

## Publication Trends in Thanatology: An Analysis of Leading Journals

Joachim Wittkowski, Kenneth J. Doka, Robert A. Neimeyer & Michael Vallergera

To cite this article: Joachim Wittkowski, Kenneth J. Doka, Robert A. Neimeyer & Michael Vallergera (2015) Publication Trends in Thanatology: An Analysis of Leading Journals, *Death Studies*, 39:8, 453-462, DOI: [10.1080/07481187.2014.1000054](https://doi.org/10.1080/07481187.2014.1000054)

To link to this article: <https://doi.org/10.1080/07481187.2014.1000054>



Published online: 28 May 2015.



Submit your article to this journal [↗](#)



Article views: 665



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 9 View citing articles [↗](#)

## Publication Trends in Thanatology: An Analysis of Leading Journals

Joachim Wittkowski

*Department of Psychology, University of Würzburg, Würzburg, Germany*

Kenneth J. Doka

*Department of Gerontology and Thanatology, College of New Rochelle, New Rochelle,  
New York, USA*

Robert A. Neimeyer

*Department of Psychology, University of Memphis, Memphis, Tennessee, USA*

Michael Vallergera

*Department of Justice Studies, San Jose State University, San Jose, California, USA*

To identify important trends in thanatology as a discipline, the authors analyzed over 1,500 articles that appeared in *Death Studies* and *Omega* over a 20-year period, coding the category of articles (e.g., theory, application, empirical research), their content focus (e.g., bereavement, death attitudes, end-of-life), and for empirical studies, their methodology (e.g., quantitative, qualitative). In general, empirical research predominates in both journals, with quantitative methods outnumbering qualitative procedures 2 to 1 across the period studied, despite an uptick in the latter methods in recent years. Purely theoretical articles, in contrast, decline in frequency. Research on grief and bereavement is the most commonly occurring (and increasing) content focus of this work, with a declining but still substantial body of basic research addressing death attitudes. Suicidology is also well represented in the corpus of articles analyzed. In contrast, publications on topics such as death education, medical ethics, and end-of-life issues occur with lower frequency, in the latter instances likely due to the submission of such work to more specialized medical journals. Differences in emphasis of *Death Studies* and *Omega* are noted, and the analysis of publication patterns is interpreted with respect to overall trends in the discipline and the culture, yielding a broad depiction of the field and some predictions regarding its possible future.

In the social and behavioral sciences, research- and evidence-based practice is to a certain degree determined by developments in society during a given period of time. For example, Kastenbaum (1993, p. 75) drew attention to our “changing relationship to death as the modern becomes

the post-modern.” Thus, long-lasting changes in society’s institutional structure and *Zeitgeist* should have an impact on the questions researchers ask, on the methods with which they answer them, on the answers they find, and on the way practitioners incorporate them into their work. Social science, in this sense, is responsive to broader cultural trends, while also contributing to their development.

Our goal in the present article is to reflect on developments in the field of thanatology, the study of dying and death. We will begin with a general outline of major

---

Received 31 July 2014; accepted 12 December 2014.

Address correspondence to Joachim Wittkowski, University of Würzburg, Bremenweg 30, Würzburg, D-97084 Germany. E-mail: [j.wittkowski@psychologie.uni-wuerzburg.de](mailto:j.wittkowski@psychologie.uni-wuerzburg.de)

developmental trends in the Western world with respect to dying, death, and bereavement in the last century and then progress to an analysis of publication trends within the field as reflected in its two leading journals, *Death Studies* and *Omega*. In this article, we provide a study of evolving content and methodological emphases in the field. In a companion article (Doka, Wittkowski, Neimeyer, Vallerga & Currelley, in press), we deal specifically with the phenomenon of scholarly productivity.

One of the significant phenomena of modernity and even more postmodernity is the decline in traditional religious belief, which is accompanied by an emerging interest in a more broadly defined spirituality and the introduction of science as a substitute for religion (Fulton & Owen, 1987–1988; Giddens, 1991; Walter, 1994). Interestingly, the new field of thanatology seemed to accommodate this trend (cf. Fonseca & Testoni, 2011–2012) as it offered a place to both spiritual and scientific or scholarly interests within its interdisciplinary matrix. In close connection with the secular trend of declining religiosity is the rise of individualism, autonomy, and self-actualization, which have become key values in Western societies (Giddens, 1991; Walter, 1994). Stated in terms of attachment theory, although the attachment to God has weakened somewhat in many Western societies, humans remain attached to their own lives.

For about 100 years, humankind has been confronted with a variety of existential threats that are specific to modernity, such as weapons of mass destruction, the HIV/AIDS epidemic, terrorism, and climate change. This is accompanied by an emerging perception that one's death might be violent and anonymous rather than peaceful and family-centered (International Work Group, 2005). It seems reasonable to derive from this accumulation of threats within a historically short period a general need for ontological security. As religion has waned for many as the leading provider of existential orientation and sense-making, Western culture has witnessed an increased demand for scholarly evidence from all academic fields, in both the physical and social sciences. At the same time, the evidence base for clinical practice remains at best incomplete, leaving ample compass for theorists and clinicians to contribute to evolving practices.

Western societies respond to dying and death in a contradictory fashion, with both approach and avoidance. There is an extensive, yet distanced and artificial presentation of dying and dead individuals in the media, especially on TV, whereas a serious consideration of mortality is excluded from real life (Fulton & Owen, 1987–1988). Since the middle of the last century, the likelihood of encountering a dying person within one's family or elsewhere in daily life has diminished, and the same applies to encounters with a corpse. Other relevant societal trends include the increase in longevity; the development of new technologies for prolonging life; the dominance of a youth culture with its

glorification of physical strength and beauty; the mainstreaming and empowerment of women; the medicalization of originally natural processes such as pregnancy, dying, and grieving, which became the object of interventions; the increase in use of technical devices in general and in medical care in particular, contributing to high tech but low touch treatment environments (Naisbitt, 1982); the emergence of dense global connections among professionals of all kinds and around the world; and greater cultural diversity especially within the countries of the European Union (cf. International Work Group, 2005; Pine, 1986).

