

Neuendorf, K. A. (2019). Content analysis and thematic analysis. In P. Brough (Ed.), *Research methods for applied psychologists: Design, analysis and reporting* (pp. 211-223). New York: Routledge.

Proof

Advanced Research Methods for Applied Psychology

Design, Analysis and Reporting

**Edited by
Paula Brough**

Taylor & Francis
Not for distribution

 **Routledge**
Taylor & Francis Group
LONDON AND NEW YORK

Proof

Proof

First published 2019
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2019 selection and editorial matter, Paula Brough individual chapters, the contributors

The right of Paula Brough to be identified as the author of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

A catalog record has been requested for this book

ISBN: 978-1-138-69889-5 (hbk)

ISBN: 978-1-138-69890-1 (pbk)

ISBN: 978-1-315-51797-1 (ebk)

Typeset in Bembo
by Apex CoVantage, LLC

Proof

18 Content analysis and thematic analysis

Kimberly A. Neuendorf

Introducing content analysis and thematic analysis

Message analyses

Content analysis and thematic analysis are two prominent methods used for the analysis of message content. Both have been defined in various ways and have been applied to a wide range of phenomena. This chapter will focus on key definitions and applications useful for those involved in applied psychology research.

The two methods have similarities – both involve codes and coding (Ahuvia, 2001), that is, a process of representing message content with abbreviated, convenient symbols. These codes may be applied to messages by human investigators (coders) or, in the case of some content analyses, by computer programs that use predefined search algorithms. The messages to be coded may be (a) an already-existing set of messages, such as postings to the “Men’s Room” bulletin board of an online fertility support group (Malik & Coulson, 2008), “fitspiration” images posted on Instagram (Tiggemann & Zaccardo, 2016), or popular pornographic videos (coded for aggressive and sexual behaviors; Bridges et al., 2010); or, these messages may be (b) messages newly created by research participants, such as open-ended questionnaire responses in surveys and experiments, interview responses, dream analysis reports, focus group transcripts, transcripts of customer service interactions, or responses within such personality assessment strategies as Rorschach testing and thematic apperception tests (TAT) (Weiner & Greene, 2017). Clearly, for the latter class of messages (b), there will be important considerations that precede the application of content analysis or thematic analysis – i.e., the research design and protocol including the questions participants are asked or procedures executed on them and an appropriate plan for the selection of participants.

Both methods also may attempt to tap both manifest (i.e., directly observable variables) and latent (i.e., unobservable constructs) content (Joffe & Yardley, 2004). Both methods should be applied only after research questions or hypotheses have been forwarded, in order to appropriately guide the analysis. And, as Joffe and Yardley (2004) note, both methods are taxing and time consuming.

There are no shortcuts to a properly conducted, painstaking investigation of messages using either thematic analysis or content analysis.

But the two methods also have important differences. Historically, content analysis has followed a paradigm of positivism, with chiefly quantitative techniques used, dating to the early twentieth century (Berelson, 1952; Neuendorf, 2002; Smith, 2000). More recent variations have introduced “qualitative content analysis” (Altheide & Schneider, 2013; Mayring, 2014; Schreier, 2012; Vaismoradi, Turunen, & Bondas, 2013), which actually has many characteristics in common with other qualitative analyses of messages, including thematic analysis. Thematic analysis, an addition to the options for message analysis in psychology in the 1970s, developed from within a more constructivist paradigm (although some argue that it is positivist in its requirement that assertions ought to be supported with evidence) and an emphasis on an interpretive approach to largely qualitative techniques¹ (Guest, MacQueen, & Namey, 2012; Merton, 1975).

Thematic analysis assumes that the recorded messages themselves (i.e., the texts) are the data, and codes are developed by the investigator during close examination of the texts as salient themes emerge inductively from the texts. These codes most often consist of words or short phrases that symbolically assign an “essence-capturing, and/or evocative attribute” (Saldaña, 2016, p. 4) and are viewed interactively, to be modified throughout the coding process by the investigator. While the investigator may begin the thematic analysis process with “templates” (a set of *a priori* codes), the epistemological roots of the technique dictate that these codes need to be flexible, able to be modified as the analysis progresses (King, 2004). The conclusion of the thematic analysis is the identification of a (hopefully) saturated set of themes (i.e., no additional themes are found from additional data; Ando, Cousins, & Young, 2014) and a meaningful “codebook” or other compilation of findings that documents the structure of codes and themes, with the validity of the findings paramount. The frequency of occurrence of specific codes or themes is usually not a main goal of the analysis.

