Dedicated to our families
Marge, David, Ross, and Emily, for their support and patience
&
To human coders everywhere . . .

Klaus Krippendorff
The Annenberg School for Communication, University of Pennsylvania

Mary Angela Bock
The Annenberg School for Communication, University of Pennsylvania

SAGE
Los Angeles • London • New Delhi • Singapore
CONTENTS

Introduction ix

PART 1: HISTORY AND CONCEPTION OF CONTENT ANALYSIS

1.1 Quantitative Semantics in 18th Century Sweden 4
   Karin Döring

1.2 Towards a Sociology of the Press: An Early Proposal for Content Analysis 9
   Max Weber

1.3 A Study of a New York Daily 12
   Byron A. Mathews

1.4 The Scientific Analysis of the Press 16
   Alvan A. Tenney

1.5 Propaganda Analysis: A Case Study From World War II 21
   Alexander L. George

1.6 Letters From Jenny 28
   Gordon W. Allport

1.7 Impressionistic Content Analysis: Word Counting in Popular Media 38
   Mary Angela Bock

PART 2: UNITIZING AND SAMPLING 43

Introduction 45

2.1 “Good” Organizational Reasons for “Bad” Clinic Records
   Harold Garfinkel

2.2 Effectiveness of Random, Consecutive Day and Constructed Week Sampling 54
   Daniel Rife, Charles F. Aust, and Stephen R. Lucy

2.3 The Challenge of Applying Content Analysis to the World Wide Web 60
   Sally J. McMillan

2.4 Airplane Fatalities After Newspaper Stories About Murder and Suicide 68
   David F. Phillips

2.5 Interaction Process Analysis 75
   Robert F. Bates

2.6 Structural Analysis of Film 84
   Siegfried Kracauer
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 hole on 16th St. No heat, no window. Ross was out of employment. I was ill—drastically 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. Weighted 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 me $25 monthly. 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 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—$50 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— for 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 $25 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 thin 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 babble away about something else.

*From Allport, G. W. (1963). Letters From Jenny. New York: Harcourt. Excerpt represents pages 7–8, 20, 132–137, and 168–171. Allport’s book is based on 101 letters from 1926 to 1937, nearly all of them to his 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.
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 is.

Best love,

Lady M.

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, sordid 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. I seem the 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"—there 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.

Jenny's Traits

Some psychologists find fault with the depth approach, regarding it as elaborate, speculatively, and largely un-verifiable. Better not manufacture for Jenny, they would say, un 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 common-sensical 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.

<table>
<thead>
<tr>
<th>1. Quirky/Suspicious</th>
<th>2. Self-Centered</th>
<th>3. Independent/Autonomous</th>
</tr>
</thead>
<tbody>
<tr>
<td>distrustful</td>
<td>selfish</td>
<td>self-reliant</td>
</tr>
<tr>
<td>paranoid</td>
<td>jealous</td>
<td>scrupulous</td>
</tr>
<tr>
<td>rebellious</td>
<td>possessive</td>
<td>hardworking</td>
</tr>
<tr>
<td>prejudiced</td>
<td>egocentric</td>
<td>frugal</td>
</tr>
<tr>
<td>bellicose</td>
<td>proud</td>
<td>courageous</td>
</tr>
<tr>
<td>opinionated</td>
<td>snobbish</td>
<td>persistent</td>
</tr>
<tr>
<td>tactless</td>
<td>martyr complex</td>
<td>stubborn</td>
</tr>
<tr>
<td>misgiving</td>
<td>self-sacrificing</td>
<td>exclusive</td>
</tr>
<tr>
<td>etc.</td>
<td>over-sacrificial</td>
<td>calculating</td>
</tr>
<tr>
<td>etc.</td>
<td>etc.</td>
<td>solitary</td>
</tr>
</tbody>
</table>

4. Dramatic/Intense

emotional
rigid
serious
temperamental
vigor
violent
volatile
self-dramatizing
etc.

5. Aesthetic/Artistic

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

6. Aggressive

ascendant
indomitable
dominating
self-assertive
assertive
forceful
recallant
etc.

7. Cynical/Morbid

pessimistic
sarcastic
dissuasion
humorless
dependent
frustrated
insure
hypochondriacal
fixation on death
etc.

8. Sentimental

retrospective
loyal
affectionate
dweller in the past
mature
etc.

Unclassified

(13 terms out of 198)
intelligent
predictable
inconsolable
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 quarrelsome 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, volatile/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.
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-indication: everything seems to be conditioned 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 do constitute: 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 phenomenological. The root themes, the geneotypes, lie completely buried—perhaps in the confusion of sex identity or other early Oedipal conflict.

Whether we favor unconscious geneotypes or whether we believe that her learned dispositions are themselves geneotypical, 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 Claire Graham will turn to savagery, 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 "clip." The Hone 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 unstainness 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 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, 1931). 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.
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 “whore,” 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, Bates, Nam=enwirth, & 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.

<table>
<thead>
<tr>
<th>Trait</th>
<th>Mode of Expression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggression</td>
<td>Deprecatory, invective, especially directed at Ross and women; anger; arguments with Ross. Indirectly expressed in travel and job hunting.</td>
</tr>
<tr>
<td>Possessiveness</td>
<td>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.</td>
</tr>
<tr>
<td>Need for Affiliation</td>
<td>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 description of her distress, intended (probably unconsciously) to invoke sympathy.</td>
</tr>
<tr>
<td>Need for Autonomy</td>
<td>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.</td>
</tr>
<tr>
<td>Need for Familial Acceptance</td>
<td>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.</td>
</tr>
<tr>
<td>Sexuality</td>
<td>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.</td>
</tr>
<tr>
<td>Sentence</td>
<td>Jenny’s love of art, literature, and natural beauty. Also expressed by her need to be dependent on Glenn and Isabel.</td>
</tr>
<tr>
<td>Martyrdom</td>
<td>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.</td>
</tr>
</tbody>
</table>

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 conical-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 by 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 towards 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

---

*See reading 5.2, this volume, on dictionary building.
Table 2

<table>
<thead>
<tr>
<th>Factorial Traits</th>
<th>Common-Sense Traits</th>
</tr>
</thead>
<tbody>
<tr>
<td>aggression</td>
<td>quarrrelsome-suspicious</td>
</tr>
<tr>
<td>possessiveness</td>
<td>self-centered</td>
</tr>
<tr>
<td>need for affiliation</td>
<td>sentimental</td>
</tr>
<tr>
<td>need for family acceptance</td>
<td>independent-autonomous</td>
</tr>
<tr>
<td>sentence</td>
<td>aesthetic-artistic</td>
</tr>
<tr>
<td>martyrdom</td>
<td>self-centered</td>
</tr>
<tr>
<td>sexuality</td>
<td>(no parallel)</td>
</tr>
<tr>
<td>(no parallel)</td>
<td>cynical-no-nobility</td>
</tr>
<tr>
<td>(no parallel)</td>
<td>dramatic-intense</td>
</tr>
</tbody>
</table>

associations with GOOD, AFFECTION, and PLEASURE—a pattern virtually nonexistent for women. A close analysis shows that Jenny expresses more affect 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 granting 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 Cotrell 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 sensitive 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 extraposition 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 increases, 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.

REFERENCES


