

FUNCTIONAL LOAD

JANUA LINGUARUM

STUDIA MEMORIAE
NICOLAI VAN WIJK DEDICATA

edenda curat

C. H. VAN SCHOONEVELD
INDIANA UNIVERSITY

SERIES MINOR

99



1970
MOUTON
THE HAGUE · PARIS

FUNCTIONAL LOAD

DESCRIPTIVE LIMITATIONS
ALTERNATIVES OF ASSESSMENT AND
EXTENSIONS OF APPLICATION

by

R. S. MEYERSTEIN

CALIFORNIA STATE COLLEGE SYSTEM
NORTHRIDGE, CALIFORNIA



1970

MOUTON

THE HAGUE · PARIS

© Copyright 1970 in The Netherlands.
Mouton & Co. N.V., Publishers, The Hague.

No part of this book may be translated or reproduced in any form, by print, photoprint, microfilm, or any other means, without written permission from the publishers.

LIBRARY OF CONGRESS CATALOG CARD NUMBER: 70-126053

Printed in The Netherlands by Mouton & Co., Printers, The Hague.

To Z

TABLE OF CONTENTS

1. Existing Work on Functional Load	13
1.1 Significance Stated	13
1.2 Definitions and Descriptions	15
1.3 Previous Criticism	17
1.31 Synchronic Validity	17
1.311 Lack of computation	17
1.312 Relevance of criticism	18
1.32 Predictive Validity	18
1.321 Diachronic claims	18
1.322 Uncertainty of claims and of counter-claims	19
1.4 Measurement of Functional Load	21
1.41 Formulas of Measurement Proposed	21
1.411 Scope of previous measures	21
1.412 Measures disproving diachronic predictability	23
1.42 Relevance of Measurement Proposed	26
1.421 Incompatibility of previous quantifications	26
1.422 Previous emphasis on irrelevance disregards relevance	27
1.5 Limitations of Established Theory and Approach	28
1.51 Principles of Limitation	28
1.511 Additional questions presented by previous scholarship	28
1.512 Seven principles of previous identification of functional load	29

1.52	The Non-Unitary Principle	30
1.521	Non-unitary prevalence	30
1.522	Unitary precedent	31
1.53	The Principle of Non-Zero Counterparts	35
1.531	Non-zero prevalence	35
1.532	Zero-precedent	36
1.54	The Principle of Sub-Morphemic Level	38
1.541	Submorphemic restriction	38
1.542	Supraphonemic extensions proposed	39
1.55	The Principle of Unique Function	40
1.551	Formal-denotative prevalence	40
1.552	Precedent beyond formal-denotative func- tion	41
1.553	Function, functionalism, and functional load	43
1.56	The Principle of Frequency versus Load	45
1.561	Prevalence of load determined by fre- quency	45
1.562	Parallelism proposed: frequential and non-frequential load	47
1.563	Frequential and non-frequential deter- minants: ranking	47
1.57	The Principle of Complementarity Entailing Zero Load	49
1.571	Non-complementary prevalence	49
1.572	Non-emic precedent: etic-emic coequality	50
1.573	Differentiated load of variants: frequency of functions	53
1.58	The Principle of Systemic Uniqueness	54
1.581	Monosystemic dichotomy: competence versus performance	54
1.582	Lexical competence versus textual per- formance	55
1.583	Parallelism of monosystemic and bisystem- ic dichotomy: load points	58

