FREQUENCY DICTIONARY OF
ITALIAN WORDS

# FREQUENCY DICTIONARY OF ITALIAN WORDS 

by

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## INTRODUCTION

## 1. PREVIOUS ATTEMPTS

While several statistical investigations of the French and Spanish vocabularies have been undertaken ${ }^{1}$, few have been devoted to Italian. Moreover, the limited word counts of Italian texts made in the United States have not been published, and their results have remained generally inaccessible to the scholarly public.

Essentially, there has been one small word count aiming at a basic vocabulary of 500 words drawn from a comparison of the vocabularies of Italian grammars and readers; another aiming at 2000 words extracted from literary sources; an essential Italian vocabulary of 1500 words; and still another aiming at 3000 words established on a presumably intuitive basis by comparing Italian textbooks ${ }^{2}$.

### 1.1 Thompson, A Study in Italian Vocabulary Frequency (1927)

The purpose of Miss Thompson's Master's thesis ${ }^{3}$ was to establish an objective vocabulary of 500 words for first year Italian students. The sample underlying Miss Thompson's ranking supposedly consists of 100,000 words drawn from ten Italian reading textbooks edited in the United States. The number of words counted is actually smaller because functional words as well as some very frequent lexical words were ignored.

Words were counted on every tenth page of each book, except for articles, pronouns, demonstrative and possessive adjectives, certain functional adverbs, prepositions, conjunctions, numerals, names of days, months and seasons, cardinal points, proper and geographical names, and interjections of less than four letters. However, these words were included in the estimated size of the sample.

Verb and adjective variants, the singular and plural of nouns, etc., were not distinguished: noun variants are lumped together under the singular, adjective variants under the masculine singular, verb variants under the present infinitive. Certain syntactic homographs are distinguished by a part of speech abbreviation: bene adv. and bene n., male adv. and male n. (but not peggio, meglio, meno, mezzo, etc.); however, we are not told whether diritto is a noun, an adverb or an adjective, dolce a noun or an adjective, parere a noun or a verb, verso an adverb or a noun, etc. Nor do
${ }_{1}$ Cf. A. Juilland, D. Brodin, and C. Davidovitch, Frequency Dictionary of French Words (The Hague 1970), pp. XVI-LXX.
${ }_{2}$ For a discussion of the recent Lessico di frequenza della lingua italiana by U. Bortolini, C. Tagliavini, and A. Zampoli (Milano 1971) see our forthcoming paper Frequency Dictionary of Italian Words and Lessico di frequenza della Lingua Italiana.
${ }^{3}$ Mary Elizabeth Thompson, A Study in Italian Vocabulary Frequency, University of Iowa Master's Thesis, 1927.

## INTRODUCTION

we know whether opera means "work" or "opera", paese "country" or "village", signore "mister", "ladies" or "Lord", tendere "to tend" or "to stretch", nome "name" or "noun", etc.

Two coefficients are given for each entry, the "frequency" and the "weighted total". The frequency coefficient (the number of times the word occurred in the sample) ranges from a high of 2,970 (the verb essere) to a low of 30 , shared by fifteen words. The weighted total, an interesting but questionable attempt to combine frequency and dispersion, was established by multiplying the frequency by the square root of the square nearest to the number of sources in which the word occurred. For instance, guardare had 289 occurrences and was found in all ten sources; 289 was multiplied by 3 , the square root of ten to the nearest integer, for a weighted total of 867 . This procedure was borrowed from E. Horn, A Basic Writing Vocabulary. ${ }^{4}$

The dictionary consists of two parts. In the first, the 500 entries, followed by part of speech abbreviations only when necessary to distinguish between syntactic homonyms, are listed in decreasing order of frequency. The second part provides the same 500 entries in alphabetical order.

### 1.2 Knease, An Italian Word List from Literary Sources (1931)

Four years after Miss Thompson's pioneering word count, Miss Knease defended, a more ambitious work at the same university. ${ }^{5}$ While Miss Thompson was interested in establishing a vocabulary for students of beginning Italian, Knease concentrated on the needs of more advanced students, and aimed at a list of about 2,000 words.

The sample underlying An Italian Word List consists of 400,000 words, which is equivalent to the sample Henmon had found satisfactory for his A French Word Book. ${ }^{6}$ However, as in Thompson's count, the elimination of a large number of high frequency words considerably reduces the actual size of the sample drawn from the works published by forty authors from 1850 to 1930, selected from a list published in Italica. ${ }^{7}$ Restricted to "literary sources," the sample consists of novels, short stories and plays, some verse, a few volumes of literary criticism, and two works of history. Because of their specialized vocabulary, "no war books, no books purely scientific, religious, or philosophical" were included.

All words on every fifth page in each book were counted, except for many functional words, all foreign words, numerals, and geographical names. Miss Knease, who justifies these omissions in view of the pedagogical purpose of her word list, shows some inconsistency in explaining that such high frequency items as "avere, buono, come, cosi, dopo, nuovo, and about fifty others" were included "in order that this first extensive investigation in Italian may present data for all words which might be of interest to any teacher or student." The author's somewhat arbitrary decision concerning what might be of interest is unfortunate.

Inflected forms of nouns, verbs, and adjectives were counted together under the invariant form. Some variants such as leggero and leggiero, danaro and denaro, domani, dimani and dimane, etc., were listed as sub-entries but not counted separately. Feminine nouns with masculine equivalents, such as ragazza, zia, etc., were counted under the masculine ragazzo, zio, etc. Syntactic homonyms

4 Ernest Horn, "A Basic Writing Vocabulary", University of Iowa Monographs in Education. First Series, No. 4, 1926.
${ }^{5}$ Tacie Mary Knease, An Italian Word List From Literary Sources, Iowa State University Doctoral Dissertation, 1931.

- V.A.C. Henmon, A French Word Book, Based on a Count of 400,000 Running Words, Bureau of Educational Research Bulletin, No. 3, September, 1924. University of Wisconsin.
7 "A Five Foot Shelf of Modern Italian Literature", Italica, August 1925, Vol. 2, No. 3.
such as ora n . and ora adv. are distinguished by part of speech abbreviations; lexical homonyms are not distinguished.

Coefficients of range (the number of sources in which the word occurred) and frequency (the number of occurrences) are given for each entry.

The final list contains 2,097 entries, presumably all words with a range of 9 or more. The entries are presented in decreasing order of range ("since it is generally conceded that a word appearing in a wide range of sources is more useful than one of higher frequency but of lower range") and in alphabetical order. Part of speech is provided only when necessary to distinguish between certain syntactic homonyms.

### 1.3 Skinner, A Comparative Study of the Vocabularies of Forty-Five Italian Textbooks (1935)

Mr. Skinner's purpose was to establish a list of about 3,000 words, based on the vocabulary of Italian grammars and readers used in American high schools and colleges. ${ }^{8}$

The sample was drawn from "all Italian texts supplied with vocabularies issued by standard American publishers," and it included twenty grammars, composition books, and readers, as well as twenty-five literary reading texts. Instead of counting all textual occurrences, Mr. Skinner took note only of words included in the vocabulary section of each book, a method which detracts from the validity of the results: the verb essere, for instance, which obviously must appear in all 45 sources, has a range of 41 , apparently because text editors differ on what words should be included in vocabulary sections.

Inflected forms, identical cognates, and a large number of functional words were excluded from the count.

Lexical homonyms are distinguished by an English translation, and syntactic homonyms by a part of speech abbreviation. Occasional variants are indicated, for example: fra and tra, entro and dentro, comprare and comperare, movere and muovere, etc.

Because of the method of counting, only range coefficients could be given. The list includes 2,962 words with a range of 10 or more. English translations and part of speech abbreviations accompany the entries only when required by the distinction of homonyms.

### 1.4 Migliorini, Der Grundlegende Wortschatz des Italienischen (1943)

Although Professor Migliorini provides, in his brief introduction, no indication of how he arrived at the 1,500 most common words ("die 1500 wesentlichsten Worter") contained in his dictionary, ${ }^{9}$ we assume that his choices were guided by partial word counts.

Each entry is accompanied by a phonetic transcription, a gender abbreviation in the case of nouns, principal parts of verbs, and a German translation. 500 words are printed in bold-face type, and are recommended by Professor Migliorini for first year students.

[^0]
## 2. SAMPLE

In establishing the lexical universe from which sentences were selected at random, we followed the principles outlined in the Introduction to the Frequency Dictionary of Spanish Words ${ }^{10}$ and further elaborated in the Introduction to the Frequency Dictionary of French Words. ${ }^{11}$

The purpose of the selection was to strike an appropriate balance between unity (homogeneity) and diversity (heterogeneity): the sample had to be homogeneous enough to represent more than a mechanical agglomeration of data borrowed from different periods or from different levels of style; and sufficiently diversified to be truly representative of the standard language, not only of a particular genre or style.

To reach these objectives, we restricted our samples to publications issued mainly between the years 1920 and 1940, as listed in the Union Catalogue of the Library of Congress; we discarded papers as well as writings that were too dialectal or popular in character.

For reasons discussed elsewhere ${ }^{12}$, we chose to operate with a lexical universe of about 500,000 words divided into five equal subsamples of 100,000 words as follows:

1) Dramatic literature: plays;
2) Fictional literature: novels and short stories;
3) Essayistic literature: essays, memoirs and correspondence;
4) Periodical literature: editorials, news, advertizing, etc., in dailies, weeklies, and monthlies;
5) Technical literature: medicine, botany, engineering, agronomy, etc.

The method of selection in the three "literary" or "creative" genres, plays, fiction, and essays, differed from the method followed in the "nonliterary" genres of periodical and technical literature. For the creative genres, we first established a list of about 100 representative authors, on the basis of information contained in the indices and tables of contents of a number of histories of Italian literature. ${ }^{13}$ This first list served as a basis for a second one, consisting of nearly 500 titles by selected authors and listed in the Union Catalogue of the Library of Congress. After assigning each title to the appropriate genre, we selected at random three lists, one for dramatic literature, another for fictional literature, still another for essayistic literature.

A different procedure was followed for the "non-literary" genres: for periodical literature, we aimed for as wide a selection as possible of news, editorials, advertizing, etc.; for technical liteıature, we tried to secure texts from a great variety of scientific disciplines: aeronautics, agriculture, archeology, architecture, astronomy, anthropology, botany, chemistry, economics, fishery, genetics, geography, geology, home economics, hygiene, linguistics, law, mathematics, medicine, peleontology, physics, political science, sociology, zoology, etc.

### 2.1 Plays

Sentences were sampled from the following 60 plays by 27 different authors:
10 The Hague 1964, sections 1.1211 and 1.1212 .
${ }^{11}$ The Hague 1970.
12 Cf. FDSW
${ }^{13}$ Pietro Azzarone, Storia della Letteratura Italiana, Napoli 1965. Francesco Flora, Storia della Letteratura Italiana, Firenze 1957. Attilio Momigliano, Storia della Letteratura Italiana, Milano 1963. Orientamenti Culturali: Letteratura Italiana, Milano 1963. Francesco Pedrina, Poesia e Critica, Milano 1960. Arturo Pompeati, Storia della Letteratura Italiana, Torino 1962. Natalino Sapegno, Compendio di Storia della Letteratura Italiana, Firenze 1965. Raffaele Spongano, Schemi di Storia della Letteratura Italiana, Bologna 1965. Rosario Tosto, Storia della Letteratura Italiana, Firenze 1957.
L. Antonelli La fiaba dei tre maghi (1920)
L. Antonelli

Bernardo l'Eremita (1927)
L. Antonelli

Il dramma, la commedia, la farsa (1927)
S. Benelli

Ali (1921)
S. Benelli

La santa primavera (1923)
S. Benelli

Adamo ed Eva (1932)
S. Benelli

Il vezzo di perle (1934)
S. Benelli
S. Benedetti
M. Bontempelli

L'elefante (1937)
M. Bontempelli
M. Bontempelli

La vendetta del chiaro di luna (1927)
Nostra Dea (1925)
Minnie, la candida (1929)
A. Campanile

Bassano, padre geloso (1934)
A. Campanile

Centocinquanta la gallina canta (1925)
A. Campanile

L'inventore del cavallo (1925)
G. Cantini

L'amore fa fare questo e altro (1930)
G. Chiarelli

È tornato carnevale (1930)
L. Chiarelli
L. Chiarelli

Chimere (1930)
G. Civinini

Pulcinella (1939)
E. Corradini
E. Corradini

Rottami (1929)
Giulio Cesare (1926)
G. Forzano
G. Forzano
G. Forzano

L'apologo delle due sorelle (1929)
Lorenzino (1923)
I fiordalisi d'oro (1924)
G. Forzano
G. Forzano
G. Forzano e F. Paolieri
A. Fraccaroli
A. Fraccaroli

Gutibi (1926)
Campo di Maggio (1931)
Napoleone e le donne (1930)
Maestro Landi (1925)
Peccato biondo (1929)
S. Gotta Peccato di poesia (1924)
S. Gotta Il primo peccato (1939)
A. Guglielminetti
F. Lanza
C. V. Lodovici

Nei e cicisbei (1926)
Fiordispina (1928)
L. Macina
F. M. Martini

La donna di nessuno (1926)
F. M. Martini
E. L. Morselli
E. L. Morselli
D. Niccodemi
D. Niccodemi
L. Pirandello
L. Pirandello

Il dormiglione risvegliato (1930)
L'altra Nanetta (1923)
La sera del trenta (1926)
Glauco (1922)
Belfagor (1930)
L'alba, il giorno, la notte (1925)
Scena vuota (1922)
Sei personaggi in cerca d'autore (1923)
La vita che ti diedi (1924)
L. Pirandello La signora Morli una e due (1925)
L. Pirandello Diana e la tuda (1927)
L. Pirandello O di uno o di nessuno (1929)

## INTRODUCTION

| F. V. Ratti | Il solco quadrato (1921) |
| :--- | :--- |
| F. V. Ratti | Bruto (1925) |
| F. V. Ratti | Socrate $(1927)$ |
| F. V. Ratti | Termiti $(1928)$ |
| L. Repaci | La barba alla morte $(1926)$ |
| L. Repaci | Favola di Martini $(1927)$ |
| L. Repaci | Luciano (1930) |
| G. Rocca | Le pecorelle $(1925)$ |
| G. Rocca | Il re povero (1939) |
| R. di San Secondo | Il minuetto dell'anima nostra $(1923)$ |
| R. di San Secondo | Lazzarina tra i coltelli $(1925)$ |
| O. Vergani | Il cammino sulle acque $(1927)$ |
| C. G. Viola | Il cuore in due $(1926)$ |
| C. G. Viola | Fine del protagonista $(1931)$ |
| G. Zorzi | Le due metà 1922$)$ |
| G. Zorzi | La vita degli altri $(1926)$ |
|  |  |

### 2.2 Fiction

Sentences were sampled from the following 55 novels or short stories by 40 different authors:
A. Albertini
R. Bacchelli
R. Bacchelli
A. Beltramelli
M. Bontempelli
M. Bontempelli
G. A. Borgese
G. Brocchi
V. Brocchi
V. Brocchi
A. Campanile
G. Caprin
L. Capuana
F. Chiesa
B. Cicognani
D. Cinelli
G. Comisso
G. Comisso
M. Dandolo
M. Dandolo
M. Dandolo
M. Dandolo
M. T. Dazzi
G. Deledda
G. Deledda

Cresco (1937)
Mal d'Africa (1935)
Il rabdomante (1936)
Tre bimbe a vendere! (1920)
"522", Racconto di una giornata (1932)
Gente nel tempo (1937)
Le belle (1927)
La rocca sull'onda (1926)
Il destino in pugno (1924)
L'arcolaio (1924)
Se la luna mi porta fortuna (1928)
Quirina e Floriana (1931)
La sfinge (1921)
Sant'Amarillide (1938)
Il museo delle figure viventi (1928)
Cinquemila lire (1930)
Avventure terrene (1935)
Gente di mare (1929))
Il vento nella foresta (1922)
Il dolore degli altri (1928)
Le stelle nel mare (1924)
Come agnelli tra i lupi (1931)
Città (1936)
La madre (1928)
La casa del poeta (1930)

| G. Deledda | Il paese del vento (1931) |
| :---: | :---: |
| A. Gatti | Ilia e Alberto (1930) |
| S. Gotta | La donna mia (1924) |
| S. Gotta | Portofino (1936) |
| A. Guglielminetti | Quando avevo un amante (1933) |
| C. Linati | Sulle orme di Renzo (1919) |
| C. Linati | La principessa delle stelle (1924) |
| A. Marpicati | Piccolo romanzo di una vela (1922) |
| M. Messina | Alla deriva (1920) |
| P. Mignosi | Gioia d'Agave (1934) |
| G. Milanesi | La sera di Santa Barbara (1938) |
| G. Milanesi | La sperduta di Allah (1927) |
| I. Montanelli | Giorno di festa (1939) |
| A. Moravia | La bella vita (1935) |
| M. Moretti | La voce di Dio (1921) |
| M. Moretti | La vera grandezza (1925) |
| A. Negri | Stella mattutina (1927) |
| A. Panzini | Il mondo è rotondo (1920) |
| A. Panzini | Novelline divertenti per bambini intelligenti (1934) |
| L. Pietravalle | I racconti della terra (1924) |
| M. Puccini | Dove è il peccato è Dio (1922) |
| L. Repaci | L'ultimo cireneo (1923) |
| G. Rocca | L'uragano (1929) |
| B. Sanminiatelli | Le pecore pazze (1920) |
| R. di San Secondo | La festa delle rose (1921) |
| M. Saponaro | La giovinezza (1926) |
| N. Savarese | Ricordi di strada (1922) |
| G. da Verona | Mata Hari (1926) |
| C. G. Viola | Pricò (1924) |
| L. Zuccoli | Kif Tebbi (1923) |

### 2.3 Essays

Sentences were sampled from the following 50 essays by 42 different authors:
C. Alvaro
C. Angelini
A. Baldini
B. Barilli
A. G. Bragaglia
A. Cajumi
R. Calzini
A. Capasso
G. Caprin
E. Cecchi
F. Chiesa

Calabria (1931)
Testimonianze cattoliche (1928)
Amici allo spiedo (1932)
Il sorcio nel violino (1926)
Sotto palco (1937)
Galleria (1930)
Spagna (1930)
Saper distinguere (1934)
Sommario storico della guerra universale (1921)
Scrittori inglesi e americani (1935)
Svizzera italiana (1931)