Content analysis (in its most common, quantitative form) assumes that the messages (texts) are the phenomena to be examined and provide the units of data collection – the data are the recorded occurrences of specified codes as applied to these units. Codes are developed *a priori* in a primarily deductive process and then applied in relatively objective fashion by trained coders whose intercoder reliability is viewed as critical, or via an automated computer-assisted coding process. The codes are most often numeric, usually representing categories of a nominal variable, but may alternatively represent levels of a metric variable. The conclusion of the typical content analysis is the statistical summarization and analysis of the coded variables across many units of analysis.

It should be noted that the *a priori* coding scheme of a content analysis has often been developed at least in part through a process very much like thematic analysis – an inductive step of deriving salient variables and their codes from the pool of message content to be studied. This is particularly true of investigations

in which scant existing theory or past research guides the content analyst in the development of a coding scheme. And in all instances, investigator “immersion” in the message content being studied is recommended as a first step for both thematic analysis and content analysis (Clarke & Braun, 2014; Neuendorf, 2017).

Thematic analysis

Defining thematic analysis

Thematic analysis has been defined broadly as “a way of seeing” and “making sense out of seemingly unrelated material” (Boyatzis, 1998, p. 4). Braun and Clarke (2006) identify it as a method for identifying and analyzing patterns of meaning in a dataset (i.e., texts).² The process is seen as organic and reflexive, requiring an “engaged, intuitive” investigator who considers “the ways in which they are *part* of the analysis. . . [making] TA a personal, and sometimes even emotional, experience” (Braun, Clarke, & Terry, 2015, p. 107). The goal is to develop a *story* from the texts of interest. The investigator notes patterns and themes from the coded texts and from this may construct a codebook, a structured compendium of codes that includes a description of how codes interrelate (Guest et al., 2012, p. 50). Coding categories often form a hierarchy of categories (Joffe & Yardley, 2004). The end result of a thematic analysis will highlight the most salient “constellations” of meanings present in the texts (Joffe, 2012). Themes may be presented in a map, indicating processes or hierarchy among the themes (Braun, Clarke, & Terry, 2015).

The typical process of thematic analysis

Clarke and Braun (2014; see also Braun & Clarke, 2006, and Braun, Clarke, & Rance, 2015, pp. 188–189) present a recursive six-phase process for thematic analysis:

- 1 Familiarising oneself with the data (text; may be transcriptions) and identifying items of potential interest
- 2 Generating initial codes that identify important features of the data relevant to answering the research question(s); applying codes to the dataset (segmenting and “tagging”) consistently; collating codes across segments of the dataset
- 3 Searching for themes; examining the codes and collated data to identify broader patterns of meaning
- 4 Reviewing themes; applying the potential themes to the dataset to determine if they tell a convincing story that answers the research question(s); themes may be refined, split, combined, or discarded
- 5 Defining and naming themes; developing a detailed analysis of each theme
- 6 Producing a report; weaving together the analytic narrative and data segments, relating the analysis to extant literature

Boyatzis' widely cited volume (1998) provides a comprehensive treatment of the process of developing codes and the full process of thematic analysis. Altheide and Schneider (2013) outline the process of developing themes and frames for the analysis of media content. And Saldaña (2016) provides a detailed guide of the "how to" of coding for qualitative analysis.

In addition to the development of codes and the identification of themes, other analytic techniques may assist in constructing the story of the data (Guest et al., 2012), such as word searches and key-word-in-context (KWIC) output. For this, computer adjuncts are employed, called QDAS (qualitative data analysis software) or CAQDAS (computer-assisted qualitative data analysis). Programs such as NVivo 11, Atlas.ti, and QDA Miner provide organizing power and give basic quantitative summaries as well (see Joffe & Yardley, 2004). The typical QDAS functions include the facilitation of the creation of a codebook with definitions and examples, the application by the investigator of codes, comments, and memos to text ("text" may also include images and multimedia content), the retrieval of content segments that have been coded, and visual representations of co-occurrence relationships among codes (e.g., via network concept mapping, dendrograms, or cluster analysis).

