependency structures and are designed for a linguistically oriented audience, ranging from experts in dependency linguistics to language teachers and learners concerned with dependencies. See Culy et al. 2011b,c.

Publications and presentations

Invited talks

C. Culy. 2016a. "Progress in Linguistic Visualization". Invited plenary presentation at Advanced Visual Methods for Linguistics. September 26-28, 2016. University of Queensland, Brisbane, Australia.

C. Culy. 2016b. "Considerations in designing linguistic visualizations". Invited workshop presentation at Advanced Visual Methods for Linguistics. September 26-28, 2016. University of Queensland, Brisbane, Australia.

C. Culy. 2015a. "Information Visualization: Design and Techniques. " Invited presentation at the AUVIS workshop. Frauenhofer Institute for Intelligent Analysis and Information Systems IAIS. January 22-23, 2015. Sankt Augustin, Germany.

C. Culy. 2015b. "Interactive visualization tools for analyzing language data". Invited presentation at the Università Cattolica del Sacro Cuore. April 16, 2015. Milan, Italy.

C. Culy. 2014a. "Learning from MOTHs." Invited presentation at the Workshop on Interactive Language Learning, Visualization, and Interfaces. Association for Computational Linguistics, June 27, 2014 Baltimore, MD.

C. Culy. 2014b. "Getting inside the letter: using visualisation tools to explore the language of emigrant correspondence." Invited presentation at the Workshop on visualizing letter collections, part of the project on Digitising experiences of migration: the development of interconnected letters. March 14-15, Omagh, Northern Ireland.

C. Culy. 2013a. "Visualization of Language and Linguistic Information." Invited presentation at the Arbeitstreffen: Netzwerk Lexicographie. November 20-21, 2013. Institute für Deutsche Sprache, Mannheim, Germany.

C. Culy. 2013b. "Putting visualizations into words." Invited presentation at the Visualization of Text Data Workshop. November 14-16, 2013. Universtität Hamburg, Germany.

C. Culy. 2013c. "Letter to the visualization field." Invited presentation at the Kickoff-Workshop der eHumanities-Verbundprojekte. April 8-9, 2013. Universtität Leipzig, Germany.

C. Culy. 2013d. "Tackling a grand challenge in the visualization of language and linguistic data." Invited presentation at the Deutsche Gesellschaft für Sprachwissenschaft 2013 Workshop on the Visualization of Linguistic Patterns. March 13, 2013.

C. Culy. 2012. "Some challenges of language and linguistic data for information visualization." Invited keynote presentation at Advanced Visual Methods for Linguistics. September 5-7, 2012. University of York, United Kingdom. September 7, 2012.

Workshops and Summer School Courses

C. Culy. 2014. "Visualization for Language and Linguistic Data: An Introduction to Advanced Corpus Visualization Tools." Workshop for the BAAL Corpus Linguistics SIG. December 6, 2014. Coventry University, Coventry, Great Britain.

M. Butt and C. Culy. 2014. "Visual Analytics for Linguistics." Workshop at ESSLLI 2014, August 11-15, 2014. University of Tübingen, Tübingen, Germany.

V. Lyding and C. Culy. 2012 "Visualizing Linguistic Data: From Principles to Toolkits for Doing it Yourself." Workshop at Advances in Visual Methods for Linguistics, September 5, 2012. York University, York, Great Britain.

Articles in conference proceedings

C. Culy, E. Litta, and M. Passarotti. 2017. "Visual Exploration of Latin Derivational Morphology." Proceedings of the Thirtieth International Florida Artificial Intelligence Research Society Conference. Natural Language Processing of Ancient and other Low-resource Languages track. Marco Island, Florida, USA. May 2017. 601-606. Nominated for best paper.

E. Litta, M.C. Passarotti, and C. Culy. 2016a. "Morphology beyond inflection. Building a word formation based lexicon for Latin. " Proceedings of the Fifth AIUCD Annual Conference. Digital editions: Representation, interoperability, text analysis and infrastructures. Venice. 7-9 September 2016. 231-234.

