

Publications

TATJANA THELEN

MONOGRAPHS

2014 *Care/Sorge. Construction, Reproduction and Dissolution of Significant Relations* (in German). Bielefeld: transcript.

Reviews in:

Femina politica 2, 2015: 161–162

socialnet: <https://www.socialnet.de/rezensionen/17988.php>

2003 *Privatisation and Social Inequality in Eastern-European Agriculture. Two Case Studies in Hungary and Romania*. (in German) Frankfurt a.M., New York: Campus.

Review in:

Focaal 48, 2006: 166–167.

EDITED VOLUMES / SPECIAL ISSUES (all peer reviewed)

2023 *The Politics of Making Kinship. Historical and Anthropological Perspectives*. New York, Oxford: Berghahn (together with Erdmute Alber, David Sabeau, and Simon Teuscher).
<https://doi.org/10.3167/9781800738003>

2022 Measuring Kinship: Gradual Belonging and Thresholds of Exclusion. Special Issue of *Social Analysis* 65 (4). (together with Christof Lammer).
<https://www.berghahnjournals.com/view/journals/social-analysis/65/4/social-analysis.65.issue-4.xml>

2021 *Politics and Kinship: A Reader*, Abingdon, UK: Routledge (together with Erdmute Alber).
<https://www.routledge.com/Politics-and-Kinship-A-Reader/Alber-Thelen/p/book/9780367408718>

2018 *Reconnecting State and Kinship*. Philadelphia: University of Pennsylvania Press. (together with Erdmute Alber). <http://www.upenn.edu/pennpress/book/15744.html>,
<https://www.combinedacademic.co.uk/reconnecting-state-and-kinship>

Reviews in:

American Ethnologist 46 (1): <https://doi.org/10.1111/amet.12750>

International Sociology Reviews 34 (5): <https://doi.org/10.1177/0268580919870462>

Journal of the Royal Anthropological Institute 26 (1):

<https://rai.onlinelibrary.wiley.com/doi/10.1111/1467-9655.13233>

Anthropos 115 (1): <https://doi.org/10.5771/0257-9774-2020-1-281>

Paideuma. Zeitschrift für kulturalanthropologische Forschung 65 (2019)
<https://www.hsozkult.de/journal/id/z6ann-111045>

- 2018 *Stategraphy: Toward a Relational Anthropology of the State*. New York, Oxford: Berghahn. (revised reprint, together with Larissa Vetter and Keebet von Benda-Beckmann).
<http://www.berghahnbooks.com/title/ThelenStategraphy>
- Reviews in:
Anthropological Forum 29 (2), 2019: 198–200.
<https://doi.org/10.1080/00664677.2018.1558625>
Anthropological Notebooks XXIV/3, 2018: 117–119.
Ethnologie française 3 (179), 2020: 584–585.
- 2014 *Stategraphy: Toward a Relational Anthropology of the State*. Special Issue of *Social Analysis* 58 (3). (together with Larissa Vetter and Keebet von Benda-Beckmann).
- 2013 *The Anthropology of Sibling Relations: Shared Parentage, Experience and Exchange*. New York: Palgrave Macmillan. (together with Erdmute Alber and Cati Coe).
- 2012 Rural realities in the post-socialist space. Special Issue of *Journal of Rural Studies* 28 (2). (together with Rebecca Kay and Sergei Shubin).
- 2010 *Parenting after the Century of the Child: Travelling Ideals, Institutional Negotiations and Individual Responses*. Aldershot: Ashgate (together with Haldis Haukanes)
- Review in:
Sociologus 61 (1), 2011: 119–121.
- 2009 Social Security in Religious Networks. *Anthropological Perspectives on New Risks and Ambivalences*. New York, Oxford: Berghahn (together with Carolin Leutloff-Grandits and Anja Peleikis).
- Reviews in:
Journal of the Royal Anthropological Institute 17 (4), 2011: 911–912.
Religion, State & Society 40 (2), 2012: 239–241.
European Journal of Social Security 12 (2), 2010: 173–174.
Annuaire Roum. Anthropol. 2010: 83–85.
Sociologus 60 (2), 2010: 241–244.
Anthropological Notebooks XVI/2, 2010.
- 2007 Social Security and Care After Socialism, *Focaal* 50 (2). (together with Rosie Read).