As far as developmental trends specifically in thanatology are concerned, there is a close connection with North American culture and its development since World War II. On the one hand, the death awareness movement arose in the 1950s and continues to encourage study and discussion of dying, death, and bereavement via death education (Neimeyer & Fortner, 1997). On the other hand, the hospice movement, beginning in the 1960s, has consistently promoted better pain management and humanistic care of the patient and family at the end of life. In many countries, the hospice movement has found partly a comrade-in-arms and partly a rival in the form of palliative care in more traditional medical environments (Conner, 2015). Alongside these two larger trends, and in response to advanced technical means in medicine to prolong life indefinitely, the right-to-die movement emerged.

Reflecting a general trend within academic psychology, there is a predominance of the quantitative paradigm over the qualitative paradigm in empirical research, although the latter has attracted increasing attention. A further trend in thanatology is its evident multidisciplinary character and global reach, nourishing collaborations across fields such as psychology, social work, sociology, medicine, and nursing and including scholars from various countries. Neimeyer (1991), in his inaugural address as the new editor of *Death Studies*, outlined four hopes for the future development of the field: the integration of specialty areas within thanatology and related disciplines; sophistication in science and practice; experimentation in the use of more sophisticated and diverse research strategies; and expansion in the number of individuals and organizations involved. An investigation of publication patterns in the field can shed light on the extent to which such developments have indeed occurred in the years since this call to action.

The present article reviews trends and publication patterns in thanatology within the past two decades in the leading international journals, *Death Studies* and *Omega: Journal of Death & Dying*. The major questions guiding our analysis were What are the thematic emphases of contemporary thanatology, and how have these changed over the last two decades? How do these mirror broader cultural and disciplinary trends? How is the methodology that informs our scholarship broadening or narrowing? The

study seeks to ascertain what types of articles and what topics are being researched in contemporary thanatology and to consider methodological features of this work. The result should be a reasonable depiction of the evolving thanatological literature, giving a clearer view of its directions and potentially its deficiencies at this early point in the 21st century.

## METHOD

### Material for Analysis

The present analysis comprises all peer reviewed articles of *Death Studies* (Volumes 15 through 34) and *Omega* (Volumes 23 through 61) within the period 1991 through 2010. In *Death Studies*, Brief Reports and Practice Reports are included. A total of 1,554 articles by 3,425 authors and co-authors, was classified.

### Coding Procedure

Coding was performed on the basis of the articles' abstracts, occasionally consulting the full reports when necessary to clarify specifics of a paper's focus or methodology. We used a categorical system with three sections. Section 1 referred to authors, their number, their sex/gender, and their nationality according to their respective institution of employment. For example, an author holding a Greek passport who at the time of the submission of the article was a member of a university in Florida was coded as "United States." Trends along these lines are summarized in a companion article (Doka et al., in press). Section 2 assessed the type of an article in eight categories: theoretical, empirical quantitative, empirical qualitative, mixed model, literature review, meta-analysis, applied, and undetermined. Finally, in Section 3 the content of an article was classified in nine categories: attitudes toward dying and death, end of life and dying, grief and bereavement, traumatic death, suicide, death concept in children, death education, ethical and legal issues, and other. These content categories had been generated from major textbooks of thanatology such as Balk (2007), Corr, Nabe, and Corr (2009), and Kastenbaum (2009). Section 3 was supplemented by an appendix with a detailed list of key words for each category. Specific consideration was given to the definition of either euthanasia or physician-assisted suicide in contrast to ethical and legal issues. A draft version of the category system was pilot tested by two of the authors and revisions were performed.

Coding rules specified that within Section 1, all the categories had to be used. Within the Sections 2 and 3, respectively, only one category could be chosen for most categories, as each was considered mutually exclusive. Within Section 2, however, double coding was allowed

for "applied," that is, articles dealing with assessment or intervention, in connection with one of the other categories, for example, "empirical quantitative." Only one additional category was permitted per article. Similarly, within Section 3, multiple coding was possible for "ethical and legal issues" in connection with either "end of life/dying," "bereavement/grief," "suicide," or "death education." Again, only one of these additional categories was allowed. By means of these multiple codes within Sections 2 and 3 we intended to capture as much information as possible from the material available for analysis. In addition to assigning of features of the articles to pre-established categories of type and content, qualitative notes were taken whenever meaningful.

The coding procedure was guided by detailed instructions and performed by two of the authors (Joachim Wittkowski and Michael Vallerger). Authors' sex/gender was determined from their given names. In unclear or doubtful cases, we explored the corresponding sex via the Internet and, if this was not successful, asked colleagues from the respective countries. A special problem occurred with Chinese authors as the Chinese characters are necessary to discern the person's sex/gender from his or her given name. In some articles, only the initials of the given names were published. Overall, the amount of undetermined sex/gender is small (8%). An inventory of examples that had been compiled from *Omega*, Volumes 23 through 61, illustrated coding decisions especially with respect to the "other" category of the content section. In case a rater was unable to find an appropriate category, another rater was consulted. Only if two raters were unable to determine a category, "undetermined" in case of Section 2 or "other" in case of Section 3 was coded. Codes were entered into an Excel data base template and analyzed by means of this software.

To assess the reliability of the coding system, a subsample of 150 articles was coded by two raters. As expected given the straightforwardness of the majority of the codes, the system proved highly reliable, with 97% agreement between raters.