E. Litta, M.C. Passarotti, and C. Culy. 2016b. "Formatio formosa est. Building a Word Formation Lexicon for Latin." Third Italian Conference on Computational Linguistics. Naples. 5-6 December 2016. 185-189.

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E. Chiocchetti, C. Culy and N. Ralli. 2015. "Visualising conceptual relations in the domain of law: Verweis Viewer" in C. Roche et al. (eds): *TOTh 2013. Actes de la septième conférence TOTh - Chambéry – 6 & 7 juin 2013*. Annecy: Institut Porphyre, Savoir et Connaissance, 135-154.

C. Culy, M. Passarotti, U. König-Cardanobile. 2014. "A Compact Interactive Visualization of Dependency Treebank Query Results" in *Proceedings of the Ninth International Conference on Language Resources and Evaluation (LREC'14)*, May 26-31, 2014, Reykjavik, Iceland. 759-766.

C. Culy, E. Chiocchetti, and N. Ralli. 2013. "Visualizing conceptual relations in legal terminology" in *Proceedings 2013 17th International Conference on Information Visualization IV 2013*, July 16-18, 2013, London, UK. 333-338.

C. Culy, C. Dima and E. Dima. 2012. "Through the Looking Glass: Two Approaches to Visualizing Linguistic Syntax Trees" in *Proceedings of the 16th International Conference on Information Visualisation IV2012*, July 11-13, 2012, Montpellier, France. 214-219.

V. Lyding, E. Lapshinova-Koltunski, S. Degaetano-Ortlieb, H. Dittmann and C. Culy. 2012. "Visualizing Linguistic Evolution in Academic Discourse" in *Proceedings of EACL 2012 Joint Workshop of LINGVIS & UNCLH*, April 23-24, 2012, Avignon, France. 44-48.

C. Culy, V. Lyding, and H. Dittmann. 2011a. "Structured Parallel Coordinates: a visualization for analyzing structured language data" in *Proceedings of the 3rd International Conference on Corpus Linguistics*, CILC-11, April 6-9, 2011, Valencia, Spain, 485-493.

C. Culy, V. Lyding, and H. Dittmann. 2011b. "Visualizing Dependency Structures" in *Proceedings of the annual meeting of the Gesellschaft für Sprachtechnologie und Computerlinguistik* (GSCL), Hamburg, Germany, 81-86.

C. Culy, V. Lyding, and H. Dittmann. 2011c. "xLDD: Extended Linguistic Dependency Diagrams". in *Information Visualization: 15th International Conference on Information Visualisation*, London, United Kingdom, 164-169.

C. Culy and V. Lyding. 2011. "Corpus Clouds - Facilitating Text Analysis by Means of Visualizations" in *Human Language Technology: Challenges for Computer Science and Linguistics*, Z Vetulani (ed.) Berlin:Springer, 351-360.

Culy, C. and V. Lyding. 2010a."Visualizations for exploratory corpus and text analysis" in *Proceedings of the 2nd International Conference on Corpus Linguistics CILC-10*, May 13-15, 2010, A Coruña, Spain, 257-268.

Culy, C. and V. Lyding. 2010b. "Double Tree: An Advanced KWIC Visualization for Expert Users" in *Information Visualization, Proceedings of IV 2010*, 2010 14th International Conference Information Visualization, 26-29 July 2010 London, United Kingdom, 98-103.

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Culy, C. and V. Lyding. 2009. "Corpus Clouds - facilitating text analysis by means of visualizations" in *Proceedings of 4th Language & Technology Conference*. November 6-8, 2009. Poznan, Poland. Zygmunt Vetulani (ed.). 521-525.

Polanyi, L., Culy C., van den Berg, M., Thione, G.L., and Ahn, D. 2004. "Sentential Structure and Discourse Parsing" in *Proceedings of the ACL2004 Workshop on Discourse Annotation*, Barcelona, Spain, July 25-26, 2004.

