Development of a Code Book
to Examine International Media Framing of the Darfur Crisis

Tamara Swenson

Abstract

This paper discusses the steps in the developing a code book for an international project examining the framing of media coverage of the Darfur Crisis in Sudan, which began in 2003. The code book was developed using English-language coverage of the Darfur crisis from six news organizations. Following this, the code book was then applied to the analysis of the media framing of the Darfur coverage in English, French, Arabic, Chinese, and Japanese media coverage of this issue. This paper reports on the steps taken to develop a code book appropriate for an international media studies project. Though the results of the project are available elsewhere (Mody, 2010), the process used to develop the code book has not been previously reported.

Key words: media framing, Darfur, code book development, research methods

抄録

本論は2003年からのスーダンのダルフールの危機をメディアがどのように報告したかを検証する国際的研究プロジェクトのためのコード本作成の過程を論じるものである。コード本はダルフール危機を報じる六カ国の英語記事から作成され、次いで英語、フランス語、アラビア語、中国語、日本語による記事の分析にも用いられた。このように国際的メディア研究プロジェクトが使用するにふさわしいコード本が作成されたのであるが、その作成の過程はこれまで報告されておらず、本論が初の報告となる。

キーワード：メディア構成、ダルフール・スーダン、コード本の開発、研究方法

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Introduction

As the media are acknowledged as “one of the most significant centers of power in the modern state” (Auberbach & Bloch-Elkon, 2005, p. 83), understanding how the media frame issues, including what is included and what is not included, is important to understanding why states choose to act or fail to act during events such as the crisis in Darfur, the focus of the study for which the code book discussed below was developed. “The political issues that mass publics tend to focus on are grounded in the experience of diplomats ... but are ... transmitted to the public through the mass media” (Levin, 2003, p. 28). For an understanding of the issues, those interested in international development and collaboration rely on the media to keep them informed. This paper outlines the steps used to develop the code book for the examination of coverage of the Darfur crisis. The results of this study were recently published (Mody, 2010) and point out the weaknesses in many national media in the coverage of this issue. Understanding how the code book for this project was created will help others interested in creating similar code books for the examination of national and international coverage of issues in multiple languages.

A Brief Overview of Media Framing

Many studies of media employ “framing” to determine the way in which a story is presented, or “framed,” for the readers. This theoretical framework provides a way to understand the selection and salience of media texts. “To frame is to select some aspects of a perceived reality and make them more salient in a communicating text” (Entman, 1993, p.52). As Entman (2003a) points out, “[f]raming entails selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, and/or solution” (p. 417, emphasis in original). Framing seeks to understand what media content is included in the media texts and what interpretation the media content is seeking to promote through the coverage, or lack of coverage, of events. The frame of an issue has wider implications regarding the viewpoint adopted by those exposed to it. “A media frame can be described as an organizing mechanism for media content. As such, it provides immediate context to the recipient of the frame, through the selection, emphasis or exclusion of specific facts or ideas” (Dimitrova & Connolly-Ahern, 2007, p. 155). Four main news dimensions have been identified within framing research. These are (a) syntactic structures and word choice; (b) script structures, meaning the evaluation of the newsworthiness of an event; (c) thematic structures, which includes the causal themes for news events; and (d) the rhetorical structures, that is the “stylistic” choices made by journalists (Pan & Kosicki, 1993). The code book discussed below employs all four types of framing decisions. Media frames are
important as research has shown that differences in how media represent, or frame, events has consequences for the reasoning and beliefs of media consumers regarding events (McCombs & Ghanem, 2003)

Before proceeding to outline the code book development, it is essential to review the beginnings of the Darfur crisis in western Sudan and the media environment at the time the project began in 2005.

