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QUANTITATIVE SEMANTICS IN 18TH CENTURY SWEDEN

KARIN DOVRING*

In 1743, a collection of 90 hymns, entitled *Songs of Zion*, was published in Sweden. This publication soon became the storm center of a religious controversy which is of particular interest to the social scientist because in the course of it there were foreshadowed many of the methods of content analysis, which have found systematic expression only during the past decades. In fact, if not in name, participants in this debate were concerned with many of the problems, which concern today's content analyst: the identification of key symbols, the division of content into favorable, unfavorable and neutral categories, the coding of values, and other related problems. Indeed, the controversy revolved around the formula, which has become so familiar to students of communication: Who said what to whom, how and with what effect?

The *Songs of Zion* appeared at a time when the powerful State Church (Lutheran) was struggling against German pietistic influences.

Pietism, stressing faith rather than ritual, was making substantial inroads among the orthodox in Sweden, when the influences of still another German religious movement began to be felt. This movement was that of the Moravian Brethren, led by the Count von Zinzendorf. At first, the orthodox Lutheran clergy welcomed the Moravian ideas, believing that they might provide a spiritual means of bringing the pietistic dissenters back into the fold. It was not long, however, before the State Church recognized the Moravians as enemies rather than allies.

Publication of the first edition of the *Songs of Zion* seems to have occurred without appreciable controversy. The Swedish State Censor found the hymns to be somewhat odd, and neither beautiful nor superior to those in the *Hymnal* of the Established Church, but since they were already being used in manuscript form he allowed them to be printed. Nobody seemed disturbed that the authors of these hymns were unknown.

*Dovring, K. (1954–1955). Quantitative semantics in 18th century Sweden. *Public Opinion Quarterly* 18, 4:389–394. Substantially taken from the author's dissertation (Dovring, 1951a, 1951b).

In 1774, application was made to the Swedish authorities for permission to publish a second edition. By this time, however, the State Church had become alarmed by the effects, which they believed the *Songs* were having on the public. Three important developments indicated that something was wrong. First, the public filled the churches where the clergy were influenced by the Moravian Brethren, leaving the orthodox pastors with fewer listeners, in spite of the fact that according to the law every citizen had to attend church in the district where they resided. Second, frequent reports had been received that the *Songs* were being used at private religious meetings, although meetings of this character were illegal. Finally, themes reminiscent of the Count von Zinzendorf, German leader of the Moravian Brethren, could be heard from many pulpits, and by this time the orthodox clergy had become convinced that this movement was unlikely to bring pietistic dissenters back to the established church.

Despite the hostility of the ecclesiastical authorities, a new edition of the *Songs* was permitted to appear in 1745, and both the old and the new editions were reprinted in 1747 and 1748. The last two printings were wholly unlicensed, and the authorities discovered many changes of wording in them.

During this later period, public debate of the religious issues involved became acrimonious. The orthodox clergy called the Moravian movement “the contagion” and identified the *Songs* as “the nest of the contagion.” The Archbishop of Sweden demanded that the contagion be rooted out, while the Minister of Justice commented darkly that “recent developments may have disastrous consequences for the whole Swedish state.” Before the controversy was concluded some of the Moravian supporters were forced to deny their convictions. Others, refusing to recant, were exiled from their native land.

WHO SAYS WHAT TO WHOM AND WITH WHAT EFFECT?

It is apparent from the historical record that the 18th century disputants approached their

problem by asking questions, which are thoroughly familiar to present-day students of communications. *Who said* the debatable things in these songs? The Orthodox clergy tried to find out, and caused many investigations of suspected persons. And *what* was said? This was the most important question. What did these songs say which influenced people to break the law and threaten the power of the State Church? Some of the advocates of the *Songs* pointed out that the subject matter contained in them was substantially the same as in the official hymnal. This argument was considered by the orthodox clergy, but they observed that the response of the public to the two collections of hymns was different. Perhaps, some of them concluded, it was a question of *to whom* the *Songs of Zion* were directed. Were these publications used only in those circles, which were already infected with the ideas of the Moravians? Other investigators observed that this was not the case. Many people had been influenced who previously had known nothing about the “dangerous ideas” being disseminated. The behavioral and attitudinal *effects* attributed to the songs—the enthusiasm for preachers with Moravian ideas and the incidence of private religious meetings—have already been referred to.

Some of the most interesting contributions to the debate were made not by the clergy, but by intellectuals. In 1746 a perceptive article in the Swedish *Learned News*, a journal discussing the current progress of science, had, in a tolerant manner, examined the doctrine of the Moravian Brethren. This article concluded that the Moravian movement embodied the essential principles of Lutheranism but that the movement might become dangerous because it seemed to preach only a part of the orthodox doctrine. It stressed the words and ideas, which referred to the redemption of man by Christ, at the expense of those words and ideas that referred to the efforts of men to live as Christians. It gave a new meaning to familiar expressions, thus influencing public opinion in a new direction. The article gave specific examples of the way in which a new meaning was produced by emphasizing one value at the expense of another, and concluded

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that it was not enough only to possess the truth. The truth must also be presented in a manner that will elicit the desired effect.

Many dissenters agreed with this analysis to the extent that they argued that the whole dispute was essentially not about doctrine, but simply about the manner of presentation. Clergymen influenced by the Moravian Brethren held that since people were not educated enough to understand the whole doctrine, preachers should present the correct doctrine in a manner which the public could understand.

To this, the orthodox clergy replied that there were dangers in simplification. The content of what was said would not really be distinguished from the manner of presentation. Clear and simple presentation would not necessarily lead the public to proper understanding; instead, it might give rise to oversimplified ideas. This, the orthodox clergy suspected, was true in the case of the *Songs of Zion*.

Another contribution, which combined both an interest in semantics with a rough content analysis procedure, was made by the learned and well-read orthodox clergyman Kumblaeus. From the German literature, which had been written in opposition to the Moravian movement, Kumblaeus learned that Count Zinzendorf and his adherents used a special language in the dissemination of their unorthodox ideas. Their ideas were dressed in the ordinary vocabulary of each country's language, but new meanings were given to well-known words, themes and symbols. Furthermore, the public was not aware that they were being exposed to a new way of thinking because of the familiarity of the words and phrases (used by) the Moravians. Kumblaeus felt that this use of language made it possible for the Moravians to conceal dangerous, false doctrines, and create "a state within a state."

To show the way in which the followers of Count Zinzendorf altered the orthodox doctrine, Kumblaeus subjected Moravian writings to a quantitative analysis. He counted the symbols referring to the Trinity in Moravian writings and found that these writings tended to ignore two of the three persons

in the Trinity and concentrate on Jesus in his role as a savior. In the *Songs of Zion* Kumblaeus observed that symbols describing Jesus as a bleeding and loving savior occurred far more frequently than those dealing with other Christian values cherished by orthodox Lutheranism. He also distinguished other categories of content and showed that the frequency with which they were treated deviated from ordinary practice. Kumblaeus concluded on the basis of his analysis that the exclusion of certain essential Christian themes and emphasis on certain others tended to create new conceptions, which threatened the doctrine of the established church.

The Swedish dissenters hastened to reply to this criticism. In addition to expressing general indignation at Kumblaeus' allegations, they attacked his method of analysis. One anonymous reply—printed abroad and smuggled into Sweden—pointed out that one was not limited to a single terminology in expressing the meaning of the Bible. The fact that Kumblaeus had found few specific mentions of the Holy Ghost was not significant, since this same concept could be expressed in other words. Furthermore, many of the words criticized by Kumblaeus as being "unbiblical" were in fact used both in the Bible and by Luther. Other replies took Kumblaeus to task for not considering the context in which the expressions he criticized had appeared.

Kumblaeus, for his part, continued repeating his accusations and went on to compare the debatable words in the *Songs of Zion* with the same actual words as used in their context in the Bible. He found that certain words and expressions, which were presented as having a negative value in the Biblical context, were given a positive direction when used in the *Songs*. In this way a new meaning was given to them. Kumblaeus followed this new approach throughout the rest of the debate.

Here the matter stood until a scholarly government official, Johan Breant, introduced a trend into the discussion, which was more favorable to the defenders of the *Songs*. The Moravians had been accused of over-emphasizing symbols referring to Jesus' blood and wounds, but Breant pointed out that frequent use of these symbols was not peculiar

to the *Songs of Zion*. In order to demonstrate this contention he tabulated the frequency with which the same symbols occurred in the Official Hymnal of the Swedish Established Church and was able to show that the number of references to them was very large.

Now it was the turn of the ecclesiastical authorities to protest. They were irritated by Breant's research and informed the Swedish government that "the words were interpreted without considering the context." Breant replied by suggesting that the government undertake an analysis which took account of context, a proposal which met with little agreement on either side.¹ The state authorities, too, were bewildered by the fact that the same words which were condemned when they appeared in the *Songs of Zion* were praised when they appeared in other hymnals. They had, moreover, just received an anonymous study showing that the frequency of expressions, which Kumblaeus had condemned in the *Songs*, was identical with the frequency of the same expressions in other non-official hymnals. Many orthodox clergymen were confused by these developments and asked the advice of their superiors. They said that nobody now dared to sing about the blood and wounds of Jesus for fear of being accused of Moravian tendencies. These superiors had nothing to say except that an expression standing in the Official Hymnal was right, but that the same expression in the *Songs of Zion* was dangerous.

In trying to determine who had collaborated in writing the *Songs of Zion* and who had been influenced by them, Swedish authorities made further use of content analysis. Adherents of the orthodox point of view listened intently to sermons in the churches and noted all "ways of expression" that seemed revolutionary. These expressions were compared with the symbols and themes from the *Songs* and from German writings by the Moravian Brethren, and often a connection was clear. The authorities investigated everyone suspected of Moravian propaganda, using tests well-known to every expert of modern propaganda analysis (Berelson & de Grazia, 1947). Numerous scientists, school-teachers and pastors were found to have been influenced by the "dangerous thoughts" of the German dissenters, and some of the writers

who had contributed to the *Songs* were disclosed as well.

QUANTITATIVE SEMANTICS IN HISTORICAL RESEARCH

The use . . . of content analysis techniques in 18th century Sweden lacked certain refinements from the modern scientific point of view. Since the investigations were undertaken to serve a pressing purpose they were often rushed to conclusion with insufficient care. Nor did all those attempting to use quantitative techniques have sufficient insight to use these techniques correctly. Above all, the investigations did not make use either of the universe of content or of scientifically chosen samples. And finally, the researchers found it difficult to interpret statistical data. After presenting their symbol lists and frequency tables they described their results using terms such as "more than," "not so much as," and other equally imprecise expressions. Nevertheless, the results of these quantitative analyses did in fact influence the decisions of the power-holders of that time.²

Consideration of this 18th century controversy is of interest not only because it anticipated certain trends in modern content analysis, but also because it suggests a method of study which may be applied to other historical situations. We have spoken here about the influence of certain German ideas in Sweden. The history of Europe as a whole can be regarded largely as a series of struggles among different ideas. These ideological debates are customarily described in a qualitative way, but it would be illuminating to make a quantitative analysis of them as well. Such an approach might prove to be useful in connection with the discussion of qualitative *versus* quantitative content analysis, since quantity itself is one of the qualities of any text which ought to be described.

A quantitative approach would help to free investigators from the predispositions of their own time when analyzing conflicting ideologies from other periods of history. Quantitative investigation reveals the most frequent ideas in a text—ideas that because of the frequency of their occurrence must have

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been of importance to writers of the document, as well as to the vast majority of their audience. Looking at other ages through one's own glasses has been a mistake made by too many historians. A quantitative approach will allow the sources themselves to define the key symbols, which were at the focus of attention at a given period. The publicist of today knows that the meaning and effect of what is said or shown are determined in part by what receives public attention. And the propagandists of other ages knew it as well. A quantitative approach to ideological struggles thus provides additional insight into the processes by which history has been determined.

NOTES

1. Breant did, in fact, attempt to analyze the *Songs* in such a manner as to take both meaning and

context into account. This analysis was of debatable value, however, since it involved attempts to guess the meanings that both the communicator and the public assigned to the symbols used.

2. A quantitative investigation that made use of the universe of the texts in question gave interesting results, confirming the correctness of many of the accusations made by the orthodox clergy (Dovring, 1951a, 1951b).