2. Alternatives of Functional Load Assessment	61
2.1 Criteria of Comparison	61
2.2 Form	62
2.3 Functional Load	64
2.301 Extended scope of load areas	64
2.302 Typological insignificance of text-token quantification	65
2.303 Lexical token quantification	67
2.304 Type quantification proposed: overload of load points	69
2.305 Formal and non-formal determinants of overload scores	71
2.4 Levels	72
2.5 Systems	73
3. Individual Correlations	76
3.1 Type 1 — Traditional Binary Oppositions ($a:b — 2:1$).	76
3.101 Traditional scope integrated and extended	76
3.102 Overload implications excluded	76
3.103 Overload considered; variable, pedagogic.	78
3.104 Overload in traditional 'zero-load' oppo- sitions; variable, formal (feature-spread)	79
3.105 Overload in non-traditional oppositions; variable, semantic (connotative)	81
3.106 Overload in zero versus non-zero oppo- sitions; variable, bisystemic (interdia- lectal)	81
3.107 Supraphonemic overload; variable, signif- icative contrastivity potential (word differentiation)	82
3.108 Typology of supraphonemic overload: unequal phonemic potential; lexical (non-textual) attribute; level interaction	83
3.109 Supraphonemic overload: submorphemic versus morphemic function	84
3.110 Supraphonemic overload: mono-set ver-	

sus bi-set function (word set differentiations)	84
3.111 Monosystemic versus bisystemic overload; variable, 'stylistic' factions	85
3.112 Idiolectal variable of linguistic system (speech habits); implications, pedagogic	85
3.113 Idiolectal variable of exolinguiistic situation (intent)	86
3.2 Type 2 — Other Binary and Non-Binary Oppositions (<i>a:m</i> — 2:1)	87
3.201 Phonemic overload in multiply distinctive oppositions; variable, pedagogic (exolinguiistic)	87
3.202 Variable, linguistic (level-transcending: morpheme-directed)	88
3.203 Level-transcending: set-directed	90
3.204 Morphemic (significative) overload of phonemic units	90
3.205 Three cases of unit-overload (+ morphemic — syntactic; — morphemic — syntactic; + morphemic + syntactic)	91
3.206 Morphosyntactic overload of morphemic units: functional overlap versus functional potential (set, sequence)	91
3.207 Frequential overload; variables: formal-synchronic (syntagmatic, paradigmatic); formal-diachronic (duration of existence, paradigmatic); semantic; exolinguiistic	92
3.208 Overload, frequential and semantic; synchronic variable of cooccurrence in either system	93
3.209 Synchronic variable of cooccurrence in both systems	93
3.210 Variable, synchronic or diachronic; cooccurrence or non-cooccurrence in both systems	94

3.211	Frequential overload; variables, dialectal (geographic, social) or idiolectal sub-systems	94
3.212	Semantic overlap in bisystemic paradigmatic strings	95
3.213	Opposite scores of frequential and non-frequential (semantic) load; additional variable, systemic	96
3.214	Frequential load as a variable of systemic typology	97
3.215	Typology of or by the system; variable, linguistic or exolinguistic	97
3.216	Load shifts; variable, frequential-exolinguistic ('idiomaticity')	98
3.217	Formal similarity versus frequential-load dissimilarity; exolinguistic (pedagogic) response.	99
3.218	Formal similarity and frequential or non-frequential load dissimilarity; unidirectional conditioning of load increase	99
3.219	Static versus dynamic potential of overload: productivity	100
3.220	Admissible versus inadmissible productivity; variables, frequential or non-frequential ('correctness'), synchronic or diachronic	101
3.221	Load score increase versus maintenance: productivity versus survival	101
3.222	Load score fluctuation: survival, demise, and revival	103
3.223	Load score creation ('birth'); variable, non-frequential (level)	104
3.224	Load score evaluation; variables, linguistic (system) and exolinguistic (admissibility)	104
3.3	Type 3 — Binary Sequences and Oppositions ($ab:a — 2:1$)	104

3.301	Extent inequality of load exponents; syntagmatic extension, simultaneous (marked form) or consecutive (long form)	104
3.302	Opposite scores of mark-addition and frequency-potential (survival); variable, systemic; implications, exolinguistic (medical)	105
3.303	Opposite scores of longitudinal addition and non-frequential (semantic) poten- tial: abbreviations	106
3.304	Extent inequality of load exponents; variable, systemic; functions, identical (linguistically in denotation) or dissim- ilar (exolinguistically in connotation)	106
3.305	Scores, opposite; variable, systemic; func- tions, dissimilar	107
3.306	Extension, optional or obligatory; varia- ble, systemic	108
3.307	Exolinguistic implications of various types	108
4.	Conclusion	111
	References	117
	Index	118