While interrater/intercoder reliability is not routinely assessed in thematic analyses, some scholars argue that this ought to be part of the process (Boyatzis, 1998; Joffe & Yardley, 2004). And some investigators have indeed included a consideration of reliability by employing additional analysts for comparative purposes (e.g., Chambers et al., 2013).

Examples of thematic analysis

Examples of thematic analyses show the range of message content that may be examined and the types of findings that are typical. In all cases, themes are an outcome, and these themes may be further subdivided or combined in a hierarchical or process-based model.

Tierney and Fox (2010) sought to discover the perspective of individuals who have lived with an "anorexic voice." Twenty-two participants from three UK self-help organizations participated, providing accounts in the form of poems, letters, and reflections/descriptive narratives. Initial analyses produced 135 codes, which were grouped into 10 categories, such as "attacking sense of self," "demanding and harsh task master," and "breaking free." Further, three stages of the "voice" were identified in a model of change from positive to negative: "being drawn into the relationship"; "ensnared in the relationship"; and "life without the relationship."

In a study of online support groups of individuals with Parkinson's disease, Attard and Coulson (2012) studied a random sample of postings in four discussion forums over the years 2003–2010. The 1,013 messages in the sample revealed six major themes and 16 subthemes. For example, the theme "Welcome to the land of the Parky people" included the subthemes of "comfort in numbers," "empathy and understanding," and "friendship formation"; the

theme “It’s like a graveyard at the moment,” included the subthemes of “lack of replies,” “symptom restrictions,” and “a lack of personal information.”

Open-ended written responses to the query “How would you define sexual satisfaction?” were the focus of a thematic analysis by Pascoal, Narciso, and Pereira (2014). They developed a three-level hierarchical thematic map from codes derived from responses generated by 760 heterosexual participants. Their main themes (at the highest, or third, level) were “personal sexual well-being” and “dyadic processes,” with the latter divided into three subthemes (at the second level) and five codes (at the first level).

Content analysis

Defining content analysis

A brief definition of content analysis has been proposed by this author: “The systematic, objective, quantitative analysis of message characteristics” (Neuendorf, 2017, p. 1).³ Content analysis may be applied to *any* message content. Analyses may be as complex as for any other quantitative study, including predictive regression analyses and structural equation models (e.g., Neuendorf et al., 2010; Sultan & Wong, 2011)

Human-coded content analysis vs. CATA

Content analysis may be executed by human coding according to a predefined coding scheme or by computer program using a predefined set of search dictionaries and algorithms (often termed computer-aided text analysis, or CATA). For all types of quantitative content analysis, the construction of an *a priori* coding scheme is important. Examples of coding schemes may be found at the Content Analysis Guidebook Online (http://academic.csuohio.edu/neuendorf_ka/content/; Neuendorf, 2017).

The typical process of content analysis

As delineated in Neuendorf (2017), the typical steps in the execution of a content analysis are:

- 1 Theory and rationale
- 2 Conceptualizations – identification of variables to be included in the study and conceptual definitions of them derived from theory, past research, and possible emergent variables from an inductive examination of the message content
- 3 Operationalizations (measures) – should match the variables’ conceptualizations
- 4 Establishment of coding scheme – either a codebook and coding form (for human coding) or a set of original or predefined dictionaries (for CATA)
- 5 Sampling – deciding on the population of messages to be studied and sampling an (optimally) representative subset of messages for the study

- 6 Coder training and pilot intercoder reliability assessment
- 7 Coding
- 8 Final intercoder reliability assessment
- 9 Tabulation and reporting

Psychometric content analysis

Of particular interest to psychologists has been the application of content analysis to psychometrics, the quantitative measurement of psychological characteristics. While self-report inventories are perhaps the most common method of psychometric assessment, a second main way is via performance-based measures (Weiner & Greene, 2017). The latter includes assessment via Rorschach testing, thematic apperception tests (TAT), figure-drawing methods, and sentence completion methods. The scoring of the output of these techniques matches the process of quantitative content analysis – i.e., raters/coders are trained on a coding scheme, and their interrater reliability is assessed (Jenkins, 2017; Weiner & Greene, 2017).

