Contents

Authorial note	9
Introduction	11
1. Mathematic Linguistics	15
1.1 Quantitative Linguistics	15
2. Menzerath–Almann Law	19
2.1 The Developement of the Menzerath-Altmann Law	19
2.2 Mathematical and Verbal Expression of the MAL	21
3. Segmentation of a Spoken Text	26
3.1 The Spoken Text	27
3.2 Characterization of the Language Units	29
3.2.1 Phoneme	29
3.2.2 Syllable	29
3.2.3 Stress Unit	30
3.2.4 Statement	32
3.2.5 Utterance	34
3.3 Language Levels within Chinese Language	36
3.3.1 Kolón	36
3.3.2 Segment	37
3.3.3 Syllable	37
3.3.4 Differences in the Terminology	38
3.4 Rhythm of the Speech	39
3.5 The Final Definition of the Language Units	40

4. Variety in Transcriptions 42
4.1 The Contrast between zhe {če}, she {še}
vs. zhi {č'}, shi {š'}
4.2 Initial Retroflex Consonants
4.3 Initial Stop Consonants and Aspiration 44
4.4 Initial Palatal Consonant q 45
4.5 Tripthongs /iou/, /uei/
5. Demonstration of Results and the Following Discussion 47
5.1 Language Level L1: Utterance Measured
as a Number of its Statements Which are Measured
as an Average Number of Their Stress Units 50
5.2 Language Level L2: Statement Measured
in the Number of Stress Units, Which are Measured
as an Average Number of Their Syllables 57
5.3 Language Level L3: Stress Unit Measured
as a Number of its Syllables Which are Measured
as an Average Number of Their Phonemes 70
5.3.1 Language Level L3Š: Segment (Stress Unit)
Measured as a Numbers of its Syllables Which are
Measured as an Average Number of Their Phonemes 76
6. Experiment Within the Research 81
6.1 Language Level L3/L3Š: Stress Unit / Segment
Measured as a Number of its Syllables, Which are
Measured as an Average Number of Phonemes 81

6.2 Language Level L2Š–L1Š: Kolón Measured	
as the Number of its Syllables Which are Measure	ed
as the Average Number of Their Phonemes	
(Segment Omitted)	83
7. Conclusion	86
Appendix 1	89
Appendix 2 – Sample A, Czech Transcription	106
Appendix 3 – Sample B, Czech Transcription	111
Appendix 4 – Sample C, Czech Transcription	114
Appendix 5 – Demonstration of the Segmentation	120
Sources	122
Index	128