INVITED COMMENTS

- 2024 What's in a family? Comment on Michael Lambek's *Behind the Glass. The Villa Tugendhat and its family*. In: *HAU Journal of Ethnographic Theory* 14 (2) (accepted for publication).
- 2021 Comment on Anick Vollebergh, Anouk de Koning, and Milena Marchesi: Intimate States. Techniques and Entanglements of Governing through Community in Europe. In: *Current Anthropology* 62 (6). <https://doi.org/10.1086/718140>
- 2019 Culture/s or Ontology/ies as Critique? A Reply to Caroline Arni (in German). In: *Historische Anthropologie* 28 (2): 274–280. <https://doi.org/10.7788/hian.2019.27.2.274>

JOURNAL ARTICLES (peer reviewed*)

- 2021 Introduction: Measuring Kinship, Negotiating Belonging. *Social Analysis* 65 (4): 1–22. (together with Christof Lammer). <https://www.berghahnjournals.com/view/journals/social-analysis/65/4/social-analysis.65.issue-4.xml>
- 2021 Revisiting Marilyn Strathern's *Relations*: a Relational Reading. *Zeitschrift für Ethnologie* 146 (1/2): 219–223. (together with Erdmute Alber, Tabea Häberlein, Claudia Liebelt, Jeannett Martin, Sabrina Maurus, and Tyler Zoanni)*
- 2020 养老带来政治归属：时间维度、表征形式以及相互性. Chinese translation of “Political Belonging through Elder Care: Temporalities, Representations and Mutuality” *Journal of Qinghai Minzu University* 46 (4): 9–21. (together with Cati Coe).
- 2019 Political Belonging through Elder Care: Temporalities, Representations and Mutuality. *Anthropological Theory* 19 (2): 279–299. (together with Cati Coe)*
First Published 2017: <http://journals.sagepub.com/doi/pdf/10.1177/1463499617742833>
- 2015 Care as Social Organisation: Creating, Maintaining and dissolving significant relations. *Anthropological Theory* 15 (4): 497–515.*
- 2014 Introduction to Stategraphy: Toward a Relational Approach to Anthropology of the State. *Social Analysis* 58 (3): 1–19. (together with Larissa Veters and Keebet von Benda-Beckmann)*
- 2014 State Kinning and Kinning the State in Serbian Elder Care Programs. *Social Analysis* 58 (3): 107–123. (together with André Thiemann and Duška Roth)*
- 2012 Rural Realities in Post-socialist Space: Introduction. *Journal of Rural Studies* 28 (2): 55–62. (together with Rebecca Kay and Sergei Shubin)*
- 2012 Comparative Anthropology: Achievements, Failures and Future. *Ethnologie Francaise* 42 (2): 385–391. (together with Andre Gingrich).
- 2012 “The natural order of things” and State Policies: Parenting in eastern Germany after 1989. *Ethnologie francaise* 42 (1): 45–54.*
- 2012 Economic concepts, common grounds and ‘new’ diversity in the Anthropology of postsocialism. Reply to Katherine Verdery and Elizabeth Cullen Dunn *Critique of Anthropology* 32 (1): 87–90.
- 2011 Shortage, fuzzy property and other dead ends in anthropological analysis of (post) socialism. *Critique of Anthropology* 31 (1): 43–61.* Reply by Katherine Verdery and Elizabeth Cullen Dunn *Critique of Anthropology* 31 (2): 251–255.
- 2011 ‘The sleep has been rubbed from their eyes’: social citizenship and the reproduction of local hierarchies in rural Hungary and Romania. *Citizenship Studies* 15 (3–4): 513–527. (together with Stefan Dorondel, Alexandra Szöke and Larissa Veters).*
- 2010 Modernity, Economy of Shortage and Postsocialism. Problems of Anthropological and Sociological Theory. (in German) *Sociologus* 60 (1): 15–40.*