Smith et al. (1992; see also Smith, 2000) presents a large volume of predefined coding schemes for the nonclinical measurement of psychological characteristics called thematic content analysis. The volume began with a focus on the needs of scholars coding TAT outcomes but was expanded to include coding open-ended survey responses, archival historical documents, and everyday verbal materials such as conversations, reports of dreams, and transcripts of TV programs. Coding schemes include power motivation, intimacy motive, and psychological stances toward the environment, among many others. Content analysis has also been used to assess psychometrics for clinical purposes, as with the coding scheme developed by Gottschalk and colleagues. The CATA form of this scheme, PCAD, is described in the next section.

CATA options

There are dozens of available computer-aided text analysis (CATA) programs (see Neuendorf, 2017, for a fuller list and comparison chart). Some of the more useful CATA programs that show the range of options are:

PCAD (Psychiatric Content Analysis and Diagnosis)

The application of content analysis to an individual's naturally occurring communication (e.g., speech or writing) in order to assess mental states, emotions, and neuropsychiatric indicators to provide preliminary diagnostics for psychiatric purposes was the life's work of Louis Gottschalk. With his team, he first developed an elaborate human-coded scheme, with a computer-driven system (PCAD) the eventual outcome (Gottschalk, 1995; Gottschalk & Bechtel, 2007; 2008). The 40 PCAD measures include 14 subscales for depression, cognitive

impairment, and six anxiety subscales. Unlike most other content analyses (and thematic analyses), PCAD is designed for idiographic purposes.⁴ That is, the 40 measures are applied to an individual in order to produce “candidate diagnoses for consideration” for that individual. For example, President Ronald Reagan was found to exhibit a “significant increase” in cognitive impairment between the 1980 and 1984 presidential debates (although Gottschalk held the release of the findings until 1987; Romney, 1997).

LIWC2015 (Linguistic Inquiry and Word Count)

Devised as an automated method to detect important differences among essays by individuals who had undergone traumatic experiences, LIWC has since been used in a wide array of other applications (Pennebaker, 2011; Pennebaker et al., 2015). LIWC uses dozens of dictionaries to measure linguistic and paralinguistic dimensions, relativity dimensions, psychological constructs (e.g., affective processes, such as anger; cognitive processes, such as inhibition), and other constructs. Pennebaker and Chung (2009) applied LIWC to texts authored by al-Qaeda leaders Osama bin Laden and Ayman al-Zawahiri, comparing their speech with that of other extremist groups, concluding that bin Laden increased his cognitive complexity and emotionality after 9/11 and that post-2003 the use of anger and hostility words by both al-Qaeda leaders was much higher than that for other extremist groups.

Profiler Plus

Profiler Plus is a “general purpose text analytics (natural language processing) system” that allows for multi-pass, rule-based analyses of text, relying on substantial researcher input and specification rather than machine learning (social-science.net/tech/profilerplus.aspx). The platform offers a number of coding schemes that have already been created for applied projects, such as Leadership Trait Analysis and conceptual/integrative complexity. A number of Profiler Plus coding schemes are computerized adaptations of psychometric measures presented in the Smith et al. (1992) volume, including need for achievement, need for affiliation, and need for power. User-created, custom coding schemes may also be devised.

Yoshikoder

The freeware Yoshikoder is particularly useful for analysts who are constructing their own CATA dictionaries. Yoshikoder performs basic functions, such as word counts, dictionary term counts/data, KWIC, and concordances, making it a good vehicle via which to learn the typical process and principal functions of CATA. The program provides options for the use of both predefined dictionaries and custom dictionaries (<http://yoshikoder.sourceforge.net/>).