**Background of the Darfur Crisis**

The first attacks by Janjaweed militia on civilians in the western Darfur area of Sudan began in March 2003. In 2004, then U.S. Secretary of State Colin Powell labeled the conflict as “genocide,” the UN agencies announced that 500,000 people in Darfur were in need of aid and the UN High Commissioner for Refugees (UNHCR) launched an appeal for aid for refugees (“The UN”, 2004, P5-6), and the issue was brought up at the United Nations Security Council (¶28). In November, 2003, the African Union sent a small contingent of peacekeepers into the region (¶61). During this period, the conflict pitted Janjaweed militia forces allied with Sudanese government forces against rebel forces of the Sudan Liberation Army (SLA), Justice and Equality Movement (JEM), and civilians from villages in the Darfur region.

The exact number of civilians killed by violence from warring parties and attacks by the Janjaweed, or who died because of malnutrition and disease related to the genocide, remains unclear, with estimates ranging from 98,000 to 181,000 deaths between March 2003 and March 2005 by the U.S. Department of State (“Sudan: Death”, 2005, ¶1), to more than 300,000 deaths in Darfur up to the end of 2004 (Cobergh, 2005, ¶1), to some suggesting that the actual death toll from violence stood at 400,000 (“Darfur’s real”, 2005, ¶3). In addition to the deaths, the UN estimates that nearly 2.5 million people have been affected and become either internal refugees or refugees in neighboring states (“Sudan: Death”, 2005, ¶5, Figure 2).

During the same time period, other issues attracted attention away from the Darfur crisis. Some of these included: (a) the start of the Iraq war on March 15, 2003, (b) the ongoing conflict there and in Afghanistan, (c) events in Palestine and Israel, (d) Taylor’s ouster from Liberia, (e) terrorists attacks in Saudi Arabia, Madrid and Russia, (f) European Union enlargement, (g) devastating hurricanes and typhoons, (h) the 2004 Olympics, (i) the scandals at U.S. controlled military prisons in Iraq, and (j) the devastating tsunami in South East Asia. These, along with other events, provided “breaking” news that attracted attention away from the Darfur conflict. This, plus lack of access to the affected regions and the limited response by the UN, helped to keep attention off of Sudan and Darfur by the world’s media. As Entman (1993) and others have pointed out, news frames also must consider what has been excluded from coverage, along with what has been included, in order to determine the preferred
interpretation of events by the news media.

**Media Framing in Mass Communication Research**

Applying news framing to issues has a long history in mass communication research. “News frames are *assemblages* of words, visual images, and action patterns that have been given relatively fixed meanings” (emphasis original, Levin, 2003, p. 28). They have been traditionally applied to coverage in both broadcast and print media, and recently have been applied to online newspapers (Rosales & Lowry, 2000) and websites (Dimitrova, Kaid, Williams, & Trammel, 2005). Usually viewed as a form of “agenda setting research” extended to the idea “that the media tell us how to think” (Rosales & Lowry, 2000, p. 80), framing has been applied to a variety of issues. The way media frames issues calls “attention to some aspects of reality by obscuring other elements, which might lead audiences to have different reactions” (Entman, 1993, p. 52; see also Entman, 2003a, 2003b, 2007; Krippendorff, 1980, 2004). The establishment of solid frameworks to apply framing is ongoing. Pan & Kosicki (1993) identify four dimensions of frames. Scheufele (1999) proposes both a typology of framing and a process model of framing research that he feels needs to be applied in terms in order to “integrate” various approaches to framing (p. 118). D’Angelo’s (2002) model of the news framing process provides a model in which “news framing has three subprocesses: (a) a frame construction flow, (b) a framing effects flow, and (c) a frame definition flow” (p. 880) that can be applied to the Scheufele’s (1999) frame building and setting processes. In addition to identifying the particular words and images, the “intentions, news values, discursive structure, and content formats that integrate the words and images of a news story into a frame” must be considered by researchers (D’Angelo, 2002, p.881).