## INTRODUCTION

E. Corradini L'unità è la potenza delle nazioni (1926)
B. Croce

Nuove curiosità storiche (1922)
B. Croce

La poesia di Dante (1921)
B. Croce
B. Croce

L'Italia dal 1914-1918 (1919)
Cultura e vita morale (1926)
A. Fraccaroli
R. Franchi
G. Gentile
G. Gentile
S. Di Giacomo
U. E. Imperatori
C. Linati

Hollywood paese d'avventura (1929)
L'europeo sedentario (1929)
Giordano Bruno e il pensiero del rinascimento (1925)
Che cosa è il fascismo (1925)
I quattro antichi conservatori musicali di Napoli (1924)
Italia prodiga (Gli italiani all'estero) (1925)
C. Malaparte
C. Marchesi
F. T. Marinetti
A. Marpicati
A. Marpicati

Irlanda (1940)
Italia barbara (1926)
Seneca (1944)
Il fascino dell' Egitto (1933)
F. M. Martini
F. M. Martini
P. Monelli
B. Mussolini
D. Niccodemi
U. Ojetti
A. Panzini
G. Papini

Nella vita del mio tempo (1934)
Il dramma politico di U. Foscolo (1928)
Cronache teatrali (1923)
Cronache drammatiche $(1922,1923)$
Viaggio alle isole freddazzurre (1926)
L'Italia nel mondo (1928)
Tempo passato (1929)
Scrittori che si confessano (1926)
G. Papini

Diario sentimentale della guerra (1923)
P. Rebora
L. Repaci
G. De Ruggiero

Storia di Cristo (1923)
Gog (1931)
L. Russo
E. Ruta
N. Savarese

Jonathan Swift (1922)
Ribalte a lumi spenti (1941)
L'Impero britannico dopo la guerra (1921)
Giovanni Verga (1934)
Politica e ideologia (1929)
G. Stuparich

Cose d'Italia (1940)
G. Stuparich
A. Tilgher
G. Toffanin
D. Valeri

Colloqui con mio fratello (1925)
Guerra del '15 (1931)
Homo faber (1929)
La fine dell' Umanesimo (1920)
Fantasie veneziane (1934)
L. Viani Storie di umili titani (1934)
E. Vittorini e G. Ferrata La tragica vicenda di Carlo III (1939)

### 2.4 Newspapers and Magazines

Sentences were sampled from the following 32 newspapers and magazines:
Affari Esteri (1935)
Corriere della Sera $(1921,1929,1936,1937)$

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Corriere Mercantile (1920)
La Critica Politica (1938)
La Cultura (1934, 1935)
Casabella (1939)
Domus (1928, 1930, 1936)
Dramma (1925, 1940)
Il Giornale d'Italia (1929, 1931)
L'Illustrazione Italiana (1920, 1924, 1931, 1932, 1933)
L'Italiano (1931, 1932, 1933)
Il Lavoro d'Italia (1926)
Il Mattino (1924, 1926)
Il Mondo Classico (1931)
L'Osservatore Romano (1922, 1925, 1939)
Panorama (1939)
Il Popolo d'Italia (1925, 1930, 1933, 1936, 1940)
ll Popolo di Roma (1925, 1926)
Rassegna Monetaria (1937)
Rassegna Numismatica (1931)
Relazioni Internazionali (1935, 1939, 1940)
Rivista del Lavoro Commerciale (1933)
Rivista Geografica Italiana (1930, 1936)
Sapere (1937, 1938)
Il Secolo (1921, 1927)
Il Secolo, La Sera (1928, 1939)
Secolo Nostro (1939)
Tempo (1939, 1940)
Le Tre Venezie (1925)
La Tribuna (1923, 1939)
Umanità nova (1920)
Viaggi e Soste in Italia (1939)
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### 2.5 Technical and Scientific Writings

Sentences were sampled from the following 33 publications:
Annali dell'Ufficio Presagi, Ministero dell'Aeronautica, Direzione Generale dei Servizi del Materiale e degli Aeroporti (1932)
Annali di Botanica $(1933,1934)$
Annali di Matematica Pura ed Applicata (1924)
Archivio Botanico (1936)
Archivio Glottologico Italiano (1929)
Archivio per l'Antropologia e l'Etnologia (1927)
Archivio Zoologico Italiano (1926)
Atti della Reale Accademia d'Italia (1932)
Atti della Reale Accademia Nazionale dei Lincei $(1930,1931)$
Atti della Reale Accademia delle Scienze Fisiche e Matematiche (1927)

## INTRODUCTION

Atti della Accademia Reale delle Scienze di Torino $(1927,1928)$
Bollettino del Comitato per la Geodesia e la Geofisica del Consiglio Nazionale delle Ricerche (1934, 1935, 1936, 1937)
Bollettino del Reale Ufficio Geologico d'Italia (1922, 1923)
Bollettino d'Informazioni del Consiglio Nazionale delle Ricerche (1930, 1931)
Bollettino di Paletnologia Italiana $(1930,1935)$
Circolo Matematico di Palermo (1931)
Consiglio Nazionale delle Ricerche - Istituti e Laboratori Scientifici Italiani (1931)
Consiglio Nazionale delle Ricerche - La Ricerca Scientifica ed il Progresso Tecnico nell'Economia Nazionale (1932, 1934, 1935, 1936, 1938, 1940)
L'Elettrotecnica (1936)
Minerva Medico-Legale (1923)
Ministero dell'Aeronautica - Aviazione Civile e Traffico Aereo (1926)
Nuovo Bollettino di Archeologia Cristiana (1920)
Nuovo Cimento (1924)
Ricerche Astronomiche (1939)
Rivista di Antropologia $(1928,1929)$
Rivista di Archeologia Cristiana della Pontificia Commissione di Archeologia Sacra (1930)
Rivista di Parasitologia (1937)
Rivista Geografica Italiana (1921, 1922, 1934, 1937)
Rivista Internazionale di Scienze Sociali e Discipline Ausiliarie (1920)
Rivista Italiana di Sociologia (1921)
Scientia Genetica (1939)
Servizio Geologico d'Italia (1924)
Unione Matematica Italiana - Bollettino (1935)
From these sources, sentences were sampled in such a way as to approximate as closely as possible the desired amount of 100,000 words per genre, by taking into consideration the number of volumes retained in each genre and the estimated average number of pages per volume, sentences per page, and words per sentence. ${ }^{14}$

## 3. INTERPRETATION

A word count must determine which words occur in the sample, how many times each word occurs, and how evenly the occurrences are spread through the sample. Such information enables the linguist to make predictions about the occurrence of words, parts of words, classes of words, or categories of words in larger samples and, under certain conditions, in the language as a whole. To this end, one must determine forms correctly by resolving ambiguous instances of segmentation in the text, of identification in the system.

### 3.1 Textual problems: Segmentation

In the text, the question is whether certain constructions are to be interpreted as one word or two

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4 Cf. FDSW.
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or more words, whether adjacent morphemes are to be interpreted conjunctively, as parts of the same word, or disjunctively, as parts of different words.

Problems of segmentation arise in languages in which words are not well individualized: phonologically, their autonomy is not marked by segmental or suprasegmental features; grammatically, they seldom occur as minimum utterances, have narrow distributional or substitutional ranges, show restricted privileges of occurrence relative to larger syntactic units, are not normally permutable in the sentence, cannot be disjoined by means of insertion, etc. In such languages the autonomy of the word cannot be verified by means of distributional, substitutional, permutational, transformational, or inseıtional testing.

Fortunately, Italian words are well defined. An inflectional language, Italian expresses grammatical relations by predominantly morphological means: functional morphemes, be they free like particles and clitics, or bound like affixes and flexives, mark the boundaries of lexical words, which are syntactically free, i.e., have wide distributional and substitutional ranges and are easily permutable or disjoined by insertion. Physically, the independence of Italian words is marked by a relatively free stress which correlates highly with lexical words: unlike French, where phenomena of liaison and enchainement often place word boundaries at the very heart of a syllable, Italian word boundaries are strengthened by syllabic ictus, with every word boundary a syllable boundary. The autonomy of Italian words is further reinforced by distributional rules which restrict the occurrence of final consonants.

The unambiguous status of Italian words is illustrated by the scarcity of constructions spelt sometimes as one word (with no space between the constituents,) sometimes as two (with a blank space in between), and sometimes linked by a hyphen. In inflectional languages, ambiguous segmentation generally involves compounds and clitics. Italian compounds are spelt as a rule in one word: benchè, chissà, finora, giacchè, iersera, poichè, stamane, stasera, etc. Functional words, however, are sometimes agglutinated to an adjacent word: prepositions to a following article, e.g., al, all', agli, alla, alle, etc., pronouns to a preceding verb, e.g., venderlo, vendergli, vendermelo, etc.

Conjoined prepositions and articles are:
a: agl', agli, all', alla, alle, allo
con: cogli, coi, col, coll', colla, colle
da: dagl', dagli, dai, dal, dall', dalla, dalle, dallo
di: degl', degli, dei, del, dell', della, delle, dello
in: negl', negli, nei, nel, nell', nella, nelle, nello
su: sugli, sui, sul, sull', sulla, sulle, sullo
Object pronouns conjoined with the preceding verb are: $-c i,-g l i,-l a,-l e,-l i,-l o,-m i,-s i,-t i$, and $-\nu i$. When two pronominal clitics are agglutinated to the same verb, the indirect, $-c e-$, $-g l i e-,-m e-$, $-t e-$, or $-v e-$, precede the direct, $-l a,-l e,-l i,-l o$, or the particle $-n e$. Since distributional limitations restrict the combination of ten pronominal forms and 25 indirect + direct pronominal sequences with verbal forms, a typical verb such as mandare may exhibit no less than 269 enclitically agglutinated variants.

We have interpreted both types of construction disjunctively, as two or three words, rather than follow the conjunctive interpretation embodied in spelling. Occurrences of such graphic units have been counted two or three times: allo etc. under the preposition a and under the article lo, venderlo etc. under the verb vendere and under the direct pronoun lo, vendermelo etc. under the verb vendere, under the indirect pronoun mi, and under the direct pronoun lo. Constructions conjoining a preposition with an article have been entered under both: allo appears under the preposition a

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and under the article lo because of the relatively limited number of such constructions and the very high frequency of their occurrence. However, constructions conjoining pronominal objects with a preceding verb (vendiamolo, vendiamogli, vendiamogliela, etc.) are not entered separately under vendere, but computed under vendiamo in order to provide accurate totals for the occurrences of verbal heterographs.

### 3.2 Systematic problems: Identification

In the system, problems of identification involve homographs, which are identical occurrences of different words; and heterographs, which are different occurrences of the same word.

### 3.21 Heterographs

Heterographs are "structural" or "cultural" depending on whether they are conditioned by linguistic factors in the text or in the system, or by interference of a different level of style, an earlier stage of the language, or another dialect.
3.211 Cultural. - The variants we call "cultural" are sometimes restricted to spelling, but there are instances in which they reflect also differences in pronunciation.
A. Spelling. With its strong literary tradition, Italian offers relatively few instances of alternative spelling. Most graphic variants involve geminate or affricate consonants: imaginare or immaginare, imagine or immagine, sodisfatto or soddisfatto, sopratutto or soprattutto; bilance or bilancie, facce or faccie, guance or guancie, minacce or minaccie, rocce or roccie, tracce or traccie, sufficente or sufficiente, as well as piogge or pioggie. We may add rare instances of hesitation between a vowel and a semivowel such as aiuta or ajuta, aiuti or ajuti.
B. Pronunciation. Alternative spellings which imply differences in pronunciation are stylistic, archaic, or dialectal. They involve words containing affricates such as annunciare or annunziare, rinunciare or rinunziare, as well as servizio or servigio. Other words show hesitation between a simple vowel and a diphthong: bono or buono, core or cuore, figliolo or figliuolo, giocare or giuocare, risonare ol risuonare, sonare or suonare. Still others are plurals which alternate between a simple and double vowel: anniversari and anniversarii, domini or dominii, finanziari or finanziarii, necessari or necessarii, principi or principii, propri or proprii, vari or varii. One must add isolated heterographs such as denaro or danaro, stamane ol stamani, stromento or strumento.

Such variants have been kept apart, their coefficients being totalized under the same entry word. 3.212 Structural. - The variants we call "structural" are syntagmatic, determined by and predictable from their textual environmment, and paradigmatic, expressing different grammatical relations or categories.
3.2121 Syntagmatic. - Among variants conditioned by the phonological environment, Italian distinguishes elisions, which suppress a final vowel before a word beginning with a vowel (la madre but l'artista), from truncations, which suppress a final vowel or consonant-vowel before words beginning with a consonant (ancora ieri but ancor più, grande affare but gran donna).
A. Elision. This phenomenon affects words ending in $=a,=e,=i$, or $=0$. Forms with elided variants which appear in our dictionary are:

[^1]B. Truncation. This phenomenon affects words ending in $=a,=e,=i$, and $=0$. Forms with truncated variants which appear in our dictionary are:

## $=a$ : allora, ancora, suora

$=e$ : affare, altare, amore, ardore, bicchiere, bene, canale, cane, carbone, cavaliere, colore, commendatore, correzione, cuore, direttore, dottore, ebbene, emigrazione, essere, fare, legione, maggiore, male, mare, migliore, minore, mortale, neppure, niente, occidentale, odore, padrone, pane, particolare, professore, quale, ragione, resurrezione, rigore, sale, salone, sapore, sebbene, signore, singolare, sole, sostanziale, speciale, spessore, splendore, superiore, umore, valore, vile, and many infinitives in -are, such as abbandonare.
$=i$ : cavalieri, fuori
$=0$ : alcuno, anziano, cammino, capitano, castello, ciascuno, filo, fino, loro, meno, mio, nemmeno, nessuno, ognuno, perfino, piano, pieno, seno, sino, tenero, uomo, vano, vero, and many verbal forms in -ano, such as abbandonano.
3.2122 Paradigmatic. - These are word variants which express differences in number for nouns; in gender and number for adjectives and articles; in gender, number, person, and case for pronouns; in mode, tense, number, person, and gender for verbs.
A. Nouns. Singular and plural forms, masculines such as abate and abati or libro and libri, feminines such as donna and donne or luce and luci, have been grouped and computed under the same heading, a procedure also followed in the case of irregulars such as dio and dei or uomo and uomini. Dual plurals, in $=a$ and $=i$, were grouped with the appropriate singulars under braccio, dito, grido, membro, muro, urlo, and so was the irregular films, entered along with filmi under film. Syncretic plurals such as orecchie were grouped with the appropriate singulars, orecchia or orecchio. The same distinction was made between the singular and plural occurrences of piè, grouped with the regular piedi under piede.

We have departed from Italian lexicographic practice in separating masculines and feminines such as imperatore and imperatrice or principe and principessa, which were treated as independent entries.

Again departing from the approach of most Italian dictionaries, we have treated augmentatives and diminutives as sepatate words: portone or tavolina are considered words by themselves rather than variants of porta or tavola.
B. Adjectives. We have grouped under the same heading the masculine and feminine singular and plural of adjectives, including the superlative forms, so that adjectives in $=e$ may have as many as six variants: verde, verdi, verdissima, verdissime, verdissimi, and verdissimo; adjectives in $=0$, as many as eight: bianca, bianche, bianchi, bianchissima, bianchissime, bianchissimi, bianchissimo, and bianco. It goes without saying that adjectives with syntagmatically conditioned variants may exhibit even more: begli, bei, bel, bell', bella, belle, belli, bellissima, bellissime, bellissimi. bellissimo, and bello, or gran, grand', grandi, grandissima, grandissime, grandissimi, and grandissimo.
C. Articles. The number of article variants depends on the number of articles recognized in the analysis. Inasmuch as Italian articles vary in gender (masculine/feminine), number (singular/ plural), and determination (definite/indefinite), one may reckon with as few as one article (with gender, number, and determination variants) or as many as nine (if lo is considered a separate article). Intermediary solutions would postulate two, four, six, or eight articles, depending on which grammatical distinctions are considered relevant and on the way in which they are coordinated or subordinated. For reasons partly parallel to those which justify the interpretation of pronouns, we have adopted an intermediary solution, with three definite articles, il, la, and lo, and one indefinite, uno, the masculine and feminine being treated as variants on the basis of the parallelism with the adjective. Because definite articles combine with preceding prepositions, the following variants account for the occurrence of the four Italian articles:

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il: al, coi, col, dai, dal, dei, del, i, il, nei, nel, pei, pel, sui, sul
la: all', all' $p$., alla, alle, coll' $m$., colla, colle, dall', dalla, dalle, dell', dell' $p$., della, delle, $l^{\prime}, l^{\prime} p$. , la, le, nell', nell' $p$., nella, nelle, sull', sulla, sulle.
lo: agl', agli, all', allo, cogli, coll', dagl', dagli, dal, dall', dallo, degl', dell', dello, gl', gli, l', lo, negl', negli, nell', nello, sugli, sull', sullo
uno: un, un' f., una, uno.
D. Pronouns. Italian has personal, impersonal, reflexive, reciprocal, disjunctive, and demonstrative pronouns. Difficulties are encountered in the interpretation of personal pronouns, which differ according to person (1st/2nd/3rd), number (singular/plural), gender (masculine/feminine), case (subject/object, direct/indirect), and emphasis (conjunctive/disjunctive). As in the case of the articles, the number of variants grouped under each personal pronoun is conditioned by the number of pronouns recognized. Depending on which grammatical categories are considered relevant, and how these categories are coordinated or subordinated, one may reckon with as few as two personal pronouns (one masculine, the other feminine, one singular, the other plural, one subject, the other object, etc.) or as many, say, as 24 , if all distinctions are considered relevant. Intermediary solutions would postulate 3 pronouns (one for each person), or 4 (by distinguishing masculine and feminine pronouns in the 3 rd person), or 6 (by distinguishing singular and plural pronouns for each person while grouping the masculine and feminine under the 3 rd ), or 8 (by considering person, gender, and number relevant), or 16 (by distinguishing subject and object pronouns for each person, number, and gender), or 24 , by further distinguishing direct and indirect object pronouns, etc.

We have opted for one of the more complex solutions in which person, number, gender, case, and emphasis are relevant in determining independent pronouns, as follows:

| 1) | Singular first |  | subject |
| :--- | :--- | :--- | :--- |
| 2) | Singular first |  | object | conjunctive: | io |
| :--- |
| 3) |

On the basis of this interpretation, paradigmatic heterographs are me (vede me, me lo metto) and $m i$ (mi chiama, mi scrive, mi lavo) of mi (2); te (vede te, te lo metti) and $t i$ (ti chiama, ti scrive, ti lavi) of ti (5); gli (glielo scrivo), le (le scrivo), li (li chiamo) and lo (lo chiamo) of lo (8); gli (gli scrivo) and le (le chiamo, le scrivo, le parlo) of la (11); ce (ce lo dice, ce lo mettiamo), and ci (ci vede, ci scrive, ci mettiamo) of ci (14).