## RESULTS

Table 1 shows the number of publications by content for the time span 1991 through 2010 across both journals. Overall, the most frequent topics are bereavement/grief including research, interventions, and rituals (37%), attitudes toward dying and death, which covers fear/anxiety, acceptance, correlates such as age, gender, health, and religiosity, and associated theory development (21%), and both research on and prevention of suicide (14%). The dying process and the care of the dying also occurred with some frequency (11%). Reactions to traumatic death such as sudden infant death, death by crime, and death by natural or technical catastrophe were relatively neglected (4%). The least

TABLE 1  
Publications by Article Content in *Death Studies* and *Omega*  
Published 1991 to 2010

| Article content                  | n     | %    |
|----------------------------------|-------|------|
| Bereavement/grief                | 573   | 37%  |
| Attitudes toward death and dying | 319   | 21%  |
| Suicide                          | 219   | 14%  |
| Dying/end of life                | 170   | 11%  |
| Traumatic death                  | 58    | 4%   |
| Death education                  | 44    | 3%   |
| Ethical and legal issues         | 33    | 2%   |
| Death concept in children        | 26    | 2%   |
| Other                            | 112   | 7%   |
| Total                            | 1,554 | 100% |

frequently occurring topics included death education for children, adults, and professionals (3%), ethical and legal issues such as active and passive euthanasia (2%), and the development of the death concept in children (2%).

Seven percent of the article contents do not fit any of the standard content categories. Within this other category fall defense/coping strategies (39.2% of the 108 articles in this category), humanistic approaches such as dying and death in arts and literature (25.5%), needs (14.7%), advanced directives (13.7%), and near-death experiences (6.9%). A qualitative analysis of the contents of the other category in the odd issue numbers of *Death Studies* and *Omega*; that is, nearly half of the material of analysis reveals, among others, the following additional key words: AIDS-related issues; oncologists' attitudes to treatment of cancer patients; health providers' attitudes toward dying patients; Medicare hospice benefit; hospice bereavement services; afterlife beliefs; spiritual experiences in dying and mourning; funeral directors, their role and experiences with bereaved children; costs of burial/funeral; rituals; mortality; longevity; preferences for life-sustaining treatments; reasons for living and risk taking; willingness to die, experience of miscarriage; advance directives; body donation; gender differences in obituaries; voodoo death; roadside memorials; circles of violence; posttraumatic growth; taking part in prevention campaigns; impressions from a visit to Auschwitz; literature in dying, death, and bereavement in basic text books; bridging the gap between research and practice.

A comparison of the two journals shows minor differences in the rank order and the frequencies of various categories, though these are not represented graphically. Articles on attitudes toward dying and death are more frequently published in *Omega* (24% to 17%) whereas articles on suicide appear with greater frequency in *Death Studies* (18% to 10%). Moreover, dying and end-of-life issues are dealt with more frequently in *Omega* than in *Death Studies* (13% to 9%). All in all, however, the rank order of the article contents derived from the total figures reflects the relative content emphases of each of the two journals taken separately.

The development of the publication rate by article content during the period 1991 through 2010 is shown in Figure 1. The graph represents the combined data from *Death Studies* and *Omega*. For bereavement/grief we can see a considerable increase in publications during the years 2001 through 2005 and a nearly constant rate at this high level over the next 5-year period. Starting from a relatively high volume of work during the first half of the 1990s, attitudes toward dying and death show a slight linear decline over the two decades. During 2001 through 2005, the rate of articles on suicide diminished but returned to its former level in the following 5-year period, suggesting that the apparent dip represented simply random fluctuation in a relatively constant level of research in the area. Both articles on dying/end-of-life issues and articles on traumatic death show a linear and parallel increase in publication rate over 15 years and a slight decline during the period 2006 through 2010. In contrast, work on ethical and legal issues and the death concept in children occurred at low levels across the 20 years of the study.

A comparison of the publication rates by article content between the two journals reveals some notable differences. Although bereavement/grief shows a monotonic increase during the second decade (i.e., 2001 through 2010) in *Death Studies*, in *Omega* there is a peak for the 2001 through 2005 period followed by a decline. As far as attitudes toward dying and death are concerned, their publication rate shows a linear upward trend in *Death Studies* until 2005 and a subsequent decline. In contrast, in *Omega* the publication rate of attitudes toward dying and death decreases over the whole span of investigation. Articles on suicide show a similar development in both journals with a low for the years 2001 through 2005. In *Death Studies*, the publication rates in dying/end of life form a saw tooth profile with a peak during the 2001 through 2005 period, whereas in *Omega* there is a steady increase during the two decades under investigation. Finally, ethical and legal issues, rather down near the bottom, show an upward trend with the beginning of the new century in *Death Studies*, whereas in *Omega* we find a decline during the period 2001 through 2005 followed by a slight increase.

Table 2 provides the number of publications by type of article for the years 1991 through 2010. Two thirds of the articles we investigated are empirical studies using either psychometric instruments and providing statistical calculations (quantitative; 43%) or using interviews and/or behavioral observations without quantifying them (qualitative; 22%) or a combination of both (3%). Third in rank are theoretical contributions (18%; i.e., papers that do not include empirical data collection). There are few articles on applied issues such as assessment and/or intervention (3%) and even fewer that report on statistical analyses on the basis of the pooled data from various single quantitative studies (i.e., meta-analyses; 1%). Six percent of the articles could not be assigned to one of our type categories. These include, among others, surveys.