One importance of media framing studies lies in what they can tell us about the way media are “influenced by the political, economic, and social constraints of the broader [national] systems in which they exist” (Dimitrova, Kaid, Williams, & Trammel, 2005, p.23). This appears particularly important in regard to international events. “In general, it is likely that national news media are in tune with the national government regarding their policy stance on international events” (p. 24). In the post 9/11 environment, framing studies indicate that news media in different nations “reflect notions, values and ideas that resonate with particular societies. ... [and] national sentiment and patriotism do come into play” (Ravi, 2005, p. 59). Additionally, as studies have shown that media in other countries often rely upon the American media and news agencies as sources (Nord & Strömbäck, 2003, p. 72), the use of articles from news agencies needs to be further considered in light of the globalization of the media and the increasing nationalism in the American media since 9/11.

The media’s framing or crisis events and war has received considerable attention. Studies
have looked at the framing of the Israeli-Palestinian conflict (Levin, 2003), the Bosnian crisis (Auerbach & Bloch-Elkon, 2005), the Iraq War (Aday, Livingston & Herbert, 2005; Lehmann, 2005; Ravi, 2005), the terrorist attacks against the U.S. and the U.S. response in Afghanistan (Nord & Strömbäck, 2003), the use of images of children in reporting international events (Moeller, 2002), and role of radio in the Rwandan genocide and the way it framed the Hutu-Tutsi conflict in order to incite the mass killing response (Kellow and Steeves, 1998), among others. Each study advanced understanding of the way that media tell the audience what to think. However, as part of framing, researchers must also consider what it is that media choose to tell us not to think about. Just as what the media “tell us how to think” (Rosales & Lowry, 2000, p. 80), what has been left out seems important, especially in light of issues such as genocide.

### Code Book Development for an International Study

**Selection of Media for this Project**

The development of a code book that both allowed for comparison of and reflected the differences between the media from different regions was essential for this project. From the outset, the researchers were interested in understanding how Darfur was covered in multiple languages, though development of the code book was restricted to English-language media. For the development and initial application of the code book, six English-language media with articles available through Internet databases were selected: *Al Ahram* (Egypt), *Al Jazeera* (Qatar), *BBC* (U.K.), *The New York Times* (U.S.), *Mail & Guardian* (South Africa), and *People’s Daily* (China).

These six media were selected for a number of reasons. First, selecting news sources from a range of nations provided a broader view of world coverage of the Darfur crisis than would have been obtained from focusing on the media of any one country. In addition, all six were available in English. Though some may argue that the code book should have been developed through examination of media in a variety of languages, the project team felt it would have greater applicability if was first shown to be consistent in one language, English, and then applied to media in other languages by fluent speakers of those languages. Once the code book was developed, it was translated into Arabic, Chinese, French, and Japanese, and then applied to media in these languages. A third reason relates to the status of the media. *The New York Times* and the *People’s Daily* are considered to be their respective countries’ “newspaper of record.” *BBC* and *Al Jazeera* provide worldwide broadcast coverage of events, though they frequently emphasize different aspects in their coverage. Additionally, their relationship to Sudan was taken into consideration leading to their selection over other broadcast media. Finally, location of the medium was considered, leading to the choice of both *Al Ahram*, from Sudan’s neighbor Egypt, and *Mail & Guardian*, representing South Africa.
Selection of Sample for Analysis

Once the six media were selected, in March 2005 the project members obtained all articles in each medium in which the word “Darfur” appeared from January 1, 2003 to February 28, 2005. Selection of the articles varied slightly for each medium. Articles from *The New York Times* were retrieved from the Lesix-Nexis database. Articles from *Al Ahram, Al Jazeera, BBC, Mail & Guardian*, and *People’s Daily* were obtained through the search engine for each medium’s website. For the *BBC* and *Al Jazeera*, as the resulting number of articles was considerably larger than that available for the other media probability sampling was employed. Specifically, equal probability of selection was applied so that each article that met the initial criteria had an equal chance of being selected into the final sample (Babbie, 2004). Every other article posted on the *BBC*’s and *Al Jazeera*’s websites was then selected for the study population. For *Al Ahram, The New York Times, Mail & Guardian*, and *People’s Daily*, all articles that included “Darfur” within the dates specified made up the initial population for which the project team drew the sample for each medium. Results for the entire study are reported in *The Geopolitics of Representation in Foreign News: Explaining Darfur* (Mody, 2010).