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1.2

TOWARDS A SOCIOLOGY OF THE PRESS

An Early Proposal for Content Analysis

MAX WEBER*

Gentlemen, the first topic that the Society** deemed suitable for a purely scientific exploration is a sociology of the press. We need to realize that this is an enormous undertaking, an effort that will require not only very large material support for doing the preliminary work, but also the trust and goodwill of those interested in the press. . . . A committee will have to assure the cooperation of experts and theoreticians of the press. We already have numerous brilliant theoretical works on this topic (let me remind you of Löbl's*** (1903) book, which deserves to be known better than it is)—and practitioners of the press whose collaboration is needed. There is also hope that preliminary

talks will interest the associations of newspaper publishers and editors. . . .

One does not need to speak here about the magnitude and importance of the press. . . . Think about what modern life would be without the kind of publicity created by the newspaper. Antiquity had its publicity as well. Jakob Burckhardt (1898) described the horrors of publicity in Hellenistic life, which encompassed all and the most intimate details of Athens' citizen. This kind of publicity does not exist today, and it would be interesting, indeed, to inquire into what contemporary publicity is like and what it will be in the future; what is published by the newspaper and what is not? One hundred

*From Max Weber (1924, pp. 434–441), a speech delivered at the first Congress of Sociologists, meeting in Frankfurt, 1910. Translated by Klaus Krippendorff. For quoting, see the original text.

**The (German) Society of Sociologists meeting 1910 in Frankfurt/Main.

***Emil Löbl (1861–1935). Austrian journalist and editor at the *Wiener Zeitung*, later of the *Neues Wiener Tageblatt*. His *Kultur und Presse* offers an elaborate system of categories for studying newspaper contents. His work influenced what later became “Publizistik,” the science of publishing, especially newspapers, a name used mainly in Germany.

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fifty years ago, the British Parliament forced journalists to apologize on their knees for breach of privilege by reporting about its sessions. Today the mere threat by the press *not* to print the speeches of representatives forces Parliament to its knees. . . . Evidently, the idea of parliamentarianism, as well as the position of the press, has changed. . . . And so have local differences. For instance, until recently, some American stock market exchanges used frosted glass windows to prevent market fluctuations from being signaled to its outside. Yet, almost all relevant facets of newspaper production are influenced by public information about the stock market. . . . When an English lord marries an American woman, the American press publishes details of her physical and psychological attributes, including her dowry, while a respectable German newspaper, following views prevailing here, would spurn such publicity. Where do such differences originate? . . . Which worldview underlies the one tendency or the other?

Our task will be to study the power inequalities that specific newspaper publicity creates. Publicity about science, for example, seems far less important than about the accomplishments of actors and conductors, evidence of which disappears with the passing of the day. . . . Theatre and literature reviewers can easily establish existences or destroy them. . . . The relations between the newspaper and political parties, here and elsewhere, and its relations to the business world and numerous groups and interests that influence and are influenced by the public is an enormous area for sociological inquiry, but currently in its infancy.

Speaking sociologically about the press also requires acknowledging that today's press is not only a necessarily capitalistic and private business enterprise, but also occupies a unique position in contrast to any other business. It has two very different types of "customers:" One consists of newspaper buyers who in turn are either subscribers or single-copy buyers, a difference that, in advanced societies, results in decisively different characteristics of the press. The other consists of advertisers. Between these two groups exists

the most peculiar interrelationships. For instance, for a newspaper to attract many advertisers, it is certainly important that it also has many subscribers, and to some extent vice versa. Not only is the role that the advertiser plays in the press budget much more important than that of the subscriber, one can say that a newspaper can actually never have too many advertisers. However, and this is in contrast with any other seller of goods, it can have too many buyers, namely, when it is unable to raise advertising revenues to cover the costs of an expanded circulation. . . .

Whether the increasing need for capital means an increasing monopoly of the already existing enterprises has not yet been determined. The best-informed experts disagree. This leads to the question: Regardless of the growing capital needs, how does the strength of the monopolistic position of already existing newspapers differ, depending on whether the press relies on regular subscriptions or on single sales? In the latter case, readers choose individual issues among several papers, which makes the emergence of new papers easier. . . . An examination of this phenomenon might answer the question: Does the increase in investment also mean an increase in the power to mold public opinion? Or, inversely, does it mean an increase in sensitivity to fluctuations in public opinion?

I am raising these issues mainly to show how the business side of press enterprises must be taken into account. We must ask: How does the (economic) development of newspaper publishing influence the sociological position of the press in general and its role in the process of public opinion formation in particular? . . .

Much has been said "for" and "against" the anonymity of what appears in the press. We do not take sides but ask: . . . How does it happen that (neutrality) is favored, for example, in Germany and England, whereas the conditions in France are different. . . ? This may have something to do with how conflicts of interests are resolved between the interest of individual journalists to become well known and the interest of newspapers not to become too dependent upon the cooperation of individual journalists. These

differences may well depend on commercial interests, on whether or not single sales dominate, but also on the political predisposition of a population. One nation—as is the case of Germany—tends to be impressed by the institutional powers of a newspaper, acting like a “supra-individual,” more than by the opinions of individuals—or whether it is free of this type of metaphysics.

These questions lead into the area of how the press acquires its material for publication. Who writes for the newspapers? What? What not? And why not? Part-time journalism, for example, is a phenomenon that is more common in England and in France than in Germany. . . . How have the conditions of professional journalists shifted in different countries? . . . News services not only strain the budgets of the press but increasing reliance on them raises the question of what a news source actually is. . . . Is the steady increase in the importance of purely factual accounts here (in Germany) a general phenomenon or a culture specific one? Frenchmen seem to want primarily an opinion sheet. But why? . . .

Finally, what are the effects of this mass product, whose paths we need to investigate, on the reader? There exists an enormous amount of literature, partly valuable but also containing extreme contradictions. . . . As we know, there have been attempts to examine the effects of the press on the human brain, questioning what it means when modern humans have become accustomed to take in a journalistic hodgepodge, leading them through many areas of cultural life before pursuing their daily work. That this makes a difference is obvious. It is easy to talk in general terms about these effects, but far from so

to advance our understanding beyond its infant state of knowledge. . . .

You will ask now: Where is the material to begin such studies? This material consists of the newspapers themselves, and, to be specific, we will now start to measure, with scissors and compasses, how the contents of newspapers have quantitatively shifted during the last generation, especially in the advertising section, in the feuilleton,* between feuilleton and lead editorials, between editorials and news, between what is actually carried as news and what is no longer made available. In these regards, conditions have changed drastically. Available studies are only beginning.

From these quantitative accounts, we will proceed to qualitative considerations. We will have to study the stylization of newspapers, how the same problems are discussed inside and outside the newspapers, the apparent repression of the emotional in the newspapers, which always provides the basis of their ability to exist and pursue things. Then, we may finally approach the point where we have reasons to hope for a slow approximation to our wide-ranging questions. It is our goal to answer them.

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*Originally French, part of a European newspaper or magazine devoted to entertain the general reader, including fiction catering to popular taste (Webster).

1.3

A STUDY OF A NEW YORK DAILY

BYRON C. MATHEWS*

The press is often mentioned as one of the great educational agencies of our day. It certainly is a great agency, but whether it is an educational agency depends upon what is meant by education. The public school system is unquestionably the great educational agency in this country and in the leading European countries. Its purpose is educational and nothing else. Its purpose is to improve the character and the condition of the people in every desirable way. Its entire machinery and all its methods have the accomplishment of this purpose as their one and only end. Its methods are those approved by students of educational problems. If the purpose of the public school system were private profit instead of public welfare, its methods and hence the results would be wholly different from what they are now. The thoughts of those who determine methods would be on dollars instead of on improved human beings, and the methods would point toward dollars, and the results would be dollars. Exactly so it is with any institution. The purpose for which it exists determines the

methods employed in accomplishing that purpose and the character of the results that follow from its methods. The press is no exception to this principle. As far as its purpose is to improve the character and conditions of human beings and as far as its methods are bent toward the accomplishment of this purpose, the press is truly an educational agency.

There are good reasons for thinking that this is true, in greater or less degree, of some of our monthly magazines, of some of our weekly reviews, and possibly of some of our dailies. On the other hand, there is a mass of convincing evidence that the chief purpose of the daily press is dollars. Its methods point toward dollars and evidently, the results are dollars. The daily press is generally owned by individuals or corporations who are not its editors or contributors. The owner is the power behind editors to determine its purpose and character. The object of ownership, exactly as in any other business enterprise, is private profit. Editors are usually hired agents to accomplish the purposes of owners, and are allowed

*From Mathews, B. C. (1910). A study of a New York daily. *Independent* 68:82-86.

to determine methods to be employed only as far as these will accomplish the purposes of owners. Under these conditions, the methods employed and the results accomplished will not be such as to entitle the daily press to be ranked as one of the great educational agencies. Its influence is great and far extended. But this does not make it an educational agency. . . . [I]t is able to impress upon the public what is positively bad, or what is positively good, to improve the race or to degrade it, and whether it is doing the one or the other is a matter of grave concern. It is impossible for a man interested in social improvement to read the daily papers, even the best of them, and not regret that so small a percentage of the news given is devoted to what ennobles and improves character, and so much is devoted to the trivial and demoralizing.

With a view of determining about what percentage of the news items are to be approved from an educational point of view, the writer has made a study of one of our best New York dailies. It would not be fair to judge the daily press as a whole by the results of a study of any of the so-called yellow journals, or even of the more sensational which are not quite yellow, but the sensationals and the yellows certainly cannot complain if judged by the results of a study of one of the few that are universally acknowledged to be the best of our daily papers. The writer wishes to say that the paper selected is the one, which, during the last ten years, he has bought and read more than all other New York dailies together. He has tried at least half a dozen others, but invariably comes back to the one chosen for this study. It certainly holds a place among the first.

This study . . . embraces the daily issues for a period of three months of the current year. Attention has been given to the *news* items only. The editorial page, devoted to criticism and the expression of opinion on the part of editors and contributors, has not been included, except as news items were occasionally found on that page. All advertising matter has, of course, been eliminated. An

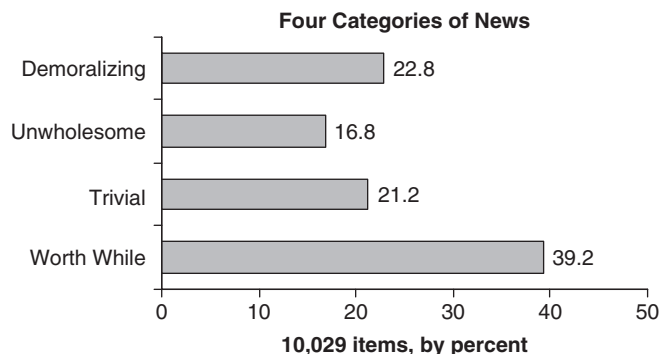
attempt has been made to classify all news items under such headings as will indicate their character, such, for example, as art, accident, blackmail, benevolence, catastrophe, club life, social functions, engineering, forgery, humanitarian, judicial, literary, matrimonial, military, murder, musical, religious, robbery, etc. Under 177 such headings, 13,330 news items were classified. These items include the markets, which are news items, although intended for a particular class of readers, and any study of the news items would be incomplete without them, but they do not figure in our final conclusions. This number, 13,330, does not include many short, unimportant items occupying less than an inch of space, nor does it include any items which regularly appear on the news pages generally read under set captions like matrimonial, died, maritime, weather, etc. . . .

. . . [T]he headings under which the items had been classified were arranged in four groups.* From this arrangement in groups the market items were eliminated, since they are the expected thing from day to day. So, of course, were the unclassified items eliminated. These omissions left a fairer basis for judgment. After these omissions were made, 173 headings, embracing 10,029 items, were grouped. In studying these headings, together with the character of the items under them, with a view of grouping them, one is constantly impressed that much of the matter is trivial, that much of it is really demoralizing, and that another portion of it, while not positively demoralizing, is nevertheless depressing and unwholesome. A considerable portion of it is, of course, worthwhile. So the groups we decided upon were the "Trivial," the "Unwholesome," the "Demoralizing," and the "Worth While." Under these four groups the case may be tabulated as follows:

Our effort has been to use these terms as they are used by intelligent people in ordinary parlance. By the "Trivial" is meant the light, inconsequential matter, such as is a loss of time for one to read if he has anything to do

*It is important to keep in mind that this article was written well before the concept of content analysis was known. The lack of methodological considerations, starting with the absence of a reference to the newspaper studied and especially the categories of analysis chosen here, speaks of the concerns at that time.