Additional examples of content analyses

Additional examples of content analyses show the range of message content that may be examined and the types of findings that are typical. Both human-coded and CATA examples show how predefined coding schemes and CATA dictionaries are employed to produce quantitative data for analysis.

Tiggemann and Zaccardo (2016) conducted a human-coded content analysis of 600 images on Instagram marked with the “fitspiration” hashtag. Their *a priori* coding scheme included measures of body type, activity, objectification, and inspirational and dysfunctional quotes. Intercoder reliability was acceptable for each of the 11 measured variables. Results included the finding that most images of women represented only one body type – thin (75.2%) and visibly toned (56.2%). Further, a majority of images were found to include objectifying elements (56%).

Responses to semi-structured interviews were the content analyzed in Stahl and Caligiuri’s (2005) study of coping strategies employed by expatriate managers while on international assignment. Interviews were conducted with 116 German managers in Japan or the U.S. A coding scheme comprised of 30 different variables (i.e., types of coping strategies) was developed via a combination of inspection of past literature and emergent codes from an examination of the interview transcripts. All variables in the coding scheme were found to have acceptable intercoder reliability. The most frequently reported coping strategies were “emphasizes the positive in a difficult situation,” “tries to control the situation by taking initiative,” and “intentionally violates cultural norms.” The 30 strategies were further divided into two types: problem-focused ($k = 14$) and emotion-focused ($k = 16$). Combining these data with additional self-report survey data from the 166 managers, the investigators found that the prediction of cross-cultural adjustment from the use of problem-focused coping strategies was moderated by cultural distance and position level.

Bligh, Kohles, and Meindl (2004) examined how elements of the speeches of President George W. Bush changed in response to the post-9/11 environment. The CATA program DICTION (www.dictionsoftware.com/; Hart, 2014), which was designed to examine the linguistic characteristics of political speech, was applied to 74 speeches collected from the official White House website ($n = 39$ pre-9/11 and $n = 35$ post-9/11). Six of the 31 predefined dictionary-based measures in DICTION were the focus. In ANCOVA statistical analyses, it was found that the post 9/11 speeches were significantly more likely to incorporate references to collectives, faith, patriotism, and aggression and less likely to reference ambivalence (after controlling for speech length and word variety). There was no pre/post difference found for the measure of optimism.

Blended approaches

Thematic analysis and content analysis each has its own set of characteristics that might be viewed as advantages, and each has limitations (see Braun & Clarke,

2013). Thematic analysis produces a depth of understanding of the meaning of a set of texts. The investigator is the instrument, and reliability among investigators is not typically assessed.⁵ For content analysis, a main assumption is that a coding scheme is independent of the individual perspective of an investigator. The instrument is not the investigator but rather the coding scheme, which is not adaptable during the final coding process. Reliability between coders is paramount.

Increasingly, scholars have called for mixed-methods research, integrating qualitative and quantitative approaches in a single study (Guest et al., 2012), as well as the triangulation of methods across studies. A purposeful pairing of qualitative and quantitative analyses has obvious advantages, given the complementary goals of each (Gray & Densten, 1998; Hardy, Harley, & Phillips, 2004).

Some scholars have recognized this complementarity. Fereday and Muir-Cochrane (2006) called for a hybrid approach to thematic analysis, including both deductive and inductive coding. Walker, van Jaarsveld, and Skarlicki (2017) utilized a mixed-method approach to analyzing customer service employee incivility toward customers. Brough, O'Driscoll, and Biggs (2009) provide an example of a hybrid approach to content analysis and thematic analysis in which an initial, *a priori* content analysis coding scheme based on theoretic and practical considerations was supplemented by additional codes derived in an iterative, emergent process of thematic analysis. The analysis examined responses to semi-structured interviews with parents who had returned to work within a year of the birth of a child. The resulting scheme was assessed for reliability by the inclusion of an additional coder. The study exemplified the viability of a blended approach to message analysis.