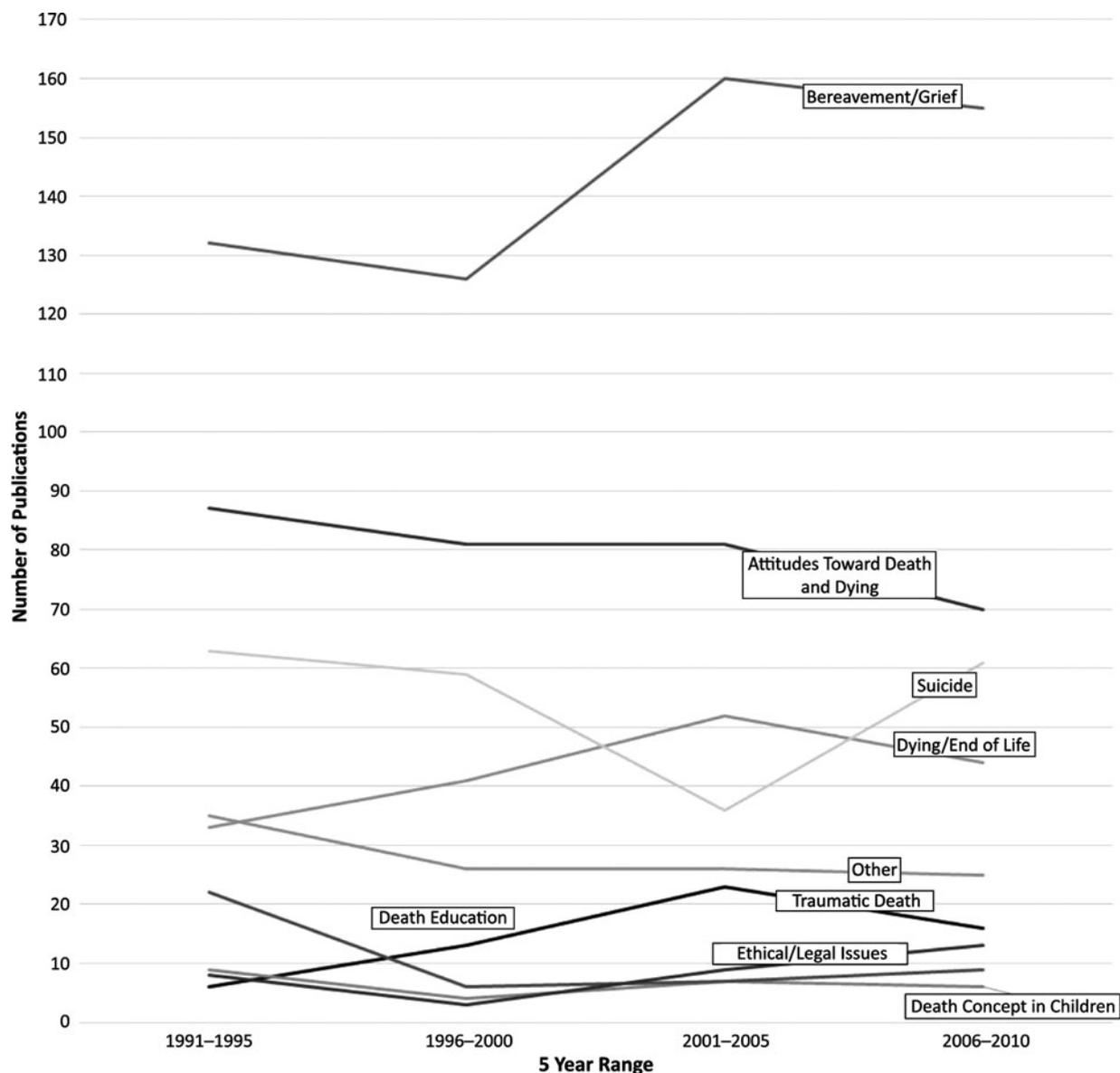


FIGURE 1 Number of publications from 1991 to 2010 by article content over time.

TABLE 2  
Publications by Article Type in Death Studies and Omega Published 1991 to 2010

| Article content             | n     | %    |
|-----------------------------|-------|------|
| Theoretical                 | 279   | 18%  |
| Empirical: Quantitative     | 667   | 43%  |
| Empirical: Qualitative      | 341   | 22%  |
| Mixed model (2.2 & 2.3)     | 39    | 3%   |
| Narrative literature review | 57    | 4%   |
| Applied                     | 53    | 3%   |
| Meta Analysis               | 12    | 1%   |
| Undetermined                | 98    | 6%   |
| Total                       | 1,546 | 100% |

A comparison of the two journals reveals a stronger accent of qualitative empirical studies in *Omega* (26% to 17%), whereas theoretical contributions are more numerous in *Death Studies* (21% to 16%). The overall picture of the rank order as depicted in the combined figures is valid for the two journals as well.

Figure 2 presents the number of publications by article type for the two decades under investigation. The graph is based on the combined data from *Death Studies* and *Omega*. Quantitative empirical studies show an increase in number from 1991 until 2005 and a significant decline during the following five years. In contrast, qualitative empirical studies, after a decline in the second half of the 1990s, increase considerably during the first decade of the new century, thereby reducing the gap between the two