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**Figure 1**

that is worth doing. It may not be harmful per se, it may not have enough meaning to have real influence, yet it may serve the purpose of entertainment for idle people of small brain caliber whose only function in life is existence. This trivial kind of news is illustrated by a caption that appeared on the front page of one of our morning dailies of a recent issue, "Alfonso Grows Whiskers." On the front page of the next issue, we were told that the "King Loses His Whiskers." These two items of tremendous significance to the American people were given prominent places on the front pages of two successive issues, where they occupied seven and one-half inches of space. We would not object so strenuously to the publication of such news if it could be segregated in a journal published especially for the idle and the feeble-minded, but it is very annoying to busy, serious men, who want and need a newspaper made up of matters that are worth while. According to our classification of the items under consideration 21.2 percent were of this trivial order.

We have called one group the "Unwholesome" and the other "Demoralizing." The word demoralizing is used to embrace all such items as when read will leave one's character not quite as clean as it was before reading. This influence on character of a single item or, of a half dozen items is imperceptible, but nevertheless real. Its reality is seen in the case of one who is a habitual reader of such literature, whether found in newspapers or printed

in books. Many items do not have exactly the effect of soiling one's character, but rather of depressing his spirits. They tend to demoralize in the sense of throwing out of order, or putting into disorder, as we say a holiday demoralizes the work of a school. All such items were classed as "Unwholesome." The distinction we make is seen by illustration. To read about disasters and catastrophes is not necessarily demoralizing in the sense of injuring character, but it certainly is depressing and unwholesome, while to read of assaults and prizefights is positively demoralizing, even brutalizing. Likewise, to read about insanity and disease is depressing and so unwholesome, yet not demoralizing, while to read of wars and murder and suicides and divorce suits is demoralizing. According to our classification and grouping of the 10,029 items, 16.8 percent were unwholesome and 22.8 percent were demoralizing. It is a conservative estimate, therefore, that one-fifth of the items that appeared during the three months under consideration were positively demoralizing. In this estimate, we are eliminating the items of news of the stock and bond markets, which formed 15 percent of the whole 13,330 items. It is true that much of this 15 percent is legitimate and deserves a place, but it is just as true that much of it is harmful and ought to be cut out. . . .

If we had an endowed press and the function of the modern daily were truly and entirely educational, the unwholesome news

even then could not be wholly eliminated, as that which is demoralizing could and ought to be. Much that is unwholesome ought to be eliminated. There is absolutely nothing gained, but much is lost in publishing the repulsive and nauseating details of railroad disasters and lynchings, of the horrors of cyclones and earthquakes. However, in this day of injustice, much that is depressing ought to be published, so that those who are living in comfort and plenty may know what their fellows in life are suffering because of wrong economic conditions. . . .

After we have deducted the trivial, the unwholesome and demoralizing from our 10,029 news items, we have a little more than 39 percent left, made up of that which is "worth while," clean, wholesome news freed from scandals, murder trials, suicides, divorce proceedings, and all other news for the publication of which there is never any excuse.

The character of the news contained in the 13,330 items considered can be seen in contrasts. For example, there were six items pertaining to the peace movement of the nations and 227 pertaining to war and military operations. There were 178 items devoted to benevolence and philanthropy, to making the other fellow comfortable, and 2,228 devoted to self-gratification in one form or another. While 129 were concerning art, 1,011 pictured the details of disasters and calamities. While 157 pertained to educational affairs, 1,683 presented some form of lawlessness. While 12 items pertained to ethical matters, 720 were given to matrimonial affairs, divorce and inane society life. The number of items devoted to business was 4,221 out of the total of 13,330. Of this

same total 9,143 were devoted to business, lawlessness, personal gratification, horrors and disasters, while 827 pertained to art, science, travel, things literary, education, benevolence, philanthropy, natural phenomena and reform movements.

In these days, when scientific psychological research has demonstrated the power of suggestion from without over the functions of both the human body and of the human mind, it becomes a fearful responsibility for any man to determine to put before his tens of thousands of readers day after day, for three hundred and sixty-five days in the year, the unwholesome and demoralizing stuff that appears in most of our daily papers. The proprietors of these papers cannot excuse themselves on the ground of the freedom of the press. Neither reason nor national or State constitution gives any man freedom to do throughout all the days of the year that which is so obviously and positively harmful to the public. Neither can they excuse themselves on the ground that they are giving the public what the public wants, without at the same time confessing that their chief aim in life is pelf* even at the cost of public degradation. The character of the modern daily is simply one phase of the modern economic problem. It is one manifestation of the frenzy for wealth accumulation, which has become a menace to the permanency of American democracy. When or how this frenzy will terminate the future must disclose. It seems not unreasonable to hope that the still sober portion of the people will take some step toward raising the standards of our daily newspapers, all of them. . . .

*Pelf (slang): money.

1.4

THE SCIENTIFIC ANALYSIS OF THE PRESS

ALVAN A. TENNEY*

The effectiveness of the various forms of government was long ago ascertained with some degree of accuracy. Within limits, one knows what to expect from a despot, a constitutional monarchy or a democracy. The public has learned also how to distinguish a Tweed from a reformer. The various forms of government and the various kinds of individuals who govern are recognized as types that function with some degree of regularity.

Analysis has to go back to the forms of government and the personalities of the individuals who govern. In those municipalities where ignorant and heterogeneous populations live, we expect the boss. In communities composed of an intelligent and alert body of citizens, whose desires are many but reasonably harmonious, we expect thorough discussion and efficient public action. There are known conditions that produce good government.

In similar general fashion, we know what conditions are necessary for the production of an intelligent body of citizens. Among these conditions are prosperity, schools and

the means for public discussion. To discover the road to prosperity, economics is applying scientific method. To discover how to obtain the best schools educators are also applying scientific method.

To discover how to obtain the best means for public discussion, however, no thoroughgoing investigations have yet been made. What is actually known, for example, concerning the net stimulus to public opinion given by the 25,000 daily papers of this country? Practically nothing.

Most citizens are acquainted merely with the character of not more than one or two newspapers and half-dozen magazines. A few experts know in a general way the "policy" of possibly a hundred periodicals. Nobody, however, knows in exact terms even such a simple quantitative fact as the relative proportion of attention paid by the newspapers of the country as a whole to matters of cultural interest compared with the amount of attention paid to topics of a political or business nature. Even in the political field, no one can state just how much increased attention has been

*From Tenney, A. A. (1912). The scientific analysis of the press. *Independent* 73:895-898.

given by the press of the nation during the past few years to the subject of socialism. Yet it would be of practical value to know the facts. It would then be possible to investigate the truth of such a proposition as that the vote of the socialist party rises and falls in proportion to the degree of attention paid to socialism in the press. More important still would be the opportunity to prove whether increased attention to socialism by the press precedes an increased socialist vote or *vice versa*. As socialism in this country has thus far made its chief gains in particular municipalities, the possession of facts by which to show whether or not the same degree of press attention has uniformly preceded an increased socialist vote in those particular municipalities might throw some light on at least one of the possible factors producing change. It might be possible thus to advance the exact analysis of social causation to another step.

Similar exact knowledge concerning the relation of press attention to other matters, such as civic reform, legislation on finance, taxation, labor and business, the commission of particular forms of crime and other topics of public concern might also throw some light on the problem of social causation.

To anticipate fairly close correlations pointing to causal connections on such topics as have been mentioned is no more unreasonable than to expect definite results from advertising. Advertisers know from careful bookkeeping when, where and how advertising pays. By analyzing their effects, they learn both the best method and the exact cost of producing certain definite changes in the public mind. Advertisers thus obtain accurate knowledge of how to make people think what they desire them to think.

Why should not a society study its own methods of producing its various varieties of thinking by establishing an equally careful system of bookkeeping?

The first step in the investigation of such questions as have been suggested is to obtain data concerning the degree of attention paid by the press to the various topics it actually notices. Equipment for continuous analysis of the press of the entire country, or even for analysis of the material sent out by the chief

news-supplying agencies each day, would require the continuous services of paid investigators. That an extended trial of such continuous analysis should be made, however, is perhaps a justifiable conclusion from the results of an experiment made by certain students of sociology in Columbia University last year.

The first part of this experiment consisted in measuring the number of linear column inches of space devoted on the average by various newspapers to each of the various classes of articles or items published. For example, it was ascertained concerning a prominent New York City daily that, out of a total of 16,572 column inches devoted to news in 13 issues, cultural topics occupied 2,194 linear column inches, economic matters 5,107 inches, political 5,514, other topics 3,757. The amount of space devoted to various subdivisions of these main classes was also ascertained.

By applying the same categories and method to several periodicals, material for a number of comparisons was obtained. The periodicals studied were 17 New York City daily newspapers. The choice of individual newspapers was made partly in accordance with the preferences of the volunteers who did the work of the classification and enumeration. Of the 17 New York City dailies, five were published in English, three in German, five in Italian and four in Yiddish. With the exception of a slight study of advertising in one Italian paper, attention was directed exclusively to the news—defined as everything printed except editorials, illustrations and advertising. Of the papers published in English, 13 issues each were examined, of the German, six, Italian, six, Yiddish, seven. The total news space measured was for papers in English, 98,497 inches, German 13,099, Italian, 14,218, Yiddish, 33,768. For purposes of comparison, the figures of gross space devoted to the various classes of news were reduced to percentages of the total news space. For example, the 2,194 inches of news space devoted to cultural topics in the 13 issues of the New York daily previously mentioned constituted 13% of the 16,572 inches of news in those issues; economic news occupied 31% and political 33%.

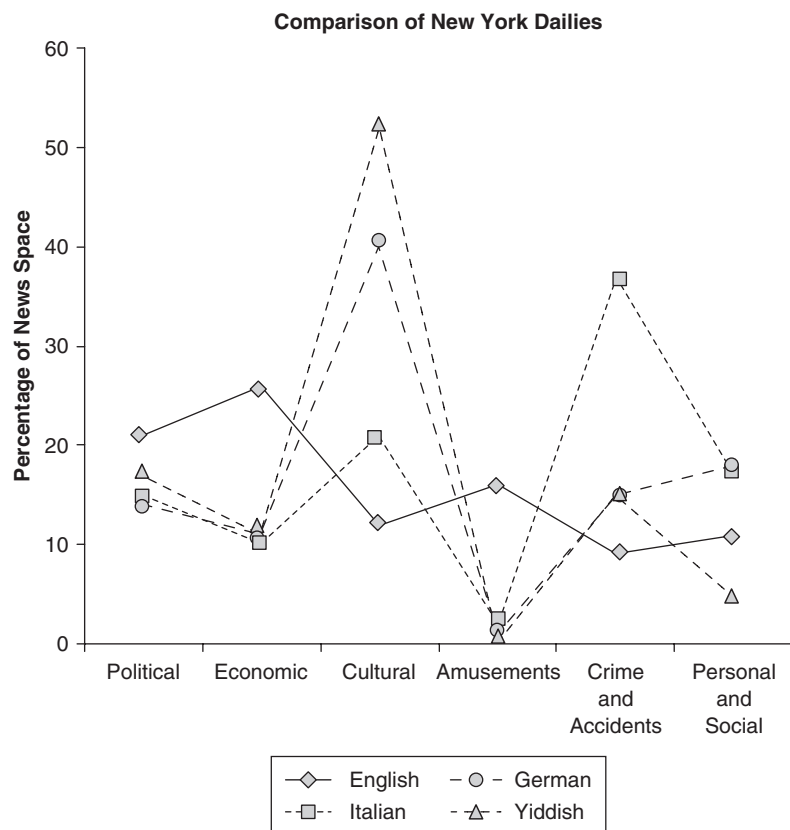


Figure 1 A Comparison of New York Dailies

NOTE: This figure shows the high rank of dailies printed in English in political and economic news, the low rank of non-English papers in these subjects, the extraordinarily high rank of German and Yiddish journals in cultural news and the high proportion of news of crime and accidents in the Italian journals. Of the 52% cultural news in Yiddish journals, however, 20 units were serial story; of the 41% cultural in German papers 12 units were serial story. The percentage of news of crime alone for the Italian journals was 37, of which less than six units were due to the Viterbo trial.