Other pronouns are treated like nouns, with singular and plural variants grouped under the masculine or the feminine: questo and questi versus questa and queste, quello and quelli versus quella and quelle, alcuno and alcuni versus alcuna and alcune, etc.
E. Verbs. We have grouped under the same entry the voice (personal/impersonal, transitive/ reflexive, active/passive), mode (indicative/imperative/conditional/subjunctive/participle/infinitive/gerund), tense (present/descriptive past/absolute past/present perfect/past descriptive perfect/ future perfect/past absolute perfect), number (singular/plural) and person (1st/2nd/3rd), so that there may be more than 200 variants per verb. Including homographs, there are 78 different forms under essere and 48 under the auxiliary, 83 under avere and 50 under the auxiliary.

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### 3.22 Homographs

Homographs are syntagmatic, resulting from the reduction of different words, or paradigmatic, resulting from the phonological convergence of different words or from the functional or semantic differentiation of the same word.
3.221 Syntagmatic. - Syntagmatic homographs are created by the elision of a final vowel before words beginning with a vowel. They involve articles, pronouns, and adjectives, e.g., the article l', which may be an occurrence of la (l'anima), of lo (l'orologio), or of le (l'erbe); the demonstrative quell' which may be an occurrence of quello (quell'albero), of quella (quell' isola) or of quelle (quell'erbe), just as quest' may represent questo (quest'uomo) or questa (quest'amica), questi (quest'istinti) or queste (quest'erbe). Add adjectival forms such as molt' for molto (molt'onore) or molta (molt'acqua), tant' for tanto (tant'affetto) or tanta (tant'aria), etc.
3.222 Paradigmatic. - Paradigmatic homographs are historical or functional.

Historical homographs are different forms whose shapes have merged as a result of phonetic change, such as sei in sei giorni and tu sei regina, fine in persona fine and fine del mondo, riso in riso bollito and pianto e riso, sapere in sapere la regola and sapere di menta, etc.

More complex, functional homographs are identical forms which have acquired different meanings by semantic or syntactic differentiation. Compare the meaning of senso in senso tattile, in senso peggiorativo, in buon senso, senso morale, or in senso unico. Even more diversified, a form like piano has not only different meanings in gli eserciti si sono scontrati nel piano, in piano di lavoro, in piano geometrico, or in quarto piano, it also functions as an adjective in pavimento piano, as an adverb in camminare piano. The latter example suggests forms with an even greater diversity of syntactic functions: tanto may modify a noun in tanto lavoro, an adjective in tanto buono, a verb in scrive tanto, an adverb in tanto rapidamente, just as it may function as a subject in il tanto dell' affare, as an object in ne ha speso tanto. A particle like ci may be a direct object in ci vedono an indirect object in ci scrivono, an impersonal in ci si vende. Somewhat apart are homographs with the same syntactic function which express different grammatical categories: indicative (egli canta) or an imperative (canta). indicative (tu parli) or subjunctive (che tu parli), a 1 st person (che io parli) or a third (che lui parli), a masculine (il fine), or a feminine (la fine), a singular (la $v i r t u ̀)$ or a plural (le virtù), etc. Are these variants of the same invariant, or is it preferable to take

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them as occurrences of the same word? Since criteria of expression are inconclusive, their identification will rest heavily on considerations of content based on meaning and use.

If the solution is obvious in the case of syncretic homographs which refer to clearly different objects, notions, or actions such as "six" and "are" (sei), "fine" and "end" (fine), "rice" and "laughter" (riso), "know" and "taste" (sapere), identification becomes difficult when an unbroken chain of semantic derivation can still be perceived between homographs such as "plan", "plain", "plane", and "floor" (piano), or "feeling", "sense", "common sense", and "direction" (senso). Identification is even more involved in the case of homographs with the same lexical meaning which assume different functions in the sentence: subject or predicate (potere), predicate or noun modifier (amato), noun modifier or verb modifier (tanto), verb modifier or clause governor (abbastanza), etc; or which express different grammatical categories: indicative or imperative (canta), first person or second person (parli), singular or plural (virtù), masculine or feminine (fine), subject or object (noi), direct object or indirect object (mi), personal or impersonal (ci), etc. Are differences in syntactic function or grammatical category sufficient to justify the interpretation of functional homographs as occurrences of different words, to be entered under different headings and computed separately? Or is it preferable to consider them variants of the same invariants, to be entered and totalized under the same heading?

Since arguments can be found to support either interpretation, the answer will depend on the purpose of the investigation, e.g., the grammatical exploitation of word counts. If coefficients of word frequency are to be structurally revealing, then surely they must provide a sound basis for predictions about the share of classes and categories expressed by Italian words in representative texts. To this end, homographs are a problem, as no sound inferences about word classes can be drawn from coefficients which fail to distinguish between noun and verb, adverb and adjective, preposition and conjunction, etc., just as no accurate predictions can be made about grammatical categories from data which fail to discriminate between singular and plural, masculine and feminine, indicative and imperative, subject and object, 1 st person and 2 nd person, etc.
The solutions we have adopted in treating such ambiguities differ according to the types of homographs, lexical, syntactic, or morphologic. LexiCAL homographs are identical occurrences of different members of the same class: fine "end" and fine "objective", aria "air" and aria "aria", natura "nature" and natura "character", provare "try" and provare "demonstrate", povero "poor" and povero "wretched", etc. SYNTACTIC homographs are identical occurrences of members of different classes, such as critica "critique" and critica "critical", invitato "guest" and invitato "invited", letto "bed" and letto "read", misero "miserable" and misero "put", marcia "walk" and marcia "walks", etc. Morphologic homographs are identical occurrences of the same word which express different grammatical categories such as virtù "virtue" and virtù "virtues", canta "he sings" and canta "sing!", parli "that I speak" and parli "that he speak", mi "me" and mi"to me", noi "we" and noi "to us", etc.
3.2221 Lexical homographs. - Lexical homographs are identical occurrences of different members of the same class. They involve mostly nouns, although there are also instances of lexical homography among verbs, adjectives, and pronouns. Certain lexical homographs may be distinguished with reference to grammatical characteristics such as gender (il fine "the purpose" and la fine "the end", il nipote "nephew" and la nipote "niece", il braccio and le braccia versus il braccio and $i$ bracci), morphological class (presento "present" from presentare and presento "forebode" from presentire), or syntactic characteristics (povero amico "wretched friend" and amico povero "poor friend", etc.).
3.22211 Nouns. - Nominal homography involves two masculines, or two feminines, or one
masculine and one feminine noun.
A. Masculines. - Homographic masculines which appear in our dictionary are: caffè "coffee" and "coffee house"; maestro "master" and "teacher"; mezzo "means", "middle" and "half"; pezzo "piece" and "musical composition"; piano "plan", "plane", "plain" and "floor", paese "country" and "town" (also paesi); principio "principle" and "beginning"; senso "sense", "common sense", "moral sense", "feeling", and "direction"; stato "state" and "condition"; studio "study" and "study room"; tempo "time" and "weather".

Masculine homographs in our corpus at least one of which failed to qualify are: accordo "agreement" and "harmony"; affare "business" and "affair"; albero "tree" and "mast"; angolo "angle" and "corner"; bagno "bath" and "bathroom"; bordo "edge" and "(on) board"; brivido "shiver" and "thrill"; campione "champion" and "sample"; carbone "coal" and "carbon"; ciglio "eyelash" and "edge"; cinese "Chinese man" and "Chinese language"; corso "street", "course", and "circulation"; dente "tooth" and "cog"; ferro "iron" and "horseshoe"; fondo "bottom" and "fund"; genere "kind", "gender" and "genre"; giudizio "judgment" and "mind"; giuoco "sport" and "gambling"; impasto "mixture" and "impasto"; indice "index" and "index finger"; indirizzo "address" and "direction"; legno "wood" and "ship"; libretto "small book "and "libretto"; membro "limb" and "member"; nodo "nautical measure" and "knot"; nome "name" and "noun"; sacco "sack" and "bag", "pillage"; scuro "darkness" and "shutter"; stadio "stage", "period" and "stadium"; tipo "type" and "person".
B. Feminines. - Homographic feminines in the basic vocabulary are: aria "air" and "aria"; nature "character" and "nature"; prova"proof" and "rehearsal"; maestà "majesty" and "Majesty"; signora "lady" and "Madam"; società "association" and "society"; storia "history" and "story"; voce "voice" and "word".

Feminine homographs in our corpus at least one of which failed to qualify are: altezza "height" and "Highness"; arte "art" and "craft trade"; azione "action" and "stock"; banda "side", "band", and "gang"; borsa "purse", "bag", and "exchange;" camera "room" and "camera (oscura)"; campagna "country" and "campaign"; carica "position, rank," and "charge"; carta "paper" and "playing card"; cateratta "waterfall" and "cataract"; causa "cause" and "court cause"; cittadina "female citizen of a nation", "female citizen of a city", and "small city"; dama "woman" and "checkers"; divisione "a dividing" and "military and arithmetic operation"; eccellenza "excellence" and "Excellency"; facoltà "(mental) power" and "school"; forma "form" and "mold"; gravità "importance" and "gravity"; gru, "bird" and "machine"; influenza "influence" and "influenza"; lira, "currency", and "lyre"; lingua "tongue" and "language"; macchia "spot" and "trees"; nota, written and musical, and "bill" (of costs)"; pena "pain" and "punishment"; penna "pen" and "feather"; poesia "poem" and "poetry"; rivista "magazine" and "parade"; stampa "press" and "print"; tenda "tent" and "curtain"; usura "wear and tear" and "usury"; voce "voice", "rumor", and "word".
C. Masculines and Feminines. - The only homographic nouns of different genders which qualified for our dictionary are amante "lover" and "mistress", fronte "front line" and "forehead", morti "deaths" and "dead ones", signore "ladies" and "Sir!"

However, capitale "capital (funds)" and "capital (city)", fine "purpose" and "end", fronte "forehead" and "front line", morale "spirit" and "ethics", nipote "nephew" and "niece", and signore "ladies" and "gentleman" have occurred in our corpus.
3.22212 Adjectives. - Only one instance of homography between adjectives appears in our dictionary: povero "poor" (amico povero) and "wretched" (povero amico). Others occurred in our corpus, but failed to qualify: capace "capable" and "capacious"; capitale "fund, capital", "death

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(sentence)," and "chief, main"; caro "expensive" and "dear"; familiare "familiar" and "familia, (pertaining to) the family"; grave "grave" and "heavy"; occupato "busy" and "filled"; romantico "Romantic" and "romantic"; secolare "secular, worldly" and "secular, old"; sinistro "left" and "sinister".
3.22213 Pronouns. - Instances of lexical homography between occurrences of different pronouns are: $m e$ (me ne manda, me lo metto) of $\mathrm{mi}(2)$ and $m e$ (chiamano me, lavorano per me) of me (3), te (te ne manda, te lo metti) of ti (5) and te (chiamano te, lavorano per te) of te (6), gli (gli parlo) of $\mathbf{l o}$ (8) and $g l i$ (gliene manda) of la (11), lei (chiamano lei) of lei (8) and lei (polite), $c^{\prime}$ (c'invita) of ci (14) and $c e$ (ce ne sono) of ci (impers.), ci (ci conosce, ci manda, ci laviamo) of ci (14) and ci (ci sono) of ci (imp.), $v^{\prime}$ (v'invita) of $\mathbf{v i}$ (17) and $v i$ (vi sono), of $\mathbf{v i}$ (impers.), $v i$ (vi chiama, vi parla, vi lavate) of $\mathbf{v i}(17)$ and $v i$ (impers.), loro (lavora per loro, i ragazzi) of loro (21) and loro (lavora per loro, le ragazze) of loro (24).
3.22214 Verbs. - Instances of verbal homography in our dictionary are: provare "try" and "demonstrate", presento (presentare and presentire), sentire "feel" and "hear". To these we must add: avere and essere as regular verbs and auxiliary verbs; and dovere, potere, volere, sapere as regular and modal verbs.
Verbal homographies which have failed to qualify are accusare "accuse" and "acknowledge"; alterarsi "be altered" and "get angry"; andare "go" and "fit"; assistere "attend" and "help"; caricare "charge" and "load"; comprendere "understand" and "include"; contare "tell", "count on", "depend", and "to be of account" (intrans.); dare "give" and "open, face"; durare "last" and "endure"; edificare "build" and "edify"; esperimentare "experiment" and "experience"; girare "turn" and "shoot (a movie)"; importare "matter" and "import"; intendere "intend", "mean", and "understand"; sentire "hear", "feel", and "taste"; passare "pass", "spend time"; portare "carry" and "wear"; riflettere "think" and "reflect"; scoprire "discover" and "uncover"; spiegare "explain" and "unfold"; tentare "try" and "tempt".
3.2222 Syntactic. - Syntactic homographs are identical occurrences of members of different word classes: the same shapes, often with the same lexical meaning, are distinguished by sentence function, e.g.: abbandono, accordi, arma, chiese, combattente, componenti, coperte, date durata, emigrato, fabbricati, fossi, legge, passante, proposte, sale, etc., may be nouns or verbs; agitato, brillante, calmi, definiti, misero, perduta, popolare, secca, unite, vivente, etc., may be adjectives or verbs; amico, borghese, critica, diritti, fedeli, fine, morte, etc., may be nouns or adjectives; amante, dato, precedenti, vedute, etc., may be nouns, adjectives, or verbs. Among functional words, che may be a conjunction or a pronoun, ne a preposition or a pronoun, nonostante a conjunction or a preposition, ove an adverb or a pronoun, $l a$ an article or a pronoun, benchè an adverb or a conjunction, etc.
A predominantly substantial interpretation would consider these forms as occurrences of one and the same word with nominal functions in certain constructions, verbal functions in certain others, etc.; and a predominantly formal interpretation would consider them identical occurrences of different words, one a noun, the other a verb, etc. The first interpretation, which can be defended on non-formal grounds, either substantial (phonetic, semantic) or historical, compromises the grammatical exploitation of the data: no accurate predictions can be made about the relative share of word classes if the subject occurrences of abbandono, for instance are not distinguished from its predicate occurrences. Instead of allowing the same word to assume sometimes nominal and sometimes verbal functions, the formal interpretation postulates different words which occur under the same shape. A method of interpretation which prohibits words from belonging to more than one class - every word belongs to one class and no word belongs to more than one-illustrates the
paradoxical situation of units whose identification depends on their classification. The formal solution has the additional advantage of being easily convertible into its substantial counterpart, whereas the contrary is not true: the coefficients of words capable of assuming different roles in the sentence can be easily determined by computing the homographic occurrences of the noun and of the verb, while the occurrences of the noun, for instance, cannot be extracted from coefficients established through a method which does not distinguish between the subject and predicate functions of the same shape.
Most word counts have bypassed the difficulties involved in defining word classes by computing coefficients for shapes rather than forms: parts-of-speech abbreviations were added after the word count was completed, when the function of homographs taken out of context could no longer be determined. Unresolved by multiple class markers such as " $n$. and $v$.", syntactic ambiguities are "resolved" by retaining the function assumed to be the more frequent. The question of word classes is subject to a variety of solutions, the appropriateness of classification depending on intended use. We have discussed elsewhere the principles underlying the major approaches to word classes in a statistical context, ${ }^{15}$ the morphologic solutions in $3.2221,{ }^{16}$ the syntactic solutions in $3.2222,{ }^{17}$ and the morphosyntactic solutions in $3.2223 .{ }^{18} \mathrm{We}$ may now outline the system of criteria integrated in a hierarchy which provides the definitions we have used to resolve instances of syntactic homography. Basically we assume that investigations whose results are to provide sound insights into the structural properties of representative texts must: 1) subordinate substantial (phonetic, semantic) to formal (grammatical) criteria, and 2) among the latter, syntactic relations take precedence over considerations of morphologic constituency.
The fUNCTION of words in the sentence is the most fundamental criterion for assigning words to classes; the basic constituents, subject and predicate, as well as their objects and their modifiers; and the function words which govern, introduce, or link them. Words which function as subjects or objects are likely to be nouns or pronouns; predicates are verbs or adjectives; modifiers of nouns are articles or adjectives; modifiers of verbs are adverbs; noun substitutes are pronouns; functional words which introduce nouns or nominal phrases are prepositions, those which govern verbs, clauses, or sentences are conjunctions. Next are the grammatical categories expressed by words: gender characterizes nouns, articles, adjectives, pronouns, exceptionally verbs; number is manifested by nouns, articles, adjectives, pronouns, and verbs; person characterizes pronouns and verbs; case is associated with nouns and pronouns; mode and tense characterize exclusively verbs, just as a category such as superlative is associated exclusively with adjectives. Finally, there is a variety of morphologic criteria based on morphemes associated with particular classes: among suffixes =zione characterizes nouns, =mente characterizes adverbs, =issim= adjectives, etc.; among inflexions plural $=i$ characterizes nouns and adjectives, $=a r e$ verbs, etc.
Structural definitions of parts of speech can be derived from this hierarchy of criteria. Nouns, exhibit gender and number, function as subjects or objects and are modified by adjectives, determined by articles, governed by prepositions, replaced by pronouns, extended by certain suffixes (-zion), characterized by certain flexives ( $(i)$. Verbs, express mode, tense, number, and person, function as predicates and are modified by adverbs, introduced by conjunctions, extended by certain suffixes ( $=i z=$ ), characterized by certain inflexions ( $=a r e$, etc.). Articles, exhibit gender and number, determine nouns. Adjectives, exhibit gender and number, modify nouns and may function
${ }^{15}$ FDRW, 3.222 Syntactic homographs, pp. xxix-xxxviii.
${ }^{18} \mathrm{pp} . \mathrm{xxx}$-xxxi
17 pp. xxxi-xxxiii
${ }^{18}$ pp. xxxiii-xxxvi

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as predicates, are extended by the suffix $=i s \operatorname{sim}=$ and characterized by certain inflexions $(=0,=i,=a$, $=e$ ). Pronouns, exhibit gender, number, person, and case, function as subjects or objects and replace nouns. Prepositions govern nouns and nominal phrases. Conjunctions introduce verbs, clauses, sentences. Interjections and numerals form an easily identifiable (peripheral) class.