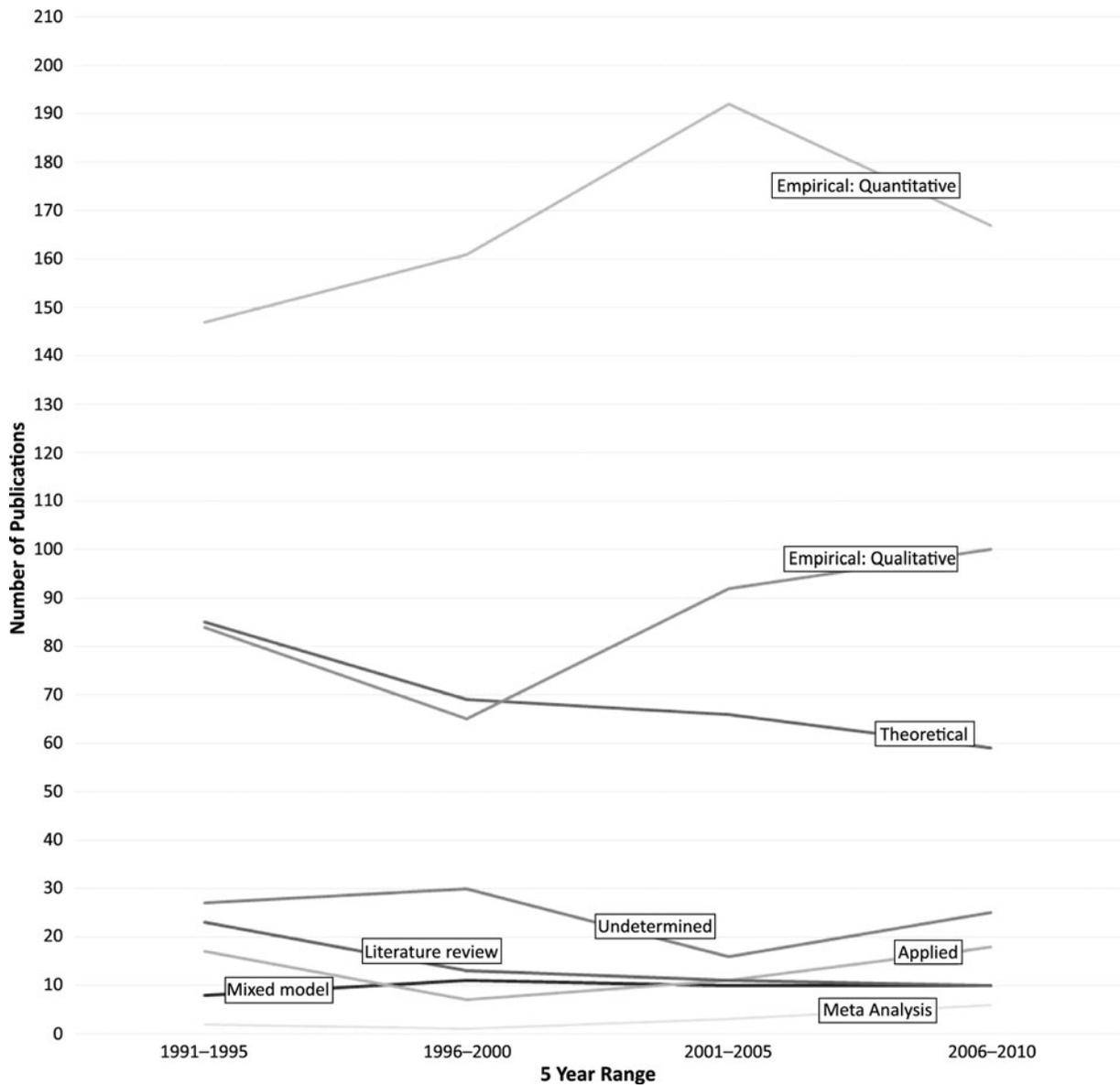


FIGURE 2 Number of publications from 1991 to 2010 by article type over time.

methodological approaches, though quantitative research continues to predominate. Mixed models work, however, remains nearly constant at a low level over the two decades. The publication rate of theoretical contributions declined slightly from 1991 until 2010, as did literature reviews, and meta-analyses remain nearly constant at a very low level. Finally, the rate of articles on applied issues such as assessment and intervention increases modestly after the turn of the century.

Comparing the publication rate by type of article for the two journals across the 20-year period reveals similar trends for both publications in the proportion of quantitative and qualitative studies, the former reaching a peak within the 2001 through 2005 period and afterwards declining, the

latter showing a low within the 1996 through 2000 period, which is followed by an increase. Theoretical articles show different saw tooth profiles in the two journals: Although there is an upward movement during the first 5 years of the new century in *Death Studies*, in *Omega* this period is marked by a decline, suggesting random variation around an overall linear downward trend. Literature reviews show a slow yet steady decline over the two decades in *Death Studies*, whereas in *Omega* their publication rate remains nearly constant. This latter pattern also applies to meta-analyses in *Omega*, whereas in *Death Studies* we found a slight increase over the second decade. Finally, there is a slight increase of articles dealing with applied issues from the turn of the century onwards in both journals.

## DISCUSSION

The present investigation analyzed major trends in the content and character of research in thanatology, as revealed in the two leading international journals in the field over the last two decades. By far the strongest thematic emphasis is on bereavement/grief, comprising both research and practice. Already in the leading position, articles on this subject matter display a further considerable increase during the 5-year period from 2001 through 2005. By its very nature, dealing with bereaved individuals has a strong affinity to clinical psychology, which for half a century has played a major role within psychology as a whole. Thus, the dominance of articles on bereavement/grief within thanatology during the last 20 years can be understood as a reflection of the *Zeitgeist* within the wider field of psychology, as well as within American thanatology.<sup>1</sup> This is well documented in the handbook trilogy on bereavement edited by Margaret Stroebe and her colleagues (Stroebe, Stroebe, & Hansson, 1993; Stroebe, Hansson, Stroebe, & Schut, 2001; Stroebe, Hansson, Schut, & Stroebe, 2008), which has grown visibly in both size and scope across a similar period. In addition, scholarly interest in bereavement/grief may be stimulated by the need for appropriate bereavement care (International Work Group, 2005) and the recent burgeoning of bereavement theory (Neimeyer, Harris, Winokuer, & Thornton, 2011), assessment instruments (Neimeyer, 2015a), and therapy procedures (Neimeyer, 2012, 2015a). Although the evidence base for clinical interventions continues to grow in scope and sophistication (cf., Currier, Neimeyer, & Berman, 2008; Jordan & Neimeyer, 2003), considerable progress is being made in this area (Neimeyer, 2015b).

Similar considerations apply to the topic of suicide, which follows only the bereavement and death attitudes areas in our analysis of the number of publications by article content. Here too there is an urgent global need for practical action (i.e., suicide prevention) and a corresponding need for basic research. In a related development, growing attention to the phenomenon of exposure to suicide and suicide bereavement (Cerel, McIntosh, Neimeyer, Maple, & Marshall, 2014) is likely to reinforce this trend as the literature evolves, promoting more integration between thanatology and suicidology as called for by Neimeyer (1991).