In Figure 1, such percentages are represented graphically for the news topics: Governmental, economic, cultural, amusements, crime and accidents, and personal, derived from the total figures for each topic in each class of journals studied.

The most striking facts reflected in this figure are the high rank of dailies published in English in political and economic news; the low rank of the non-English-language papers in these categories; the extraordinarily high rank of German and Yiddish dailies in cultural news; and the extremely high proportion of crime and accident news in the Italian dailies. It is true that there was considerable variation among the individual papers composing the

various classes represented in the graph. Nevertheless, if each of the seventeen papers were to be represented by a separate line, even the extreme variations, with but few exceptions, would not in any category be found to remove any member of a class from the relative rank of the average of that class. This simply means that the individual papers did not vary so much from the average of their respective classes as to render the comparison of averages misleading.

The five papers printed in English were less alike than were the representatives of any other class. For these five papers, the variation from the highest percentage to the lowest was: for political news, from 33% to 16%;

economic, 32% to 16%; cultural, 23% to 12%; amusements, 26% to 8%; accidents and crime, 16% to 4%; personal, 14% to 7%. These variations, even though they do not invalidate the comparison of average rank, are nevertheless great enough to be significant.

Comparison of figures in more detailed news divisions than the six represented in the graph yielded some curious results. It so happens that, of the five New York dailies printed in English, the paper that published the maximum proportion of financial news had next to the minimum percentage of labor news, whereas the paper giving the minimum financial news, published, with one exception, the maximum of labor news. The paper publishing the maximum labor news was next to the lowest in financial news. It would be interesting to discover by further investigation whether this relationship of financial and labor news would hold true for a larger number of papers over a longer period, or is merely a somewhat peculiar coincidence. It would be desirable also to test further the somewhat unexpected result that the paper, in English, giving the maximum to sporting news was found well to the front in cultural news, and that it actually printed more than the proportion devoted to that topic by the paper paying the least proportionate attention to sports. These results throw doubt upon the truth of the popular idea that much attention to sports accompanies little attention to cultural topics.

For the Yiddish and German dailies the 52% and 41% cultural news shown in the figure comprehended the following percentages in subclasses: Serial story, 20% and 12%, respectively; education, 14% and 6%; anecdotes and verse, 2% and 11%; drama, 6% and .5%; music, 1% and 4½%; religion, 2% and 1%; letters, 2% and 0%; other cultural, 5% and 6%. In the Italian papers, the 21% of cultural news divided as follows: Serial story, 10%; science and education, 5%; art, 5%; philanthropy, 1%. These figures reflect the known interest of Hebrews in education and drama, the German's love of music and the Italians of art.* A further analysis of the type

of serial story published by each class of journals would doubtless show the influence of further characteristic traits.

The category "crime and accidents" revealed the most startling facts of the whole investigation. For the Italian dailies, the figure was 38%. Of this, only one of the units was "accidents," leaving 37% as the average for crime alone. Of these 37 not more than six units were due to the Viterbo trial, and as far as known there was nothing else to render the 37% other than typical. This class of news in the various Italian papers of New York City ranged from a maximum of 45% of the entire news space to a minimum of 25%. Thirteen issues of a standard daily, published in Italy at about the same dates, showed only 8% "crime" news. The 37% of "crime" news was subdivided as follows: Trials, 16%; arrests, 4%; fights and brawls, 3½%; bomb and black hand, 3½%; murder and suicide, 3%; other crime, 7%. Such figures seem to sustain the opinion of a leading New York Italian, that "the Italian press of the city has no more constructive value than a band of brigands." In the advertising columns of a single issue of one of the Italian dailies there were 187 insertions of "physician's" cards. Of these 90 were Italian names, 97 non-Italian. In the same issue there were also 69 items advertising medicines.

The necessarily limited experiment which produced these results did not constitute an adequate test of the method. What is needed, as was earlier indicated, is the continuous analysis of a large number of journals. Data would then exist for discovering the exact relation, which may obtain between press attention and public action. The records in themselves would constitute a series of observations of the "social weather" comparable in accuracy to the statistics of the United States Weather Bureau.

There is, however, still another use to which the data could be applied that alone might justify an extended trial to discover whether the method here employed will prove valuable when analysis of a much

*It is important to remember that this article was published in 1912, before ethnic and gender stereotypes were questioned, studied, and challenged as they are today.

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larger number of publications is attempted. If newspapers were compelled by law conspicuously to publish the weekly, monthly and yearly averages of the percentage of attention, which, upon continuous analysis of space, they found they were actually giving to various specified subjects, they might soon be advertising their relative rankings, in kinds of news published, as they now advertise circulation. This might lead eventually to more detailed comparisons involving discussion of the treatment, style and social value

of the news as printed. Without raising the question of values, however, if the percentage of news attention to a definite set of subjects were continuously obtained a long step toward the scientific analysis of the press would be taken. At any rate, the *New York Times* could then inform us in exact terms what news, on the average, it really does consider "all that's fit to print," and the *New York Evening Post* could tell how nearly, in reality, it is utilizing its space in accordance with the ideals it professes.

1.5

PROPAGANDA ANALYSIS

A Case Study From World War II

ALEXANDER L. GEORGE*

BACKGROUND

For over a year prior to the launching of the V-1** in mid-June 1944, German leaders and propagandists had threatened reprisals with a new offensive weapon. The British High Command was sufficiently concerned to undertake extensive exploratory reconnaissance and bombing missions. Their concern was strengthened by intelligence reports, which confirmed the existence of secret-weapon factories. Aerial reconnaissance showed the construction of an unusual type of concrete installation in northern France pointed toward England.

The British Air Ministry was certain that the installations in Pas de Calais were launching-sites for a new type of weapon. "But the missiles were so long in coming," writes Gen. Walter Bedell Smith, Chief-of-Staff to Eisenhower during the war, "that some of our officers—highly placed, too—advanced the

theory that the platforms were a gigantic hoax, constructed by the Nazis with great cunning to divert our bombers from vital targets" (Smith, 1956). The opposite point of view prevailed, however, and a certain weight of the Allied bombing offensive was directed to suspected factories and launching-sites of the secret weapons.

"The development and employment of these [secret] weapons," wrote Eisenhower, "were undoubtedly greatly delayed by our Spring [1944] bombing campaign against the places where we suspected they were under manufacture . . . [and] the suspected launching sites" (Eisenhower, 1948:259). A sober reminder of the consequences of an incorrect appraisal of the German secret weapons is contained in Eisenhower's further appraisal:

It seemed likely that, if the German had succeeded in perfecting and using these weapons six months earlier than he did, our invasion in

*From George, A. L. (1959). *Propaganda analysis: A study of inferences made from Nazi propaganda in World War II*. Evanston, IL: Row, Peterson & Co. Excerpt represents pp. 140–150 from Chapter 11, "Prediction of an Elite's Actions."

**"V" for the German "Vergeltungswaffe," a rocket developed to retaliate for Allied mass bombings of German cities. V-1, a flying bomb, was later followed by V-2, a rocket.

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Europe would have proved exceedingly difficult, perhaps impossible. I feel sure that if he had succeeded in using these weapons over a six-month period, and particularly if he had made the Portsmouth-Southampton area one of his principal targets, Overlord [the cross-Channel invasion in 1944] might have been written off. (p. 260)

How good was Allied intelligence on the German secret weapons? "During this long period," reports Eisenhower,

the calculations of the Intelligence agencies were necessarily based upon very meager information and as a consequence, they shifted from time to time in their estimates of German progress. Nevertheless, before we launched the invasion, Intelligence experts were able to give us remarkably accurate estimates of the existence, characteristics, and capabilities of the new German weapons. (p. 230)

What contribution did propaganda analysis make toward the correct assessment of German V-weapons? This question is difficult to answer. Many different types of intelligence activities contributed data for over-all assessments, but none of the accounts examined clearly distinguish the weight of each. On the other hand, it is possible today to note at least the accuracy of the propaganda-analysis reports, whatever their utility at the time. The British report, to be examined here, is without doubt one of the most skillful of the propaganda analyses undertaken during (World War II). The U.S. Federal Communications Commission's (FCC) analyses of this problem, on the other hand, were markedly less successful. A comparison of the two, therefore, serves to spotlight elements in procedure and analysis, which make for more or less successful inferences.

THE BRITISH REPORT

A special propaganda analysis of German V-weapon propaganda was issued in early November 1943, by the British Political Warfare Executive. It listed a number of inferences about a German secret weapon drawn solely from analysis of German propaganda.

Inferences

The British analyst's systematic approach and his ability to identify the precise components of the inferential problem are impressive in themselves. Equally striking is the clear-cut manner in which degrees of plausibility are assigned to different inferences.

In close paraphrase, the report stated that:

1. It is beyond reasonable doubt that Germany possesses an offensive weapon, which her leaders believe:

- (a) Is of a type unknown to the Allies.
- (b) Cannot be countered within a short period.
- (c) Will be used for the first time on a scale sufficient to produce very striking results.
- (d) Will create in British cities havoc at least as great as that in German cities, and probably much greater.
- (e) Will have a more shocking effect upon civilians than air-bombing on present scales.

2. It is further highly probable that

- (f) By the end of May, preparations for the use of this weapon were past the experimental stage.
- (g) Something occurred on or a little before August 19th, which substantially postponed D-day.

3. It is further probable that:

- (h) Something occurred between the 3rd and about the 10th of September which further postponed D-day.
- (i) The schedule for the offensive weapon has lagged in relation to that for a type or types of defensive weapon, and Germany's leaders now expect a diminution in the weight of Allied air attacks to precede German retaliation.

4. It may be tentatively estimated that Germany's leaders expect this offensive weapon to come into use *not before the middle of January, 1944, and not later than the middle of April*. There is unlikely to be an error of more than a month each way in the first of these estimated dates, but there might well be an error of two months either way in the latter.

The estimate for the earliest date of use is based partly upon estimates of the schedule existing in June, in early August, and in early September. If these estimates from propaganda can be confirmed by independent evidence, it would be possible to regard the final estimate (mid-January) with slightly less caution.

The estimated schedule at these earlier periods was:

In June:	Earliest use, mid-September
In early August:	Earliest use, beginning October
In early September:	Earliest use, beginning December

Reasoning and Verification of British Report

Many of these inferences, it turns out, were remarkably accurate and well reasoned.

(The British analyst's reasoning is reproduced here only in part.)

Inferences 1, *a-e*, appear to have accurately described the German leaders' estimate of their new weapon. Hitler was particularly gratified by the fact that the V-1 flying bombs did not depend upon radio beams for their aiming, a fact which made it technically impossible for Allied defense to deflect them from their course (Lochner, 1948:467).

That the Germans had some sort of new weapon, and were not merely bluffing, was firmly believed by the propaganda analyst. This inference rested upon the fundamental assumption, confirmed on many past occasions, that *German propaganda never deliberately misled the German people in questions involving an increase of German power.* (Excluded from this were relatively petty instances, such as figures of losses.) In view of this, the British analyst felt it necessary to accept at face value the repeated statement in German home propaganda that Germany was preparing, and expected to employ, a new weapon of reprisal.

A number of characteristics of the propaganda in question permitted insight into the nature of the new weapon. Thus, the British analyst noted that references to forthcoming

"retaliation" by German propagandists seemed to be predicated on the idea that something new existed, that retaliation would not be carried out by normal air attack, and that German scientists, engineers, and constructors were playing a particularly important part.

Inference *f* cannot be verified, but *g* and *h* appear to be quite accurate. These two inferences rested upon an interpretation of the fact that propaganda references to reprisal weapons ceased abruptly for a period of time after August 19 and again after September 10. (A fuller account of this interpretation is given below.) To be sure, direct evidence that German propagandists were ordered to cease all references to the secret reprisal weapon for a while after August 19 and September 10 is lacking. But that such orders were given in response to events occurring approximately on or before these two dates, events which caused substantial postponements in the scheduled use of the V-weapon, seems to be a safe assumption in view of Hitler's remarks to Goebbels on the latter date to the effect that:

Unfortunately the English raids on Peenemünde and on our OT work in the West [presumably the launching-sites for the new weapons in the Boulogne-Calais area] have thrown our preparations back four and even eight weeks, so that we can't possibly count on reprisals before the end of January. (Lochner, 1948:435-436)

The analyst's reasoning on behalf of inferences *g* and *h* is discussed below.