Once the initial population of articles was determined, only those articles judged to be substantially about the situation in Darfur were retained. Articles that devoted less than 50% of their coverage to Darfur were considered “peripheral” coverage and were not included in the final sample. “Letters to the editor” and articles that were compilations of reports from other newspapers were also considered peripheral and excluded from the data. Duplicate articles in the population were also eliminated. This yielded the final sample for each medium: *Al Ahram* = 44, *Al Jazeera* = 76, *BBC* = 175, *The New York Times* = 126, *Mail & Guardian* = 103, and *People’s Daily* = 141.

Development of the Code Book

The development of the code book proceeded simultaneously with the determination of the sample for the preliminary use of the code book. Once the initial population for each medium was obtained, every 10th article was read in the first stage of creating the code book. This included articles not yet eliminated because they did not meet the definition of “substantial coverage” of the Darfur crisis. All project members read articles from two of the media sources and then met to discuss what should be included in the code book.

These discussions, which entailed four meetings over a one-month period, were an essential step as the ways in which the issue was framed by media varied. Following each session, the code book was further refined and then reapplied to the sample. Throughout the discussions, the dimensions identified by Pan & Kosicki (1993) were kept in mind in order to develop a code book appropriate to examine international media framing of the Darfur crisis. These sessions considered the various dimensions of media framing and identified those
frames common to all media samples. The dimension of syntactic structure or word choice was addressed through the examination of several key words considered relevant to the Darfur crisis. A number of terms were considered and rejected as they appeared in the media from only one or two countries. The terms selected (ethnic cleansing, genocide, oil/petroleum) appeared at least once in each national media source in the sample used for code book development.

The script structure dimension, or aspects that provide an evaluation of the newsworthiness view of the media toward the event, included examination of article length, placement, article type, and inclusion of quotes as well as the source quoted. The thematic dimension, that is the themes for the events, can be seen in the examination of the focus of the entire article (Focal frame), the reasons for the crisis (Cause frame), the assignment of responsibility for creating the crisis (Blame frame), and the assignment of responsibility for ending the crisis (End frame). Finally, the rhetorical structure dimension is examined through consideration of the article’s emotional intensity.

Once project members had considered the coding needs for each publication, the resulting code book was applied to coding an additional 10% of each publication. Following this, project members met to make final revisions to the code book and arrive at the version that would be used both for the six media in the initial study sample and, once translated, applied to media in other languages.

**Explanation of Final Code Book**

Articles were coded for a number of variables. Some of these are obvious: date, medium identification number, and article identification number, length of the article in words, identification of authorship, identifying articles from news agencies, type of article (hard news, news brief, press event, news feature, background feature, analysis), number and subject of graphics, the number and length of videos, links to other articles or media, and placement of the article in the medium.

More importantly, the project considered a number of variables in order to clarify the framing of the crisis by the articles in each medium and reflect the ways in which the issue was discussed in the various media. One variable was the frequency of three select terms (genocide, ethnic cleansing, oil/petroleum) in the headlines and articles. This variable provided a way to consider how the issue was framed by the editors and writers. Other variables included the frequency of mention for particular causes for the crisis, the frequency certain groups were blamed for the crisis, the frequency certain groups were named as responsibility for ending the crisis, the frequency particular players in the crisis were mentioned, and the perceived emotional intensity of the articles.

The Cause Frame variable sought the first two causes for the crisis mentioned in the
article, including ethnicity, race (separated from ethnicity because of the shared Islamic background of the groups in western Darfur), religion (considering the issue in terms of the Islamic north and Christian south of Sudan), oil, independence, outside interference in Sudan, environmental resources (water and land), and government inequity (that is an imbalance in the allocation of resources to different regions of Sudan). The Blame Crisis and End Crisis variables sought to determine if the overall article placed responsibility for beginning the crisis on any particular group or combination of groups and if it gave responsibility for ending it to any group or combination of groups. Groups included in the Blame Frame were Janjaweed militias or Arab militias, the Sudanese government or policies, Rebels from Sudanese Liberation Army/Sudanese Liberation Movement, JEM, or other groups seeking regional equality or independence, both Sudanese government and Janjaweed militias, and multiple warring groups or all of the actors. The End Frame added to these five groups Sudan’s neighbors: (a) the African Union or Arab League, (b) the United Nations or its organizations, (c) the International Criminal Court, (d) Foreign nations, (e) Multiple international groups (e.g. UN and U.S.A.), and (f) multiple domestic & international groups (such as Sudan and the UN together).