These criteria and definitions may be used to resolve instances of syntactic ambiguity by assigning homographic shapes to different classes. Note that certain criteria are exclusive, while others are not. On the one hand, mode and tense characterize verbs unambiguously; only conjunctions introduce verbs, clauses, sentences; pronouns are the only words which replace nouns, and they are the only words which can express case; adverbs are exclusively characterized by the suffix =mente, adjectives by the suffix =issim=, etc. On the other hand, both nouns and pronouns may function as subjects or objects, both verbs and adjectives may be the predicate of a sentence, both articles and adjectives may modify nouns; verbs as well as pronouns exhibit person; nouns, adjectives, articles, and certain pronouns and verbs exhibit gender and number; adjectives and nouns share certain inflexions in common (plural $i$ ); etc. If the usefulness of exclusive criteria is obvious, the others may be used in combination, to swing the balance one way or the other.

Note that certain definitions are circular: an adjective is defined as a noun modifier, a noun as a form modified by an adjective; prepositions are forms that govern nouns, while nouns are defined as forms governed by prepositions, etc. Reciprocal definitions based on modifier/modified relations can be used to determine the status of an ambiguous term with reference to its unambiguous counterpart, either by an exclusive criterion or by a combination of non-exclusive criteria: to decide whether a participial form is a verb or a noun, determination by an article or modification by an unambiguous adjective (a superlative) may decide in favor of the latter; conversely, when intrinsic considerations do not allow us to decide whether a modifier is an adjective or an adverb, the fact that it modifies an unambiguous noun (the subject of the sentence determined by an article) may decide in favor of the former.

The preceding system of criteria and definitions underlies a classification which resolves instances of syntactic homography involving mostly lexical words, nouns, verbs, and (lexical) adjectives. Functional words (including functional adjectives and adverbs) are also involved, generally among themselves, but also with lexical words (mostly nouns).
3.22221 Nouns and Verbs. - Instances of homography between nouns and verbs may be classified relative to the grammatical category they express, indicative (subjunctive, imperative), infinitive, present participle, and past absolute for verbs, masculine or feminine, singular or plural for nouns. The most frequent verbal forms are indicatives and past participles, but there are also infinitives, present participles, and past absolutes.
A. Indicative (Subjunctive, Imperative)

1. Masculine Singular:
=are: abbandono, abito, affetto, acquisto, aiuto, arrivo, ascolto, aspetto, bacio, ballo, calcolo, cambio, cammino, canto, consiglio, disprezzo, disturbo, dono, esito, fondo, fumo, giro, grido, guadagno, inganno, inizio, invito, lamento, lavoro, medico, merito, mostro, passo, porto, racconto, regalo, respiro, resto, richiamo, ricordo, rifiuto, riguardo, rimprovero, rischio, risparmio, risveglio, ritorno, salto, saluto, sbaglio, scambio, scoppio, sogno, sospetto, sposo, studio, taglio, tiro, tratto, viaggio, *perdono.
sire: sale, servo
2. Feminine Singular:
=are: arma, bestemmia, caccia, calma, causa, condanna, consegna, corona, costa, cura, disputa, domanda, fabbrica, faccia, figura, fila, firma, forma, guida, insegna, lega, leva, marcia, meraviglia, minaccia, mira, misura, mostra, nota, opera, paga, pianta, piega, porta, posa, predica, protesta, prova, rassegna, regola,

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ricerca, riforma, riserva, rovina, scusa, serra, sosta, sposa, squadra, stampa, traccia, turba, vergogna, visita, volta.
=ere: era, legge, tenda (subj)
sire: veste
3. Masculine Plural:
=are: abiti, accenni, accordi, affetti, aiuti, appoggi, appunti, arrivi, aspetti, attacchi, baci, cambi, canti, cerchi, consigli, conti, depositi, disturbi, gridi, impegni, inizi, lavori, meriti, mostri, ordini, passi, porti, registri, resti, ricordi, rimproveri, riposi, risvegli, ritorni, scherzi, scoppi, segni, sfoghi, sogni, sospiri, spaventi, sposi, suoni, tagli, tiri, tormenti, tratti, usi, versi, voli*
=ere: fossi
4. Feminine Plural:
=are: *basi, date, urla
=ere: leggi, tende
sire: vesti
B. Past Participle

1. Masculine Singular:
=are: emigrato, fabbricato, impiegato, peccato, risultato, trattato
=ere: letto, messo, percorso, permesso, pianto, posto, presupposto, prodotto, ricorso, scelto, sorriso, stato ${ }^{2}$, successo, volto.
=ire: aperto, partito
2. Feminine Singular:
=are: chiamata, durata, entrata, ritirata.
=ere: battuta, caduta, condotta, difesa, discesa, messa, posta, presa, promessa, proposta, resa, richiesta, ripresa, scossa, sorpresa, spinta, tenuta
=ire: aperta, salita
3. Masculine Plural:
=are: fabbricati, impiegati, risultati, trattati
=ere: caduti, dipinti, messi, posti, risultati, tratti
=ire: partiti
4. Feminine Plural:
=are: chiamate, date
=ere: battute, cadute, messe, poste, proposte, raccolte, sorte, spinte, tenute
=ire: aperte, coperte
C. Present Participle
5. Singular:
=are: abitante, passante
=ere: combattente, corrente
6. Plural:
=are: abitanti, passanti
=ere: componenti, concorrenti
D. Past Absolute
=ere: chiese, pose, riprese ${ }^{2}$, scosse $^{2}$, sorprese ${ }^{2}$, spese
E. Infinitive
=are: fare
sere: dovere, esser(e), potere, volere
=ire: avvenire, morire

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In a few instances, homography involves one nominal and two verbal forms: ricorsi and sorrisi, as well as difese, pose, riprese, scosse, sorprese, and spese may be a noun, a past participle, and a past absolute, whereas a form such as date occurs as a noun, as a present indicative and as a past participle.
3.22222 Verbs and Adjectives. - Verbal forms involved in syntactic homography with adjectives are mostly past participles, but indicatives (subjunctives, imperatives), past absolutes, infinitives, and present participles have been also registered. Adjective forms are masculine or feminine, singular or plural.

## A. Past Participle

## 1. Masculine Singular

zare: abbassato, accennato, agitato, alzato, amato, armato, avanzato, bagnato, conservato, considerato, desiderato, destinato, determinato, dimenticato, elevato, illuminato, indicato, isolato, limitato, mancato, mutato, obbligato, preparato, rassegnato, rialzato, rilevato, rinnovato, trasformato, turbato, usato

ェere: acceso, avvolto, chiuso, commosso, composto, compreso, confuso, convinto, deciso, diffuso, diretto, disposto, distinto, distrutto, diviso, dovuto, esteso, nato, nascosto, perduto, preso, raccolto, retto, ridotto, ripetuto, rotto, sciolto, seduto, sospeso, sparso, spento, stretto, vinto, visto.
=ire: definito, detto, distribuito, finito, fiorito, maledetto, smarrito, stupito, unito, scuito
2. Feminine Singular:
=are: abituata, accennata, agitata, alzata, amata, armata, avanzata, conservata, considerata, destinata, determinata, dimenticata, elevata, fatta, illuminata, indicata, limitata, mutata, obbligata, passata, preparata, rilevata, rinnovata, serrata, sod(d)isfatta, trasformata, turbata
zere: accesa, attesa, chiusa, composta, compresa, confusa, contenuta, diffusa, dipinta, diretta, disposta, distrutta, divisa, dovuta, nata, opposta, perduta, presa, ridotta, rotta, sciolta, scritta, sospesa, spenta, veduta, vinta, vista
sire: definita, detta, distribuita, finita, fiorita, smarrita
3. Masculine Plural:
sare: abituati, amati, armati, avanzati, conservati, considerati, destinati, determinati, dimenticati, elevati, indicati, isolati, obbligati, passati, preparati, usati
zere: avvolti, composti, convinti, diretti, distinti, distrutti, dovuti, nati, nascosti, opposti, perduti, raccolti, ripetuti, riuniti, rotti, spenti
sire: detti, finiti
4. Feminine Plural:
zare: alzate, amate, armate, bagnate, destinate, determinate, elevate, fatte, indicate, interessate, isolate, limitate, passate, serrate, usate.
zere: attese, contenute, dipinte, dirette, dovute, nate, opposte, perdute, ridotte, sciolte, scritte, spente, sperdute, strette, viste
sire: definite, finite, riunite, unite
B. Indicative (Subjunctive, Imperative)

1. Masculine Singular:
=are: carico, contento, continuo, fisso, muto, noto, "pagano, secco
2. Feminine Singular:
continua, dura, fissa, improvvisa, libera, matura, muta, oscura, presta, pubblica, secca, sveglia, varia
C. Present Participle
zare: abbondante, brillante, dominante, rilevante
zere: crescente, vivente

## D. Infinitive

leggere, popolare

## E. Past Absolute

misero
A few homographs involve an adjective with a past participle and a past absolute: masculines such as accesi, chiusi, compresi, divisi, presi, and sparsi, as well as feminines such as accese, attese, chiuse, comprese, decise, diffuse, divise, sospese, and sparse.
3.22223 Adjectives and Nouns. - Homographs which involve adjectives and nouns are masculine or feminine, singular or plural.

## 1. Masculine Singular:

se: borghese, breve, capitale, centrale, colpevole, comune, folle, francese, generale, giovane, giovine, grande, grave, ideale, industriale, inglese, mal(e), materiale, militare, morale, nobile, onorevole, particolare, personale, presente, principale, provinciale, seguente, simile, superiore, ufficiale, verde
=o: alto, americano, amico, antico, atto, azzurro, basso, bello, bianco, britannico, buio, buono, caldo, caro, chiaro, cieco, cittadino, comodo, complesso, contrario, critico, deserto, diritto, disperato, esterno, estero, estraneo, fisico, franco, freddo, fresco, futuro, giusto, grasso, greco, grosso, ignoto, improvviso, infinito, innamorato, intento, italiano, largo, latino, legato, maestro, maschio, massimo, mezzo, minuto, moderno, morto, necessario, nemico, nero, nord, nuovo, opportuno, pazzo, piccolo, pieno, povero, profondo, prossimo, quarto, ricco, rosso, russo, saggio, santo, segreto, serio, soggetto, sol(o), sommo, straniero, tecnico, tedesco, terzo, tessuto, turchino, vecchio, vero, vestito, vivo, vuoto
=i: pari
2. Feminine Singular:
$x e$ : fine
$=a$ : carica, critica, curva, destra, ferita, fiera, legata, libera, logica, matematica, novella, politica, retta, rosa, sant(a), sinistra, somma, stanca, tecnica, vecchia
3. Masculine Plural:
$=e$ : borghesi, capitali, colpevoli, comuni, fedeli, francesi, generali, giovani, grandi, gravi, ideali, industriali, inglesi, mali, materiali, militari, morali, morti, nobili, principali, provinciali, seguenti, simili, superiori, ufficiali, verdi
=o: americani, amici, antichi, atti, bassi, belli, bianchi, britannici, buoni, caldi, cari, ciechi, comodi, complessi, critici, deserti, diritti, dubbi, equivoci, esterni, esteri, estranei, fini, freddi, freschi, giusti, grassi, greci, grossi, ignoti, infiniti, intenti, italiani, latini, legati, liberi, lontani, lustri, maschi, massimi, medici, mezzi, minuti, moderni, necessari, nemici, nuovi, piccoli, pieni, poveri${ }^{2}$, profondi, pubblici, ricchi, rossi, russi, saggi, santi, segreti, seri, soggetti, stranieri, tecnici, tedeschi, terzi, tessuti, turchi, vecchi, vestiti, vicini, vivi, vuoti
4. Feminine Plural:
=o: corte, critiche, fiere, legate, matematiche, morte, note, novelle, politiche, pratiche, scoperte, sedute, serie, sole, vecchie
3.22224 Adjectives, Nouns, and Verbs. - Some 25 forms appear three times in our dictionary, as adjectives, as nouns, and as verbs. The adjectives and nouns are masculine or feminine, singular or plural, whereas the verbs are indicatives (calmo, pubblica), present participles (amante, precedente), or past participles.

## 1. Masculine Singular:

=e: amante, precedente, presente
=o: calmo, contenuto, dato, fermo, dipinto, fatto, ferito, opposto, passato, *san, scritto

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2. Feminine Singular:
data, nota, distesa, pratica, pubblica, raccolta, scelta, seduta, stretta, uscita
3. Masculine Plural:
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=e: precedenti, presenti
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$=0$ : dati, fatti
4. Feminine Plural
distese, ferite, note
3.22225 Functional Words. - Analytically, words of inflexional languages can be divided into three: constituents of the sentence (nouns, verbs), their modifiers (adjectives, adverbs), and the functional words which govern or introduce them (prepositions, conjunctions). Synthetically, the same words are divided into lexical and functional: lexical words consist of a stem carrying lexical meaning, and an ending expressing grammatical functions or categories, whereas functional words, which cannot be normally analyzed into such constituents, express relational meaning. In this scheme, modifiers occupy a borderline position and must be subdivided accordingly. Lexical adjectives consist of a stem expressing a quality or a property, and an ending (suffixes like -issim=; flexives like $=0,=a$, etc.), whereas functional adjectives (modifiers of nouns) cannot be so analyzed and express relational, quantitative, deictic, etc. meanings. Lexical adverbs consist of a stem expressing the property of an action and the suffix =mente, whereas functional adverbs, which cannot be so analyzed, express relational, quantitative, deictic, etc. meanings. Notice that functional adjectives (and sometimes adverbs) can also modify modifiers, which is not the case for lexical adjectives. More significant in this context, lexical modifiers are involved in homography with lexical words (see preceding sections), whereas functional modifiers occur in shapes that are homographic with functional words, prepositions, conjunctions, pronouns. Adjectives and adverbs considered in this section are of the functional kind.
A. Adjective and Adverb
abbastanza, alquanto, altrettanto, appena, assai, forte, molto, proprio, pure, quasi, spesso, tardi, tutti

## B. Adjective and Pronoun

altro etc., ciascuna, ciascuno, cui, loro, miei, nessuno, niente, nostro etc., parecchi, parecchio, etc., pochi, pochissimo, primi, primo, quali, qualunque, quanta, quante, quanti, quella, quelle, quello, questo etc., stesso, sua, sue, suo, tale, tali, taluni, taluno, tanta, tante, tanti, terza, troppi, tutti, ultimo, etc.
C. Adverb and Conjunction
benchè, comunque, dunque, quando, intanto, mentre, poichè, sebbene, tuttavia
D. Adverb and Preposition
accanto, addosso, attorno, davanti, dentro, dietro, dinanzi, dopo, fino, innanzi, invece, perfino, persino, presso, senza, sino
E. Adverb and Pronoun
v', ve, vi
F. Article and Pronoun
l', la, le, lo, una, uno
G. Conjunction and Pronoun
che
H. Conjunction and Preposition
nonostante
I. Conjunction and Interjection
o, se

There are instances of three-way homography among functional words: come may be an adverb, a preposition, or a conjunction; oltre may be an adjective, an adverb, or a preposition; più may be an adjective (or a modifier of an adjective), an adverb (or a modifier of an adverb), or a pronoun; quale may be an adjective, a conjunction, or a pronoun.
3.22226 Functional words and Lexical words. - There are several instances of homography between functional words and lexical words, mostly nouns.
a) adverbs: domani, giù, ieri, no, oggi, *onde, ora, poi, qua, specie, via
b) numerals: due, cento, cinque, tre, dieci, sette, venti, to which designations of centuries such as cinquecento must be added.
c) prepositions: colle, confronto, verso, salvo
d) pronouns: io, si

An example of homography between a functional word and a verb is sei (numeral).
There are examples of three-way homography between two functional words and one lexical word: appunti, avanti, fuori, intorno, sotto, sopra, and su may be an adjective, a preposition, or a noun; bene, certo, lontano, male, piano ${ }^{4}$, and vicino may be an adjective, an adverb, or a noun; incontro may be a preposition, a noun, or a verb; presto may be an adjective, an adverb, or a verb.
Four-way homographies are lungo, which may be an adjective, an adverb, a preposition, or a noun; o may be a conjunction, an interjection, a preposition, or a verb; prima, a preposition, an adverb, a noun, or a pronoun; tanto, an adjective, an adverb, a conjunction, or a noun; etc.
3.2223 Morphologic. - Morphologic homographs are identical occurrences of different variants of the same invariant: the same shapes with the same lexical meaning express different grammatical categories such as masculine/feminine, singular/plural, present/past, subject/object, 1st/ 3rd person, direct/indirect object, indicative/imperative, etc. For masculine and feminine compare l'uomo and l'uscita with il padre and la madre, uomo vivace and donna vivace with bel bambino and bella bambina; for singular and plural la specie and le specie with la sedia and le sedie; for direct and indirect object Giorgio ti conosce and Giorgio ti scrive with Giorgio lo conosce and Giorgio gli scrive; for indicative and subjunctive, tu studi and che tu studi with tu scrivi and che tu scriva; for 1st and 3rd person, compare che io finisca, che tu finisca, che egli finisca with io finisco, tu finisci, egli finisce; etc.

Morphologic homographs occur in the paradigms of articles, adjectives, nouns, pronouns, and verbs.
3.22231 Articles. - The masculine and feminine, singular and plural are homographic in the elided form $l$ ' of the definite articles, for which compare l'uomo and l'uscita with il padre and la madre. In the indefinite forms, the homophonous masculine and feminine singular are kept graphically apart by the apostrophe, un uomo but un'ora.
3.22232 Adjectives. - The masculine and feminine variants of adjectives in $-e$ are homographic: compare allievo intelligente and allieva intelligente with allievo pigro and allieva pigra. The singular and plural of such adjectives as marrone or viola are also identical, libro marrone and libri marrone but libro bianco and libri bianchi, cappello viola and cappelli viola with cappello bianco and cappelli bianchi. For instances of syntactic homography between adjectives, compare grand'uomo and grand'isola.

## INTRODUCTION

3.22233 Nouns. - The singular and plural of several Italian nouns, especially those ending in a stressed vowel, are homographic:
$=a ̀$ : abilità, attività, bontà, brutalità, carità, cavità, celebrità, città, civiltà, collettività, comodità, difficoltà, diversità, entità, eredità, età, facilità, felicità, inferiorità, località, maestà, metà, modalità, necessità, neutralità, novità, opportunità, ospitalità, ostilità, papà, personalità, possibilità, probabilità, profondità, proprietà, qualità, realtà, semplicità, sensibilità, serenità, serietà, sincerità, società, solidarietà, sovranità, stabilità, università, utilita, varietà, velocità, verità, volontà
$e$ : re, tè, specie
zi: crisi, estasi, ipotesi, mezzodi, oasi, tesi
$=\grave{u}$ : gioventù, servitù, tribù, virtù
Add film, with three plurals, film, filmi and also films.
3.22234 Pronouns. - On the basis of our interpretation, morphologic homography between variants of the same pronouns (expressing different categories through the same shape) are between the direct object and prepositional forms of the personal pronouns, e.g., vede me and lavora per me, of me, te, lui; between the subject and prepositional form of essi (essi vedono, lavora per essi) esso, essa, esse, lei, noi, voi, loro; between the direct, indirect, and reflexive forms of mi (mi vede, mi parla, mi lavo), ti, si, ci, vi; between the direct and reflexive forms of mi (me lo dice, me lo lavo).
3.22235 Verbs. - Instances of verbal homography involve forms which express different numbers and/or person within the paradigm of the same tense, or forms belonging to different modes and/or tenses.
A. Person/Number: The first, second, and third person singular forms of the present subjunctive forms are homographic in the three conjugations, e.g., ami, venda, parta; the first and second persons of the imperfect subjunctive of all verbs, e.g., amassi, vendessi, partissi. The first and sixth persons of the present indicative of essere: (io, essi) sono.