- 2010 Self Sacrifice or Natural Donation? A Life Course Perspective on Grandmothering in New Zagreb (Croatia) and East Berlin (Germany). *Horizontes Antropologicos* 16 (34): 427–452. (together with Carolin Leutloff-Grandits)*
- 2007 Introduction. Social Security and Care after Socialism: Reconfigurations of Public and Private. *Focaal* 50: 3–18. (together with Rosie Read)*
- 2007 “Veteran Care” Shifting provision, needs, and meanings of enterprise-centred pensioner care in eastern Germany. In: Social security and care after socialism: Reconfigurations of public and private. *Focaal* 50: 35–50.*
- 2006 Law and mutual assistance in families: A comparison of socialist legacies in Hungary and eastern Germany. *Journal of Legal Pluralism* 53–54: 177–207.*
- 2006 Lunch in an East German Enterprise – Differences in Eating Habits as Symbols of Collective Identities. *Zeitschrift für Ethnologie* 131: 51–70.*
- 2005 Violence and Social (Dis)Continuity: Comparing Collectivization in two East European Villages. *Social History* 30 (1): 25–44.*
- 2003 “The New Power of Old Men”: Privatisation and Family Relations in Mesterszállás (Hungary). *The Anthropology of East Europe Review: Central Europe, Eastern Europe and Eurasia* 21 (2): 15–23.
- 2001 Post-socialist Entrepreneurs in rural Hungary: Social Continuity and Legal Practice in Mesterszállás. *Acta Ethnographica Hungarica* 46 (3–4): 315–342.

ENCYCLOPAEDIA, HANDBOOK AND TEXTBOOK CONTRIBUTIONS (peer reviewed*)

- 2021 Care as Belonging, Difference, and Inequality. In: Mark Aldenderfer (ed.) *Oxford Research Encyclopedia of Anthropology*. New York: Oxford University Press.*
<https://doi.org/10.1093/acrefore/9780190854584.013.353>
- 2021 Kinship (in German). In: Brigitta Schmidt-Lauber and Manuel Liebig (eds.): *Begriffe der Gegenwart. Ein Kulturwissenschaftliches Glossar*. Wien, Köln, Weimar: Böhlau, 261–270.* (reprint by Bundeszentrale für politische Bildung published in June 2022)
- 2019 Ethnographic Methods. In: Raj Kollmorgen, Wolfgang Merkel and Hans-Jürgen Wagener (eds.): *Handbook of Political, Social, and Economic Transformation*. Oxford: Oxford University Press, 201–211.
- 2018 Socialism: Marxist-Leninist-Maoist. In: Hilary Callan (ed.): *International Encyclopedia of Anthropology*. Hoboken: John Wiley & Sons.
<https://doi.org/10.1002/9781118924396.wbiea1836>
- 2018 Property. In: Hilary Callan (ed.): *International Encyclopedia of Anthropology*. Hoboken: John Wiley & Sons. <https://doi.org/10.1002/9781118924396.wbiea2349>
- 2017 Property: An essential dimension of social organization and change. In: Gertraud Seiser (ed.): *Ökonomische Anthropologie: Einführung und Fallbeispiele*. Vienna: Facultas, 144–162.

- 2015 Ethnographic Methods (in German). In: Raj Kollmorgen, Wolfgang Merkel and Hans-Jürgen Wagener (eds.): *Handbuch Transformationsforschung*. Wiesbaden: Springer VS, 255–264.

BOOK CHAPTERS (peer reviewed*)