Thione, G.L, van den Berg, M., Culy, C., and Livia Polanyi. 2004. "LiveTree: An Integrated Workbench for Discourse Processing" in *Proceedings of the ACL2004 Workshop on Discourse Annotation*, Barcelona, Spain, July 25-26, 2004.

Thione, G.L., van den Berg, M., Polanyi, L., and Culy, C. 2004. "Hybrid Text Summarization: Combining external relevance measures with Structural Analysis" in *Proceedings of the ACL2004 Workshop Text Summarization Branches Out*, Barcelona, Spain, July 25-26, 2004.

Polanyi, L., Culy C., van den Berg, M., and Thione, G.L. 2004. "A Rule Based Approach to Discourse Parsing" in *Proceedings of the 5th SIGdial Workshop in Discourse And Dialogue*. Cambridge, MA USA pp. 108-117.

Orlandi, M., C. Culy, H. Franco. 2003. "Using Dialog Corrections to Improve Speech Recognition" in *Proceedings of the ISCA Workshop on Error Handling in Spoken Dialogue Systems*, Chateau-d'Oex-Vaud, Switzerland, 47-51.

Culy, C. and Riehmann, S.Z. 2003. "The Limits of N-Gram Translation Evaluation Metrics" in *Proceedings of MT Summit IX*: 71-78.

Dowding, J., B.A. Hockey, J.M. Gawron, and C. Culy. 2001. "Practical Issues in Compiling Typed Unification Grammars for Speech Recognition" *ACL 2001*: 164-171.

Culy, C. 2000. "An incorporated topic marker in Takelma" in *The Proceedings of the LFG '00 Conference*. eds. M. Butt and T. H. King. CSL Publications. ISSN 1098-6782. http://csli-publications.stanford.edu/LFG/5/lfg00.html.

Culy, C. 1999. "'Incorporation' and noun stems in Takelma" in the *Proceedings of WSCLA 4: The Workshop on Structure and Constituency in Languages of the Americas* (*The University of British Columbia Working Papers in Linguistics* vol 2). eds. Marion Caldecott, Suzanne Gessner & Eun-Sook Kim. University of British Columbia.

Eichman, D., M. Ruiz, P. Srinivasan, N. Street, C. Culy, and F. Menczer. 1999. "A Cluster-Based Approach to Tracking, Detection and Segmentation of Broadcast News" in *Proceedings of the DARPA Broadcast News Workshop February 28-March 3, 1999*. San Francisco: Morgan Kaufmann Publishers. 69-76.

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Culy, C. 1997. "Takelma interrogative *ti*" in Marie-Lucie Tarpent (ed.) *PAMPALA/ACALPA 21* Papers from the 21st Annual Meeting of the Atlantic Provinces Linguistic Association/Actes du 21ième Colloque annuel de l'Association de Linguistique des Provinces Atlantiques. Halifax: Mount Saint Vincent University, 63-79.

Culy, C. 1996. "Personal Pronouns and systems of pronominal binding" in M. Butt and T. H. King (eds.) *LFG-Workshop*. Grenoble: Rank Xerox Research Centre, 148-162.

Culy, C. 1995. "Ambiguity and case marking in Donno So (Dogon)" in Akinbiyi Akinlabi (ed.) *Theoretical Approaches to African Linguistics*. Trenton, NJ: Africa World Press, Inc. 47-58. Culy, C. and W.D. Davies. 1995. "Mapping Theory and Fula Verbal Extensions" in C.S. Burgess, K. Dziwirek, & D. Gerdts (eds.) *Grammatical Relations: Theoretical Approaches to Empirical Questions*. Stanford, CA: CSLI Publications, 15-31.

Barker, C. and C. Culy. 1992. "Nominal control of misplaced modifiers" in C.P. Canakis, G.P. Chan, and J.M. Denton (eds.) *CLS 28: Papers from the 28th Regional Meeting of the Chicago Linguistic Society 1992*. Chicago: The Chicago Linguistic Society, 42-52.