## B. Mode/Tense

1. Indicative/Imperative. Instances of homography occur between the third and the fifth persons of the present indicative and the second person of the imperative in the first conjugation verbs: (egli) ama and ama!, (voi) amate and amate! Other instances involve the second person singular and the second person plural of the present indicative and the parallel forms of the imperative in the second and third conjugation verbs: ( $t u$ ) vendi, vendi, (voi) vendete, vendete and (tu) parti, parti, (voi) partite, partite.
2. Indicative/Subjunctive. Homography occurs between the fifth persons of the past absolute indicative and the imperfect subjunctive: (che) voi amaste, (che) voi vendeste, (che) voi partiste.
3. Subjunctive/Imperative. The first, second and third person and the third person plural forms of the present subjunctive and the forms of the imperative of all conjugation verbs: (che io, tu, egli) ami, (che io, tu, egli venda, (che io, tu, egli) parta, (che essi) amino, (che essi) vendano, (che essi) partano.
4. Indicative/Subjunctive/Imperative. The third singular imperative form is homographous with the second singular form of the present indicative and the three singular persons of the present subjunctive in first conjugation verbs: ami, ( $t u$ ) ami, (che io, tu, egli) ami. The first plural imperative form is homographous with the parallel forms of the present indicative and the present subjunctive: amiamo, (noi) amiamo, (che noi) amiamo; vendiamo, (noi) vendiamo, (che noi) vendiamo; partiamo, (noi) partiamo, (che noi) partiamo.

To distinguish cases of homography between forms of the indicative, the subjunctive and the imperative, the superscripts ${ }^{2,3}$ have been used for the second and third person forms of the present subjunctive and the abbreviation $i$. has been post-scribed to the imperative forms.

## 4. COEFFICIENTS

The results of word counts are usually presented as graded inventories in which words are ranked in decreasing order of frequency or dispersion, with the resulting hierarchies mechanically divided into numerical classes: first hundred or thousand, etc.

The value of such hierarchies and classifications depends on the validity of the sample and on the appropriateness of the technique used to extract indices of word usage from the raw frequencies. In earlier studies, usage was equated with frequency on the assumption that the number of occurrences of a word in the sample reflects its use in the language as a whole. Words were ranked in terms of coefficients equal or proportional to the number of their occurrences in the sample. Quantifying techniques were refined when it appeared that results based on this assumption often failed to correspond to the intuitive estimates of specialists, or to satisfy the intended purpose. To remedy the shortcomings of straight frequency, statistical lexicographers have relied on a number of techniques based essentially on dispersion, as a corrective or as an alternative for raw frequency. As an alternative, one may equate the usage of a word with the evenness of its occurrences, e.g., by assuming a constant relationship between the number of genres or units or subsamples in which a word occurs, and its occurrences in the language as a whole. As a corrective, dispersion may be used to adjust frequency coefficients, just as frequency might be used to adjust coefficients of usage based on dispersion; or the two may be combined in various formulas designed to yield more accurate coefficients.
Indeed, regardless of the technique, the ultimate objective remains the same: to give the best possible insight into the properties of representative texts, spoken or written. The formulas aim to approximate the statistical properties of the various orders of constituents in the "language as a whole", an intuitive concept best understood relative to an ideal sample: as large, as representative, and as homogeneous as possible. In other words, rankings based on word counts of necessarily limited samples are considered adequate when it can be assumed that similar counts of other or larger samples are likely to yield similar rankings and similar classes with similar memberships. Since weighted statements about representative texts are based on the occurrence of the various types of constituents, frequency is the fundamental property, and dispersion is secondary: dispersion may be preferred to frequency only insofar as one assumes that dispersion in a smaller sample provides a better approximation of frequency in a larger sample, one which comes closer to the ideal. The same principle underlies formulas which determine word usage by combining frequency and dispersion.

Techniques for quantifying word usage are of three basic types: those which rely on frequency, those which prefer dispersion, and those which resort to both. The statistical lexicographer chooses the one he assumes to come closest to the ideal; claims that this choice makes little difference have not been verified. For our part, we have selected the basic vocabulary from the top of a list in which words were ranked in decreasing order of a coefficient combining frequency and dispersion.

### 4.1 Frequency

In ranking and classifying words according to frequency, the investigator relies on the validity of the sample: he tries to make sure that the sample is sufficiently representative to yield, within a small margin of error, coefficients equal or proportional to those that could be extracted from other samples equal or larger in size.

## I NTRODUCTION

### 4.11 Frequency Weighting

Our textual counts were exhaustive, so that the frequency index of every word represents the number of all its occurrences in the entire sample; no word, however frequent or infrequent, was discounted before or during the count, either on the basis of a preliminary study or after the count had reached a pre-established total. As a result, no adjustments were needed to equalize the results obtained in potentially unequal samples.

The hierarchy established in terms of frequency is given in the second column of Part Two, and the results of a brief statistical analysis of the most frequent 5,000 words are provided in 5.1 , where it appears that the increase in rank is accompanied by the type of decrease in frequency known as the Zipf law.

### 4.12 High Frequency Words

For an insight into the type of words which populate the high frequency ranges, consider the 100 most frequent words, four articles, eleven prepositions, eight conjunctions, 23 pronouns, eleven (mostly functional) adverbs, fourteen (mostly functional) adjectives, nineteen verbs, nine nouns, and one numeral:

## articles: il, la, lo, uno

prepositions: a, come, con, da, di, fra, in, per, senza, su, tra
conjunctions: che, come, e, ma, o, perchè, quando, se
pronouns: altro, che, chi, $\mathrm{ci}^{1}$, $\mathrm{ci}^{2}$, cui, egli, io, la, le, li, lo, lui, mi, ne, noi, quale, quello, si, ti, tu, tutto, vi adverbs: anche, ancora, come, così, già, no, non, ora, più, poi, sempre
adjectives: altro, grande, loro, mio, nostro, nuovo, ogni, più, primo, qualche, quello, questo, suo, tutto
verbs: andare, avere, avere $a u x$., dare, dire, dovere, essere, essere $a u x$., fare, parere, parlare, potere, sapere, stare, stare aux., trovare, vedere, venire, volere
nouns: anno, casa, cosa, giorno, parte, sud, uomo, vita, volta
numeral: due

### 4.13 Low Frequency Words

For an insight into the type of words which populate the low frequency ranges, consider the 261 words with five occurrences (ranks 4701 to 4961 ), four numerals, ten adverbs, 48 verbs, 77 adjec tives, 120 nouns, one pronoun, and one interjection:

| numerals: adverbs: | diciassette, quattordici, tredici, ventiquattro colà, dappertutto, egualmente, felicemente, giornalmente, miracolosamente, quaggiù, sinceramente, solidamente, temporaneamente |
| :---: | :---: |
| verbs | abbagliare, addomesticare, affiorare, alleggerire, allestire, alloggiare, annodare, appassionare, ardere, assimilare, astenere, bastonare, calcare, chiarificare, collaborare, contraddire, declinare, dispensare, dissetare, forzare, gravare, imboccare, impallidire, incendiare, inclinare, issare, languire, licenziare, maledire, modellare, modulare, ondeggiare, raffigurare, ravvolgere, ributtare, ricomporre, rinchiudere, rinfrancare, rispecchiare, scarmigliare, scatenare, sgambettare, sottolineare, squadrare, |
| adject | abbassato, accennato, accorato, adiacente, adorabile, africano, agevole, aggressivo, alato, allineato, altrui, archeologico, arioso, armonioso, arruffato, atterrito, attiguo, barbarico, casalingo, contiguo, corroso, cronologico, decaduto, dimenticato, disgraziato, disseminato, distribuito, frenetico, fuggevole, gagliardo, gremito, immutabile, inaudito, inconsistente, ingrato, inquietante, insensato, insufficiente, intrinseco, involontario, irraggiungibile, lecito, mancato, meschino, miserabile, mostruoso, nasale, operoso, penetrante, piemontese, poggiato, postumo, prolungato, rialzato, riconoscibile, rilevato, riunito, rude, rurale, scheletrico, sciolto, scrupoloso, smisurato, soddisfatto, soffocato, soggetto, spaventevole, strambo, stupefacente, stupendo, sublime, sudato, sveglio, |
| nouns: | adolescente, aggruppamento, agricoltore, altipiano, ammaestramento, ammontare, appetito, apprensione, ara, architettura, arsenale, ascolto, aurora, automobilismo, becco, benda, bottone, boxe, braccetto, cabina, cagione, caminetto, carriera, cautela, certo, cesta, chiamata, chiaro, cittadina, coincidenza, collana, colpevole, compensazione, concittadino, condannato, continuità, |


#### Abstract

corno, deposizione, difensore, discrezione, diva, esagerazione, fiaba, fiammella, fibra, finezza, forestiero, gentilezza, gentiluomo, ghiacciaio, giovinetto, granduca, grosso, indomani, insidia, intonaco, lanterna, levante, licenza, limo, litigio, mandibola, manoscritto, marchio, messo, monaco, monastero, moro, murata, necessario, opuscolo, orazione, palpito, parentesi, pasqua, pensatore, pensione, picco, precedenza, pregiudizio, presa, principale, profezia, prua, pulviscolo, razza, redenzione, rena, resa, rifiuto, ritegno, ritirata, rogo, sarto, segretaria, seguente, sentinella, sifilide, sintesi, smeraldo, società ${ }^{2}$, sospensione, stabilità, stima, superiore, sussidio, svago, tempra, timone, tiro, toga, trasparenza, turco, vacanza, valuta, venerazione, vigilia, vivo, zitella, zolla


pronoun: sola
interjection: olà

### 4.2 Dispersion

The preceding list suggests that pure frequency is not sufficiently discriminating, inasmuch as it assigns the same coefficient to 261 words with five occurrences (from rank 4701 to rank 4961, the order is alphabetical). Dispersion may therefore be used to discriminate between words characterized by the same frequency.

### 4.21 Dispersion Weighting

In order to emphasize that simple frequency is not sufficiently discriminating, notice that the ten occurrences of eight words are dispersed in two genres, those of 73 words in three, those of 94 in four, and those of 42 in five. To be sure, thirty different distributions are possible for ten occurrences in a maximum of five genres, as follows:

| one | two | three | four | five |
| :--- | :--- | :--- | :--- | :--- |
| 10 | $9: 1$ | $8: 1: 1$ | $7: 1: 1: 1$ | $6: 1: 1: 1: 1$ |
|  | $8: 2$ | $7: 2: 1$ | $6: 2: 1: 1$ | $5: 2: 1: 1: 1$ |
|  | $7: 3$ | $6: 3: 1$ | $5: 3: 1: 1$ | $4: 3: 1: 1: 1$ |
|  | $6: 4$ | $6: 2: 2$ | $5: 2: 2: 1$ | $4: 2: 2: 1: 1$ |
|  | $5: 5$ | $5: 4: 1$ | $4: 4: 1: 1$ | $3: 3: 2: 1: 1$ |
|  |  | $5: 3: 2$ | $4: 3: 2: 1$ | $3: 2: 2: 2: 1$ |
|  |  | $4: 4: 2$ | $4: 2: 2: 2$ | $2: 2: 2: 2: 2$ |
|  |  | $4: 3: 3$ | $3: 3: 3: 1$ |  |
|  |  |  | $3: 3: 2: 2$ |  |

The various techniques for measuring dispersion, both simple and complex, have been examined in section 1.22 of the Frequency Dictionary of Spanish Words. ${ }^{19}$

Our own technique, discussed in section 1.223 of the same study, ${ }^{20}$ relies on the ratio of the standard deviation to the mean. The dispersion index used is:

$$
D=1-1 / 2(\sigma / \bar{X})=1-\sqrt{\frac{n \Sigma X_{i}^{2}-T^{2}}{2 T}}
$$

where $\sigma / X$ is also known as the coefficient of variation. This, of course, associates higher values of $D$ with even allocations over genres, and lesser values of $D$ with clustering in one or two genres. In this formula, $n$ represents the number of genres, here 5 ; and $T$ is the sum of the frequencies in the genre:

$$
X_{1}+X_{2}+\ldots+X_{n} \text {, or } T=\Sigma X_{i}, \text { while } \Sigma X_{i}^{2}=X_{1}^{2}+X_{2}^{2}+\ldots+X_{n}^{2}
$$

10 Cf. $F D S W$, pp. xlv-lv.
${ }^{20}$ Cf. $F D F W$, pp. li-lvii.

## INTRODUCTION

Let $\bar{X}$ be the mean or average value of the X frequencies,

$$
\bar{X}=\frac{1}{n} \Sigma X_{i}=\frac{T}{n}
$$

Then the variance $\sigma^{2}$, which is the average of the squared differences from the mean, can be written:

$$
\sigma^{2}=\frac{1}{n} \Sigma\left(X_{i}-\not X\right)^{2}
$$

The square root $\sigma$ of this expression is the standard deviation. By converting the term defining $\sigma^{2}$, we also have:

$$
\sigma^{2}=\frac{\Sigma X_{i}^{2}-n \bar{X}^{2}}{n}
$$

If we multiply by $n^{2}$, we arrive at:

$$
n^{2} \sigma^{2}=n \Sigma X_{i}^{2}-(n \bar{X})^{2}
$$

or, using the symbols introduced above:

$$
n^{2} \sigma^{2}=n \Sigma X_{i}^{2}-T^{2}
$$

The term on the right side of this equation is the expression under the radical sign in the above definition of $D$. Thus, we can rewrite:

$$
D=1-\frac{n \sigma}{2 T}=1-\frac{\sigma}{2 X}
$$

This means that in calculating $D$, one first determines the standard deviation from the mean. The mean is doubled, so that the quotient to be subtracted from 1 will typically vary between 0 and 1 . While the quotient increases with the size of $\sigma$ relative to $\bar{X}$, the total coefficient $D$ conversely increases from 0 to 1 with the decreasing size of $\sigma$ relative to $X$. A value of $D=0$ may be regarded as dispersion pessima, a value of $D=1$ as dispersion optima. A word whose occurrences cluster in one category will have a dispersion of 0 regardless of frequency; a word whose occurrences are equally distributed among the genres has a dispersion of 1 regardless of frequency.

Calculated according to this formula, the dispersion coefficients of the thirty possible distributions of ten occurrences in a maximum of five genres, together with the words characterized by these coefficients, are as follows:

| 0.00 | 10:0:0:0:0 | none |
| :---: | :---: | :---: |
| 7.50 | 9:1:0:0:0 | none |
| 22.50 | 8:2:0:0:0 | none |
| 24.17 | 8:1:1:0:0 | adibire, anomalia, convertire, emigrato, estratto, incendio, incompleto, mangiatoia, milite, pellegrinaggio, presidenza, proiezione, simile n., traffico |
| 31.08 | 7:3:0:0:0 | catacomba, esito, inghiottire, nonostante prep., polemica, prefetto, risorgimento, scheletro, se inter. |
| 34.81 | 7:2:1:0:0 | alunno, bimba, chioma, divano, intorno $n$., numerico, odierno, passaporto, schiena, trasporto, tuttavia conj., urlo |
| 36.75 | $\begin{aligned} & 7: 1: 1: 1: 0 \\ & 6: 4: 0: 0: 0 \end{aligned}$ | concreto, rimpiangere, sgomento impartire, modificazione, ottocento, parziale, qualitativo, radiotelegrafico, telefonico, utilizzazione |
| 38.76 | 5:5:0:0:0 | sor, spasimo |
| 42.99 | 6:3:1:0:0 | appello, direttivo, esaltazione, esaurire, esercitazione, germe, ironico, parlamento, rivendicazione, sfogare, tenda, varcare |


| 45.23 | 6:2:2:0:0 | berretto, delirio, firma, giornalista, mondano, revisione, smarrito |
| :---: | :---: | :---: |
| 47.56 | 6:2:1:1:0 | adempiere, anzichè, confidare, delitto, devozione, ignoranza, navigazione, nettamente, perchè n., proprio adject., scontare, serra |
|  | 5:4:1:0:0 | dinanzi $a d v .$, pazienza, prolungare, rado, spaventare, topo, travaglio |
| 50.00 | 6:1:1:1:1 | apparente, miniera |
| 52.57 | 5:3:2:0:0 | borgo, comunque, coronare, dodici, furore, grossolano, imminente, incarico, inganno, irritare, lombardo, mostro, seccare, selvatico, su n., tremante, vecchiaia, velluto |
| 55.28 | 5:3:1:1:0 | asserire, custode, fortemente, generico, guida, umiltà |
|  | 4:4:2:0:0 | consistenza, insegnante, italico, lutto, opposizione, smarrire, straccio, suora |
| 58.17 | 5:2:2:1:0 | accesso $n$., aggettivo, anzitutto, buono n., canna, circoscrivere, freschezza, giovinetta, incessante, lega, rimproverare, sempre adverb., senso ${ }^{2} n$. (common sense), soffio |
|  | 4:4:1:1:0 | delicatezza, esteriore, gaio, greco n., investire |
|  | 4:3:3:0:0 | commentare, credito, filare, fremere, illustrazione, misero, strettamente, veduto, voluttà |
| 61.27 | 5:2:1:1:1 | cambiamento, cosicchè, fiancheggiare, regolamento, rio, stabile, viceversa |
| 64.64 | 4:3:2:1:0 | allegria, caduta, capanna, custodire, decina, definitivamente, donare, elenco, elogio, frattanto, gonna, gratitudine, implorare, invenzione, maestro, adj. maturare, oscillare, pelo proiettare, protestare, raccolto, rotto, sboccare, scampo, scossa, seconda pron., sotto $n$., urgente, veloce, vocazione |
| 68.37 | 4:3:1:1:1 | convinzione, fiera, ispirazione, serenità, sicchè |
|  | 4:2:2:2:0 | cena, due $n .$, meglio adj., salone |
|  | 3:3:3:1:0 | liberazione, presentire, splendente |
| 72.61 | 4:2:2:1:1 | accingere, contenuto adj., funebre, governare, rivoltare, soggiorno |
|  | 3:3:2:2:0 | bensi, depositare, metallo, perfezionare, preda, tremendo |
| 77.64 | 3:3:2:1:1 | compenso, evoluzione, gabbia, lucente |
| 84.19 | 3:2:2:2:1 | accumulare, disco, discreto, dovunque, impressionare, nube, rimedio |

Note that 26 different distributions of 10 occurrences correspond to 18 dispersion coefficients, which illustrates the capacity of our formula to assign the same dispersion coefficient to different distributions of the same number of occurrences. To be sure, a more even dispersion in a smaller number of genres may compensate for a less even dispersion in a larger number of genres: the coefficient 36.75 corresponds to $7: 1: 1: 1: 0$ as well as $6: 4: 0: 0: 0,47.56$ to $5: 3: 1: 1: 0$ and to $5: 4: 1: 0: 0$, 72.61 to $4: 2: 2: 1: 1$ and $3: 3: 2: 2: 0$; even more, 58.17 is the coefficient of three different dispersions, $5: 2: 2: 1: 0,4: 4: 1: 1: 0$, and $4: 3: 3: 0: 0$, just as 68.37 characterizes $4: 3: 1: 1: 1,4: 2: 2: 2: 0$, and 3:3:3:1:0.