Research on attitudes toward dying and death, although showing a slow but steady decline over the two decades, holds rank two out of nine. This strong emphasis seems surprising as research this area typically is not driven by the applied concerns that animate research on bereavement and suicide. Rather, interest in attitudes toward dying and death is a kind of basic research that arose during the late

1950s through the 1970s, the continuation of which is probably in part due to the availability of a variety of research instruments as well as a growing interest in cross-cultural studies (see Neimeyer, Moser, & Wittkowski, 2003; Neimeyer, Wittkowski, & Moser, 2004; for overviews).

Dying and end-of-life care is a core issue in thanatology. Among others, inappropriate overtreatment and undertreatment of dying patients will continue to be a concern (International Work Group, 2005). In view of its high relevance, rank four indicates a comparatively weak emphasis in scholarly publications, at least in these leading interdisciplinary journals. Nevertheless, the cultural revolution reflected in the hospice and palliative care movement seems to have had an impact on the literature in thanatology, as can be seen from the increase in publication rate from 1991 through 2005. Very likely the low level of appearance of end-of-life research in these two outlets reflects the diversion of this research to the many other general medical journals or to specialized publications in the areas of hospice and palliative care.

Adaptation to loss under traumatic circumstances such as sudden infant death, death by crime, and by technical or natural catastrophes can be seen as a special feature of bereavement/grief. In contrast to this broader content category that we discussed above, traumatic death shows a comparatively low publication rate. However, the linear increase of articles on this subject matter from 1991 through 2005 may reflect catastrophes with a global impact such as terrorist attacks, shootings, tsunamis, earthquakes, airline disasters, and the uptick in violence observed in many countries. A further increase in this literature might be anticipated in the future with the greater integration of loss and trauma studies, and the possible inclusion of prolonged and complicated grief as a trauma and stress-related disorder in the pending edition of the International Classification of Disease (Maercker et al. 2014).

According to our analysis, the weakest thematic emphasis over the last two decades is in death education, ethical and legal issues, and in the development of the death concept in children. As the first is concerned, the low publication rate especially during the last decade seems surprising in view of the vivid death awareness movement in parts of the world for which death education could serve as the medium of dissemination. Moreover, it is ironic in the sense that *Death Studies* was launched in 1977 under the title *Death Education*, and converted to its current title only in 1986. However, although experts in the field predict that “education with respect to cultural differences will become increasingly important as global interdependence increases” (International Work Group, 2005, p. 383), this has not been reflected in the scientific literature. Perhaps this reflects an early surge of interest in this once unconventional and even controversial pedagogical development, which has now been more generally accepted, especially in college and professional curricula. We may speculate,

<sup>1</sup>Interestingly, the British journal *Mortality*, though not a formal focus of the present study, shows a compensatory emphasis on sociological scholarship on dying and death, helping counterbalance the psychological attention to grief in the American literature.

nonetheless, that death education is practiced informally without a solid evidence base and research on its differential effects for various target groups (e.g., children, older people, professionals) is sparse.

A similar explanation can be applied to the paucity of publications on ethical and legal issues in these two journals. Given an increase in requests for physician-assisted suicide (cf. International Work Group, 2005) and the growing legalization of this practice, there should also be a need for debate about active and passive euthanasia including rational suicide (see Werth, 1999). In parts of Europe, the situation is controversial: Although physician-assisted suicide is legal in Belgium and The Netherlands, in Germany most political parties reject it, whereas, according to opinion polls, a strong majority of the population endorses it. As discussions about the ethical permissibility of euthanasia have a strong ideological component, it is perhaps understandable that they are not frequently given attention in journals with a strong empirical accent but are instead submitted to more theoretically oriented publications in the domain of medical ethics.

Finally, the very little attention given to the study of the death concept in children may be the consequence of the relative success of previous research programs in this area. Substantial research in the 1970s (e.g., Kane, 1979) and 1980s (e.g., Speece & Brent, 1984; Orbach, Gross, Glaubman, & Berman, 1985, 1986) led to a solid evidence base (see Kenyon, 2001, for an overview), which could leave fewer questions open for contemporary investigators.

In summary, general trends in society (e.g., the spread of hospice and palliative care, growing concern for violent death) are only crudely reflected in the article contents from 1991 through 2010 in these leading journals. Rather, the interplay between practitioners and researchers on one hand and specific features of science, particularly of psychology, seem to be more influential during the last 20 years in shaping the content focus of the literature. This leads us to the idea of the relationship between supply and demand. For example, the growing prominence of clinical psychology in North America may tip the interdisciplinary mix of thanatology toward topics of a more applied psychological orientation, as can easily be found in the study and treatment of bereaved and suicidal persons. On the other hand, if society recognizes that such individuals merit more specialized psychosocial care, then training, services, and even institutions may be developed to advance that purpose. As a result, scientific research and clinical practice may bootstrap one another, contributing to the growing prominence of such topics noted in our analysis.

Our analysis of publication trends in thanatology also reveals the methodological emphasis of studies that appeared in *Death Studies* and *Omega* during the last two decades. The dominance of empirical research sheds a hopeful light on the field. In spite of the abstractness of some of its existential concepts that seem suited spiritual

or philosophic analysis at least as much as to scientific study, thanatology has progressed as have other disciplines in the social sciences, namely by empirical research strategies. The upsurge during the last decade of studies using qualitative methods provides a possible refinement in a predominantly quantitative paradigm, arguably providing a more textured analysis of the general patterns of human reactions to dying and loss reliably identified by the latter studies. Mixed model studies are still the exception; however, perhaps because researchers are specialized either in a quantitative or qualitative research paradigm and seldom are familiar with both.