Culy, C. 1991. "Command and Fula dum pronominals" in L.A. Sutton, C. Johnson, and R. Shields (eds.) *Proceedings of the 17th Annual Meeting of the Berkeley Linguistics Society: the Special Session on African Linguistic Structures*. Berkeley: The Berkeley Linguistics Society, 65-73.

Culy, C. 1990. "Grammatical relations and verb forms in internally headed relative clauses" in K. Dziwirek, P. Farrell, and E. Mejías-Bikandi (eds.) *Grammatical Relations: A Cross-Theoretical Perspective*. Stanford, CA: CSLI 83-93.

Other conference presentations

C. Culy, E. Litta, and M. Passarotti. 2017a. "(When) Inflection Needs Derivation. A Word Formation Based Lexicon for Latin." 19th International Colloquium on Latin Linguistics (ICLL). Munich, Germany. 2017, April 24-28.

V. Lyding and C. Culy. 2012. "Visualizing Linguistic Data: From Principles to Toolkits for Doing it Yourself." Workshop presented at Advanced Visual Methods for Linguistics. University of York, September 5, 2012.

A. Abel. and C. Culy. 2011. "KOLIPSI — A Collection of Language Learner Corpora for German and Italian". Learner Corpus Research 2011, 20 years of learner corpus research: Looking back, moving ahead. Louvain-la-Neuve, Belgium, 15-17 September 2011.

C. Culy. and V. Lyding. 2009a. "Visualization as Part of the Linguistic Processing Pipeline" presented at the Linguistic Processing Pipelines Workshop, Gesellschaft für Sprachtechnologie und Computerlinguistik. Potsdam. October 2009.

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C. Culy. and V. Lyding. 2009b. Tutorial/Discussion on "Visualization of Linguistic Information" at 37. Österreichische Linguistiktagung. Salzburg. December 2009.

R. Waldinger, M. Reddy, C. Culy, J. Hobbs, and J. Dungan. 2002. "Deductive Coordination of Multiple Geospatial Knowledge Sources" presented at American Geophysical Union, Fall Meeting, San Francisco, CA. December 2002.

R. Waldinger, M. Reddy, C. Culy, J. Hobbs, and J. Dungan. 2002. "Deductive Response to Geographic Queries" presented at the Second International Conference on Geographic Information Science (GIScience 2002). Boulder, CO. September 2002.

C. Culy. 2002. "Regular expressions and searching" presented at the session on Computer Tools for Linguists at the Annual Meeting of the Linguistic Society of America. San Francisco, CA. January 2002.

C. Culy, W.R. Leben, and K.Precoda. 2001. "Synthesizing Bambara for Internet access". presented at The 32nd Annual Conference on African Linguistics. UC Berkeley, Berkeley. March 2001.

C. Culy, and L.L. McIntyre. 2001. "Reconstructing and classifying Dogon" presented at The 32nd Annual Conference on African Linguistics. UC Berkeley, Berkeley, CA. March 2001.

C. Culy. 1998. "Takelma noun incorporation reconsidered" paper presented at the Annual Meeting of the Linguistic Society of America, January 1998, New York.

C. Culy. 1996. "Personal pronouns and pronominal binding systems" paper for the "preceedings" of the Lexical Functional Grammar (LFG) Workshop, August 1996, Grenoble, France.

C. Culy. 1995. "Formal properties of natural language and linguistic theories" paper presented at the Mathematics of Language IV conference, October 1995, Philadelphia, PA.

C. Culy. 1994. "Empty Categories, Structure Sharing, and Control" paper presented at the Annual Meeting of the Linguistic Society of America, January 1994, Boston.

C. Culy. 1993a. "Fula pronouns and agreement" invited paper given at the First International Workshop on Head-Driven Phrase Structure Grammar, held in conjunction with the 39th Linguistic Institute of the Linguistic Society of America, July 1993, Columbus, OH.