Essentially determined by the distribution evenness/unevenness of occurrences, the coefficient of dispersion is slightly biased by certain properties of the formula and by the five-fold division of the sample, which favor certain coefficients at the expense of certain others. Regardless of language, words with the same frequency tend to cluster around certain dispersion coefficients, as illustrated by the following tabulation of French, Rumanian, Spanish, and Italian words with ten occurrences:

|  | Fr | Rum | $S p$ | It |
| ---: | ---: | ---: | ---: | ---: |
| $\mathbf{1 0 0 . 0 0}$ | 1 | 0 | 0 | 0 |
| $\mathbf{8 4 . 1 8}$ | 7 | 4 | 7 | 7 |
| $\mathbf{7 7 . 6 3}$ | 8 | 7 | 5 | 4 |
| $\mathbf{7 2 . 6 1}$ | 23 | 9 | 15 | 6 |
| $\mathbf{6 8 . 3 7}$ | 14 | 11 | 16 | 12 |
| $\mathbf{6 4 . 6 4}$ | 26 | 20 | 28 | 31 |
| $\mathbf{6 1 . 2 7}$ | 8 | 4 | 5 | 7 |
| $\mathbf{5 8 . 1 6}$ | 22 | 28 | 29 | 29 |
| $\mathbf{5 5 . 2 7}$ | 23 | 15 | 24 | 14 |
| $\mathbf{5 2 . 5 6}$ | 14 | 15 | 18 | 18 |
| $\mathbf{5 0 . 0 0}$ | 1 | 1 | 0 | 2 |
| $\mathbf{4 7 . 5 5}$ | 15 | 28 | 23 | 19 |
| $\mathbf{4 5 . 2 2}$ | 4 | 0 | 7 | 7 |
| $\mathbf{4 2 . 9 9}$ | 21 | 22 | 20 | 12 |
| $\mathbf{3 8 . 7 6}$ | 1 | 0 | 2 | 2 |


| $\mathbf{3 6 . 7 5}$ | 8 | 6 | 11 | 11 |
| ---: | ---: | ---: | ---: | ---: |
| 34.80 | 17 | 18 | 17 | 12 |
| 31.08 | 6 | 3 | 6 | 9 |
| 24.17 | 0 | 10 | 0 | 14 |

Certain coefficients appear to be favored, e.g., 72.61, 68.37, 64.64, 58.16, 55.27, 52.56, 47.55, 42.99 , and $\mathbf{3 4 . 8 0}$, while others, such as $\mathbf{1 0 0 . 0 0}, \mathbf{5 0 . 0 0}$, or $\mathbf{3 8 . 7 6}$, are not. Favored coefficients are not necessarily those which characterize more than one possible distribution: if both 68.37 and 58.17 apply to three different distributions, 72.61, 64.64, 52.56, 42.99, and 34.81 correspond to one only.
It goes without saying that our formula, which can assign different dispersion coefficients to words with the same number of occurrences, can also assign the same dispersion coefficient to words with different frequencies, as illustrated by the following 121 words with dispersion coefficient 59.18 ranked in decreasing order of frequency:

| Freq. Dispersion |  |  |
| :---: | :---: | :---: |
| 33 | 16:7:7:3:0 | costume |
| 21 | 10:6:3:1:1 | pittura |
|  | 9:7:4:1:0 | marchese |
| 18 | 9:4:3:1:1 | nascita |
|  | 9:3:3:3:0 | aereo, nostro pron. |
| 15 | 7:4:3:1:0 | bontà, migliorare, sottrarre |
| 12 | 6:3:1:1:1 | accertare, impegnare, spogliare |
|  | 6:2:2:2:0 | ambizione, apprezzare, autorevole, moneta, risveglio |
|  | 4:4:4:0:0 | preferenza |
| 9 | 4:3:1:1:0 | agitato, alquanto adj., americano $n$., angoscioso, arnese, assassinio, benefico, catalogo, ceppo, crescente, discendente, distruzione, gradito, lama, marciare, nastro, prevenire, proiettile ribellione, saldo, serrato, tondo, vivamente |
|  | 3:3:3:0:0 | gemma, interminabile, norvegese, sia conj. |
| 6 | 3:1:1:1:0 | abate, annotare, assiduo, attestare, avvertimento, cinquecento num., colonico, delizia, eccitazione, effimero, esemplare, fieno, fissazione, impastare, incubo, indubbiamente, ingiustizia, liberamente, lustro n., novello, orientare, pantalone, pari $n$., pausa, pienamente, possibilmente, premura, presto adj., quinto, rinascita, rosa adj., sanità, somiglianza, supremazia, svenire, tempo ${ }^{2}$ |
|  | 2:2:2:0:0 | affissare, allineare, ampiezza, ancora $n$., annegare, arbitrario, auspice, campanile, centesimo, circolare $v .$, culto, desiderato, disponibile, dotto, ducato, entusiasta, espandere, estivo, evo, freccia, guizzare, inerzia, insignificante, laborioso, legislazione, mescolanza, miracoloso, oscurare, previsione, quercia, ricetta, riordinare, riversare, severamente, sfogliare, sospeso, spaccare, talento, vallata, vegliare, vezzo. |

Note that only seven different frequencies correspond to the eleven different distributions of words with the same coefficient of dispersion, which illustrates in reverse the fact that the formula can assign the same dispersion coefficient to different distributions of the same number of occurrences.
It may be of interest to compare, according to the number of occurrences, the 122 French, the, 123 Spanish, and the 121 Italian words having the same dispersion coefficient of 59.18:

| Frequency | Fr | $S p$ | $I t$ |
| :---: | ---: | ---: | ---: |
| $\mathbf{8 1}$ | 0 | 1 | 0 |
| 45 | 0 | 0 | 0 |
| 33 | 0 | 0 | 1 |
| 30 | 2 | 2 | 0 |
| 27 | 1 | 0 | 0 |
| 21 | 0 | 2 | 2 |
| 18 | 1 | 3 | 3 |
| 15 | 8 | 2 | 3 |


| 12 | 1 | 10 | 9 |
| ---: | ---: | ---: | ---: |
| 9 | 26 | 23 | 27 |
| 6 | 83 | 80 | 77 |

### 4.22 High Dispersion Words

For an insight into the type of words which populate the high dispersion ranges, consider the 100 most evenly dispersed words, three articles, two numerals, nine pronouns, three conjunctions, seven prepositions, 19 adjectives, nine adverbs, 24 nouns, and 24 verbs:

| articles: | il, la, uno |
| :--- | :--- |
| numerals: | quattro, tre |
| pronouns: | altra, altro, che, loro, ognuno, quello, questa, una, uno |
| conjunctions: | come, e, mentre |
| prepositions: | a, da, di, con, fra, per, tra |
| adjectives: | abbastanza, altro, certo, chiaro, dimenticato, forte, grande, intimo, molto, ogni, più, questo, raro, <br> riconoscibile, stesso, troppo, tutto, ultimo, zelante |
| adverbs: | altrettanto, anche, anzi, continuamente, già, lontano, pur, sempre, solamente <br> nouns: <br> affetto, anno, campagna, certezza, collega, corpo, cura, eleganza, giro, lettura, mare, mese, miglio, <br> nome, ora, peso, rogo, sangue, segno, sensibilità, splendore, vacanza, volta, vuoto |
| verbs: | accompagnare, avere, avvertire, cessare, comandare, comprendere, condurre, congiungere, dare, <br> discendere, incontrare, mancare, offrire, preparare, provare ${ }^{1}$, ricordare, riflettere, ripetere, riuscire, |
|  | scrivere, sembrare, servire, solere, trovare |

If we compare the 100 most evenly dispersed words with the 100 most frequent words, we notice that only 23 are common: a, altro, anche, anno, avere, da, dare, di, fra, già, grande, il, la, ogni, per, più, questo, sempre, tra, trovare, tutto, uno, volta.

### 4.23 Low Dispersion Words

For an insight into the types of words which populate the lower end of the dispersion scale, consider the last 100 words, one preposition, one conjunction, two pronouns, two interjections, four adverbs, six verbs, 17 adjectives, and 67 nouns:

```
preposition: appunto
conjunction: dove
pronouns: lei, tu
interjections: ah, eh
adverbs: ebbene, no, pertanto, stanotte
verbs: applicare, approvare, constare, dedurre, differenziare, situare
adjectives: apostolico, cospicuo, eminente, ereditario, esteso, giapponese, letterario, negativo, neutrale, nor-
    male, polacco, primario, sperimentale, successivo, tuo, vegetale, zitto
    acido, aeroplano, agenzia, alleato, asse, apparato, approssimazione, assistenza, associazione, avia-
    zione, benedizione, bordo, britannico, caduto, calcolo, cardinale, cassetto, cellula, cento, ciclo,
    cilindro, commemorazione, comportamento, conflitto, conservatore, console, contessa, cripta,
    curva, dea, decreto, degenerazione, determinazione, diffusione, fedele, giapponese, giunta, inaugu-
    razione, incidente, laboratorio, lesione, monsignor, museo, neutralità, nucleo, particella, pendolo,
    presidente, pressione, prosa, radice, ricerca, rottura, salotto, santità, scirocco, seme, strato, superfice,
    tessuto, transmissione, urto, variazione, vecchia, vescovo, voce }\mp@subsup{}{}{2}
```


### 4.3 Usage

Exclusive reliance on either frequency or dispersion is not likely to provide the ranking, which best reflects word usage in the language as a whole. Indeed, frequency based predictions about the occurrence of words in representative texts or in conversation would lead us to assume that elevato for instance, is as important a word as panorama, an anomaly which could be mechanically cor-

## INTRODUCTION

rected with reference to differences in dispersion; and vice versa, scholars who think that pure dispersion is a more reliable index of word usage would have to assume that a word such as oratorio for instance, is among the most useful of Italian words, an anomaly which could be corrected with reference to differences in frequency. Obviously, a formula relying on both frequency and dispersion is needed, which would exploit both in a meaningful way.

### 4.31 Usage Weighting

We have indicated elsewhere that techniques which rank words with reference to both frequency and dispersion depend on a number of alternatives, the most important of which seem to be: use the two factors separately or in combination; if in combination, coordinate or subordinate the two, by assigning them equal weight in determining ranking, or by correcting rankings established in terms of one with reference to the other; the correction may be made by expansion, by reduction, or by both; correction by expansion may be an addition or a multiplication; correction by reduction may be a subtraction or a division; the alternative factors may be used exhaustively or partially, to select the entire basic vocabulary or part of it, e.g., by relying on frequency to select the top of the list, on dispersion for the bottom, and a combination of both for the middle ranges; etc. ${ }^{21}$

Our own formula ${ }^{22}$ coordinates frequency and dispersion inasmuch as the coefficients it determines are proportional to both: for the same frequency, the more or less even the dispersion, the higher or lower the coefficient of usage; and vice versa, for the same dispersion, the higher or lower the frequency, the higher or lower the coefficient of usage:

$$
U=\frac{\mathrm{F} \times \mathrm{D}}{100}
$$

This means that for $D=1$, which is the case when occurrences are equally dispersed among the categories of the sample, $U=F$; for $D=0$, which is the case when occurrences cluster in one single category, $U=0$; for $D=0.5, U=F / 2$, etc. In other words, $U$ varies between a high equal to $F$ and a low equal to 0 , depending on the magnitude of $D$. Consequently, $U$ is a dispersion percentage of $F$, which means that a less frequent word can be ranked ahead of a more frequent one, provided that its occurrences are more evenly dispersed in the genres of the sample.

The idea behind this formula is that evenly dispersed frequencies are "dense" and unlikely to "shrink" in an enlarged or improved sample, just as unevenly dispersed frequencies are "puffy" and likely to shrink if checked against a more representative sample. We assume, then, that occurrences which have maintained themselves at a steady level throughout the genres of a sample (which is what a "high dispersion coefficient" actually means) will continue to hold steadily at the same level, without climbing or declining abruptly if the sample is improved by adding new genres or by enlarging existing ones. Conversely, we assume that occurrences which fluctuate widely from genre to genre have not yet found their natural level and will tend to stabilize on a lower level in an enlarged and homogenized sample.

In turn, these assumptions are justified with reference to other, more concrete ones, since steadily frequent occurrences throughout the genres of a sample must have either a linguistic or an extra-linguistic justification: they must be associated with some constantly recurrent characteristic of the substance (meaning) communicated, or of the form (medium) of communication.

[^3]Thus, for evenly dispersed functional words, high frequency is conditioned by the recurrence of a relatively small number of grammatical modes which express relations between the terms of grammatical propositions regardless of the semantic content conveyed by the roots of the lexical words; for evenly dispersed lexical words, high frequency must be determined by the recurrence of certain constant conditions in the natural, physical, social, or cultural environment, which are likely to be present regardless of the topics which characterize a particular genre. However, the high frequency of unevenly dispersed lexical words can be explained only as a result of the hazards of random selection, which may favor terms associated with a topic characteristic of a particular genre, e.g., medical terms in scientific literature.

Such assumptions explain why even dispersion is an indication that frequency has reached its natural level and in view of the linguistic or extralinguistic constants it reflects, is likely to maintain itself regardless of sample alterations; conversely, uneven dispersion is an indication that a high frequency word has not yet reached its natural level and is likely to stabilize at a lower level in a more homogeneous sample in which the hazard of random selection has been reduced. This partial correlation between frequency and dispersion (or between "rank" and "range") underlies techniques of vocabulary selection which stop counting words once their occurrences have reached a sufficient total to qualify for the basic total or after their presence has been attested in a certain number of genres.

To illustrate how the coefficient of usage varies relative to both frequency and dispersion consider the 15 words with the same usage coefficient of 10.00 :

| Frequency |  | Dispersion |
| :---: | :--- | :---: |
| 26 | ammazzare | 38.46 |
| 23 | trasformazione | 43.48 |
| 18 | muto | 55.56 |
| 16 | allargare, verde n., vivente | 62.50 |
| 15 | apprendere, compreso, isolato, | 66.67 |
|  | olio, penna, serbare |  |
| 14 | affondare, cinque n., trono | $\mathbf{7 1 . 4 3}$ |

It may be interesting to tabulate according to frequency and dispersion the 32 French, 31 Spanish, 34 Rumanian, and 15 Italian words having a coefficient of usage of 10.00 :

| Frequency |  |  |  |  | Dispersion |
| :---: | :---: | :---: | :---: | :---: | ---: |
|  | $F r$ | $S p$ | Rum | It |  |
| 26 | 0 | 0 | 0 | 1 | 38.46 |
| 23 | 0 | 0 | 0 | 1 | 43.48 |
| 22 | 0 | 2 | 0 | 0 | 45.45 |
| 21 | 0 | 1 | 0 | 0 | 49.05 |
| 20 | 1 | 0 | 1 | 0 | 50.00 |
| 18 | 3 | 5 | 3 | 1 | 55.56 |
| 17 | 1 | 7 | 3 | 0 | 58.82 |
| 16 | 2 | 1 | 4 | 3 | 62.50 |
| 15 | 4 | 2 | 7 | 6 | 66.67 |
| 14 | 8 | 7 | 7 | 3 | $\mathbf{7 1 . 4 3}$ |
| 13 | 7 | 3 | 4 | 0 | $\mathbf{7 6 . 9 2}$ |
| 12 | 3 | 4 | 2 | 0 | $\mathbf{8 3 . 3 3}$ |
| 11 | 2 | 2 | 0 | 0 | 90.90 |
| 10 | 1 | 0 | 0 | 0 | $\mathbf{1 0 0 . 0 0}$ |

### 4.32 High Usage Words

For an insight into the nature of rankings based on usage, consider that, except for the nouns ora, tempo ${ }^{1}$, and modo, the verbs passare, prendere, and portare, the pronoun quella, the adverb

## INTRODUCTION

dove, and the preposition dopo, the first 100 words in decreasing order of usage are the same as the first 100 words in decreasing order of frequency. The ten words which do not appear in the usage list are the pronouns $t i, t u, v i, l i$, and chi, the adverbs no and come, the noun casa, and the auxiliary (modal) stare, whose coefficients of usage are reduced by uneven dispersions.