The focal frames of the articles were determined by the “dominant focus of the majority of the content.” The three frames were Causes, Conduct, and Remedies. Causes referred to any historical or present-day causes of the crisis. Conduct referred to the nature, status, process, and conduct of the crisis, in other words “what is happening” in Darfur, though not to any specific actions to end the crisis. Remedies referred to any efforts to end the crisis such as negotiations, peace talks, recommended changes, and aid from NGOs or governments. Articles could be coded for one of these or a combination of the three focal frames, such as conduct and remedies.

Emotional intensity of articles was also considered. Rather than coding for whether the article was positive-neutral-negative, the project members decided to consider the emotional intensity, or tone, of each article. This is because when covering a humanitarian crisis such as Darfur it is unlikely that the media would be “positive” or “negative” in their tone as these terms convey support/lack of support. Though media may and do differ on the remedy, as was measured by the End Crisis variable, this operationalization fails in Darfur as surely no media support a humanitarian crisis. As it is assumed that there is agreement that mass killings, rape, and forced displacement are bad, the Emotional Intensity variable measures how bad the coder perceives the portrayal of the situation by the articles to be by asking them to assess the articles emotion intensity.

For consistency, an article coded as having high emotional intensity spends at least half of its length describing conditions on the ground in Darfur. The code book defines high intensity as spending at least half of its length on describing conditions on the ground in Darfur,
including descriptions of “atrocities” committed against civilians; has frequent (more than 3) uses of words such as “genocide, ethnic cleansing, humanitarian crisis, growing disaster, rape” that indicate atrocities; has photos of victims/refugees that add weight to the report; quotes sources that spend time on the humanitarian needs of the refugees; includes quotes from refugees where they describe the events they witnessed.

Similarly, an article coded as medium intensity provides some description of events and atrocities, but few (1-3 occurrences) of words such as “genocide, ethnic cleansing, humanitarian crisis, rape” in the report, includes photos of leaders or non-dramatic events, spends less than half of the article describing the situation, and includes quotes that question the veracity of reports even if there are high intensity descriptions from survivors. Medium intensity articles also refer to government policies rather than graphic details of local conditions.

An article coded as low intensity recites numbers with no descriptive context; reports on policies; discusses negotiations or peace talks with no description of conditions on the ground in Darfur; characterizes Darfur as an internal dispute or a regional conflict that the Sudanese government is moving to control; covers officials as they tour areas (not the conflict itself); covers a press event that discusses what is occurring or denies that it is as bad as media reports indicate. Describes the situation with words such as conflict, uprising, rebellion, not words such as “genocide, ethnic cleansing, humanitarian crisis, rape.”

The resulting code book set as an operational definition that only articles with 50% or more coverage of Darfur would be coded, including exclusion of articles as discussed above. This was then applied to the initial population from each publication. The final code book reflected the key frames of the articles in all publications in the initial data set. This was considered essential for the development of a code book that could then be applied to a variety of news medium regardless of language.

**Establishing Intercoder Reliability**

Any media project examining the framing of an issue requires that intercoder reliability be established. Once finalized, the code book was used to examine the articles in the sample for each medium. To ensure that coders were following the code book, intercoder reliability was calculated by having two coders follow the final code book to code 10% of the sample, selecting from those articles that had not been read for the development of the code book. Intercoder reliability can be established using a variety of statistical procedures, including Krippendorff’s α and Scott’s π. Scott’s π was selected for this project, with overall project reliability set at Scott’s π > .80, the level or reliability recommended by Krippendorff (1980, 2004) and Shoemaker (2003) for media research.