Inference *i* was based upon the observation that after August 19 German propagandists spoke of coming defensive measures against Allied air bombardment in such a manner as to suggest that these would precede the use of the secret weapon against England. (Prior to August 19 the development of new defensive countermeasures had *not* been mentioned in the same breath as preparations for retaliation.) These subtle shifts in propaganda, reasoned the analyst, could hardly be accounted for except on the premise that the relative schedules for defensive and offensive weapons had changed after August 19 in favor of the former. The hypothesis that the offensive

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weapon had been delayed was more plausible to the analyst than the hypothesis that the schedule for the defensive weapon had been speeded up. For, unless this were the case, there would have been no need for German propagandists to make, as they did, an excuse for not having the offensive weapon ready. Once again, direct verification of this inference is lacking, but new German anti-aircraft defense measures, which proved to be effective against Allied night bombing raids, were applied in the early spring of 1944, several months before the use of the V-1.

Finally, the British analyst's tentative estimate, *made in early November, 1943*, that *at this time* German leaders expected to have the new offensive weapon ready for use sometime between mid-January and mid-April, 1944, proved to be amazingly accurate. For, on *September 22, 1943*, Hitler gave Goebbels his estimate that the V-weapon could be used by the end of January or the beginning of February; and in late November, 1943, Speer, Minister of Armaments and War Production, told Goebbels that reprisals could begin only in March.

The British analyst's remark that his second estimated date—i.e., mid-April, 1944—might be off by two months in either direction was the basis for Wallace Carroll's observation that the British propaganda analysts predicted D-day for the new weapon right on the nose—i.e., June 15 (Carroll, 1948:154). However, at the time of the British report (November 8, 1943), as is clear in the two entries in Goebbels Diary, German leaders expected to have the V-weapons ready at an earlier date, which was well within the narrower range of time predicted by the British analyst. In other words, the British estimate in November, 1943, was even better than Carroll's assessment implies. At the time of the report, events which would further delay the German timetable for V-weapons had not yet occurred. As British Air Marshals Sir Arthur Harris and Lord Tedder both note, in December, 1943, the launching-sites for the V-weapons were so effectively destroyed by Allied bombing that the Germans were forced to improvise new sites, inferior to the first (Harris, 1947:198; Tedder, 1948:95–96). In

the estimate of Harris and Tedder, this delayed the V-weapons' timetable another six months.

The deduction concerning the German leaders' private estimate of the timing of the V-weapon was based upon ingenious use of a general observation about Nazi propaganda practice. The British analyst reasoned that Goebbels would be careful not to give the German public a promise of retaliation too far ahead of the date on which the promise could be fulfilled. For Goebbels had shown himself to be astute enough to realize that, if a promise of this sort were not made good within a reasonable time, the public would become disillusioned, skepticism and hostility toward German leaders and propaganda would set in, and Goebbels would have aggravated the very morale problem which his retaliation promises were designed to allay. Taking a number of factors into account, the British analyst reckoned that Goebbels would give himself about three months as the maximum period for which it would be safe to propagandize forthcoming retaliation in advance.

While this estimate cannot be checked directly today on the basis of available verification material, indirect evidence supporting it was available at the time and was cited in the British report. Goebbels' propaganda commitment on new reprisal weapons was launched in June, 1943; and by mid-August, some two and a half months later, local Nazi speakers were finding it necessary to deal with skeptics. By mid-September, public skepticism was a considerable problem; and in October, Nazi party speakers were devoting a large part of their time to reassuring doubters that retaliation would come, after all.

FCC Analyses

FCC analyses of the same German V-weapon propaganda have been examined in order to discern, if possible, why the results were of lower caliber than those made by the British analyst. Three major explanations for this divergence emerge.

1. *The FCC analysts, in contrast to the British analyst, were reluctant to tackle the main inferential problems growing out of*

German propaganda on retaliation and secret weapons. Assuming that other intelligence specialists with techniques more appropriate than propaganda analysis were at work on the problem, the FCC analysts stuck pretty closely to description of the content of German V-weapons propaganda. They ventured few inferences—and these cautiously and sporadically—on such crucial questions as whether secret weapons for reprisal actually existed, what the nature of such weapons was, how soon the Nazis expected to use them, against which targets, and with what expected effects.

Moreover, the FCC analysts worked on their own and were not asked to co-ordinate their analysis of German V-weapons propaganda with that of other intelligence specialists. This may be contrasted with the experience of the British analyst, whose report of November 8, 1943, was clearly in reply to a request, and who was taken into the confidence of his superiors and asked to match his inferences against information about the presumed significance of targets attacked by the R.A.F. at Peenemünde and by Allied aircraft in the Pas de Calais area. The FCC analyses, on the other hand, were made on a week-to-week basis; a systematic retrospective analysis of all preceding propaganda on this subject was not undertaken. It is obvious today that such a retrospective analysis, had it been made, would have sharpened the FCC analysts' insights and analytical procedures.

2. *The FCC analysts did not develop analytical techniques and hypotheses of sufficient refinement for this problem.* It is, or should be, a truism in propaganda analysis that the investigator is likely to develop more discriminating and fruitful analytical techniques only in the process of stating and attempting to assess alternative inferences when confronted with a concrete problem. As the following paragraphs will indicate, the reluctance of the FCC analysts to attempt inferences on the subject of German secret weapons kept them from making optimum use and needed refinements of the analytical equipment they brought to the task.

The fundamental proposition employed by the British analyst—that German propaganda

never deliberately misled the German people in questions involving an increase of German power—was not unknown to the FCC analysts. Reluctant to make inferences about the V-weapons, however, the FCC analysts apparently overlooked the relevance of this proposition as a basis for evaluating Goebbels' propaganda commitment on retaliation by means of secret weapons.

Another deficiency of the FCC's procedure was its failure to make use of systematic, quantitative procedures in evaluating certain aspects of Nazi V-weapon propaganda. The British analyst, it may be noted, employed highly systematic procedures for a trend analysis of the occurrence and volume of such Nazi reprisal threats. The FCC analyst used only impressionistic methods.

It is because of this, no doubt, that the British analyst, but not the FCC, discovered several *time intervals in which reprisal propaganda dropped almost to the zero point.* Unknown to the public and to the propaganda analysts, the R.A.F. attack of August 17, 1943, upon Peenemünde had the German experimental secret-weapons station as its target. Similarly, Allied air raids of September 7–8 between Boulogne and Calais had as their secret target the installations suspected of being launching-platforms for new German weapons. The purpose of these two raids became known to the British analyst only later. He did notice, however, that references to retaliation suddenly dropped out of German propaganda for ten days, beginning August 19. Similarly, for a week after September 11 not a single item on retaliation appeared in German domestic propaganda.

Some time later, in preparing his report of November 8, the British analyst was apprised of the significance of the targets in these two raids. His problem, therefore, was to consider alternative explanations for the gaps he had noted in German reprisal propaganda and for possible shifts in the character of this propaganda following resumption of reprisal threats. For this purpose, he took into account and attempted to explain the following: (1) the *suddenness* with which the gap began; (2) any *change in the quality* of propaganda on retaliation and on the forthcoming new weapon

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after the gap in attention passed; (3) the *coincidence* of the beginning of the gap with events which might have been *connected with retaliation* and/or a new weapon; and (4) the *coincidence* of the gap with other events or with changes in the war situation which might be expected to cut off the flow of reprisal propaganda.

It was discovered that the gap beginning August 20, 1943, had been sudden, that it was followed by a watering-down of the propaganda commitment on reprisal (i.e., propaganda allusions now put the date of use of the V-weapons further into the future than they previously had), and that the gap in propaganda on the new reprisal weapon did not coincide with other events. (Other events, those not directly connected with German preparations of the reprisal weapon, might be, for example, Allied air raids on Germany, and German morale.) References to reprisal usually occurred either in propaganda diatribes against Allied air raids or in conjunction with propaganda efforts to salve the poor morale of the German public. Therefore, an absence of reprisal talk might be correlated with an absence of Allied air raids on Germany or an improvement in German morale. *Only when these possibilities were ruled out was it reasonable so deduce that not other events but some consideration directly connected with the retaliation weapon itself was responsible for the gap in reprisal propaganda.*

The necessary explanation, then, was that something must have happened just before August 20, which was connected with the preparation and schedule of the new reprisal weapon. (This, of course, confirmed the effectiveness of the Peenemünde raid.)

Another gap, beginning September 11, 1943, also fulfilled these criteria, but not so clearly. Therefore, the analyst inferred that it was only slightly less probable that something had occurred in early September, which further postponed the Nazi schedule for the use of the reprisal weapon. Thus, once again, confirmation was obtained of the effectiveness of the Allied air raids, this time of those on Boulogne and Calais.

The four considerations listed above were not articulated by the FCC analysts, an

omission which followed from their failure to do a systematic time analysis of trends in reprisal propaganda.

The FCC analysts, however, were not insensitive to the possible significance of shifts in propaganda commitments as to the date of reprisal. They were aware . . . that shifts toward *increased ambiguity* in setting the time of reprisal meant that D-day for use of the new weapon, as estimated by the Nazi leaders, had been further deferred. This type of reasoning was essentially the same as that employed by the British analyst but was applied less systematically and less boldly. Thus, in late November, 1943, an FCC analyst noted that Goebbels' current reprisal threat remained "undated"; "in fact, the wording makes the prospect of realization seem less definite than in many previous announcements which have come from German leaders and, in particular, from Goebbels himself."

3. The FCC and British analysts both recognized the connection between reprisal propaganda and the German elite's preoccupation with internal morale. But only the British analyst explored this relationship to its logical conclusion and, thereby, formulated an assumption crucial for the high-grade inferences that he made.

The FCC noted as early as did the British that public disillusionment in Germany with Nazi propaganda promises of reprisal was beginning to set in. Increasing public skepticism on this issue was noted in subsequent FCC reports, but its significance in terms of Goebbels' astuteness as a propagandist was never squarely faced by the FCC. It was certainly not beyond the analytical proficiency of FCC analysts to note that Goebbels' propaganda promises (of reprisal by means of new weapons) must have been made in the expectation that they would be realized in time to save him from severe embarrassment. For Goebbels, of all Nazi leaders, was known by the FCC to be most cautious about making propaganda commitments to the German people which could not be fulfilled and which might, therefore, prejudice public attitudes toward their leaders.¹

Given this appraisal of Goebbels, the FCC analysts too might have concluded that the propaganda commitment on reprisal would not have been made by Goebbels too soon before the date on which he expected reprisals to take place. And, accordingly, when the continued deferment of D-day for reprisals created increasingly difficult morale problems for the Nazi leadership, the inference should have followed that something had happened to delay the timetable for the reprisal weapon. The closest an FCC analyst came to making such inferences was in mid-November, 1943, when heavy Allied raids on Germany made retaliation even more urgent from a morale point of view. Taking note of the fact that Nazi propaganda promises of retaliation to the German public were continuing, the FCC analyst commented:

The propaganda intent clearly appears to be to help tide German morale over its severest crisis. . . . In the interest of home morale, a realized threat would seem a matter of utmost urgency. . . . Delay may be attributable to unfinished technical preparations, or retaliation may be timed for a certain strategic moment, which has not arrived yet. But this much is certain; Nazi propagandists could hardly risk taking so many chances with an impatient domestic audience, were it not for cogent reasons. (FCC, 1943:A-10)

Had this general hypothesis been further refined, and, especially, had it been applied to the whole history of the V-weapons propaganda, the FCC would doubtlessly have

approximated the findings of the British analyst more closely.

NOTE

1. Toward the end of the war, Goebbels departed from this otherwise invariable rule only to the extent of reluctantly permitting Party propagandists to use the idea of a miracle weapon in word of mouth propaganda. He made this concession in part because he felt that he, as official propagandist, would not be compromised by such irresponsible rumors, the official inspiration of which could not be traced: "No one will ever be able to reproach us for having circulated this rumor. No one will ever be able to nail us down for having made such a prediction, because we never did make it" (Riess, 1948:303).