Conclusion

The utility of message analysis techniques, including the oft-used content analysis and thematic analysis, has been demonstrated in hundreds of studies across disciplines, including applied psychology. These two sets of methods produce different types of conclusions, with content analysis providing quantitative, objective, reliable measures about messages and thematic analysis most typically resulting in qualitative, inductive, conclusions about themes in message content. The two types may be seen as complementary, each providing a different perspective on a set of messages. As the volume of recorded messages continues to grow, notably online, applications of these two message analysis techniques will become increasingly important.

Notes

- 1 The distinction between quantitative and qualitative might be viewed as “a rather thin and discreet line. . . [as] most qualitative studies do contain some kind of quantitative information (numbers)” (Schedler & Mudde, 2010, pp. 418–419). Elsewhere, I recommend applying the labels of quantitative and qualitative separately to the phenomenon

- under investigation and to the analytical strategies used to describe or summarize the phenomenon. For example, the typical task of *quantitative* measurement is to assign numerical values to *qualities* of a phenomenon (Neuendorf, 2017).
- 2 Beyond thematic analysis, other examples of wholly qualitative methods include phenomenological analysis, grounded theory, hermeneutic analysis, narrative analysis, discourse analysis, and conversation analysis (see Alhojailan, 2012; Harper & Thompson, 2012; Rohleder & Lyons, 2015; Smith, J. A., 2008). Thematic analysis is reported to be compatible with the overarching methodologies of various qualitative research approaches (e.g., phenomenology).
 - 3 The more detailed definition given in my textbook on content analysis follows:

Content analysis is a summarizing, quantitative analysis of messages that follows the standards of the scientific method (including attention to objectivity – intersubjectivity, *a priori* design, reliability, validity, generalizability, replicability, and hypothesis testing based on theory) and is not limited as to the types of variables that may be measured or the context in which the messages are created or presented.

(Neuendorf, 2017, p. 17)
 - 4 However, some investigators have used the PCAD measures on multiple cases for nomothetic purposes (for the distinction between idiographic and nomothetic approaches, see Te'eni, 1998, and Weiner & Green, 2017). For example, Smith (Smith, S. S., 2008) applied measures from PCAD, as well as from Profiler Plus, to 96 instances of threatening communication from FBI case files. Among other findings, she reported that threateners exhibiting less ambivalent hostility (from PCAD) and higher conceptual complexity (from Profiler Plus) were more likely to act on their threat.
 - 5 Some scholars have proposed processes of reliability and validity assessment in thematic analysis by the inclusion of additional, independent reviewers to validate themes and to indicate level of reliability of feedback across reviewers (Alhojailan, 2012). However, these techniques, more closely aligned with positivist perspectives, are not routinely part of thematic analysis.

Not for distribution

References

- Ahuvia, A. (2001). Traditional, interpretive, and reception based content analyses: Improving the ability of content analysis to address issues of pragmatic and theoretical concern. *Social Indicators Research*, 54, 139–172.
- Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, 1(1), 39–47.
- Altheide, D. L., & Schneider, C. J. (2013). *Qualitative media analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Ando, H., Cousins, R., & Young, C. (2014). Achieving saturation in thematic analysis: Development and refinement of a codebook. *Comprehensive Psychology*, 3, Article 4.
- Attard, A., & Coulson, N. S. (2012). A thematic analysis of patient communication in Parkinson's disease online support group discussion forums. *Computers in Human Behavior*, 28, 500–506.
- Berelson, B. (1952). *Content analysis in communication research*. New York, NY: Hafner.
- Bligh, M. C., Kohles, J. C., & Meindl, J. R. (2004). Charting the language of leadership: A methodological investigation of President Bush and the crisis of 9/11. *Journal of Applied Psychology*, 89, 562–574.
- Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development*. Thousand Oaks, CA: Sage.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101.

- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. London, UK: Sage.
- Braun, V., Clarke, V., & Rance, N. (2015). How to use thematic analysis with interview data. In A. Vossler & N. Moller (Eds.), *The counselling and psychotherapy research book* (pp. 183–197). London, UK: Sage.
- Braun, V., Clarke, V., & Terry, G. (2015). Thematic analysis. In P. Rohleder & A. C. Lyons (Eds.), *Qualitative research in clinical and health psychology* (pp. 95–113). Houndmills, Basingstoke, Hampshire, UK: Palgrave Macmillan.
- Bridges, A. J., Wosnitzer, R., Scharrer, E., Sun, C., & Liberman, R. (2010). Aggression and sexual behavior in best-selling pornography videos: A content analysis update. *Violence Against Women*, 16, 1065–1085.
- Brough, P., O'Driscoll, M. P., & Biggs, A. (2009). Parental leave and work-family balance among employed parents following childbirth: An exploratory investigation in Australia and New Zealand. *Kōtuitui: New Zealand Journal of Social Sciences Online*, 4(1), 71–87. doi: 10.1080/1177083X.2009.9522445
- Chambers, S. K., Schover, L., Halford, K., Ferguson, M., Gardiner, R. A., Occhipinti, S., & Dunn, J. (2013). ProCan for couples: A feasibility study for evaluating peer support within a controlled research design. *Psycho-Oncology*, 22, 475–479. doi:10.1002/pon.2110
- Clarke, V., & Braun, V. (2014). Thematic analysis. In A. C. Michalos (Ed.), *Encyclopaedia of quality of life and well-being research* (pp. 6626–6628). Dordrecht, The Netherlands: Springer.
- Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods*, 5(1), 80–92.
- Gottschalk, L. A. (1995). *Content analysis of verbal behavior: New findings and clinical applications*. Hillsdale, NJ: Lawrence Erlbaum.
- Gottschalk, L., & Bechtel, R. (2007). *Psychiatric content and diagnosis: The PCAD 3*. Brighton, MI: GB Software.
- Gottschalk, L. A., & Bechtel, R. J. (Eds.). (2008). *Computerized content analysis of speech and verbal texts and its many applications*. New York, NY: Nova Science.
- Gray, J. H., & Densten, I. L. (1998). Integrating quantitative and qualitative analysis using latent and manifest variables. *Quality & Quantity*, 32, 419–431.
- Guest, G., MacQueen, K. M., & Namey, E. E. (2012). *Applied thematic analysis*. Thousand Oaks, CA: Sage.
- Hardy, C., Harley, B., & Phillips, N. (2004). Discourse analysis and content analysis: Two solitudes? *Qualitative Methods: Newsletter of the American Political Science Association Organized Section on Qualitative Methods*, 2(1), 19–22.
- Harper, D., & Thompson, A. R. (Eds.). (2012). *Qualitative research methods in mental health and psychotherapy*. Malden, MA: John Wiley & Sons.
- Hart, R. P. (Ed.). (2014). *Communication and language analysis in the corporate world*. Hershey, PA: IGI Global.
- Jenkins, S. R. (2017). Not your same old story: New rules for Thematic Apperceptive Techniques (TATs). *Journal of Personality Assessment*, 99, 238–253. doi:10.1080/00223891.2016.1248972
- Joffe, H. (2012). Thematic analysis. In D. Harper & A. R. Thompson (Eds.), *Qualitative research methods in mental health and psychotherapy* (pp. 209–223). Chichester, West Sussex, UK: Wiley-Blackwell.
- Joffe, H., & Yardley, L. (2004). Content and thematic analysis. In D. F. Marks & L. Yardley (Eds.), *Research methods for clinical and health psychology* (pp. 56–68). London, UK: Sage.
- King, N. (2004). Using templates in the thematic analysis of text. In C. Cassell & G. Symon (Eds.), *Essential guide to qualitative methods in organizational research* (pp. 256–270). London, UK: Sage.