To become meaningful, the collection and integration of data has to be organized by theories. Our content category "theoretical contributions," which is the third most common type of article in the two journals, shows a steady decline over the period of investigation. However, this is likely to reflect not so much a diminished attention to theory in thanatology as a tendency for freestanding "armchair" theorizing to be displaced by theoretically grounded articles that are accompanied by empirical tests of their assumptions. In addition, the limited space of an article in a journal may mean that more purely theoretical contributions or research reviews are instead published in the form of books (e.g., Doka & Martin, 2010; Tomer, 2000) and book chapters (e.g., Neimeyer et al., 2011).

As signposts and landmarks, both narrative literature reviews and meta-analyses serve an important function in the social sciences. By their very nature, however, their share of the total of publications must be low. Thus, the low publication rate of these article types corresponds to expectation. Twelve meta-analyses within 20 years seems to be a reasonable number and the slight increase may reflect the growing size of the data base in most areas of thanatology. Surprisingly, however, in spite of a constantly increasing number of publications, narrative reviews have decreased over the last two decades, leaving practitioners and researchers with less orientation than would be desirable. This effect could be offset, however, by the publication of such reviews in other outlets, such as books and book chapters, which traditionally are friendlier to scholarship that does not present new "data."

Few articles have been published on applied issues such as assessment and interventions, although there has been an increase during the second decade. This may reflect increased attention to evidence-based practice, as well as a growing set of viable approaches to grief therapy that merit further validation. If so, we should expect to see such work continue to increase in frequency in the coming decade.

In summary, research in thanatology reflects the situation in the behavioral sciences as a whole, namely the dominance of empirical investigations. Literature reviews serve the important function to synthesize and integrate information and to provide a focus for future research.

Finally, our data shed light on modest differences between the two journals investigated. There is a thematic emphasis both on attitudes toward dying and death and on dying/end of life care in *Omega*, whereas articles on suicide have been published more frequently in *Death Studies*. As far as methodology is concerned, a comparison of *Omega* and *Death Studies* reveals a higher frequency of qualitative empirical studies in the former, whereas theoretical contributions are more common in the latter.

An explanation for these discrepancies is unlikely to be found in any kind of publication policy followed by the editors, as no published policies encourage one type of publication while discouraging others. Nor do editors exercise direct influence on their reviewers' work. However, we cannot rule out that the selection of reviewers by editors or associate editors, as well as the editors' integration of reviewer remarks in final disposition letters could influence the outcome of reviews indirectly. More plausible is that the constitution of the editorial board and panel of ad hoc reviewers for each journal (which may include a higher percentage of suicidologists in the case of *Death Studies* and qualitative researchers in the case of *Omega*) could attract or promote work in line with that of board members. In general, however, the picture that emerges from the present data suggests that both of these leading publications feature work that is more alike than different in its content and methodology, reflecting (and perhaps constituting) trends in the larger field.

In conclusion, then, it appears that the thematic emphases of contemporary thanatology focus on bereavement/grief, attitudes toward dying and death, and suicidology as the dominant content areas, at least in North America. These topical areas have shown differential change over the last two decades, reflecting an overall increase in the study of bereavement and an overall decline in the study of attitudes toward dying and death. Death education, ethical and legal issues, and the death concept of children have attracted the least attention. Empirical research is dominant. Methodological approaches remain rather consistent, with quantitative research outpacing qualitative work across the 20-year period by a ratio of 2 to 1, though recently this gap has been narrowing. There are some discrepancies between the journals, both in content and in methodology, against the backdrop of striking convergence.

Finally, it is worth underscoring that although *Omega* and *Death Studies* are the oldest journals in the field of thanatology, and are both official journals of the Association for Death Education and Counseling (ADEC), there are other important interdisciplinary journals in the field as well. Other North American journals include the *Journal of Loss and Trauma* and *Illness, Crisis and Loss*, both of which publish a great deal of research on bereavement. *Mortality*, a British journal, has a strong historical and sociological emphasis while *Bereavement Care*, also

published in the United Kingdom, focuses largely on bereavement practice, as does *Grief Matters: The Australian Journal of Grief and Bereavement*. As noted previously, there are also numerous journals focused on hospice and palliative care. Moreover, articles on dying and death are published in a wide range of journals in medicine and nursing, mortuary science, the humanities and social sciences. Indeed, it is probable that the greater percentage of scientific and scholarly literature in thanatology is dispersed across dozens of peer-reviewed publications, rather than concentrated in the two journals that are the focus of the present analysis.

Why, then, have we chosen to focus on these two publications? Our reasons were twofold. First, as the long-standing flagship journals for thanatology, they jointly track with the history of the discipline, and to a greater extent than other more recently founded journals and those with more heterogeneous content are likely to reflect its waning and waxing publication patterns. Second, by their very title and official recognition by ADEC, the leading body of scholars and practitioners in the field, publication in their covers virtually constitutes the discipline of thanatology; by definition work viewed as falling outside the scope of the area would be excluded from publication. Thus, we trust that the present analysis represents an informative, if admittedly incomplete, depiction of recent trends in thanatology.

In general, this analysis indicates the increasing trend in empiricism found in many of the behavioral sciences. Although that has many positive aspects—an increase in evidence-based work for one—we should remember the caution offered by one of the founding fathers of modern social sciences, Max Weber. Weber reminded us that establishing statistical significance or even causal inferences is not enough. Science progresses when rigorous procedures and methodologies are framed within and illuminated by good theoretical and conceptual development (Weber, 1964). We hope the current analysis suggests something of the attempt of recent thanatology to achieve this, and that the results help sketch the status of the field as it progresses into the second decade of the 21st century.

## REFERENCES

- Balk, D. (2007). *Handbook of thanatology. The essential body of knowledge for the study of death, dying, and bereavement*. New York, NY: Routledge.
- Cerel, J., McIntosh, J. L., Neimeyer, R. A., Maple, M., & Marshall, D. (2014). The continuum of "survivorship": Definitional issues in the aftermath of suicide. *Suicide and Life-Threatening Behavior, 44*, 591–600.
- Conner, S. (2015). The global spread of hospice and palliative care. In J. M. Stillion & T. Attig (Eds.), *Death, dying and bereavement* (pp. 181–192). New York, NY: Springer.
- Corr, C. A., Nabe, C. M., & Corr, D. M. (2009). *Death and dying, life and living*. Belmont, CA: Wadsworth.