C. Culy. 1993b. "Agreement of Fula Pronouns" paper presented at the 24th Annual Conference on African Linguistics, July 1993, Columbus, OH.

C. Culy. 1993. "Singular anaphors with split antecedents" paper presented at the Annual Meeting of the Linguistic Society of America, January 1993, Los Angeles.

C. Culy. 1991. "'Reliability' and the distribution of logophoric pronouns" paper presented at the Annual Meeting of the Linguistic Society of America, January 1991, Chicago.

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C. Culy. 1988. "An analysis of Dogon internally headed relative clauses without empty categories" paper presented at the Annual Meeting of the Linguistic Society of America, December 1988, New Orleans.

C. Culy. 1987. "Underspecification, Configurational Constraints, and Derivation in Dogon" paper presented at the Conference on African Linguistics, March 1987, Montreal, Canada.

Articles in refereed journals

C. Culy and S. Fagan. 2002. "The history of the middle in Dogon" *Studies in African Linguistics* 30.2: 171-94.

C. Culy. 1999. "Questions in Takelma" *International Journal of American Linguistics*. 65.3, 251-274.

C. Culy. 1998. "Statistical distribution and the grammatical/ungrammatical distinction" *Grammars* 1.1, 1-13.

C. Culy. 1997. "Logophoric pronouns and point of view" *Linguistics* 35, 845-859.

C. Culy. 1996a. "Agreement and Fula pronouns" *Studies in African Linguistics* 25.1, 1-27.

C. Culy. 1996b. "Formal properties of natural languages and linguistic theory" *Linguistics and Philosophy* 19.6, 599-617.

C. Culy. 1996c. "Null objects in English recipes" *Language Variation and Change* 8.1, 91-124.

C. Culy, K. Kodio, and P. Togo. 1995. "Dogon pronominal systems: their nature and evolution" *Studies in African Linguistics* 23.3:315-344.

C. Culy. 1994a. "Aspects of Logophoric Marking" *Linguistics* 32, 1055-1094.

C. Culy. 199b4. "A note on logophoricity in Dogon" *Journal of African Languages and Linguistics* 15, 113-125.

C. Culy and B. Gnalibouly Dikko. 1988. "Fula makko and Theories of Anaphora" in *Linguistic Inquiry* 19.2:315-319.

C. Culy. 1985. "The Complexity of the Vocabulary of Bambara" in *Linguistics and Philosophy* 8:345-351, reprinted in E. Bach, W.Marsh, and W.J. Savitch (eds.) *The Formal Complexity of Language*, 349-357.

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Book chapters

E. Moreton and C. Culy. forthcoming 2018. "Homesickness, recollections and reunions: using the Interesting Items Visualisation Tool (IIVT) to explore topics and emotions in a corpus of female Irish migrant correspondence" in Raymond. Hickey (ed.) *Keeping in Touch - Familiar Letters across the Anglophone World*. Amsterdam: John Benjamins.

C. Culy 2003. "Bambara-Mandinka-Jula." In William Frawley and William Bright (eds.), *International Encyclopedia of Linguistics* (second edition). Oxford: Oxford University Press.

C. Culy 2002. "The logophoricity hierarcy and variation in Dogon" in Tom Güldemann and Manfred von Roncador (eds.), *Reported Discourse: A Meeting Ground for Different Linguistic Domains*. Philadelphia: John Benjamins, 201-210.

System demonstration
Precoda, K., C. Culy, Franco, H., Dost, A., Frandsen, M., Fry, J., Kathol, A., Richey, C., Riehemann, S., Vergyri, D., Zheng, J. 2004. "Limited-Domain Speech-to-Speech Translation between English and Pashto" at the HLT/NAACL demo sessions, Boston, May 2004.

Book
C. Culy. 1988. *Basic Donno So (Dogon)*, Peace Corps Mali Grammar notes and glossary.

Review article

C. Culy. 1997. Review of Nerbonne et al. *German in Head Driven Phrase Structure Grammar*. *Language* 73:2, 401-403.