- 2024 The Value of Ethnography, Still: About Anna Lowenhaupt Tsing (in German). In: Lisa Burger, Tim Burger and David Sumerauer (eds.): *Inspirationen: Über die Entstehung ethnologischer Denkens*. Wuppertal: Peter Hammer Verlag / Edition Trickster, 90–100. (in print)
- 2024 Temporalities of Critique and Futures. In: Richard Rottenburg and Sung-Joon Park, (eds.): *Designing the Future*. Manchester: Mattering Press. (accepted for publication)*
- 2024 Ethnography without borders: Globalisation as challenge or precondition? (in German). In: Paul Eisewicht, Larissa Schindler and Ronald Hitzler (eds.): *Feld und Welt. Herausforderungen ethnographischen Arbeitens*. Wiesbaden: VS (in print).
- 2023 Kinship: Old problems and new prospects in the conversation between archaeology and social anthropology. In: Harald Meller, Johannes Krause, Wolfgang Haak and Roberto Risch (eds.): *Kinship, Sex, and Biological Relatedness. The contribution of archaeogenetics to the understanding of social and biological relations*, 29–34.
<https://doi.org/10.11588/propylaeum.1280>
- 2023 Introduction. In: Erdmute Alber, David Sabeau, Simon Teuscher and Tatjana Thelen (eds.): *The Politics of Making Kinship. Historical and Anthropological Perspectives*. New York, Oxford: Berghahn, 1–22.
- 2023 German Kinship: Forming a Political Unit and an Epistemic Void. In: Erdmute Alber, David Sabeau, Simon Teuscher and Tatjana Thelen (eds.): *The Politics of Making Kinship. Historical and Anthropological Perspectives*. New York, Oxford: Berghahn, 144–166.
- 2023 The gift as critique – a social anthropological perspective (in German). In: Michael Hutter and Birger P. Priddat (eds.): *Geben, Nehmen, Teilen. Gabenwirtschaft im Horizont der Digitalisierung*. Frankfurt, New York: Campus Verlag, 65–78.
- 2022 Stategraphy – A Social Anthropological Approach to the State. In: Miriam Fahimi, Elmar Flatschart and Wolfram Schaffar (eds.): *State and Statehood in the Global South*. Cham: Springer Nature Switzerland, 49–65.* https://doi.org/10.1007/978-3-030-94000-3_3
- 2022 Care as Boundary Object: An Ethnographic Approach to Study the Differentiation of Public and Private (in German). In: Bettina Hünersdorf (ed.): *Going Public. Erziehungswissenschaftliche Ethnographie und ihre Öffentlichkeiten*. Wiesbaden: Springer VS, 17–31.
- 2022 Politics and Kinship: Introduction. In: *Politics and Kinship: A Reader*. (together with Erdmute Alber), Abingdon, UK: Routledge, 1–33.
- 2022 State Kinning and Kinning the State in Serbian Elder Care Programs (together with André Thiemann and Duška Roth). Reprint in: Erdmute Alber and Tatjana Thelen (eds.): *Politics and Kinship: A Reader*, Abingdon, UK. Routledge, 81–92.

- 2021 Care: State, Family and the construction of difference (in German). In: Sektion Sozialpädagogik und Pädagogik der frühen Kindheit (eds.): *Familie im Kontext pädagogischer Institutionen. Theoretische Perspektiven und empirische Zugänge*. Weinheim: Beltz Juventa (together with Anna Ellmer), 41–53.
- 2018 Reconnecting State and Kinship: Temporalities, Scales, Classifications In: Tatjana Thelen and Erdmute Alber (eds.): *Reconnecting State and Kinship*. Philadelphia: University of Pennsylvania Press (together with Erdmute Alber), 1–35.*
- 2018 State Kinning and Kinning the State in Serbian Elder Care Programs. In: *Stategraphy: Toward a Relational Anthropology of the State*. New York, Oxford: Berghahn. (revised reprint, together with Larissa Veters and Keebet von Benda-Beckmann), 107–123.*
- 2018 Stategraphy: Relational Modalities, Boundary Work, and Embeddedness. In: *Stategraphy: Toward a Relational Anthropology of the State*. New York, Oxford: Berghahn. (revised reprint, together with Larissa Veters and Keebet von Benda-Beckmann), 1–19.*
- 2015 Care of the Elderly, Migration, Community: Explorations from Rural Romania. In: Erdmute Alber and Heike Drotbohm (eds.): *Anthropological Perspectives on Care: Work, Kinship, and the Life-Course*. New York: Palgrave Macmillan, 137–155.*
- 2013 The Anthropology of Sibling Relations: Explorations in Shared Parentage, Experience, and Exchange. In: Erdmute Alber, Cati Coe and Tatjana Thelen (eds.): *The Anthropology of Sibling Relations: Shared Parentage, Experience, and Exchange*. New York: Palgrave Macmillan, 1–28. (together with Cati Coe and Erdmute Alber).*
- 2010 Kinning im Alter: Verbundenheit und Sorgebeziehungen ostdeutscher Senior/Innen. In: Erdmute Alber, Bettina Beer, Julia Pauli and Michael Schnegg (eds.): *Verwandtschaft heute*. Berlin: Dietrich Reimer, 225–248.
- 2010 Two German localities: Introduction In: Patrick Heady and Peter Schweitzer (eds.): *Family, Kinship and State in Contemporary Europe: The View from Below: Nineteen Localities*. Vol. 2. Frankfurt, New York: Campus, 225–231.
- 2010 Navigating Kinship relations in eastern Germany: love, care and limits. In: Patrick Heady and Peter Schweitzer (eds.): *Family, Kinship and State in Contemporary Europe: The View from Below: Nineteen Localities*. Vol. 2. Frankfurt, New York: Campus, 232–267 (together with Astrid Baerwolf).
- 2010 Parenting After the Century of the Child: Introduction. In: Tatjana Thelen and Haldis Haukanes (eds.): *Parenting After the Century of the Child: Travelling Ideals, Institutional Negotiations and Individual Responses*. Aldershot: Ashgate, 1–10. (together with Haldis Haukanes)*
- 2010 Parenthood and Childhood: Debates within the Social Sciences. In: Tatjana Thelen and Haldis Haukanes (eds.): *Parenting After the century of the Child: Travelling Ideals, Institutional Negotiations and Individual Responses*. Aldershot: Ashgate, 11–33 (together with Haldis Haukanes).*
- 2010 Privatizing Parenthood – Modernizing Childhood? Paradoxes of School Reform in Eastern Germany. In: Tatjana Thelen and Haldis Haukanes (eds.): *Parenting After the Century of the Child. Travelling Ideals. Institutional Negotiations and Individual Responses*. Aldershot: Ashgate, 141–161.*