- Currier, J. M., Neimeyer, R. A., & Berman, J. S. (2008). The effectiveness of psychotherapeutic interventions for bereaved persons: A comprehensive review. *Psychological Review, 134*, 648–661.
- Doka, K. J., & Martin, T. (2010). *Grieving beyond gender*. New York, NY: Routledge.
- Doka, K. J., Wittkowski, J., Neimeyer, R. A., Vallerga, M., & Currelley, L. (in press). Productivity in thanatology: An international analysis. *Omega: Journal of Death and Dying*.
- Fonseca, L. M., & Testoni, I. (2011–2012). The emergence of thanatology and current practice in death education. *Omega: Journal of Death & Dying, 64*, 157–169.
- Fulton, R., & Owen, G. (1987–1988). Death and society in twentieth century America. *Omega: Journal of Death & Dying, 18*, 379–395.
- Giddens, A. (1991). *Modernity and self-identity. Self and society in the late modern age*. Cambridge, UK: Polity Press.
- International Work Group on Death, Dying, and Bereavement. (2005). Future trends in dying, death, and bereavement: A call to action. *Illness, Crisis and Loss, 13*, 377–385.
- Jordan, J. R., & Neimeyer, R. A. (2003). Does grief counselling work? *Death Studies, 27*, 765–786.
- Kane, B. (1979). Children's concepts of death. *Journal of Genetic Psychology, 134*, 141–153.
- Kastenbaum, R. J. (1993). Reconstructing death in postmodern society. *Omega: Journal of Death & Dying, 27*, 75–89.
- Kastenbaum, R. J. (2009). *Death, society, and human experience* (10th ed.). Boston, MA: Pearson.
- Kenyon, B. L. (2001). Current research in children's conceptions of death: A critical review. *Omega, 43*, 63–91.
- Maercker, A., Brewin, C. R., Bryant, R. A., Cloitre, G. M., van Ommeren, M., Humauun, A., ... Saxena, S. (2014). Proposals for mental disorders specifically associated with stress in the International Classification of Diseases-11. *Lancet, 381*, 1683–1685.
- Naisbitt, J. (1982). *Megatrends*. New York, NY: Warner.
- Neimeyer, R. A. (1991). Death Studies: A prospective view. *Death Studies, 15*, iii–vi.
- Neimeyer, R. A. (Ed.) (2012). *Techniques of grief therapy: Creative practices for counselling the bereaved*. New York, NY: Routledge.
- Neimeyer, R. A. (Ed.) (2015a). *Techniques of grief therapy: Assessment and intervention*. New York, NY: Routledge.
- Neimeyer, R. A. (2015b). Treating complicated bereavement: The development of grief therapy. In J. Stillion & T. Attig (Eds.), *Death, dying and bereavement: Contemporary perspectives, institutions and practices* (pp. 307–320). New York, NY: Springer.
- Neimeyer, R. A., & Fortner, B. (1997). Death attitudes in contemporary perspective: Reflections on the legacy of Herman Feifel. In S. Strack (Ed.), *Death and quest for meaning* (pp. 3–29). Jason Aronson.
- Neimeyer, R. A., Harris, D., Winokuer, H., & Thornton, G. (Eds.) (2011). *Grief and bereavement in contemporary society: Bridging research and practice*. New York, NY: Routledge.
- Neimeyer, R. A., Moser, R. P., & Wittkowski, J. (2003). Assessing attitudes towards death: Psychometric considerations. *Omega, 47*, 45–76.
- Neimeyer, R. A., Wittkowski, J., & Moser, R. P. (2004). Psychological research on death attitudes: An overview and evaluation. *Death Studies, 28*, 309–340.
- Orbach, I., Gross, Y., Glaubman, H., & Berman, D. (1985). Children's perception of death in humans and animals as a function of age, anxiety and cognitive ability. *Journal of Child Psychology and Psychiatry, 26*, 453–463.
- Orbach, I., Gross, Y., Glaubman, H., & Berman, D. (1986). Children's perception of various determinants of the death in concept as a function of intelligence, age, and anxiety. *Journal of Clinical Child Psychology, 15*, 120–126.
- Pine, V. R. (1986). The age of maturity for death education: A socio-historical portrait of the era 1976–1985. *Death Studies, 10*, 209–231.
- Speece, M. W., & Brent, S. B. (1984). Children's understanding of death. A review of three components of a death concept. *Child Development, 55*, 1671–1686.
- Stroebe, M. S., Hansson, R. O., Stroebe, W., & Schut, H. (Eds.). (2001). *Handbook of bereavement research. Consequences, coping, and care*. Washington, DC: American Psychological Association.
- Stroebe, M. S., Hansson, R. O., Schut, H., & Stroebe, W. (Eds.). (2008). *Handbook of bereavement and practice. Advances in theory and intervention*. Washington, DC: American Psychological Association.
- Stroebe, M. S., Stroebe, W., & Hansson, R. O. (Eds.). (1993). *Handbook of bereavement. Theory, research, and Intervention*. Cambridge, MA: Cambridge University Press.
- Tomer, A. (Ed.). (2000). *Death attitudes and the older adult. Theories, concepts, and applications*. Philadelphia, PA: Brunner-Routledge.
- Walter, T. (1994). *The revival of death*. London, UK: Routledge.
- Weber, M. (1964). *Weber: Basic Concepts in Sociology*. New York, NY: Citadel Press.
- Werth, J. L. (Ed.). (1999). *Contemporary perspectives on rational suicide*. Philadelphia, PA: Brunner/Mazel.