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1.6

LETTERS FROM JENNY

GORDON W. ALLPORT*

THREE LETTERS

Chicago, Illinois. 3/10/26

My dearest Glenn and Isabel:

There is a matter of considerable importance that worries me, and I earnestly desire you two children to discuss it with me, if you will be so very kind—and I feel sure that you will.

In order to make myself clear I must write you a series of letters. . . .

This is No. 1—Ross.

We were in New York—Ross roomed with an artist who had an apartment—I was in the cubby hold on 16th St. No heat, no window. Ross was out of employment. I was ill—dreadfully ill. I tried to work in fits and starts, my salary once so low as \$14 a week, but I insisted on Ross' coming to my room often—2 or 3 times a week, and I cooked good porterhouse steaks for him, and bought him good cigars. I practically starved to do it. Weighed 96 pounds.

Then Ross found a position—he was quite delighted—it was such a good position with fine prospects, salary \$50 a week. He offered to cover my rent—\$25 a month, and I said it would be a great help. He paid 1 month (\$25). The next month slipped by until the 15th. My rent was due on the first. Ross said he was “rather pressed for money” and could only spare \$20. I was stung to the quick, but took it. The 3rd month he was again late, but he offered me \$25. He called at my room when I was out, and left the money, with a note.

I sent it back to him—said he evidently needed it worse than I and that I refused to accept anything at all from so niggardly a giver.

I got no more—he offered none. Six months slipped by—Ross lost his position and was again out of employment. He had little or no money and I again filled in the gap insisting on setting good meals, cigars, etc. When his tooth showed signs of decay I gave

*From Allport, G. W. (1965). *Letters From Jenny*. New York: Harcourt. Excerpt represents pages 7–8, 20, 126–127, and Chapter Eight, 191–205. Allport's book is based on 301 letters from 1926 to 1937, nearly all of them to her son Ross's friend from college, Glenn, or Glenn's wife, Isabel. We have chosen three examples as a preface to Allport's use of content analysis as a psychoanalytic tool.

him \$10. He failed to go to a Dentist, and believing he had used the money, I supplied another 10—I gave \$30 for the Dentist, but he never had the tooth attended to. When he got that position in Brooklyn, he wanted to go out there to room and asked me for *the loan* of 10. I emptied my purse that evening as we sat on my bed together, gave him my entire savings—\$30 and kept 2.50 for myself to carry me over until my next pay. At that time, I was receiving \$18 a week.

It was in Brooklyn that he met the old maid with money who bought and married him. He never even mentioned money to me again. Never once offered to help me in any way.

I am a strongly intuitive person, am subject to impressions—beliefs—prejudices etc. not founded on any basis of reason.

It was my “feeling” for a long time that Ross was lying to me—when he said he could not come to see me because he was so very busy, I felt that he lied. When he spoke of his low salary, I felt that he lied. Yet I was ashamed: I never tried to prove, or disprove, anything. I thought “the boy is all right—every word he says is probably true—it is I who am mean, suspicious, and hateful—forget it,” and so the time went by.

The day he was married he said he could not keep his appointment with me to put up a shelf I needed because he had to stay at the store and help take inventory. I knew he lied that day and was angry—I asked why should an efficiency man in a Dept. Store take inventory. He said it was mean of me to doubt him, and that all I had to do was telephone the 7th floor of the store and ask for him. He knows I would not do that. He ran his bluff—he just lied.

The last day I spent in New York before coming here, last September, I went to Jersey and saw the General Mgr. of the place where Ross had such splendid prospects. I wanted to know why Ross left, and what salary he had received. He left because they asked him to leave, his work was not satisfactory. He received \$75 a week for 6 mos. \$75. Think of it! Ross was too “hard pressed” for money to spare \$25 a month, and gave only 20 and

even that for only 2 months. And he received over *three hundred dollars a month for six months.*

When at the store only a very short time he borrowed from the Co. \$150.00 and said he was married and his wife had to undergo an operation. He finally repaid the loan. He actually had the nerve to take to the office a sporting woman and her illegitimate child whom he introduced as his wife. The men laughed behind Ross’s back for the woman was stamped, as they all are, and they knew he lied.

Ross brought this same woman and her brat to my house on Sunday evening and I was angry and told him that if he ever brought any more prostitutes to my house I would have them both arrested. Anyone, short of a fool, would know what she was at one glance.

This is my first letter (I am all trembling) . . .

Au revoir,

Lady Masterson
N.Y.C. Sept. 2/26

My dearest:

I hope to be among the first to wish you happiness in your new home.

Such a lot of things have happened since you, Glenn dear, and Ross stood in the college office waiting to write on your exam. Tall, thin, pale boys, the world and life all before you—anxious, tense—a long time ago.

If anyone had said then the day would come when you, Glenn dear, the pale slim boy, would be the only protection of the other boy’s mother, you would have been considerably surprised. And then meeting Isabel, and knowing Isabel, and your marriage, and your sweet little nest—it is all wonderful.

The last time I wrote I knew there was something special I wanted to say to you, Isabel dear, but could not, for the life of me, recall what it was, so I just babbled away about something else.

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It's your hair. I really think you ought to bob your hair. For one thing, almost everyone, old and young, is bobbed now, and one looks peculiar with long hair; and another thing is it is less trouble. Of course, Mary Pickford is not bobbed, but pretty near everyone else it.

Best love,

J.G.M.

N.Y.C. Sunday Oct. 13/35

My dearest Boy:

. . . I have been around trying to hunt up some class, or lectures, for the winter. There are, of course, plenty, but they are all too expensive for me. Columbia charges \$15 for the Winter Extension Course, or \$1.50 for each single lecture, and when I found they have such lecturers on their program as Amelia Earhart, I pass them all up. The very sight of the woman is disagreeable to me. Then the Met. Museum charges \$10 for 3 mos. and all their free lectures are by *women*. I don't like to see women on a platform—never saw one yet I would want to see again, and then their thin squeaky voices give me a pain. I always feel kind of ashamed when I see a woman stand up to speak. Last time I went to the Met, the woman speaker kept *laughing* all the time, and heaven only knows what she saw funny about it, for the subject was on tapestries and their making. Women are like that.

. . . I have now no hope of getting out of here, and so accept my fate in a stupid, stolid manner as one would if at the bottom of a well. This also applies to many of the half-witted stupid old women who hang around here for years and years—their minds (if they ever had any) have ceased to work, they have gone to seed.

. . . I am greatly interested in the war and read all the papers, altho' I don't suppose that any of the reports are reliable. It seems the whole world is mad—every line of life in every country is upset. I have now reached the point, like the old Quaker, twirling my thumbs, and nodding at you, say

“Except me and thee”—thee will always stand out, and alone, to me. I would be lost without you—I often feel that I am the loneliest woman in the world, but I can never be that while I have you, and that will be “till all friendships die.”

Often I do not speak one word for weeks at one time—it is hard to be alone.

Lady M.

JENNY'S TRAITS

Some psychologists find fault with the depth approach, regarding it as elaborate, speculative, and largely un-verifiable. Better not manufacture for Jenny, they would say, an unconscious, which in fact she may not possess. . . .

If we say that Jenny's habits are the key to her nature the question arises, how shall we identify and classify these habits? What is the structural composition of her personality?

To answer this question with scientific precision is difficult—at the present time impossible. And yet, no approach to personality analysis is more direct, more commonsensical than this. Almost always we think about, and talk about, people in terms of their *traits*, which are nothing other than clusters of related habits. (Ordinarily we use the term *habit* to designate a limited and specific formation, such as Jenny's habit of taking long walks, or quoting poetry, or making trips to the sea. A *trait* is a family of habits, or a widely generalized habit-system, illustrated by Jenny's solitariness, aestheticism, love of nature.)

To start our analysis we asked thirty-six people to characterize Jenny in terms of her traits. They used a total of 198 trait names. Many of the terms, of course, turn out to be synonyms, or else clearly belong in clusters.

Loose as this approach is, we present a codification of the terms used, arranged in order of frequency of occurrences. Under each of the central trait designations are listed some of the equivalent or related terms employed.

1. Quarrelsome/Suspicious

distrustful
paranoid
rebellious
prejudiced
bellicose
opinionated
tactless
misogynous
etc.

2. Self-Centered

selfish
jealous
possessive
egocentric
proud
snobbish
martyr complex
self-pitying
over-sacrificial
etc.

3. Independent/Autonomous

self-reliant
scrupulous
hardworking
frugal
courageous
persistent
stubborn
reclusive
calculating
solitary
etc.

4. Dramatic/Intense

emotional
rigid
serious
temperamental
vigorous
violent
voluble
self-dramatizing
etc.

5. Aesthetic/Artistic

intuitive
fastidious
literary
cultured
appreciative
expressive
poetic
lover of nature
etc.

6. Aggressive

ascendant
indomitable
domineering
self-assertive
autocratic
forceful
recalcitrant
etc.

7. Cynical/Morbid

pessimistic
sarcastic
disillusioned
humorless
despondent
frustrated
insecure
hypochondriacal
fixation on death
etc.

8. Sentimental

retrospective
loyal
affectionate
dweller in the past
maternal
etc.

Unclassified
(13 terms out of 198)

intelligent
predictable
incestuous
witty
whimsical
etc.

Having employed this method of listing we note a few interesting results. (a) Nearly all judges perceive as most prominent in the structure of Jenny's personality the traits of suspiciousness, self-centeredness, autonomy; and the majority remark also her dramatic nature, her aestheticism, aggressiveness, morbidity, and sentimentality. (b) While there may be disagreement concerning the classification of any given trait name, the main clusters are not difficult to identify. (c) The reader, however, feels that these clusters are not independent of one another; they interlock; thus her sentimentality and her artistic nature seem somehow tied together, and her quarrelsomeness is locked with her aggressiveness. For this reason we

cannot claim by the trait-name approach to have isolated separate radicals in her nature. (d) The few terms marked as "unclassified" seem to belong somewhere in the total picture, although our method does not readily absorb them. (e) While there is noteworthy agreement among judges there are occasional contradictions, such as witty/humorless, voluble/reclusive, self-pitying/courageous. But at this point, we accept Jung's assurance that every human being harbors opposites in his nature.

Let us return to the problem raised by item (c). Since the traits as listed manifestly overlap, is there some way of finding more inclusive themes? Surely, her personality is not an additive sum of eight or nine separate traits.

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We asked the judges whether they perceived any one unifying theme that marks all, or almost all, of her behavior. We received such answers as the following:

"Her life centers around the Jungian archetype of motherhood."

"If one considers her possessiveness toward Ross to be the central object of Jenny's life, then almost all of her interests and behavior fall into place. In Ross's early years her life was completely unified around this goal. In later life, this unity is lost; Jenny then "falls to pieces."

"I think the leading theme in her life is the need for self-vindication; everything seems to be constellated here."

"Since her behavior is continuously self-defeating I see as central the need for self-punishment, due to repressed guilt."

"While I cannot discover any single unifying theme, I would submit that *five* (not wholly separate) themes are dominant: extreme possessiveness of Ross, hatred of women, importance of money, aesthetic interests, preoccupation with death."

Such attempts to discover unity in Jenny's personality are suggestive though inconclusive. Just where the center of emphasis should fall we still cannot say. Yet the fact that there is clear overlap among these diagnoses leads us to conclude that there is definite structure (if only we could pin it down), and that this structure is dynamic, leading us toward a true explanation of her behavior.

A convinced depth analyst, of course, would say that this approach is too much "on the surface," too phenotypical. The root themes, the genotypes, lie completely buried—perhaps in the confusion of sex-identity or other early Oedipal conflict.

Whether we favor unconscious genotypes or whether we believe that her learned dispositions are themselves genotypical, we mark in either case an essential firmness in the structure of her personality. After reading the first few letters we find ourselves forecasting what will happen next. We predict that her friendship with (a woman named) Mrs. Graham will turn to sawdust, and so it does; "The more I know of Mrs. Graham the less I like her. . . ." At first Jenny likes (a woman named) Vivian

Vold, but we know she will soon become just another "chip." The Home first appears bright to her; soon it becomes the "Prison." Her journeys to other cities start with hope but end in despair. The predictability of Jenny, as with any mortal, is the strongest argument for insisting that personality is a dependable hierarchy of sentiments and dispositions, possessed of enduring structure.