### 4.33 Low Usage Words

As for words which populate the lower usage ranges, consider the 146 words with a usage coefficient of $3.08,6$ adverbs, 31 verbs, 31 adjectives, and 78 nouns:

| adverbs: verbs: | attentamente, fortunatamente, presso, simultaneamente, tutto, violentemente abbondare, affannare, analizzare, annoiare, avviluppare, conciliare, crollare, danneggiare, disprezzare, educare, eleggere, enunciare, implicare, imputare, occhieggiare, ostinare, perseguire, poggiare, premettere, professare, restaurare, riaprire, ridestare, rischiare, risiedere, schizzare, seminare, sfilare, spiccare, subentrare, tollerare. |
| :---: | :---: |
| nouns: | addio, adesione, amica, annunzio, ausilio, avamposto, avanti, avvento, avvilimento, beffa, benemerenza, branco, brano, breve, brigante, calzone, cantina, cappellino, carnevale, cartolina, castigo, cemento, cicala, cipresso, classico, clientela, crocifisso, deformazione, dieci, efficienza, grasso, guadagno, importazione, insegna, intento, interessamento, laurea, mascella, miglioramento, navata, nobile, obiezione, onestà, opposto, ostinazione, paga, paglia, passante, piccolo, pistola, premessa, preparativo, provinciale, purgatorio, requie, ricorso, riflessione, romanziere, rondine, scoglio, sdegno, sì, specialista, spinta, subbuglio, tappeto, triangolo, turchino, veduta, vibrazione. |
| adjectives: | alzato, amante, amato, arguto, conservato, corretto, democratico, diligente, equivoco, espressivo, insensibile, inumano, invincibile, lugubre, memorabile, mensile, mesto, obliquo, plastico, raffinato, redditizio, ricamato, ruvido, sanguigno, scialbo, sodo, sorridente, spietato, sporgente, vertiginoso, violaceo. |

The parallelism of frequency and usage rankings raises an important question concerning the value of the latter. For low range words the significance of the usage coefficients is clear, since very few occupy the same position in the usage ranking as in the frequency ranking. As a matter of fact, the difference between usage and frequency rankings is actually greater than suggested by a comparison of the two, inasmuch as our three parallel columns provide, in decreasing order of usage, of frequency, and of dispersion, the same 5,000 words selected in terms of usage. Had we taken the first 5,000 in terms of frequency regardless of dispersion, the first 5,000 in terms of dispersion regardless of frequency, and the first 5,000 in terms ot usage regardless of frequency and dispersion, differences between the three lists would be even more considerable (especially in the mid and low ranges). True, differences between words in the mid and low ranges have much less bearing on statements about the structural properties of representative texts, as the decline in the magnitude of the coefficients follows Zipf's law, thus considerably reducing their significance; the last 1,000 words total 6,196 occurrences, while the first word alone has 28,659 occurrences. This suggests that coefficients of usage are significant in making predictions about the textual occurrence of mid and especially low frequency words, but much less so in making predictions about the representative texts whose structure is essentially determined by the properties of high frequency words.

This impression can be at least partially corrected by verifying the rank occupied in the hierarchy of usage by the 50 most frequent words:

| di | 1 | 1 | uno | 7 | 7 |
| :--- | :--- | :--- | :--- | ---: | ---: |
| il | 2 | 2 | essere | 8 | 8 |
| la | 3 | 3 | lo | 9 | 9 |
| e | 4 | 4 | che | 10 | 10 |
| a | 5 | 6 | per | 11 | 13 |
| in | 6 | 5 | da | 12 | 14 |


| si | 13 | 11 | stare | 38 | 44 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| non | 14 | 12 | la | 39 | 35 |
| essere | 15 | 15 | ne | 40 | 41 |
| con | 16 | 18 | due | 41 | 47 |
| che | 17 | 16 | quale | 42 | 45 |
| avere | 18 | 17 | venire | 43 | 51 |
| avere | 19 | 19 | altro | 44 | 54 |
| questo | 20 | 24 | ci $^{1}$ | 45 | 48 |
| su | 21 | 23 | vedere | 46 | 40 |
| ma | 22 | 21 | più | 47 | 56 |
| lo | 23 | 20 | quello | 48 | 59 |
| fare | 24 | 22 | perchè | 49 | 57 |
| potere | 25 | 26 | volere | 50 | 38 |
| o | 26 | 25 | più | 32 | 34 |
| anche | 27 | 30 | dire | 33 | 29 |
| quello | 28 | 27 | dovere | 34 | 39 |
| suo | 29 | 28 | sud | 35 | 37 |
| tutto | 30 | 31 | dare | 36 | 49 |
| come | 31 | 32 | grande | 37 | 50 |

Only ten words out of fifty occupy the same rank in the two lists: ranks 1 to 4 ( $d i, i l, l a, e), 5$ to 10 (uno, essere, lo, che), 15 (essere) and 19 (avere). Twelve words differ by one rank ( $a$, in, che, avere, ma, potere, o, quello, suo, tutto, come, ne), nine by two (per, da, si, non, con, su, fare, più, sud), four by three (lo, anche, $c i^{1}$, quale), three by four (questo, dire, la), one by five (dovere), three by six (stare, due, vedere), two by eight (venire, perchè), one by nine (più), one by ten (altro), one by eleven (quello), one by twelve (volere) two by thirteen (dare, grande).

We may conclude that the formula which determines usage by adjusting frequency in terms of dispersion is more effective among the lower ranked words. Except for those whose occurrences cluster in dialogue (interjections, second person pronouns and adjectives, greeting formulae, and affective words), the more numerous the occurrences, the more even their dispersion, so that the adjustment required by the computation of usage will be proportionally smaller; and the lower the frequency, the less even the dispersion (the more subject to the hazards of random selection), so that proportionally, the adjustment will be more considerable.

## 5. THE DICTIONARY

Once the statistical hierarchies have been established, the liguist still has to make several decisions: How large should the dictionary be? How many words should it contain? How are these words to be selected from the data? How should they be presented in the dictionary?

### 5.1 Size

Since the decrease in coefficients is gradual, there is no "natural" cutting-off point to determine the number of words to be included, and the author must choose one more or less arbitrarily. There are two ways of establishing the cut-off point, based either on a minimum coefficient, which determines the number of words, or on a predetermined number of words, which determines the minimum coefficient. The decision to include all items above a certain coefficient, such as a frequency of 20 , is purely arbitrary. A somewhat less arbitrary procedure is to decide approximately how many words are appropriate to the purpose, and select as cut-off point the coefficient

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boundary nearest that number. We decided that about 5,000 words would best suit our purpose, and we selected as cut-off point the coefficient which fell closest to 5,000 . In the FDIW, this boundary happens to fall at the coefficient of 239 , which gives us 5,014 words.

A dictionary of 5,000 words may appear somewhat large in view of our purpose, since about $90 \%$ of the words in a representative text occur among the first 1,000 ; however, we decided that a more extensive list could serve a greater variety of purposes, especially studies of vocabulary and, although we did not include them among our goals, certain pedagogical uses. Extending the dictionary beyond 5,000 words soon reaches the point of diminishing returns, since the reliability of a hierarchy, its statistical classes, and their properties, declines considerably in the lower ranges.

### 5.2 Selection

The entries were selected from the top of a hierarchy established according to coefficients of usage: every word with a coefficient of 2.39 or more appears in our lists. This coefficient represents the first break after the desired total of 5,000 words, giving 5,014 entries. This simpler method of selection was adopted as a result of Muller's criticism ${ }^{23}$ of the more elaborate techniques used in the $F D S W$, where the selection was undertaken in three steps: we first eliminated all words with a frequency of less than 4; we next discarded words dispersed in fewer than three genres; from the remaining list, we eliminated all words having a coefficient of usage of less than 3.00, thus isolating a basic vocabulary of 5014 words. ${ }^{24}$

### 5.3 Structure

The Frequency Dictionary of Italian Words consists of two parts, each containing the same 5,014 words with a coefficient of usage of 2.39 or more.
Part I, pp. 1-402, presents the entries in alphabetical order; each entry is accompanied by a certain amount of information which we shall explain by examining a typical entry:

| bello adj. |  | 240.07 | 379 |  | 63.34 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 379 | 147 | 132 | 64 | 32 | 4 |
| begli | 1 | 0 | 1 | 0 | 0 | 0 |
| bei | 20 | 7 | 7 | 5 | 1 | 0 |
| bel | 73 | 23 | 27 | 15 | 8 | 0 |
| bell' | 12 | 5 | 5 | 1 | 0 | 1 |
| bella | 141 | 59 | 54 | 19 | 9 | 0 |
| belle | 38 | 14 | 12 | 6 | 5 | 1 |
| belli | 18 | 9 | 2 | 4 | 3 | 0 |
| bellissima | 14 | 3 | 4 | 4 | 2 | 1 |
| bellissime | 9 | 0 | 5 | 3 | 1 | 0 |
| bellissimi | 2 | 1 | 1 | 0 | 0 | 0 |
| bellissimo | 8 | 1 | 5 | 1 | 1 | 0 |
| bello | 43 | 25 | 9 | 6 | 2 | 1 |

The first line provides the entry word, printed in bold type: bello, a part-of-speech abbreviation printed in italics: adj., the coefficient of usage, 240.07, the coefficient of frequency, 379 , and the coefficient of dispersion, 63.34.

[^4]The second line, printed in italics, provides the total number of occurrences, 379 , followed by the number of occurrences in each genre; plays, 147; novels and short stories, 132; essays, 64; newspapers and magazines, 32 ; and technical and scientific literature, 4.

The third line consists of the word variant begli, followed by the total occurrences of that variant, 1 , and by the number of its occurrences in each of the subsamples. The remaining lines list the other variants encountered in the sample, along with the same information concerning the number of occurrences of each variant.

Part II, pp. 403-519, consists of three parallel columns, which rank the words in decreasing order of usage (left), frequency (center), and dispersion (right), respectively.

In each column, the entry words are followed by a part-of-speech abbreviation, and by the appropriate coefficient. Words having the same coefficient are ordered alphabetically. Words variants are not listed in the second part.

The three lists are divided into groups of 500 ; the last group contains only 14 words, from rank 5,001 to rank 5,014 .

PART ONE

## TYPES AND TOKENS

ALPHABETICAL ORDER

## A



| abbassato adj. | 3.42 | 5 | 68.38 |
| :---: | :---: | :---: | :---: |
|  | 51 | 21 | 01 |
| abbassata | 10 | 10 | 00 |
| abbassate | 10 | $0 \quad 1$ | 0 0 |
| abbassato | 31 | 10 | 01 |
| abbastanza adj. | 20.68 | 24 | 86.18 |
| abbastanza | 244 | 55 | 37 |
| abbastanza adv. abbastanza | 12.04 | 19 | 63.35 |
|  | 195 | 16 | 07 |
| abbattere $v$. | 9.22 | 16 | 57.61 |
|  | 164 | 22 | 80 |
| * abbatte | 20 | $0 \quad 0$ | 20 |
| *abbattè | 10 | $0 \quad 0$ | 10 |
| abbattendo | 10 | $0 \quad 0$ | 10 |
| abbattere | 40 | 11 | 20 |
| *abbatteva | 11 | 00 | 0 0 |
| abbattuta | 21 | 01 | 00 |
| abbattuti | 10 | 00 | 10 |
| abbattuto | 31 | 10 | 10 |
| *abbattuto | 11 | 00 | 00 |
| abbisognare $v$. | 5.00 | 7 | 71.43 |
|  | 70 | 22 | 21 |
| abbisogna | 30 | $0 \quad 2$ | 0 |
| abbisognamo | 10 | $0 \quad 0$ | 10 |
| abbisognano | 10 | 0 | 10 |
| abbisognasse | 10 | 10 | 0 |
| abbisognava | 10 | 10 | 00 |
| abbondante adj. | 5.92 | 15 | 39.45 |
|  | 150 | 11 | 310 |
| abbondante | 60 | 01 | 23 |
| abbondanti | 70 | 10 | 15 |
| abbondantissimo | 20 | $0 \quad 0$ | 02 |
| abbondanza $n$. abbondanza | 6.08 | 9 | 67.61 |
|  | 90 | 33 | 12 |
| abbondare $v$. | 3.08 | 6 | 51.41 |
|  | 60 | 02 | 13 |
| abbonda | 20 | 01 | 01 |
| abbondano | 20 | 01 | 10 |
| abbondante | 10 | $0 \quad 0$ | $0 \quad 1$ |
| abbondanti | 10 | 00 | 01 |


| abbracciare $v$. | $\mathbf{2 2 . 9 5}$ |  |  | $\mathbf{3 8}$ |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\mathbf{6 0 . 3 9}$ |  |  |  |  |  |
|  | 38 | 5 | 19 | 8 | 4 | 2 |
| abbraccerà | 1 | 0 | 0 | 0 | 1 | 0 |
| abbraccerei | 1 | 0 | 1 | 0 | 0 | 0 |
| abbracci $s$. | 1 | 1 | 0 | 0 | 0 | 0 |
| abbraccia | 3 | 0 | 0 | 0 | 1 | 2 |
| abbracciamo | 1 | 0 | 0 | 1 | 0 | 0 |
| abbracciando | 2 | 0 | 1 | 0 | 1 | 0 |
| abbracciar | 7 | 2 | 3 | 2 | 0 | 0 |
| abbracciare | 5 | 1 | 2 | 2 | 0 | 0 |
| abbracciarono | 2 | 0 | 2 | 0 | 0 | 0 |
| abbracciata | 3 | 0 | 2 | 1 | 0 | 0 |
| abbracciato | 1 | 0 | 0 | 1 | 0 | 0 |
| abbracciava | 5 | 1 | 4 | 0 | 0 | 0 |
| abbraccio | 1 | 0 | 0 | 0 | 1 | 0 |
| abbracciò | 5 | 0 | 4 | 1 | 0 | 0 |

abile $a d j$.
abile abili

| $\mathbf{4 . 1 3}$ |  |  |  | $\mathbf{6}$ | $\mathbf{6 8 . 8 2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 2 | 1 | 2 | 1 | 0 |
| 3 | 1 | 0 | 2 | 0 | 0 |
| 3 | 1 | 1 | 0 | 1 | 0 |

abilità $n$. abilità

| abisso $n$. | $\mathbf{7 . 8 0}$ |  |  |  | $\mathbf{1 4}$ | $\mathbf{5 5 . 6 8}$ |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 14 | 1 | 2 | 7 | 4 | 0 |
| abissi | 5 | 0 | 0 | 3 | 2 | 0 |
| abisso | 9 | 1 | 2 | 4 | 2 | 0 |

abitante $n$.
abitante
abitanti
abitare $\nu$.
abita
abitante
abitare
abitarono
abitassero
abitata
abitate
abitato
abitava
$2.64 \quad 7 \quad 37.73$
$\begin{array}{llllll}7 & 3 & 0 & 4 & 0 & 0\end{array}$

\[

\]

$21.94 \quad 30 \quad 73.13$ $\begin{array}{llllll}30 & 9 & 10 & 5 & 5 & 1\end{array}$ $\begin{array}{llllll}3 & 2 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}5 & 3 & 2 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}3 & 0 & 1 & 1 & 0 & 1\end{array}$
$\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}3 & 1 & 1 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}5 & 0 & 1 & 3 & 1 & 0\end{array}$


| accademico $n$. | $\mathbf{3 . 9 4}$ |  |  |  |  | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{4 9 . 2 2}$ |  |  |  |  |  |
|  | 8 | 0 | 0 | 4 | 3 | 1 |
| accademici | 3 | 0 | 0 | 3 | 0 | 0 |
| accademico | 5 | 0 | 0 | 1 | 3 | 1 |
|  |  |  |  |  |  |  |
| accadere $v$. | $\mathbf{4 6 . 4 1}$ | $\mathbf{5 9}$ | $\mathbf{7 8 . 6 6}$ |  |  |  |
|  | 59 | 19 | 15 | 11 | 10 | 4 |
| accada ${ }^{3} s$. | 2 | 0 | 0 | 2 | 0 | 0 |
| accadde | 11 | 1 | 8 | 2 | 0 | 0 |
| accade | 18 | 7 | 1 | 3 | 4 | 3 |
| accadere | 6 | 3 | 0 | 1 | 1 | 1 |
| accadesse | 1 | 0 | 1 | 0 | 0 | 0 |
| accadeva | 2 | 0 | 2 | 0 | 0 | 0 |
| ${ }^{\text {accadeva }}$ | 1 | 0 | 0 | 1 | 0 | 0 |
| accadono | 2 | 0 | 1 | 0 | 1 | 0 |
| accadrà | 2 | 2 | 0 | 0 | 0 | 0 |
| accaduta | 1 | 0 | 1 | 0 | 0 | 0 |
| accaduto | 13 | 6 | 1 | 2 | 4 | 0 |
|  |  |  |  |  |  |  |
| accanto adv. | $\mathbf{1 2 . 6 8}$ | $\mathbf{1 6}$ | $\mathbf{7 9 . 2 7}$ |  |  |  |
| accanto | 16 | 5 | 3 | 4 | 1 | 3 |
|  |  |  |  |  |  |  |
| accanto prep. | $\mathbf{4 1 . 0 3}$ | $\mathbf{4 9}$ | $\mathbf{8 3 . 7 4}$ |  |  |  |
| accanto | 49 | 12 | 9 | 13 | 4 | 11 |
| accarezzare $v$. |  |  |  |  |  |  |
| a.26 |  | $\mathbf{7}$ | $\mathbf{4 6 . 5 5}$ |  |  |  |
| accarezza | 1 | 1 | 0 | 0 | 0 | 0 |
| accarezzare | 2 | 1 | 1 | 0 | 0 | 0 |
| accarezzato | 1 | 0 | 0 | 1 | 0 | 0 |
| accarezzava | 3 | 0 | 3 | 0 | 0 | 0 |

$\begin{array}{lllll}\text { accendere } v . & 27.25 & 42 & 67.28\end{array}$
$\begin{array}{lllllll}\text { accende } & 1 & 1 & 0 & 0 & 0 & 0\end{array}$
$\begin{array}{lllllll}* \text { accende } & 2 & 0 & 1 & 0 & 0 & 1\end{array}$ $\begin{array}{lllllll}\text { accendendo } & 1 & 0 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{lllllll}* & 1 & 1 & 0 & 0 & 0 & 0\end{array}$ $\begin{array}{lllllll}\text { accenderà } & 1 & 1 & 0 & 0 & 0 & 0\end{array}$ $\begin{array}{lllllll}\text { accenderanno } & 1 & 0 & 0 & 0 & 0 & 1\end{array}$ accendere accenderemo *accendeva accendevano accendi $i$. accendiamo
$\begin{array}{llllll}42 & 15 & 15 & 5 & 5 & 2\end{array}$ $\begin{array}{llllll}8 & 4 & 2 & 0 & 2 & 0\end{array}$ $\begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}2 & 1 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}3 & 3 & 0 & 0 & 0 & 0\end{array}$
$2 \begin{array}{llllll}2 & 0 & 0 & 0 & 0\end{array}$