- 2009 Social Security in Religious Networks: An Introduction. In: Carolin Leutloff-Grandits, Anja Peleikis and Tatjana Thelen (eds.): *Social Security in Religious Networks. Anthropological Perspectives on New Risks and Ambivalences*. New York, Oxford: Berghahn, 1–30. (together with Carolin Leutloff-Grandits and Anja Peleikis).*
- 2009 Social Security, Life Courses and Religious Norms: Ambivalent Layers of Support in an Eastern German Protestant Network. In: Carolin Leutloff-Grandits, Anja Peleikis and Tatjana Thelen (eds.): *Social Security in Religious Networks. Anthropological Perspectives on New Risks and Ambivalences*. New York, Oxford: Berghahn, 94–122.
- 2008 Traditionalisation in Flexibilisation: Division of Labour in Eastern German Families (in German). In: Marc Szydlík (ed.): *Flexibilisierung. Folgen für Arbeit und Familie*. VS Verlag für Sozialwissenschaften, 275–294 (with Astrid Baerwolf).
- 2007 Partition and Partings: The Paradox of German Kinship Ties. In: Smita Tewari Jassal and Eyal Ben-Ari (eds.): *The Partition Motif in Contemporary Conflicts*. Thousand Oaks, London, New Delhi: Sage, 221–242.
- 2005 Caring Grandfathers. Changes in Support between Generations in East Germany. In: Haldis Haukanes and Frances Pine (eds.): *Generations, Kinship and Care: Gendered Provisions of Social Security in Central Eastern Europe*. Bergen: Universität Bergen, 163–188.
- 2004 Violence and Social Reproduction: A Comparison of Collectivization in Two Villages (in German). In: Julia Eckert (ed.): *Anthropologie der Konflikte*. Bielefeld: transcript, 136–154.
- 2003 Are the kuláks back? Inherited Capital and Social Continuity in Mesterszállás, Hungary. In: Hannes Grandits and Patrick Heady (eds.): *Distinct Inheritances: Property, Family and Community in a Changing Europe*. Münster: Lit, 329–346.
- 2003 “The son of a fox is a fox, the son of a dog a dog”. Forms of capital and local perception of success in a Hungarian village”. In: Viorel Anastasioae (ed.): *Breaking the wall: Representing anthropology and anthropological representations in post-communist Eastern Europe*. Cluj-Napoca: EFES, 205–228.
- 2002 Love for the Land and Social Continuity in Mesterszállás (Hungary) und Kisiratos (Romania) (in German). In: Hans Gehl (ed.): *Regionale Volkskulturen in Ostmitteleuropa: Abgrenzung – Nachbarschaft – Interethnik*. Tübingen: Institut für Donauschwäbische Geschichte und Landeskunde, 155–180.
- 2001 “Back to the Future or: Who is a Peasant?” Institutional Transformation and Collective Self-Images in Rural Community in Hungary (in German). In: Werner Rammert, Gunther Knauth, Klaus Buchenau and Florian Altenhörner (eds.): *Kollektive Identitäten und kulturelle Innovationen: Ethnologische, soziologische und historische Studien*. Leipzig: Leipziger Universitätsverlag, 279–300.
- 1997 Ethnic Identity und Social Networks: A Case Study among Hungarian-Germans (in German). In: Stefanie Lang (ed.): *Kulturelle Identität, soziale Netzwerke und Kognition: Berichte ethnologischer Forschungen aus Köln*. Wiesbaden: Deutscher Universitätsverlag, 167–192.