1. EXISTING WORK ON FUNCTIONAL LOAD

1.1 SIGNIFICANCE STATED

The concept of functional load is well established.¹ The importance of work on this subject has been seen, primarily, as a matter of descriptive completeness.² A considerable part of previous scholarship has been devoted to the presentation of functional load as an explanatory factor in language history and in developmental trends to be expected.³ Synchronically, a number of areas of significance have been pointed out. For example, functional load was said to be a criterion assisting us in deciding what we should try to discover in the spectrographic analysis of speech,⁴ in explaining statistical processes which underlie the decoding of speech sound waves,⁵ in promoting research on speech recognition,⁶ in accounting for

¹ *Functional load* has also been referred to, in English, as *functional yield*, *yield*, *functional burden*, *burden*, *communication load*, *weight*; in French, as *rendement fonctionnel*, *rendement*; in Czech, as *funkční zatížení*; in German, as *Belastung*, *semantische Belastung*, *Belastungs- und Kombinationsfähigkeit*, *Tragfähigkeit*. All of these terms will be represented in this study by the terms FUNCTIONAL LOAD or LOAD. Quotations on functional load may pertain to statements which do not specifically use any of the terms listed above yet refer to it by implication; cf., for instance, some of the references to frequency cited in Section 1.56, below.

² Trubetzkoy (1932), 18; Hockett (1955), 218; King (1967 a), 832; Mackey (1966), 96.

³ Kučera (1963), 209; King (1967 a); King (1967 b); Wang (1967), 43, 50.

⁴ Hockett (1955), 218.

⁵ Wang (1967), 43.

⁶ Wang (1967), 51. Cf. Rigault (1962).

aberrations from phonological or morphosyntactic norms,⁷ in fact, in understanding entire linguistic systems, regardless of levels of analysis, and beyond that, certain linguistic universals.⁸

In areas primarily classified as those of applied linguistics, functional load has attracted attention as a relevant criterion in language management, such as devising new alphabets,⁹ or for such other practical purposes as the identification of optimum arrangements on typewriter keyboards.¹⁰ In pursuit of objectives less remote from the linguist's preoccupations, functional load has been related to the study of poetry,¹¹ to deciding claims of disputed authorship,¹² and above all, to a number of aspects of linguistic pedagogy.

Instructional benefits were seen in terms of occurrence frequency, range, coverage, availability in specific situations, relative learnability, and priorities of procedure, as well as the preparation of teaching materials based upon studies of this type.¹³

It cannot, however, be said that the present record reflects consensus about the significance of functional load studies, and questions have been raised about the justification of measuring this load,¹⁴ and the extent to which the concept of functional load is applicable.¹⁵

The present discussion will review the principal features of existing load work and attempt to suggest some of the reasons why a concept as long in existence as most of the other analytic notions in current use, and as potentially significant as any of these for descriptive theory and practical application, has not as yet been put to any effective use as an integral part of the contributions of linguistics.

⁷ Phonological: Hockett (1958), 64; morphosyntactic: Martinet (1962), 55.

⁸ Kučera (1963), 217. Cf. Greenberg (1966 a); Greenberg (1966 b).

⁹ Wang (1967), 51.

¹⁰ Frumkina (1963), 89.

¹¹ Frumkina (1963), 109. Cf. also Chatman (1964); Doležel (1967).

¹² Yule (1939).

¹³ Hockett (1958), 47, 56, 63, 64; Gougenheim (1959); Frumkina (1963), 91; Mackey (1966), 189; Stockwell, Bowen, and Martin (1965), 5.

¹⁴ Wang (1967), 50.

¹⁵ Stockwell, Bowen, and Martin (1965), 5.