- Malik, S. H., & Coulson, N. (2008). The male experience of infertility: A thematic analysis of an online infertility support group bulletin board. *Journal of Reproductive and Infant Psychology, 26*, 18–30.
- Mayring, P. (2014). *Qualitative content analysis: Theoretical foundations, basic procedures and software solutions*. Klagenfurt, Austria. Retrieved from www.ssoar.info/ssoar/handle/document/39517
- Merton, R. K. (1975). Thematic analysis in science: Notes on Holton's concept. *Science, 188*, 335–338.
- Neuendorf, K. A. (2002). *The content analysis guidebook*. Thousand Oaks, CA: Sage.
- Neuendorf, K. A. (2017). *The content analysis guidebook* (2nd ed.). Thousand Oaks, CA: Sage.
- Neuendorf, K. A., Gore, T. D., Dalessandro, A., Janstova, P., & Snyder-Suhy, S. (2010). Shaken and stirred: A content analysis of women's portrayals in *James Bond* films. *Sex Roles, 62*, 747–761.
- Pascoal, P. M., Narciso, I. S. B., & Pereira, N. M. (2014). What is sexual satisfaction? Thematic analysis of lay people's definitions. *Journal of Sex Research, 51*(1), 22–30.
- Pennebaker, J. W. (2011). *The secret life of pronouns: What our words say about us*. New York, NY: Bloomsbury Press.
- Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*. Austin, TX: University of Texas at Austin. doi:10.15781/T29G6Z
- Pennebaker, J. W., & Chung, C. K. (2009). Computerized text analysis of Al-Qaeda transcripts. In K. Krippendorff & M. A. Bock (Eds.), *The content analysis reader* (pp. 453–465). Thousand Oaks, CA: Sage.
- Rohleder, P., & Lyons, A. C. (Eds.). (2015). *Qualitative research in clinical and health psychology*. Houndmills, Basingstoke, Hampshire, UK: Palgrave Macmillan.
- Romney, L. (1997, January 8). UCI given \$1.5 million by Psychiatry Dept. founder. *Los Angeles Times*. Retrieved from http://articles.latimes.com/1997-01-08/local/me-16606_1_university-officials
- Saldaña, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). London, UK: Sage Publications Ltd.
- Schedler, A., & Mudde, C. (2010). Data usage in quantitative comparative politics. *Political Research Quarterly, 63*, 417–433.
- Schreier, M. (2012). *Qualitative content analysis in practice*. Thousand Oaks, CA: Sage.
- Smith, C. P. (2000). Content analysis and narrative analysis. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 313–335). Cambridge: Cambridge University Press.
- Smith, C. P. (Ed.), in association with Atkinson, J. W., McClelland, D. C., & Veroff, J. (1992). *Motivation and personality: Handbook of thematic content analysis*. Cambridge, MA: Cambridge University Press.
- Smith, J. A. (Ed.). (2008). *Qualitative psychology: A practical guide to research methods*. London, UK: Sage.
- Smith, S. S. (2008). Risk assessment of threatening communications from FBI case files using Gottschalk–Gleser content analysis scales. In L. A. Gottschalk & R. J. Bechtel (Eds.), *Computerized content analysis of speech and verbal texts and its many applications* (pp. 111–121). New York, NY: Nova Science Publishers, Inc.
- Stahl, G. K., & Caligiuri, P. (2005). The effectiveness of expatriate coping strategies: The moderating role of cultural distance, position level, and time on the international assignment. *Journal of Applied Psychology, 90*, 603–615.
- Sultan, P., & Wong, H. Y. (2011). Service quality in a higher education context: Antecedents and dimensions. *International Review of Business Research Papers, 7*(2), 11–20.

- Te'eni, D. R. (1998). Nomothetics and idiographics as antonyms: Two mutually exclusive purposes for using the Rorschach. *Journal of Personality Assessment, 70*, 232–247.
- Tierney, S., & Fox, J. R. E. (2010). Living with the “anorexic voice”: A thematic analysis. *Psychology and Psychotherapy: Theory, Research and Practice, 83*, 243–254.
- Tiggemann, M., & Zaccardo, M. (2016). “Strong is the new skinny”: A content analysis of #fitspiration images on Instagram. *Journal of Health Psychology, 1–9*. doi:10.1177/135910531663943
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing and Health Sciences, 15*, 398–405.
- Walker, D. D., van Jaarsveld, D. D., & Skarlicki, D. P. (2017). Sticks and stones can break my bones but words can also hurt me: The relationship between customer verbal aggression and employee incivility. *Journal of Applied Psychology, 102*, 163–179.
- Weiner, I. B., & Greene, R. L. (2017). *Handbook of personality assessment* (2nd ed.). Hoboken, NJ: John Wiley & Sons.

Taylor & Francis
Not for distribution