Intercoder reliability was established using Scott’s π for the coders for each set of
articles. Coders for The New York Times and People’s Daily had an initial intercoder reliability of .71, requiring additional training and coding of a second separate group of articles to reach .81. The three coders for the BBC and Al Jazeera had an intercoder reliability of Scott’s $\pi = .81$ between coder-1 and coder-2, .87 for coder-1 and coder-3, and .94 between coder-2 and coder-3. The intercoder reliability for Al Ahram and Mail & Guardian also required coding of two sets articles to achieve an intercoder reliability of .84 between the coders at this stage of the project. These levels were considered acceptable for all six publications and the coders then divided the articles for coding and the translation of the code book was then undertaken for application to other language media. Overall project intercoder reliability is reported in Mody (2010).

### Conclusion

Clearly, examination of how the media frame other issues will consider alternative points in the code book development. However, the process by which this code book was created and then applied to a wide number of media published in languages as diverse as Arabic, Chinese, English, French, and Japanese should be of use to researchers considering an examination of the coverage of any issue by international media. Moreover, the steps taken by this project can be useful for those considering the study of how media frame issues and how this framing can influence public perception of issues. As the development of this article indicates, code book development is a recursive process when multiple media are involved in order to ensure all possible frames are reflected in the coding and that the frames are applicable to a variety of national media. As such, this information should be useful to media researchers considering international media framing projects.

Furthermore, the results from the project suggest that researchers examining international media should not assume that the English-language versions of vernacular media frame the issue in the same ways for domestic and international consumption (Mody, Maki, Hofschire, Swenson, & Mansouri, 2010; Visgatis, & Swenson, 2006). The importance of this for furthering global understanding is self-evident. As Mody (2010) and Visgatis and Swenson (2006) point out, researchers cannot assume that the English-versions of national media are framing events in the same way those in the local vernacular are framing the issue for domestic consumption.

### Notes

1. This project began under the leadership of Dr. Bella Mody, University of Colorado, Boulder in 2005 as part of a course on international media. The code book was then applied to international media coverage in multiple languages to examine their framing of the Darfur crisis. The project culminated
in the publication of *The Geopolitics of Representation in Foreign News: Explaining Darfur* (Mody, 2010), which outlines the ways in which media in America, Europe, Africa, and Asia have covered or failed to cover the Darfur crisis. The project has also led to a number of papers and presentations at conferences in the U.S., Asia, and Africa (e.g., Mody, Maki, Hofschire, Swenson, & Mansouri, 2010; Mody, McDevitt, Kim, Swenson, Skogberg, Osis, & Kimmer, 2005; Mody, Swenson, Kimmer, & Osis, 2006; Swenson, & Skogberg-Eastman, 2006; Visgatis, & Swenson, 2006).

2. One issue that was pointed out by group members was that many international media projects are international only in that they examine English-language media from different nations. For true understanding of issues as they are framed for internal and external consumption, examination of the vernacular media’s framing is essential, as examination of the Japanese, Chinese, and Arabic media for this project indicates (see Mody, 2010; Mody, Maki, Hofschire, Swenson, & Mansouri, 2010; Visgatis, & Swenson, 2006).

3. The code book is available in Mody (2010), Appendix 3, pages 363-368. Dr. Bella Mody initiated the project in 2005. This researcher was part of the initial project group and “led” the code book development (Mody, 2010, p. xiv), along with Dr. Cari Skogberg-Eastman, Dr. Brian Fredrick, Lesli Kenny, Kelly Kimmer, Katherine Osos, and Geetika Upmanyu. Not all project members were able to continue work on the Darfur study, for various reasons, but each made valuable contributions to the development of the project.

4. Several formulas are available for determining intercoder reliability including Scott’s $\pi$, which was used for this study in Krippendorff (2004). Krippendorff outlines procedures for applying Scott’s $\pi$. Diane Hruschka, et al. (2004) give detailed examples of how to establish a reliable code book through a process of code book revision and recoding that has application for a number of fields beyond that of medical research.

**References**


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