Take the evidence of her stylistic traits. Her handwriting is remarkably stable over time, even allowing for a slight unsteadiness with increasing age. Her prose is invariably direct, lively, urgent, and with a sharpness of metaphor. Whatever she says or does, she will do or say with vigor. While she is predictably affectionate toward Glenn and Isabel, we know that her chief interest is in her own needs and feelings. Any outsider who enters her monologue is on the distant periphery or else is doomed to be sucked into the vortex of her resentments.

TWO CONTENT ANALYSES

Thus far, our structural approach has been grounded in simple common sense. We have read the Letters, "understood" them, and formed an impression of Jenny's make-up. The procedure is essentially intuitive. The only check on our impressions is what other people report from their own intuitive reading. We incline to put more weight on interpretations given frequently by many readers, but we have no objective or quantitative standard to follow.

Stricter methodologists would ask, "Can we avoid such gross subjectivism? Is there not some way in which we can objectify and quantify the structure of Jenny's personality?" The answer is, Yes—by the method of *content analysis*.

Virtually all that we know of Jenny comes from her own pen. As published here the Letters contain 46,652 words. From these discrete semantic units content analysis would seek to reconstruct a more pointed, better organized, and, therefore, more meaningful account of the structure of her personality.

There are various ways in which content analysis can proceed. On the simplest level we might count the separate mentions of Ross, or of money, or art, and from such a simple tally

infer the relative prominence of different topics in her thought life (as revealed in the Letters). But we need not stop with such a simple count of subject matter (nouns); we can count also the expressions of favor or disfavor, or of other feelings in relation to subject matter. Such a further step is sometimes called “value” or “thematic” analysis (Baldwin, 1942).

Two rather ambitious content studies have already employed Jenny’s Letters.

Personal Structure Analysis

Using the whole unabridged series of Letters, Alfred Baldwin set himself the task of studying the organization of the flow of Jenny’s ideas (White, 1951). For example, when she spoke of Ross, how frequently was he mentioned in a context of money, of art, of women, of favor, of disfavor? When she spoke of

money how frequently was this topic associated with Ross, with health, with jobs, with death?

The method selects, somewhat arbitrarily, prominent topics and themes and plots the frequency of their coexistence in the same context of thought. Also, it connects these topics with basic attitudes and value judgments made by her. Since Jenny was careful in her paragraphing, a single unit of thought was often a paragraph from a letter, although in some cases the unit might be longer or shorter. Statistically Baldwin used a variation of the Chi-square test to determine the significance of each association.

The accompanying diagram represents the principal clusters (co-occurrences) of ideas and feelings that emerge by this method of analysis. The diagram is based on the unabridged series of letters, but only from their beginning until November 2, 1927.

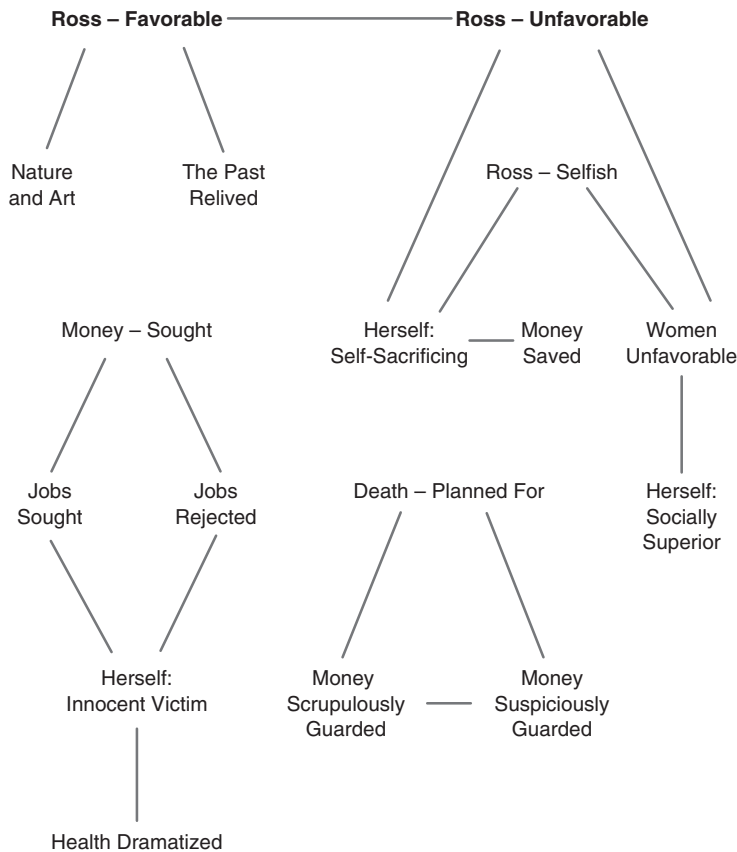


Figure 1

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The reader can judge whether this rather laborious mode of classifying ideational clusters adds anything new to the interpretations reached through a common-sense reading of the material. Perhaps the frequency with which she mentions money may come as a surprise, especially the fact that money enters into all three major contexts of her discourse. It is related to her ideas of self-sacrifice which fall into the ROSS-UNFAVORABLE cluster; also to her search for jobs and concern for health; finally to the context of her death. Interesting is the fact that these three major topics of concern are not themselves tied closely together.

The analysis in the diagram does not cover the entire series of letters. Had it done so we might find the patterns change. For example, mentions of art and nature would no longer be tied almost completely to ROSS-FAVORABLE, but might well form a self-sufficient cluster of values.

For our present purposes it is sufficient to present this brief account of Baldwin's method to show that quantification of the *V* structure of a single personality is possible by means of statistical aids applied to content analysis.

Computer Aided Content Analysis

Some years after Baldwin's study was published advances in computer techniques invited a more elaborate analysis of Jenny's personality. Instead of using relatively few categories for coding and cross-tallying, it became possible to work on a wider base, using more categories and making more complex calculations.

In both methods, the first step is similar. The content of her letters must be coded; that is, what she says must be classified into categories. At this stage, there is always subjective judgment involved on the part of the analyst, who must decide what basic categories to employ. Jenny's vocabulary is large; she uses many different words to express the same essential idea. A loose woman may be a "chip," a "prostitute," a "sex-starved old maid," or some other type of wanton.* What

we need then is a lexicon of "basic English" to which her rich discourse may be reduced.

Jeffrey Paige (1964) had at hand such a lexicon in a dictionary of concepts relevant to social science, developed for use by the General Inquirer computer system (Stone, Bales, Namenwirth, & Ogilvie, 1962).

This dictionary contains approximately 3000 entries, which form the initial basis for a coding system. The Letters are first translated into this lexicon, and then can be recast into a smaller number of "tag" words. To give an example, the many terms Jenny uses to express aggression, hostility, opposition, are finally coded together under the tag ATTACK.

The method allows not only for a wide base of categories, but also permits the coder to indicate when each tag word represents the subject, verb, or object in a sentence. When the material has been appropriately punched on cards and tagged by the computer, a great variety of retrieval operations becomes possible. The program will print out all sentences bearing upon the question the investigator has in mind. For example, if the query concerns Jenny's retentiveness of money and possessions, the analyst might ask for the co-occurrence of SELF, POSSESS, and ECONOMIC. In order to avoid retrieving irrelevant sentences, the analyst specifies that only the sentences in which SELF is subject, POSSESS is verb, and ECONOMIC is object are sought. In this way, an accurate count of the frequency of this particular ideational structure is obtained.

The General Inquirer and associated statistical procedures permit coding, retrieval, correlations, and computations. With this automated assistance Paige reaches certain conclusions regarding Jenny's personality structure.

For example, the frequency with which various tag words in a given letter are associated with all others in the same letter forms a basis for factor analysis. The first 56 letters—up to the death of Ross—are employed for this purpose, since they are on the average longer than the later letters. By this statistical method, Paige extracts eight factors, which he considers to be Jenny's "most prominent traits." They are listed here in decreasing order of frequency.

*See reading 5.2, this volume, on dictionary building.

Table 1

<i>Trait</i>	<i>Mode of Expression</i>
Aggression	Deprecatory invective, especially directed at Ross and women; anger; arguments with Ross. Indirectly expressed in travel and job hunting.
Possessiveness	A combination of nurturant and retentive needs; expressed in Jenny's joy in caring for children, including Ross when he was younger, and in her later attempts to bind her son to her by legal and financial means.
Need for Affiliation	Expressed directly by telling Glenn and Isabel how much they are depended upon, by praising them and their home, by writing of the joy she takes in their friendship. Indirectly expressed by exaggerated descriptions of her distress, intended (probably unconsciously) to invoke sympathy.
Need for Autonomy	Optimism and happiness in being able to support herself despite poverty and lack of skills. Pride in ability to find work and perform hard jobs. Frustrated by supervision, especially during the period of the nursery.
Need for Familial Acceptance	Attempts to return to Canada and be reconciled with Betty, to visit and live with her. Indirectly expressed by associating family values with herself and Ross.
Sexuality	Jenny's romantic descriptions of her relationship with her son; rides by moonlight, trips to the country; indirectly by her vicarious sharing (by identification with Isabel) in the affection of Glenn's family.
Sentience	Jenny's love of art, literature, and natural beauty. Also expressed by her need to be dependent on Glenn and Isabel.
Martyrdom	The nobility of Jenny's sacrifices for others, particularly for Ross. Also expressed by complaints that her sacrifices are unappreciated and bring her only grief and descriptions of the burdens she must bear.

Although the list of traits derived from factor analysis is not identical with our earlier list (of traits), there is much overlap and similarity.

With three exceptions, the parallel is close. It seems likely that the use of tag words binds the factorial method more closely to actual situations; whereas the intuitive reader perceives stylistic and expressive dispositions more readily and thus selects the *cynical-morbid* and *dramatic-intense* traits in her nature.

It would be wrong, however, to assume that the computer method cannot deal with stylistic variables. A special code permits the retrieval of words tagged by OVERSTATE (such words as *always*, *never*, *impossible*, etc.). Words tagged UNDERSTATE indicate reserve, caution, qualification. Jenny's Letters throughout the series score much higher on OVERSTATE than on UNDERSTATE. Thus,

we find the common-sense diagnosis of "dramatic-intense" is confirmed (and quantified) by automated content analysis.

Besides aiding in the search for central structural units, the method turns up several additional insights, some new, some old.

It confirms our impression that Jenny's feelings about her own sex are consistently negative (except toward Isabel). Women are associated with the tag words DISTRESS and BAD, almost never with PLEASURE or GOOD. They score high on DEVIATION, meaning that they violate culturally accepted standards; and they score zero on FOLLOW, meaning that Jenny never respects them nor becomes submissive toward them. Her statements about women score especially high on OVERSTATE.

Her attitudes toward men are generally less unfavorable. Her score for AVOID is high (except for Glenn), but there are some

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Table 2

<i>Factorial Traits</i>	<i>Common-Sense Traits</i>
aggression	quarrelsome-suspicious aggressive
possessiveness	self-centered
need for affiliation need for family acceptance	sentimental
need for autonomy	independent-autonomous
sentience	aesthetic-artistic
martyrdom	self-centered
sexuality	(no parallel)
(no parallel)	cynical-morbid
(no parallel)	dramatic-intense

associations with GOOD, AFFECTION, and PLEASURE—a pattern virtually nonexistent for women. A close analysis shows that Jenny expresses more affection for Glenn than for Isabel, and makes more requests of him for advice and help. She tends to share her experiences with Isabel but her worries and dependency needs with Glenn. Both, of course, are idealized, seldom spoken of in any but glowing terms. Because she rarely sees them in person, she is better able to maintain her conception of their respective roles. Even granted the conventions of correspondence it is still noteworthy that Jenny tends to see people in unrealistic extremes—Glenn and Isabel as all good, others as all bad. And we recall that the same extremism marked her attitudes toward Ross. Evaluative tags of BAD are more frequent than tags of GOOD, but she does occasionally express love for Ross, and once declares that he is a “first-rate neighbor.” But among the statements tagged GOOD we find several that are sarcastic—“I have truly a noble son, an honor to his college, his friends, his family.” (Let us note that the computer is not able to identify sarcasm.)