REVIEWS

- 2021 Unbound Kinship. Review of *Relations. An Anthropological Account* by Marilyn Strathern. *Soziopolis. Gesellschaft beobachten*. (in German) Available online: <https://soziopolis.de/lesen/buecher/artikel/entfesselte-verwandtschaft>.
- 2005 Elizabeth C. Dunn: "Privatizing Poland — Baby Food, Big Business, and the Remaking of Labor." Ithaca and London: Cornell University Press. *British Journal of Industrial Relations* 43 (3): 552–554.
- 2000 Thomas Schneider: „Landwirtschaft in Hajós. Agrarhistorie und sozialer Wandel in einem ungarndeutschen Dorf“ (Studien zur Volkskultur, 27 Mainz 2), *Sociologus* 50 (1): 228–229.

WORKING PAPERS

- 2015 Pathways of Relational Anthropology: Ethnographic Insights in Kinship and the State (in German). *Vienna Working Papers in Ethnography*, see also: <https://ksa.univie.ac.at/en/research/vienna-working-papers-in-ethnography>
- 2008 Local State and Social Security in Rural Communities: a new research agenda and the example of postsocialist Europe. *Working paper, Max Planck Institut für ethnologische Forschung* Nr. 105, Halle/Saale, see also: http://www.eth.mpg.de/cms/en/publications/working_papers/wp0105.html (together with Thomas Sikor and Andrew Cartwright).
- 2006 Ambivalences of Flexibilisation: Traditionalisation in Family and Gender Relations in East Berlin and Brandenburg (in German). *Working paper, Max Planck Institut für ethnologischen Forschung* Nr. 89, Halle/Saale, see also: http://www.eth.mpg.de/cms/en/publications/working_papers/wp0089.html (together with Astrid Baerwolf and Tilo Grätz).
- 2006 Experiences of Devaluation: Work, Gender and Identity in eastern Germany, *Working paper, Max Planck Institut für ethnologischen Forschung* Nr. 85, Halle/Saale, see also: http://www.eth.mpg.de/cms/de/publications/working_papers/wp0085.html
- 2005 The Loss of Trust: changing social relations in the workplace in eastern Germany, *Working Paper, Max Planck Institut für ethnologische Forschung*, Nr.78, Halle/Saale, see also: http://www.eth.mpg.de/cms/de/publications/working_papers/wp0078.html
- 2002 Winners and Losers in Postsocialist Agriculture (in German). In: Gewinner und Verlierer post-sozialistischer Transformationsprozesse: Das Beispiel einer ländlichen Gemeinde in Ungarn. *Forschungsstelle Osteuropa, Arbeitspapiere* Nr. 36: 68–71.

OTHERS (ABSTRACTS, PROJECT AND ANNUAL REPORTS)

- 2023 A conversation with Tatjana Thelen, Anthropology Newsletter Volume 16, 22–23. Department of Anthropology Stanford: https://issuu.com/stanfordanthro/docs/newsletter_final
- 2007 “Verwestdeutschlandisierung” of Starting a Family and Division of Labour within Families in Eastern Germany (in German). Frankfurt a.M., New York: Campus. (together with Astrid Baerwolf).
- 2006 Starting a Family and Retraditionalisation in Eastern Germany: A Research Report (in German) (together with Astrid Baerwolf). In: Fikentscher, R. (ed.): Gruppenkulturen in Europa: Familien, Freizeit, Rituale. Halle/Saale, Mitteldeutscher Verlag, 69–84.
- 2005 Changes of Social Security in Eastern Germany: Functional Transformation of Social Networks (in German). Halle/Saale, Max Planck Institute for Social Anthropology Reports.
- 2004 Deutschlandforschung: Research on Contemporary Issues in Germany at the Max Planck Institute for Social Anthropology, Halle/Saale, Max Planck Institute for Social Anthropology Reports (together with John Eidson and Gordon Milligan).