ACCENNARE


| accertar | 1 | 0 | 0 | 0 | 1 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| *accertar | 2 | 1 | 0 | 0 | 0 | 1 |
| accertare | 3 | 0 | 0 | 1 | 1 | 1 |
| accertata | 2 | 0 | 0 | 0 | 2 | 0 |
| accertate | 1 | 0 | 0 | 0 | 1 | 0 |
| accertato | 2 | 0 | 1 | 0 | 0 | 1 |

acceso adj.
accesa accese accesi acceso
accesso $n$.
accessi accesso
accettare $\nu$.
accetta
*accetta accettai accettando accettano accettare accettarono accettata accettato accettava accetterò accettiamo accetto accettò
acciaio $n$.
acciai acciaio
accingere $v$.
*accinge
*accinger
*accingete
$12.26 \quad 20 \quad 61.28$

| 20 | 1 | 9 | 6 | 3 | 1 |
| :--- | :--- | :--- | :--- | :--- | :--- | $\begin{array}{llllll}2 & 0 & 2 & 0 & 0 & 0\end{array}$ $\begin{array}{llllll}3 & 1 & 1 & 1 & 0 & 0\end{array}$ $\begin{array}{llllll}6 & 0 & 2 & 4 & 0 & 0\end{array}$ $\begin{array}{llllll}9 & 0 & 4 & 1 & 3 & 1\end{array}$


| $\mathbf{5 . 8 2}$ |  |  |  | $\mathbf{1 0}$ |  |
| ---: | :---: | :---: | ---: | ---: | ---: |
| $\mathbf{5 8 . 1 7}$ |  |  |  |  |  |
| 10 | 0 | 1 | 2 | 2 | 5 |
| 3 | 0 | 0 | 0 | 1 | 2 |
| 7 | 0 | 1 | 2 | 1 | 3 |

$47.61 \quad 64 \quad 74.40$ $\begin{array}{llllll}64 & 13 & 11 & 16 & 22 & 2\end{array}$
$\begin{array}{llllll}7 & 1 & 0 & 4 & 2 & 0\end{array}$
$\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}4 & 0 & 0 & 2 & 2 & 0\end{array}$
$\begin{array}{llllll}2 & 0 & 1 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}15 & 1 & 2 & 5 & 7 & 0\end{array}$ $\begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}5 & 1 & 0 & 0 & 3 & 1\end{array}$
$\begin{array}{llllll}15 & 1 & 6 & 2 & 5 & 1\end{array}$
$\begin{array}{llllll}2 & 0 & 1 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}2 & 1 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}7 & 7 & 0 & 0 & 0 & 0 \\ 1 & 0 & 0 & 0 & 1 & 0\end{array}$
$9.26 \quad 13 \quad 71.22$ $\begin{array}{llllll}13 & 1 & 3 & 1 & 5 & 3\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 0 & 1\end{array}$
$\begin{array}{llllll}12 & 1 & 3 & 1 & 5 & 2\end{array}$
*accingete
$\begin{array}{lll}7.26 & 10 & 72.61\end{array}$
$\begin{array}{llllll}10 & 1 & 1 & 2 & 2 & 4\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 0 & 1\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$
$\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$

| * accingeva | 20 |  | 1 | 0 | 0 | 0 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| *accingo | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| * accinse | 3 | 0 | 0 | 0 | 2 | 2 | 1 |
| *accinto | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| accogliere $\boldsymbol{v}$. | 35.28 |  | 53 |  | 66.57 |  |  |
|  | 53 | 4 | 6 | 14 | 23 | 3 | 6 |
| accoglie | 6 | 0 | 0 | 0 | - 2 | 2 | 4 |
| accogliendo | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| accoglier | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| accogliere | 12 | 1 | 0 | 6 | 6 | 4 | 1 |
| accogliesse | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| accoglieva | 3 | 0 | 2 | 0 | 1 | 1 | 0 |
| accolga | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| accolgono | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| accolse | 4 | 0 | 2 | 1 | 1 | 1 | 0 |
| accolsero | 1 | 0 | 0 | 1 | 0 | 0 | 0 |
| accolta | 4 | 1 | 0 | 0 | - 3 | 3 | 0 |
| accolte | 4 | 0 | 0 | 1 | 13 | 3 | 0 |
| accolti | 5 | 1 | 0 | 2 | 2 | 2 | 0 |
| accolto | 9 | 0 | 1 | 2 | 26 | 6 | 0 |
| accomodamento $n$. accomodamento | 4.13 |  |  | 6 | 68.82 |  |  |
|  | 6 | 1 | 2 | 1 | 2 | 2 | 0 |
| accomodare $v$. | 3.86 |  | 11 |  | 35.08 |  |  |
|  | 11 | 7 | 4 | 0 | 0 | 0 | 0 |
| *accomoda | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| accomodar | 2 | 1 | 1 | 0 | 0 | 0 | 0 |
| accomodare | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| accomodate | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| *accomodati | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| *accomodato | 1 | 1 | 0 | 0 | 00 | 0 | 0 |
| accomoderà | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| *accomodi i. | 3 | 3 | 0 | 0 | 0 0 | 0 | 0 |
| accompagnare $\nu$. | 82.15 |  |  | 95 | 86.48 |  |  |
|  | 95182 |  |  | 10 | 1024 | 24 | 19 |
| accompagna | 9 | 4 | 0 | 2 | 20 | 0 | 3 |
| *accompagna | 5 | 0 | 0 | 1 | 11 | 1 | 3 |
| accompagnai | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| accompagnan | 12 | 1 | 3 | 2 | 22 | 2 | 4 |
| accompagnar | 8 | 3 | 3 | 1 | 11 | 1 | 0 |
| accompagnare | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| accompagnasse | 3 | 0 | 2 | 1 | 10 | 0 | 0 |
| accompagnato | 39 | 4 | 9 |  | 216 | 16 | 8 |

$\begin{array}{lllllll}\text { accompagnava } & 6 & 0 & 3 & 1 & 2 & 0 \\ \text { accompagnerà } & 2 & 0 & 1 & 0 & 1 & 0 \\ \text { accompagno } & 5 & 5 & 0 & 0 & 0 & 0 \\ \text { accompagnò } & 4 & 0 & 3 & 0 & 1 & 0\end{array}$

| acconsentire $v$. | $\mathbf{3 . 0 0}$ |  |  |  | $\mathbf{4}$ | $\mathbf{7 5 . 0 0}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4 | 1 | 1 | 1 | 1 | 0 |
| acconsentan | 1 | 0 | 0 | 0 | 1 | 0 |
| acconsente | 1 | 0 | 0 | 1 | 0 | 0 |
| acconsenti | 1 | 1 | 0 | 0 | 0 | 0 |
| acconsentì | 1 | 0 | 1 | 0 | 0 | 0 |


| accontentare $v$. | $\mathbf{1 0 . 6 8}$ |  |  |  | $\mathbf{1 4}$ |  |  | $\mathbf{7 6 . 3 1}$ |
| :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 14 | 3 | 5 | 1 | 2 | 3 |  |  |
| accontentano | 1 | 0 | 1 | 0 | 0 | 0 |  |  |
| accontentare | 9 | 3 | 3 | 1 | 1 | 1 |  |  |
| accontentato | 1 | 0 | 0 | 0 | 1 | 0 |  |  |
| accontentava | 1 | 0 | 1 | 0 | 0 | 0 |  |  |
| accontenterei | 1 | 0 | 0 | 0 | 0 | 1 |  |  |
| accontentiamo | 1 | 0 | 0 | 0 | 0 | 1 |  |  |


| accorato adj. | $\mathbf{2 . 7 6}$ |  |  |  | $\mathbf{5}$ | $\mathbf{5 5 . 2 8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | 1 | 2 | 2 | 0 | 0 |
| accorata | 3 | 0 | 2 | 1 | 0 | 0 |
| accorati | 1 | 0 | 0 | 1 | 0 | 0 |
| accorato | 1 | 1 | 0 | 0 | 0 | 0 |

$\begin{array}{lllll}\text { accordare } v . & 10.82 & 18 & 60.13\end{array}$
*accorda
accordano
*accordano
accordar
accordare
accordarono
accordata
accordate
accordati
accordato
accordi
accordiate
accordo $n$.
accordi
accordo
$\begin{array}{lll}10.82 & 18 & 60.13\end{array}$
$\begin{array}{llllll}18 & 2 & 1 & 1 & 6 & 8\end{array}$
$\begin{array}{llllll}2 & 0 & 0 & 0 & 0 & 2\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$
$10000000 c$
$\begin{array}{llllll}2 & 0 & 0 & 0 & 0 & 2\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$
$\begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{llllll}3 & 1 & 0 & 1 & 1 & 0\end{array}$
$\begin{array}{llllll}2 & 0 & 0 & 0 & 1 & 1\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 0 & 1\end{array}$
$\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$

$\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$
$\begin{array}{llll}\text { accordo } n . & 49.38 \quad 90 \quad 54.87\end{array}$
$\begin{array}{llllll}90 & 12 & 6 & 14 & 50 & 8\end{array}$
$\begin{array}{llllll}18 & 0 & 1 & 2 & 15 & 0\end{array}$
$\begin{array}{llllll}72 & 12 & 5 & 12 & 35 & 8\end{array}$

| accorgere $v$. | $31.22 \quad 46 \quad 67.87$ | *accostano | 10 | $0 \quad 1$ | $0 \quad 0$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4616141150 | *accostar | 30 | 20 | 01 |
| * accorga ${ }^{3}$ | $\begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$ | accostarono | 10 | 01 | 0 |
| accorge | $\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ | accostata | 10 | 10 | 0 |
| * accorge | $\begin{array}{llllll}3 & 1 & 0 & 2 & 0 & 0\end{array}$ | accostati | 10 | 00 | 10 |
| *accorgendo | $1 \begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ | accostato | 10 | 00 | $0 \quad 1$ |
| * accorger | $\begin{array}{llllll}8 & 1 & 3 & 3 & 1 & 0\end{array}$ | * accostato | 21 | 00 | 0 |
| *accorgerai | $\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ | *accostava | 10 | 10 | 0 |
| accorgere | $2 \begin{array}{llllll}2 & 0 & 0 & 1 & 1 & 0\end{array}$ | *accostiamo | 10 | 10 | $0 \quad 0$ |
| * accorgesse | $1 \begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$ | accostò | 20 | 11 | 0 |
| *accorgeva | $\begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$ | *accostò | 40 | 30 | 10 |
| *accorgevan | $\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ |  |  |  |  |
| *accorgevi | $1 \begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ | accrescere $v$. | 10.66 | 16 | 66.63 |
| * accorgi | $1 \begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ |  | 162 | 14 | 27 |
| *accorgiamo | $1 \begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$ | accrebbero | 10 | 10 | 0 |
| *accorgo | $\begin{array}{llllll}4 & 1 & 2 & 1 & 0 & 0\end{array}$ | accresce | 21 | 0 | $0 \quad 1$ |
| *accorgono | $4 \begin{array}{llllll}4 & 2 & 2 & 0 & 0 & 0\end{array}$ | *accresce | 10 | $0 \quad 0$ | $0 \quad 1$ |
| accorta | $1 \begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ | accrescendo | 10 | 0 | 01 |
| * accorta | $\begin{array}{llllll}3 & 2 & 1 & 0 & 0 & 0\end{array}$ | accrescer | 20 | 02 | 0 |
| accorti | $1 \begin{array}{llllll}1 & 0 & 0 & 1 & 0 & 0\end{array}$ | accrescere | 51 | $0 \quad 0$ | 22 |
| *accorto | $\begin{array}{llllll}10 & 4 & 4 & 2 & 0 & 0\end{array}$ | accresceva | 10 | 01 | 0 |
|  |  | accrescevan | 10 | $0 \quad 1$ | 0 |
| accorrere $\nu$. | $25.45 \quad 42 \quad 60.59$ | accresciuta | 10 | $0 \quad 0$ | $0 \quad 1$ |
|  | $\begin{array}{llllll}42 & 6 & 20 & 610 & 0\end{array}$ | accresciuto | 10 | $0 \quad 0$ | 01 |
| accorre | $\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ |  |  |  |  |
| accorreranno | $1 \begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ | accumulare $v$. | 8.42 | 10 | 84.19 |
| accorrere | $4 \begin{array}{llllll}4 & 1 & 2 & 1 & 0 & 0\end{array}$ |  | 101 | 23 | 22 |
| accorrete i. | $2 \begin{array}{llllll}2 & 2 & 0 & 0 & 0 & 0\end{array}$ | accumulano | 10 | $0 \quad 0$ | $0 \quad 1$ |
| accorreva | 3000300000 | *accumulano | 30 | 01 | 20 |
| accorrono | $\begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ | accumulare | 11 | $0 \quad 0$ | 00 |
| accorsa | $2 \begin{array}{llllll}1 & 0 & 0 & 1 & 1 & 0\end{array}$ | accumularono | 10 | $0 \quad 0$ | $0 \quad 1$ |
| accorse | $4 \begin{array}{llllll}4 & 0 & 3 & 0 & 1 & 0\end{array}$ | accumulate | 10 | 10 | 0 0 |
| * accorse | $\begin{array}{llllll}13 & 0 & 12 & 0 & 1 & 0\end{array}$ | * accumulati | 10 | 10 | 00 |
| accorsero | $2 \begin{array}{llllll}2 & 0 & 0 & 1 & 1 & 0\end{array}$ | accumulato | 10 | $0 \quad 1$ | 00 |
| *accorsero | $2 \begin{array}{llllll}2 & 0 & 0 & 1 & 1 & 0\end{array}$ | accumulò | 10 | 01 | 00 |
| accorsi | $\begin{array}{llllll}3 & 1 & 0 & 0 & 2 & 0\end{array}$ |  |  |  |  |
| *accorsi | $\begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ | accusa $n$. | 7.58 | 15 | 50.56 |
| accorso | 300 |  | $15 \quad 3$ | 04 | 80 |
|  |  | accusa | 82 | $0 \quad 2$ | 40 |
| accostare $\nu$. | $17.22 \quad 24 \quad 71.74$ | accuse | 71 | 02 | 40 |
|  | $\begin{array}{lllllll}24 & 3 & 10 & 5 & 3 & 3\end{array}$ |  |  |  |  |
| accosta | $\begin{array}{llllll}2 & 1 & 0 & 1 & 0 & 0\end{array}$ | accusare $v$. | 15.00 | 19 | 78.95 |
| * accosta | $1 \begin{array}{llllll}1 & 0 & 0 & 0 & 1 & 0\end{array}$ |  | 194 | 46 | 41 |
| *accosta i. | $1 \begin{array}{llllll}1 & 1 & 0 & 0 & 0 & 0\end{array}$ | accusano | 10 | 01 | 00 |
| accostando | $1 \begin{array}{llllll}1 & 0 & 1 & 0 & 0 & 0\end{array}$ | accusar | 21 | $0 \quad 1$ | 00 |
| accostano | 100 | accusare | 21 | $0 \quad 1$ | 00 |


| accusati | 10 | $0 \quad 0$ | 10 |
| :---: | :---: | :---: | :---: |
| *accusati | 10 | $0 \quad 1$ | 00 |
| accusato | 50 | 10 | 31 |
| accusava | 10 | 10 | 00 |
| accuserà | 10 | 10 | 00 |
| accuseranno | 21 | 01 | 00 |
| *accusino | 10 | $0 \quad 1$ | 00 |
| accuso | 11 | 00 | 00 |
| accusò | 10 | 10 | 00 |
| acerbo adj. | 3.00 | 4 | 75.00 |
|  | 40 | 11 | 11 |
| acerba | 30 | $0 \quad 1$ | 11 |
| acerbo | 10 | 10 | 00 |
| acido $n$. | 2.48 | 30 | 8.26 |
|  | 301 | 10 | 028 |
| acidi | 10 | 00 | 01 |
| acido | 291 | 10 | 027 |
| acqua $n$. | 137.45 | 173 | 79.45 |
|  | 17315 | 4337 | 2355 |
| acqua | 13414 | 3927 | 1341 |
| acque | 391 | 410 | $10 \quad 14$ |
| acquistare $\nu$. | 23.92 | 36 | 66.44 |
|  | 362 | 19 | 1311 |
| acquista | 80 | 04 | 31 |
| *acquista | 10 | 01 | 00 |
| acquistando | 40 | $0 \quad 1$ | 21 |
| acquistano | 20 | $0 \quad 0$ | 11 |
| acquistare | 60 | $0 \quad 2$ | 22 |
| acquistate | 10 | 0 0 | 01 |
| acquistati | 20 | $0 \quad 0$ | 11 |
| acquistato | 72 | 00 | 32 |
| acquistavan | 10 | 10 | 00 |
| acquisterà | 10 | 01 | 00 |
| acquisti | 10 | $0 \quad 0$ | $0 \quad 1$ |
| acquisto | 10 | $0 \quad 0$ | 01 |
| acquistò | 10 | $0 \quad 0$ | 10 |
| acquisto $n$. | 9.61 | 13 | 73.91 |
|  | 131 | 22 | 53 |
| acquisti | 20 | 1 | 00 |
| acquisto | 111 | 11 | 53 |




[^0]:    s Laurence Harvey Skinner, "A Comparative Study of the Vocabularies of Forty-Five Italian Textbooks," Modern Language Journal, XX, 1935.

    - Bruno Migliorini, Der Grundlegende Wortschatz des Italienischen (Marburg 1943).

[^1]:    =a: cosa, la art., la pron., mezza, nessuna, nulla, ora, quaranta, senza, sopra, tanta, terza, trenta, tutta, ultima, una.
    $=e$ : che, come, diciassette, dove, ne, pure, se, sette, tale, vale
    mi: ci, mi, si, ti, venti, vi
    zo: cinquecento, cento, lo art., lo pron., molto, poco, povero, presso, quanto, quattro, quello, questo, santo, solo, sotto, uno.

[^2]:    è, era, eran, erano, eravam, eravamo, eravate, eri, ero, essendo, esser, essere, fora, fosse, fossero, fossi, fossimo' foste, fosti, fu, fui, fummo, furon, furono, sarà, sarai, saran, saranno, sarebbe, sarebbero, sarei, saremmo, saremo' sareste, saresti, sarete, sard, sei, sia, siam, siamo, sian, siano, siate, sien, sieno, siete, sii, son, sono.
    à, abbi, abbia, abbiam, abbiamo, abbian, abbiano, abbiate, ài, avea, avemmo, avendo, avente, aventi, aver, avere, avesse, avessero, avessi, avessimo, aveste, avete, aveva, avevamo, avevan, avevano, avevate, avevi, avevo, avrà, avrai, avranno, avrebbe, avrebbero, avrei, avremmo, avremo, avreste, avresti, avrete, avrò, avuta, avute, avuti, avuto, ebbe, ebbero, ebbi, ha, hai, han, hanno, ho, ì.

[^3]:    ${ }^{11}$ Cf. $F D S W$, pp. 1xi-lxix.
    3 Cf. FDSW, pp. lxvii-lxix.

[^4]:    ${ }^{23}$ Ch. Muller, "Un Dictionnaire de frèquence de l'espagnol moderne," Zeitschrift für Romanische Philologie, xxxi (1965), 476-83; see also "Fréquence, dispersion et usage à propos des dictionnaires de fréquence," Cahiers de Lexicologie, vii (1965), 33-42.

    * Cf. FDSW, pp. 1xxiv-lxxvii.