Jenny was surely not a discriminating judge of character. It is interesting to compare her personal qualities with those of a “poor judge of character” emerging from the research of Cottrell and Dymond (1949:355–359). These investigators conclude that a poor

judge is rigid, introverted, lacking self-insight, inhibited emotionally, subject to emotional outbursts. The research discovered further that poor judges “experienced difficulty in interpersonal relations, mistrusted others, were less well integrated, and had had unsatisfactory family relationships in childhood.” For the most part Jenny fits this picture.

Confirming our impression that Jenny is given to self-pity we note (by the method of retrieval) that in 289 sentences she refers to herself in distressing situations of one sort or another. Her preoccupation with death is indicated over and over again, more often than a casual reading of the Letters might suggest.

Every reader notes the aesthetic sensitivity in her nature. By computer count there are 114 sentences dealing with PLEASURE or AFFECTION in relation to objects of art, nature, and literature. “I love the sunset over the Jersey hills.” “I find real pleasure in our old time books.” “One day a customer brought in a lovely nude picture to be framed”: Now this region of her life seems to be free from conflict. Even when Ross enters the aesthetic sphere all her associations are favorable. Therefore, we discover here a point of considerable importance for our structural analysis. This sentient trait in Jenny’s nature has considerable dynamic force, and for the most part it is segregated from the major aspects of her existence. Thus, the computer helps us to discover that her aestheticism is a prominent secondary disposition, relatively independent of the central or cardinal (trouble giving) trends in her nature.

Suppose we now ask the computer to examine the allegation of depth psychology that guilt is an important factor. It does so by retrieving sentences involving SELF, BAD, DEVIATION, GUILT. It turns out that virtually none of Jenny’s statements seems to be self-deprecations. She does admit that “mothers certainly are a nuisance when they are old, and had not sense enough when young to remember that they would not always be young.” Also she states that “I was ashamed, ashamed to have doubted him [Mr. Barter].” But for the most part the retrievals are extropunitive in character: “I always feel kind of ashamed when I see a woman stand up to speak”; or to Betty,

"I have always been labeled the lawless one, the family disgrace, the black sheep who married a divorced man." From this exercise in retrieval we must conclude that Jenny consciously feels little guilt; hence if guilt is a major psychodynamic force in her behavior it must be of the unconscious and repressed order.

Automated content analysis confirms our impression of change in her personality toward the end of her life. More and more she concentrates on herself and her isolation. Memories of Ross seem to fade, especially after she casts his ashes into the sea and burns his photographs. To find support she increasingly, but vainly, turns to her aesthetic values. Her dislike of authority becomes more and more intense. She openly insults the superintendent and battles physically with nurses and inmates. Her fury is so great that the Home feels that she must soon be committed to an institution for the insane.

SUMMARY

Content analysis (whether by hand or computer) provides no golden key to the riddle of Jenny. It does, however, objectify, quantify, and to some extent purify common-sense impressions. By holding us close to the data (Jenny's own words) it warns us not to let some pet insight run away with the evidence. And it brings to our attention occasional fresh revelations beyond unaided common sense. In short, by bringing Jenny's phenomenological world to focus it enables us to make safer

first-order inferences concerning the structure of personality that underlies her existential experience.

It is well to remember, as Berelson (1954) says, that content analysis (whatever form it takes) deals primarily with the "manifest content of communication." It does not directly reveal structure in depth, unless this structure does in fact correspond to the traits we identify by first-order inference—a possibility that the present study tends to affirm.

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1.7

IMPRESSIONISTIC CONTENT ANALYSIS

Word Counting in Popular Media

MARY ANGELA BOCK

As text in electronic form is more readily available and optical character reading and textual analysis software have become cheaper and more accessible, so too have word counts in popular media. These counts make no scientific claims or inferences; instead, they offer their readers the possibility of unconstrained interpretations, based solely on the assumption that word frequencies mean something.

In 2005, Amazon.com added a concordance to the “Inside the Book” portion of its Web sites, alongside other textual analysis features such as a readability index,* a citation index, and a “words to the dollar” index. Senior Product Manager Brian Williams hopes that shoppers might find it fun and return to the site. The concordance simply lists the top hundred most frequent words in a book, using larger fonts to represent the higher frequencies. Simple as it is, says Williams, “People love the concordance.”

Typically, he says, customers like to look at the concordance for books they’ve read before because it’s fun to try to guess what will show

up. For instance, in our examples, it’s no surprise that “*dream*” shows up in a big way on the concordance for Freud’s *Interpretation of Dreams*. Freud was a writer with a rich vocabulary and, as can be seen in the concordance for his book, used its words almost uniformly. But look at the concordance for *War and Peace* by Tolstoy: The word *war* is quite small by comparison, and *peace* doesn’t show up at all. Readers with political interests might find interesting differences between the concordances of the memoirs of two very unlike former U.S. presidents: Richard Nixon and Bill Clinton.

Time magazine published a similar graphic in 2007 following the television appearance of society diva Paris Hilton, who had just been released from prison. The Web page version is interactive: Users could pass their mouse over a word to find the exact frequencies of words from her interview on CNN with Larry King. Each word turned red as a callout displayed the frequency: “285” for *I*, “4” for *scary*, and “16” for *jail*. This simple word count of her interview on CNN with Larry King made it appear that Hilton is remarkably self-centered—though, in

*See reading 3.9, this volume.

<p>Freud's <i>Interpretation of Dreams</i></p> <p>already analysis another between cannot case certain child childhood children come connection content course day does dream dreamer during elements even example experience explanation expression fact father find first following found friend give however ideas impression interpretation itself know life little long man material may meaning means memory might mother must myself new night now occur often once order own part patient person place point possible process psychic quite relation second see seems sexual shall should show since sleep something state still system take therefore though thought thus time two unconscious upon waking whom whose wish without words work years</p>	<p>Tolstoy's <i>War & Peace</i></p> <p>again always andrey another army asked away came come count countless day denisov down emperor even everything eyes face father feeling felt first french general go going good great hand head heard himself horse house know kutuzov left let life little long look looked looking love man marya men moment moscow must napoleon natasha new nikolay nothing now officer old once own people pierre prince princess put right room rostov round russian saw say see seemed side smile soldiers something sonya still take tell thing though thought time told took tsar two voice war went whole without words yes young</p>
<p>Clinton's <i>My Life</i></p> <p>again against america american arkansas asked big bill bush called came campaign come congress country day democrats done down economic election end even family few first friends gave get go going good got government governor help hillary home house including job knew know last later law leaders left life little long lot man months mother national new next night now office old peace people percent political president problems republicans right school see senator several should since state still support tax things though thought three time told took two united vote wanted war washington week went white work world years young</p>	<p>Nixon's <i>Memoirs</i></p> <p>against agreement american asked called came campaign case come committee communist country day dean decided decision down during eisenhower election end even fact felt few first get go going government great haldeman house however issue johnson kissinger knew know later long man may meeting might mitchell must new next night north now office own party pat people point policy political president press problem public put question republican right say see should south soviet speech staff states still support take talk thing think thought time told two united vietnam vietnamese want wanted war washington watergate weeks went whether white world years</p>

Figure 1 Amazon.com's Concordances of Four Books

fairness, she was being interviewed about her own experience and could hardly avoid frequent use of the first-person pronoun *I*.

The *New York Times* occasionally has included word counts for material such as commencement speeches, ads on the popular Internet bulletin board Craig's List, and presidential State of the Union addresses. In 2007, the *Times* offered the feature interactively for its online readers, allowing them to explore the way words ebbed and flowed in the State of the Union addresses by George W.

Bush. The seven State of the Union addresses Bush had delivered to date* averaged about 5,000 words each, about 34,000 words in all. Some words have appeared frequently, others sporadically, and their patterns of use make for interesting conjecture.

Figure 3 presents not only the distribution of a selected word in his speeches, indicating where, in which paragraphs, that word occurred, but also simple word frequencies of several selected words. The *Times* thereby not only provided examples of word frequencies

*As the *Times* points out, in 2001, Mr. Bush was a newly elected president and did not deliver a formal State of the Union address. His speech to a joint session of Congress on February 27, 2001, is used for purposes of the word-counting feature because it served essentially the same political function.

young bed business different drive food friends girl give hour I'd overwhelming Paris pay person pretty scary told trying world again alone
anyone beginning best else experience find girls outside attention cell letters license next read everyone

home never good right new now someone work feel kind we well definitely
family love myself day want hard jail life time
they people I'm me
really yes like
my you



Figure 2 This graphic was created by Fielding Cage for Time.com. Some common words, including pronouns, were excluded from the graphic, which was interactive when viewed on an Internet browser. When users moused their cursor over a particular word, its actual count was displayed. For instance, a callout display of “48” appeared when the mouse passed over the word *like*.

and location but also put a rather sophisticated text analysis software in the hands of anyone with access to the Internet.

In contrast to Amazon's static presentation of concordances, the creator of the *Times* word counter, Ben Werschkul, added an interactive feature which allows users to suggest words to search (personal communication, March 6, 2007). We entered the word *THEY*—the pronoun used to refer to others* not *I*, not *us*. The *Times* interactive feature shows us graphically that word in the context of Bush's speeches and quotes the context of its first occurrence. In

2001, *THEY* were the critics of his educational initiatives. In 2007, the *THEY* was dominated by terrorists. With that in mind, we typed two more words into the *Times* Web site—*EDUCATION* and *ENEMY*—and found, as can be seen in Figure 3, them inversely related (negatively correlated) over time.

Useful claims in content analysis require contextual understanding, formal analytical constructs, appropriate sampling, and the possibility of testing validity. Simple word counts may not be scientifically useful, but they can be suggestive, surprising, and fun.

*For a motivation of this choice, see reading 7.7, this volume.

The word THEY in context

Critics of testing contend it distracts from learning. THEY talk about teaching to the test. But let's put that logic to the test. If you test a child on basic math and reading skills, and you're teaching to the test, you're teaching math and reading. And that's the whole idea. As standards rise, local schools will need more flexibility to meet them. So we must streamline the dozens of federal education programs into five, and let states spend money in those categories as THEY see fit.

– 2001 (Paragraph 15 of 73)



Compared with other words

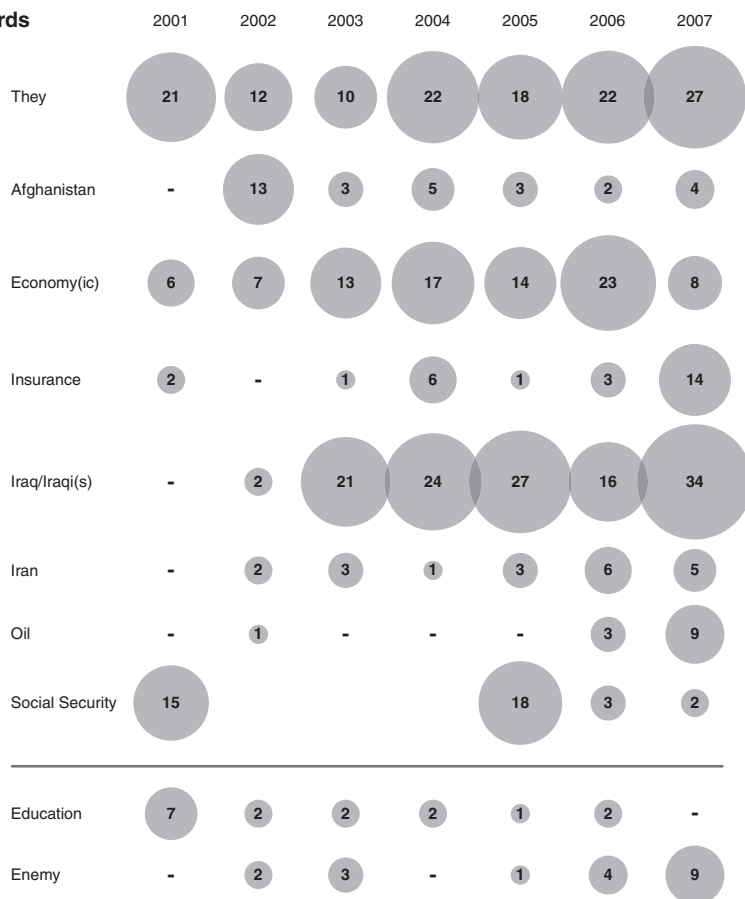


Figure 3 *New York Times'* Account of Word Frequencies and Locations in Texts

